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Introduction

FOREWORD

The publication of research in journals is one of the ways that ideas, concepts, theories, and findings are distributed among communities of interest. It is hoped that Future Plans will become a key means of sharing information, creating new knowledge, and advancing the skills of students and professionals as they develop articles and submissions to this new fully digital, open access publication.

The contents of the journal is limited only by our imaginations: in addition to more traditional academic, peer reviewed articles, potential authors can consider the submission of research notes, videos, photo essays, case studies, or other formats as best fits the content and purpose of the information. We look forward to seeing where the inventiveness of our authors takes us!

The journal is, in perpetuity, a digital, Open Access, subscription-free publication. This makes for more cost-effective publication, reduces the ecological footprint of the journal, and allows for full-colour/full-spectrum production across range of digital formats. This new format is part of a wave of new journals that are abandoning the confines of paper publications and embracing a digital future that includes video, audio, full-colour mapping, and interactive formats that are not limited by the challenges of publication costs and hard copy dissemination. This format also allows for a much shorter delay between submission and publication.

We also respect the rights of our authors. While Open Access, our authors retain copyright to the materials and their work must always be properly cited.

This does not mean that this publication has reduced standards in comparison to journals that require subscriptions or author fees: on the contrary, we intend to publish at the highest possible standards, and hope that we will evolve as an important, reliable source of information for planning and planners long into the future.

Pam Shaw
Director, Master or Community Planning Program,
Vancouver Island University

EDITORIAL

This journal is three years in the making and I am so excited and honoured to be a part of its very first issue. As a current student in the Master of Community Planning Program at VIU, I became very aware of the lack of peer-reviewed, academic platforms available for master's students to publish their research and experiences. With vision and direction from Pam (and other key partners), we were able to see this academic, peer-reviewed journal grow from a seed into a flower that is first-of-its-kind for graduate schools across Canada. This journal will collect submissions throughout the year from students, faculty, and planning professionals across Canada to be published annually in Fall. We hope to grow internationally in the years to come.

This issue touches on emerging topics in planning in the form of: academic, peer-reviewed articles, culture, exploration, and happenings, and planning perspectives. In Chapter 1, you will find peer-reviewed articles on creating places that are authentic and thriving, and the implications of urban sprawl in mid-sized cities. Opinions on topics such as the legalization of marijuana and campus planning are shared in Chapter 2 of this issue. In Chapter 3 there is a compelling view on planning and urban bee keeping. Each one of these topics has impacts on our communities and how we structure our policy and strategies. It is vital for our profession to encourage collaboration and innovation in our fast-paced and changing environments. Future Plans is an avenue for planning professionals to learn about colleague's opinions, thoughts, and research on important topics.

In the next issue we hope to include more information about what the Master of Community Planning Program at VIU has accomplished in its few short years since its inception, stories of alumni out in the Planning world, and a higher volume of peer-reviewed articles. There is vast potential for Future Plans and you will want to continue watching this space for future issues. If you are interested in submitting an article or becoming a reviewer, please visit www.futureplansjournal.com or email mcp@viu.ca. We are always searching for ways to grow and improve our journal and are excited for Future Plans. Please enjoy and share our very first issue.

Lainy Nowak
Editor, *Future Plans Online Journal*

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PEER REVIEWERS

The team at *Future Plans* and the Master of Community Planning program at Vancouver Island University would like to thank the following reviewers for their continued support and immense expertise:

Kalle Hakala RPP MCIP M.PL
Kristy McConnel MCRP ENV SP (MCIP Candidate)
Kyle Y. Whitfield PhD RPP M.Sc MCIP
Matthew Neville MaHS LPP MCIP
Mohsen Alavi Ph.D. MPl, MUP, PMP, BSc. Eng (Member of OPPI/CIP)
Victor Ngo MAP MCIP

AUTHORS

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EDITORIAL TEAM

Editing, proofreading, and formatting	Lainy Nowak
Layout and design	Niccolai Zicong
Images	Aarowsmith Media

MASTER OF COMMUNITY PLANNING, VANCOUVER ISLAND UNIVERSITY

The Master of Community Planning (MCP) is a 2-year full-time professional program (Sep-Apr) that is designed to give aspiring students the knowledge, experience, and skills to become Registered Professional Planners with the Canadian Institute of Planners (CIP).

The primary focus areas of the program are:

- small-city and town planning
- urban design
- rural and urban interface planning
- First Nations planning
- sustainable economic issues
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MCP is FULLY ACCREDITED through the Canadian Institute of Planners and it is with great pride that Vancouver Island University joins the ranks of Canada's historic planning schools.

Visit www.viu.ca/mcp for more information.

CHAPTER 1
ACADEMIC, PEER-REVIEWED ARTICLES

NEOTERIC AUTHENTICITY: USING URBAN MAGNETS TO CREATE AUTHENTICITY IN NEW DEVELOPMENTS

Mark Holland RPP, Vancouver Island University, 340 Machleary St, Nanaimo, BC, V9R 2G9; mark@hollandplan.com

Bruce Haden AIBC, Human Studio

Bruce Irvine RPP, CityForum Consulting

ABSTRACT: This article addresses the issue of creating an experience of authenticity in new developments through the use of a land use and design concept called Urban Magnets. The authors, who are practitioners in planning, design and real estate development, challenge some of the conventional practices and assumptions in city planning, development and place making. Urban Magnets are special places focused around an activity-based subculture. These places include specialty retail, production, education and event uses for that subculture, and a physical design that supports their activities and reflects their identity. In response to the dynamic vitality of these subcultures, others come to watch and participate, and over time, these places become socially magnetic – attracting both the core subculture and many others. The foregrounding of the authentic identities and activities of an activity subculture create a strong sense of authenticity in urban space.

INTRODUCTION

The question of authenticity has been growing in profile and discourse in the past half century. Significant development in many urban areas since the mid-20th century has resulted in the replacement of many older urban areas with new development. This change, often called gentrification, has triggered many decades of debate around the relationship between authenticity and older areas and new development in those areas.

In the past several decades, the rise of awareness and efforts around "branding" and its associated dimensions of the conscious construction of identities, subcultures and communities has deepened the investigation into the question of authenticity and what it means in a context where everything in contemporary life has a dimension of branding (Banet-Weiser, 2012).

The writing on authenticity that enters the realm of planning is often from the point of view of academic inquiry into the nature of authenticity, or from those who lament the loss of a sense of authenticity in neighbourhoods due to gentrification.

In this article, we want to take a different perspective than those typically found in most of the discussion on urbanity and authenticity – a perspective from the point of view of being planners and designers involved in city planning and real estate development who focus every day on creating new places such as infill projects, adaptive re-use of existing buildings, and greenfield sites.

OUR VIEW FROM THE PLANNING, DESIGN AND DEVELOPMENT INDUSTRY

Capitalism as expressed in the urban real estate industry brings significant forces of financial, market and governance change to existing neighbourhoods and cultures, causing significant physical change and often

political conflict (Zukin, 2010). While value can be found in the heritage buildings and urban form from the past, the reality of every older neighbourhood is that it's buildings and infrastructure decay and eventually become obsolete – increasingly less able to effectively respond to new uses, lifestyles, financial necessities and most importantly, health and safety building codes, without significant alterations. In response to these forces, if the neighbourhood is deemed desirable by those with access to capital, the process of change, often called gentrification begins, altering buildings, spaces and businesses, triggering associated changes in the local population and its culture (Zukin, 2010; Brown-Saracino, 2009). As those entrusted with leading the work on new development, planners, designers and developers do not have the option to sit back, criticize the forces of change and simply say that things old are authentic (and therefore desirable) and things new are inauthentic (and therefore undesirable). While we value history and heritage, city builders have had to approach authenticity from a different point of view – that of finding its sources in new development.

EXPLORING THE CONCEPT OF AUTHENTICITY

"We construct authenticity by evaluating and assigning meaning to people, places and objects" (Brown-Saracino, 2009, 148).

Authenticity has many definitions (Merriam-Webster Dictionary; Oxford Dictionary; Collins Dictionary). We paraphrase its definition for the purpose of this article as follows: Authenticity is a construct to describe an intangible sense of integrity in a place, person, object or cultural practice, that links its character to a conceptual pure and intrinsic source.

The concept of "origin" is well linked to the concept of authenticity (Zukin, 2010; Brown-Saracino, 2009). As soon as something is modified to consciously manipulate an audience to elicit a response (respect, sales, others), it can often feel less "authentic." A place whose structure and character are purely functional (eg; industrial site) is often experienced as having more integrity or authenticity than one whose design is intended to impress an audience by pretending to be something (such as a shopping mall or themed restaurant) because the source of its physical form is clearly evident in the pure functional (source) needs of the place.

The question of the authenticity of a place is complex due to the interactions of the many facets of a place and the many dimensions of perception experienced by any person of that place. Places that have authenticity have traditionally been seen by many as places that have a significant and direct functional and experiential connection to a history of various functional purposes, and possibly more important, remain relatively untouched by the global forces of economics and technology (Brown-Saracino, 2009). An additional aspect of place authenticity is the notion of grittiness, where places that are rougher and less polished or refined are seen as being more authentic (Brown-Saracino, 2009).

We agree that less polished places often feel more authentic, but we propose that this is not because they are "aesthetically gritty", but rather because they are the artifacts of "authentic" personal, relatively unself-conscious lifestyle activities" as opposed to being self-consciously designed and refined to elicit a positive judgmental response from others.

We challenge the notion that old places are more authentic than newer ones. Instead, we suggest that the integrity or authenticity of place has to do with its direct and visible links between the place and the lifestyle patterns or activities of the people who use it, the physical form the place has to support these activities, as well as its visible reflection of the core and unique values and identity of its primary user. An historical farming village that has not changed much for many decades can be seen as being authentic, but so can a contemporary skateboard park that is covered in graffiti.

AUTHENTICITY, THE OLD AND THE NEW

A significant amount of the writing on authenticity and place deals with heritage, gentrification and physical and social change of places (Jacobs, Zukin, Brown-Saracino, others). The question of being true to an original state or context, or the question of "origin," is frequently at the core of the inquiry into authenticity. That which seems "true" to its original source is seen as more authentic than that which has recently evolved or adopted other forms – for a person, a culture or a place.

The drama of authenticity and its relationship to the new and the old is highly visible in the struggles around gentrification explored by Brown-Saracino (2009) in her documentation of the impact on "old-timers" and old places by new gentrifiying subcultures in various communities in the USA and how the different subcultures of gentrifiers responded differently to the existing cultures and places. The concept of "old-timers" establishes a nostalgic and romantic construct of existing cultures and places that struggle to survive the pressures of contemporary economics, immigration and change (Brown-Saracino, 2009).

As planners, designers and developers, we cannot simply default to a premise that what exists from the past is authentic (and desirable) and that anything new has no integrity or authenticity (and is therefore less desirable). We can however agree with many critics that much "new" real estate development has little integrity or authenticity. We propose this apparent lack of authenticity is because of a development paradigm that looks on customers and users solely as economic actors, and not as members of an inhabiting mosaic of authentic subcultures. A different perspective and approach as embodied in the concept of Urban Magnets can create a new (neoteric) authenticity of place.

As such, we remain in agreement with the position that a sense of authenticity in place is in line with the notion of "origin" (Zukin, 2010), but we suggest that the origin from which authenticity arises for a place is not a romantic one from an historical past as embodied in physical form. Rather it is a timeless one, whose origin is with the users of that space, their lifestyle activities and the objects in the spaces that are unselfconsciously and directly linked to the function and identity-based aesthetics of the place. As such, we can see past the formal fallacy of heritage forms and romantic preservationist impulses to see the roots of any place's authenticity in the people who use and live in the place.

In short, we propose that "the people are the place." This principle then establishes the basis for moving forward in creating new places that have authenticity.

CONTEMPORARY PLANNING, DESIGN AND AUTHENTICITY

There are several issues that we see with contemporary planning, design and real estate development that compromise a sense of authenticity and raise the ire of those who lament the loss of authenticity caused by new development. These factors are deeply ingrained in the planning, design and development industries and include a tendency to focus on form, a generic view of society (the public) and our uses of the public realm, a limiting of the range of employment uses in many areas, a desire to hide the less-aesthetically pleasing sides of employment uses from view, and a focus on retail as the way to animate the streets and public spaces in cities. The following examines these issues in more detail.

A FOCUS ON PHYSICAL FORM

The discussion on the interplay between function and form is foundational in planning and design. Mies Van Der Rohe's famous

statement, "form follows function" and Corbusier's metaphor that "buildings are machines for living in," reflected a reaction in the early modernist movement to the ornament and stylistic patterns of previous eras of architecture (Hall, 2014). This reaction was then replaced with the stylistic patterns of the International Style, authored by the same Modernists, and this minimalist pattern of buildings connected by highways became the norm for 20th century urban development (Hall, 2014).

In reaction to this minimalist pattern of architecture and segregated land uses, many called for the respect, preservation and even return to more historical patterns of design. Those leading this call initially included Jane Jacobs, Christopher Alexander, and others, and most recently, gained widespread acceptance in the movement of New Urbanism and Neo Traditional neighbourhoods led by Andreas Duany, Elizabeth Plater-Zyberk, Peter Calthorpe and others involved in the Congress for New Urbanism (Jacobs, 1992; Alexander, 1977; Katz, 1993; Hall, 2014).

In all cases, the core focus of the above evolution of urban design thinking was focused on physical form of buildings and places – and it largely remains so today. Attention is paid to the choice and mixing of land uses during early stages of planning and zoning approvals, but after that, during all of the design and place-making efforts, the focus is largely on the physical form of buildings and landscapes.

One of the contributing factors to this preoccupation is that most professionals and those in charge of the financial capital in the planning, design and development industry are focused on the physical form of buildings and places because that is what they are employed to design and build, and it is the physical buildings that they have to sell or lease. Within the financially constrained and politically charged realities of new development, the complex patterns of social use and experience are largely absent from most of the work required to create new places.

Of interest to those who are not in the planning and real estate development industry is that there is no formal step, report or drawing that addresses the human "experience" at any point in the development process, let alone the complexities of the experience of those from any subcultural group in society. There are often words mixed into policy documents that speak to experiential generalities, such as "sense of place," or "sense of community," but these are almost never defined or explored further or connected to urban form in any structured or disciplined way.

We can see early arguments in this regard date back to the 1960s. Herbert Gans, a contemporary of Jane Jacobs, challenged both the design professions and Jacobs on the focus on physical form in the critique of the urban renewal movement's impacts on communities – the "fallacy of form" as he called it (Zukin, 2010, Gans, 1994).

An experiential tour of any city will immediately show that some of the most vital parts of a city are connected to people doing things in buildings and the public realm in a manner that is entirely unrelated to the character of the urban form that surrounds them. Concurrently, one can find many areas in a city with aesthetically pleasing urban form that have little visible activity, vitality or sense of authenticity. However, where the social life and the urban form are in alignment, a greater level of authenticity and vitality can be experienced.

A GENERIC VIEW OF SOCIETY AND OUR USE OF THE PUBLIC REALM

The urban planning profession has evolved since its more technical era prior to the 1970s, where it focused extensively on planning physical urban change to deal with the tectonic shift in urban growth in the post war era (Hall, 2014). The social failures of the Urban Renewal movement and the negative reactions of community leaders, thinkers, academics, writers and activists to urban renewal led the profession to shift its focus from physical planning toward community engagement as the core ethos of planning (Sadik-Kahn, 2016).

This shift refocused the planning profession toward consultation and articulating the public interest. However, in its focus on the "public," the profession has also inadvertently tended to conceive of the public as a relatively homogenous group in terms of what we think the public wants or needs. This predisposition is most visible in the planning of suburban developments across North America (Dunham-Jones, 2011). As a result, the depth and complexity of the programming and design of public spaces and developments is overly simplistic, paying little attention to the subtleties of what many subcultures in a community want or need in their neighbourhood and its public realm.

Places that have a strong sense of authenticity have a direct connection to specific user groups – such as a heritage meatpacking district being connected to the activities of butchers, or a garment district being connected to those who work in the fabric and garment industries, and so on. However, with the dominant generic perspective of society as the paradigm for the design of new places, the concept of public space, programming and character all too often becomes one of a generic middle class, white collar concept of urban life and space, frequently reflecting the dominant cultural values in the planning and design professions who author the plans and designs.

Were the planning profession more attuned to the complexity of urban activity-subcultures and of a mind to embrace and foreground their interesting activities and identities in urban form, land use and programming, we propose that new spaces would emerge as more authentic.

HIDING THE MESS

A review of urban design guidelines and other city policies for most any city will immediately highlight the importance that planning has put on a clean, orderly and aesthetically attractive public realm – specifically the primary streetscape frontages. In the planning, design and development industry, we conceive of buildings as having a front and a back, with different uses and character. The industry calls these "front of house" and "back of house."

We tend to see messes, storage, loading and related activity as something to be hidden behind a strategically designed, aesthetic building façade or landscape fencing. Zoning bylaws and urban design guidelines in every major city speak directly to the need to screen storage and anything that may be considered messy by some.

From a perspective of authenticity however, some of the more interesting, authentic historical areas had much of this "messy employment activity" highly visible, such as meatpacking districts, older farming villages, warehousing districts and others. The visibility of the "back of house" aspects of employment creates an authentic functionality and rationale to an urban space. The front-of-house tendency to hide the elements of such unself-conscious function behind a strategically designed façade can reduce the sense of authenticity in new development. Planning, design and development that focuses on manipulating the viewer's experience through strategic aesthetic design that hides the complexity of the program of a place reduces the sense of authenticity.

We have seen a positive shift in this attitude recently as contemporary urban design in some cities embraces the concept of "transparency," leading to an increased use of glazing (glass) at the street level in buildings to permit a greater sense of inner activity of the building to be experienced at sidewalk level. However, the building programming in these designs will

usually curate what uses are visible in order to minimize views of uses that would be seen as aesthetically unattractive or messy.

THE BAITED CITY SYNDROME – A FOCUS ON RETAIL

Many cities require that new development along many streets have retail uses zoned and designed into the first floor to make the street more animated and pedestrian oriented. This practice is not necessarily ill-conceived, however, through a lens of authenticity analysis, this pattern highlights a deeper problem in planning and design.

Retail uses frequently convey a poor sense of authenticity because the nature of retail is both purely commercial and the relationships established by retail are in many aspects, predatory. By "predatory" we mean that every merchant is trying everything they can think of to lure a customer into their shop to purchase goods and in response, the customer is trying to get the best deal out of the merchant. As such, while the relationship may be socially congenial, both parties are in a sense, preying on each other.

We call this condition the "Baited City Syndrome" – where this predatory relationship becomes a dominant one in urban streetscapes because of this extensive focus on retail as the sole animating factor in the public realm. In a Baited City, the streets become primarily corridors of movement and sales, and do not adequately reflect the soul, spirit, relationships and larger economic functions of a modern diverse community and therefore do not connect with the source of authenticity in a community.

In a small community, with longstanding and even caring relationships established between customers and vendors over many years, the predatory nature of the retail relationship may be reduced, but it is still a limited relationship with limited activities and relationships associated with it, and therefore limited ability to impact the authenticity of a place.

The goal of creating an animated street is desirable but there are many types of activity that can be offered at street edge to animate a place and each has a different expression of authenticity.

The animation of streetscapes involves some people doing things and others watching them (LaFarge, 1999). Clearly, shopping is only one type of activity. A more authentic and diverse public realm can involve a variety of activities including working, cleaning, chatting, eating, playing games, learning, any number of events, and others. The support of activities other than shopping requires a different model of the role of the public realm and streetscapes, one that envisions a much larger range of human activity and then designs and manages the space accordingly.

REGIONALISM AND DESIGN

A valid critique often leveled at new development, especially that which is considered gentrification, is that new development is increasingly "the same" everywhere and is therefore erasing unique aspects of historical and regionalist architecture and forms. We see this clearly stated by many in Brown-Saracino's research on gentrification (Brown-Saracino, 2009).

Gentrification leads to "…homogenous households, homogenous retail outlets, homogeneity on the streets, and in public places" (Brown-Saracino, 2009, 116).

New developments across North America often look very similar – strip malls, homes, office buildings, and others. There are many reasons for this sameness including building codes, the availability and cost of various materials, construction methods, advanced design algorithms of specific retailers that drive building layouts, and many others.

The natural response to this "sameness" by an industry that is focused on physical form of buildings and spaces then is to try to shape the physical form of new development in various ways to recreate the intangible sense we have of the region associated with its past social and economic forms. However, as professionals who have worked to find and express the essence of place in our projects, our experience is that inventing a new iconic regionalist architectural pattern is extremely difficult, even impossible. Any given building or project can more or less reflect various aspects of a region (materials, lifestyle, colours, textures, general forms) but to articulate a new regionalist style in today's context of building codes, international tastes and globally supplied materials is likely not possible.

Historical architectural styles grew out of complex patterns of behaviour, economics, social structure, technology and other aspects over thousands of years. These forms then become associated with unique local religious, governance, sociocultural, lifestyle and economic patterns (e.g.: traditional architecture such as from Greek, Japanese, Chinese and other historical civilizations). Today, all industrialized countries have access to a similar palette of materials, most planners and designers are educated in a similar curriculum in all world universities, and the designers for any building in any city may come from any part of the world.

As such, while some regionalist character can be identified and expressed in new development, particularly where there is a visible historical architectural identity, the source of a sense of authenticity in new development must look beyond the form of the buildings. However, because the planning, design and development professions focus on physical form as discussed earlier, we tend to try to create a sense of attractiveness and authenticity in physical form, and this is where we often fall into a new trap – the Wax Museum Syndrome.

THE WAX MUSEUM SYNDROME

The experiential minimalism, even brutality, of early modernist architecture and the urban renewal movement in the first half of the 20th century created a significant negative backlash in the latter half of the 20th century (Hall, 2014).

In the 1970s, Christopher Alexander published A Pattern Language (1977) which provided a complex and highly detailed set of inter-related urban design patterns which led designers to recreate the structure and design of older towns and cities in Europe. While there was a lot of wisdom in this work, in our experience, the places that followed it closely in North America have an odd sense of inauthenticity. These places, while they follow many European design principles, are not in Europe, the buildings not made of stone and brick but rather of modern building materials, and most importantly, people don't live in North America the way they do in historical Europe.

This dissatisfaction with modern architecture and planning culminated in the late 20th century in the Post Modern and New Urbanism movements, and in particular the Neo-Traditional design stream of that movement. This movement celebrated the livability of European cities and articulated a new code for North American cities to follow. It documented and articulated the patterns of 18th and 19th century towns on the eastern seaboard of the United States and created codes to recreate these.

This movement has been largely successful and has resulted in the replication of these older, eastern seaboard village patterns across North America (Katz, 1993). These village patterns look cute and offer a good quality of life in many cases, however, they often are experienced as contrived and therefore, inauthentic.

Our professions' primary focus on the physical form of buildings and landscapes creates the suggestion that if we recreate the form from these past cultures and places, that

we can in some way, recreate a sociology in the community that resembles a nostalgic sense of what we imagine those places had in the past. For example, the front porch became a key point of principle in New Urbanism. The New Urbanists suggested that if we put a front porch on a home then people will want to sit on the porch in the evening and talk with their neighbours. However, in contemporary suburban life, this "front porch sociability" rarely occurs in new developments where private life dominates, including life occurring in back yards, inside homes with their luxuries and entertainment technology and on social media. The imagined "front porch culture" was based on a sociological reality of different community norms and before widespread entertainment and communication technology. When the physical form is transposed into today, it does not function the same way.

We call this problem the Wax Museum Syndrome – where we endeavour to replicate an urban form that we believe had vitality and authenticity in the past, hoping that the form will resurrect a corresponding historical social pattern. However, while some positive outcomes can be had from re-expressing patterns from the past, their anachronistic character often falls short of its desired social goal when implemented in today's cities, communities, lifestyles and norms.

At this point, we now want to move forward, based on our evaluation of the elements of authenticity and our critique of both our own professions and industry, to propose a new framework for supporting and infusing authenticity into new development.

NEOTERIC AUTHENTICITY

In order to provide a linguistic mechanism to convey our framework of structuring authenticity into new development, we propose to call it "neoteric authenticity"- based on the Latin reference terms for new and earth or place.

Neoteric authenticity is a principled approach to land use planning, design, development and programming in new real estate developments that focuses on supporting the activities and identities of the people associated with the place and making them a central driving principle in the design of place for both form and function.

The principles of neoteric authenticity include the planning and designing of places to:

1. Support authentic expression of individuals in work and leisure in a visible manner;
2. Support authentic subcultural communities in their shared identity, values, expressions and lifestyle behaviours;
3. Select diverse land uses to support many aspects of subcultural communities and thereby deepen the link between a place and the subculture; and;
4. Reflect and support the identity and behaviour of subcultures in a manner that is distinct from the immediate contextual generic urban forms.

The core of the concept of neoteric authenticity is that it shapes the physical form and programming of a new place around the roots of the authenticity that can be sensed in any great place – the people who were the originators and creators and inhabitants of the place.

Neoteric authenticity is based on the principle that "the people are the place."

THE PEOPLE ARE THE PLACE

The nature of North American urban culture has changed significantly in the past fifty years, from a time when television screens and technology played a small role in society, to today where a significant percentage of individuals are engaging in screen time much of the day, to the point where some cities have segregated areas of sidewalks for "distracted pedestrians" – those deeply absorbed in their smartphones while walking on the sidewalk.

In historical urban cultures, before the end of the 20th century, the presence of distracting individualistic technology was less influential, and a sociable culture was more visible in the public realm. In this context, as Jane Jacobs documents, it was urban development that was changing the urban form and thereby changing the community's culture (Campbell, Fainstein, 1996). Jane Jacobs documented well how changes in urban form undermined longstanding public behaviour and community connections (Jacobs, 1992). Today, the historical cultures that were highly visible in Jane Jacobs day, are increasingly invisible in the public realm in North American cities for many reasons.

New social cultural patterns are continuously evolving as citizens daily (re)produce their culture through their activities – which are in constant dialogue with the shaping forces of technology, governance, marketing, media and capitalism in many forms. "Culture, specifically ideology, shapes choices, practices and interventions" (Brown-Saracino, 2009, 254).

As culture, mediated through global technology and the influences of many sources, goes through its cycles of reproduction – homogenization, radicalization, differentiation, reconnection and others – our experience suggests that we increasingly share less in common with those with whom we coincidentally share a geographic location, than with those with whom we share interests and identity. In North America, most anyone can move into any neighbourhood, and as such, neighbours may or may not share much of any other aspect of personal or social common ground with their neighbours. However, because we select the social groups with which we share a love of some topic or activity, our sense of community has an immediate foundation in our interest groups that may not exist in a physical neighbourhood. The rise of online communities has further expedited the evolution of many diverse and non-place-based communities.

As such, we hold the perspective that contemporary culture is a mosaic of identity and activity-based "subcultures" that have various relationships to place.

THE MOSAIC OF SUBCULTURES

North American urban culture is globalizing, diversifying and homogenizing in the face of a highly competitive global economy selling us goods, services, lifestyles and identity in all realms of our life, including home life, relationships, eating, exercising, working, shopping, entertainment, socializing, etc.… In this confluence of cultural forces, we can struggle to find a core sense of authenticity in ourselves or in places due to the relentless presence of targeted commercial identity manufacturing (Banet-Weiser, 2012). Therefore, to create a new place that has a sense of authenticity, we need to dig into the deeper subcultural dimensions of society and activity to find a foundation on which to build.

A subculture is generally understood as a small group of people who share a sense of identity, values and lifestyle patterns, that is different in various ways from a perceived dominant culture's identity.

We each belong to various subcultures based on our unique patterns of identity and the groups with whom we share our world views and activities of work, socializing, political action, recreation and others, at any point in time.

Within the subcultures to which we belong, we often experience a sense of authentic common ground with others who share with us the values and lifestyle behaviours and other aspects of identity associated with that subgroup. We may feel an authentic sense of being and belonging with our work colleagues, with a group of neighbours with whom we are working on a community project, with our classmates, with those with whom we share religious or political views, sports teams to which we belong, or many others. Each of these reflects a different aspect of our internal authentic self. We will

then likewise judge the landscape around us from these perspectives with respect to how it well it fits our needs, reflects aspects of our authentic identity and supports the activities we are undertaking in these subcultural contexts.

We therefore propose that to develop a neoteric authenticity, new places need to authentically reflect one or more unique subcultures, including their identity, values, lifestyles and social and economic functionality.

The next question then is, what types of subcultures can engender a sense of authenticity to a new place? The concept of subcultures has often historically been applied within sociology to aspects of identity that we propose to call "conventional diversity," including age, gender, sexual preference, religion, income or class level, and other such core characteristics. We see this conventional diversity classification visible in Brown-Saracino's work on gentrification as she documented the "urban gay taste subcultures" that were driving gentrification in some areas (Brown-Saracino, 2009).

As planners, designers and developers, we strongly endorse recognition of these conventional diversity subcultures in society, but in practice, we are unclear how they actually should shape the physical form of buildings and spaces. How does one design urban form to create vitality and community in one of these conventional groups. Not all women, Muslims, LGBT individuals, First Nations, Christians, or other any other core diversity subculture has the same aesthetic tastes, lifestyles or preferences or uses of urban space?

We can identify a place that has a significant gay population and culture, but it is next to impossible to "design" specifically for this societal group because of the significant diversity of aesthetic preferences and lifestyle programs within this group – and that program will be similar to conventional society in most ways that impact the physical form of a place. The social geographer Richard Florida coined the concept of the "Boho Index" which addressed the issue of areas that are "gay friendly" and documented their associated cultural and economic characteristics (Florida, 2002). However, the metrics included in such an evaluation are relatively generic, such as diversity, the presence of creative occupations, the presence of high-tech companies, and others.

As such, an important question arises: if we define the root of authenticity in conventional diversity categories, then how do we design a new place for a gay population, any specific ethnic population, for women or men, a religious group, or any other identity subculture?

We can see some conventional diversity categories such as ethnicity visible in the forms of older cities, and these areas are often seen as special and are the subject of anti-gentrification politics. We are all familiar with urban policy agendas to preserve an old Chinatown, Little India, Little Italy, or other such places that used to have a dominant population of new immigrants from other countries. We can often find an aggressive preservation program for historic areas of cities that have distinct ethnic character, such as an historical Chinatown. This agenda is understandable, defensible and even informative to this discussion. However, we are not designing and building these kinds of places today, and for good reason.

When viewed through a contemporary political lens, there is no possibility of proposing that a new area of a city should be exclusively stylized in a stereotypical expression of some ethnicity or conventional diversity classification (a new China town, Little Italy, gay village, etc…). To propose such a place would be considered politically incorrect and any effort to this effect would be subjected to criticism, opposition and claims of appropriation, ghettoization and bigotry. In addition, even if an area was home to many first generation immigrants from a particular country, it is unlikely that they would all agree that their new neighbourhood in their new country should try to look like a stereotypical rendition of older buildings from their country of origin.

Beyond the implicit urban form that might accompany these areas, the politics of the planning and development process would suggest that only those from that subculture would be permitted to be the planners, designers and builders of a place for that group. In alternative, it might be argued that a comprehensive, community education, empowerment and co-design process targeting that group then be responsible for dictating its expression in form.

While affirmative action to have designers from a certain subculture group or extensive participation of members of a conventional subculture involved in a design process can be positive, our experience of working with thousands of individuals from most all conventional diversity groups on different projects over many decades is that this process would be unlikely to deliver a viscerally different urban "home" for this subculture. The reason for this is that physical design must respond to a fundamental function or building code. Conventional diversity is more focused on one's core identity than on one's personal interests and activities and as such, it has little unique influence on the functional program of a place and therefore on its form. Furthermore, since we rarely have neighbourhoods largely dominated by any single conventional diversity group, the program for a place that would drive its design would remain relatively generic.

A further complication of building neighbourhoods or places around conventional diversity classifications is that it can quickly lead to gated communities or ghettoization, where those with significant financial resources can isolate themselves from the rest of society through urban form.

Instead, we want to propose that conventional diversity classes are now more the purview of human rights, cultural production, public policy and social programs, than of urban form.

In alternative, we propose that it is our memberships and identity in "activity-based" subcultures that are the basis for a new program that can shape physical form to better address identity, authenticity and vitality in contemporary urbanity.

A cornerstone of the concept of "community" is "common ground" – or something we share in common with a group of others. Historically, this common ground has literally been physical space and thus today, we still often interchange the term "community" (a social concept) with "neighbourhood" (a physical concept). If, however, contemporary society has atomized and diversified our sense of identity to include many subcultures, then the social function and bonds of spatially-based communities can be weakened or nearly eliminated as a basis for feeling a primary sense of community. As such, we believe that we need to find a new basis for social community and a functional and aesthetic program that can drive design to support a sense of community and authenticity.

There is extensive language and advocacy within planning literature and practice on "creating a sense of community" but in experience, it is often unclear what that means in application. An informal review of plans from many cities will likely find this phrase used often, but with little or no further definition or guidelines on what will create the sense of place.

Individuals who have lived in a place for many decades may feel more connected to their neighbourhood than those who are recently relocated into the neighbourhood. But if the social make up of a neighbourhood changes significantly, including through immigration and gentrification, individuals often lose their sense of deep connection (Brown-Saracino, 2009). And this brings us back to the conundrum of how to create a sense of authentic community in a new place.

THE QUESTION OF SELF-CONSIOUSNESS

We propose that the keystone to authenticity in visible activity is having a low level of "self-consciousness" in the undertaking of the activity. This condition is achieved through a pursuit of activities for their own internal motivations and intrinsic purposes - as opposed to those pursued for an external orientation for manipulative reasons. This condition is not a low level of "self-awareness," but rather a low level of conscious concern for what others are seeing or thinking about oneself at the time that we are engaged in the activity.

The key factor is that the activities need to be "self-absorbing," in that we temporarily block out the world and forget about our self as an exposed being in an urban social context, because we are concentrating solely on what we are doing. The important factor is that what we are doing needs to take that level of concentration, so we are focused on the action itself and not paying attention to how we might appear to others.

We can see this unself-conscious focus in artisans blowing glass in front of a blast furnace, potters throwing pots, painters working on a detail, a mechanic working under a vehicle, martial artists in combat, people playing chess, skateboarders navigating a difficult course, and many others, including students learning. The significant majority of time that we undertake these activities, we are simply focusing on what we are doing in a manner that is largely indifferent to the gaze or thoughts of others.

Historically, urban planning, development and theory has traditionally focused on animating public space with retail shopping and with food and beverage experiences (sidewalk patios) and hiding other uses such as working, learning and engaging in hobby activities, ether behind walls and doors or by actively locating such uses outside the primary urban public spaces. As such, contemporary models of urban form tend to hide powerful sources of authenticity in urban fabric and instead foreground the less authentic.

There is an urban land economics driver to acknowledge in this process as well. Retail uses need to be highly visible and easily accessible, and as such, they are a natural use for street edge, sidewalk level development. Retail and food and beverage uses also tend to have higher revenues per square metre than office, educational or recreational uses, and as such, central urban areas and streets may be too expensive for some of these authenticity-engendering uses.

ACTIVITY IS THE NEW (AUTHENTIC) COMMUNITY

We propose that in the reality of a modern city or urban neighbourhood, that "activity is the new authentic community." By that we mean, that the social relationships that comprise the foundation of a sense of community, are actually now felt more with those with whom we share a love of certain activities, than with those with whom we just share spatial proximity. As such, we are arguing that this complexity of activities become a new major program driver for urban spaces and development.

Conventional diversity and other core psychological aspects of identity may still be foundational to our internal sense of being, however, our social structure and function in the urban setting is now a mosaic of loosely related, activity-based subcultural identities.

For example, we can find gay, white, middle aged men having a lot in common with younger, heterosexual, immigrant women – because they both are intensely engaged in the same recreational activity – gardening, surfing, cooking healthy food, skateboarding or others. Consider that Wikipedia has well over 200 entries in their lists of hobbies – and upon a review of these, one can imagine just about any combination of conventional diversity identities interacting enthusiastically around one of these preferred leisure activities. And in so doing, they will significantly use, impact and imprint themselves on our urban realm. A quick scan online of the scale of events that cater to any one of these subcultures around North America or the world is remarkable.

The planning, design and development industry has largely ignored this powerful sense of activity-based subculture identity. The importance of these activities and their associated subcultures can be marginalized as "play" and not seen as fundamental to city building when compared to the more generic dimensions of land use, aesthetics, and others. However, when we look at a city through the lens of authenticity and vitality, this dimension of "play" becomes far more important than merely a sales tagline for urban living and condo sales.

When we are engaging in leisure pursuits that we love, we act with a low level of self-consciousness, and thereby express the authenticity of both our own inner selves as well as that of others in our activity-based subcultural community (Aho, 2007). We are sharing values, activities, language, meaning and social patterns in various ways with others, and we can feel a sense of belonging with those who love to do the same things that we do.

And now we want to explore the social, personal and formal patterns that emerge when we begin to look at city building through the eyes of authenticity and activity-based subcultures.

THE LIVING ROOM PRINCIPLE

In her book, House as a Mirror of Self, Clare Cooper Marcus (2006) explores the powerful relationship we each have with where we live – noting that in some of her research subjects, the difference in desired aesthetics in the home was a major source of conflict between the couples, causing some to break up over time. They simply could not live in the same place due to the impact of the clash of preferred home aesthetics.

We all feel more or less at home in a space based firstly, on how it supports our desired lifestyle, and secondly, on how well its aesthetic characteristics fit with our identity and values. If a space easily supports our functional needs and aesthetically reflects our identity or values, we will feel more at home in that space than if there is a significant mismatch between the space and our needs or identity.

We call this the Living Room Principle, after the observation about how one might feel about a visit to one's grandmother's living room. A visit to our grandmother's home is typically a warm experience, however, while we may love our grandmother and have many fond memories of spending time in her living room, we do not want our living room to be like hers. Hers supports her lifestyle and reflects her identity back to her, but it likely won't support our preferred lifestyle or reflect our identity. When sitting in her living room it may all seem "right" – it's her aesthetic, her lifestyle, her home, wrapped around her, and its functional and aesthetic logic is the story of her life. However, transporting any of the furniture, wall paper, carpet, furniture, art or other items from her living room to ours, two generations removed in culture and identity, may make its elements appear anachronistic.

This principle applies to urban neighbourhoods and spaces as well. If we have a choice, all other things being more or less equal, people will choose to live where they feel the most physically and psychologically comfortable and where a community will reflect and support their lifestyles, values and identity. We wear our neighbourhoods like clothes – they "fit" us physically and psychologically to a greater or lesser extent.

Anyone who has looked for housing will have had the experience of driving into a neighbourhood and feeling, "this neighbourhood isn't me", or in contrast, "this neighbourhood is very attractive and exactly what I want – I'd feel right at home here." We often discount this feeling in decision making due to the limited choice we may have in neighbourhood patterns in a city, but it is nevertheless an important experience to

this discussion. In addition, other factors may take precedence in a decision, such as the price of housing or its functional location. However, when one finds a neighbourhood or area with which one truly resonates, the experience can be visceral. This ubiquitous experience highlights the principle that the physical form of a place matters to us and can be a powerfully magnetic factor in important decisions we make in our lives, such as where to live.

That visceral experience can be a driving force in gentrification when an area is deemed to be highly desirable by a large and well-capitalized market for its inherent attributes. This new group can then move into the existing older neighbourhood and begin to change it and displace its historical residents and businesses (Zukin, 2010; Brown-Saracino, 2009).

The real estate development industry understands this principle well and it tries to create places that are generically attractive to as many potential customers as possible. However, our experiences in this industry have shown us that in trying to attract the broadest possible market, designs tend to become generic and while they may not be unattractive to most, they lose the ability to deeply connect with anyone.

When working to creating new spaces with authentic vitality, we need to plan, design and develop them so that they attract the animating subcultures that start and build a bonfire of vitality. This can be accomplished by structuring and programming these spaces to support the lifestyle behaviours of our desired subculture groups and aesthetically reflect their identity and values.

THE WATCHING PRINCIPLE

Some may feel that a focus on one core animating group as a key program element by result in exclusivity, but if designed well, it can actually become a key force in drawing many groups into a place. The nature of an "activity group" is generally open in that anyone can learn to do the activity and join in.

We often feel a low level of self-consciousness when we engage in our preferred hobbies, interests and leisure activities by ourselves or with others who enjoy them as well. This is commonly referred to in popular culture and literature as "being in the zone." If we pursue these activities in the public realm and therefore are visible to others, we create an authentic spectacle. In so doing, we open ourselves to both critique and applause, but we create a new relationship between our authentic expression and the audience. That sense of visibility or exposure may or may not be welcomed, but when we are absorbed in the activity, the sense of self-consciousness that may make us uncomfortable will be minimized.

We call this the pattern the Watching Principle. We propose that if we plan, design, develop and program many public areas around specific activity-subcultures and foreground their activities, that the associated BMX aerobatics, skateboard stunts, flying martial arts kicks, break dancing, climbing wall efforts, choir singing, quilting circles, and all the others we can imagine, will literally make us nearly feel like watching\. And the unselfconscious expression of absorbed watching, once again adds a unique authenticity to the social realm at that moment.

The "activity" becomes the focus of our awe and fascination, pulling us temporarily past seeing the person doing the activity as an "other" and connecting us momentarily to a collective social experience in place. Beyond amazement or interest, we then may be drawn to engage and participate in the activity in some way, even in only in our imagination, and thereby build a new authentic connection with others.

While this spectacle scenario raises the issue of "the other", we see it as an opportunity to find out more about ourselves and others through the degree of resonance that we may feel with others due to a spectacle's ability to unearth new impulses and inspiration in us. It may possibly trigger us to make new friends and join a new activity-based subculture community.

This perception of the "the other" is unavoidable in public life and community when a mosaic of individuals share a space, but when the scale of exuberance and integrity in the public realm is so absorbing to both those doing it and those watching it, the viewer can be drawn past the object-ism into a subjective-ism of feeling connected to the person and their subculture doing the activities.

THE BONFIRE PRINCIPLE

When we explore how this watching principle plays out over time in a place, we can identify the next principle we want to propose – that of the Bonfire Principle. When one wants to start a bonfire, short of adding a significant amount of artificial fire-starter liquid, we begin with a small fire and build upon it over time. This metaphor describes how activity subcultures, living visibly in a place that supports and celebrates them, can create a new sense of authenticity, interest and desirability in a place, and ultimately possibly trigger changes in the urban fabric around them.

The process unfolds in the following way: a small group occupies and regularly animates a place, others stop and watch and talk about it (especially now on social media), more come to watch and some begin to participate, while others conceptually applaud or engage in some other way. If this process occurs on an ongoing basis and becomes an integral part of a place, then this new subculture activity dimension creates a sense of vitality and excitement in the place and the place moves to a new position in the culture. Over time, more people come and bring their own subcultural activities and groups with them. Businesses in the area now have new customers and when they thrive, more want to come. And over time, the small fire becomes a bonfire – a larger part of the city, full of vitality and energy. The area then becomes "branded" and "known" for its vitality, energy and eccentricity – and therefore becomes more desirable to many.

At this point, all the gentrification-alerts begin to go off in our minds as we imagine what comes next. The leases go up, the funky businesses move out and Starbucks arrives. As, some of those Brown-Saracino interviewed in her research were heard to say, "Starbucks moved in. There goes the neighbourhood" (Brown-Saracino, 2009).

This process is widely understood as a typical process of gentrification and has been researched, documented and experienced by many (Zukin, 2010, Brown-Saracino, 2009). We most typically see this pattern starting in the grittier areas of cities (e.g. New York's meatpacking district or other old warehouse districts) where artists and alternative subcultures occupy the fringes of more expensive urban areas to find places where they can afford to live and work. A buzz is created by their presence, community, businesses and events, and ultimately, after their area becomes "hip", they are forced out as the place becomes popular, rents and leases go up, new buildings are built, and professionals and the companies that service their needs move in. This process continues until we get what some call the "super gentrifiers" who displace the last steps of increasing wealthy gentrifying groups (Zukin, 2010).

However, we see the Bonfire Principle as different in the context of neoteric authenticity, which focuses more on new development areas. While the entire Bonfire process we outlined above looks like gentrification, it is not conventional gentrification for "new development" in larger redevelopment or greenfield areas because there is no one to displace. What we are doing instead, is activating the power of authentic subcultural activity from the start of a real estate project as a way of instilling a sense of integrity and vitality in a place. The other consideration is that many of these activity subcultures are financially viable in contemporary urban land economics and as such, they will not easily become the

victims of the gentrifying powers as many less economically viable "old-timer cultures" and historical places can be. Many of the retail, production, education and other uses associated with an activity subculture have viable business models in a modern city, as is evidenced in retail stores targeted at many activity subcultures thriving in a city. This will not be the case for all activity subcultures, but it will be for many.

And this now leads us to the discussion of the concept of Urban Magnets – a concept that pulls the threads of authentic "new" subculture-driven spaces into one model.

URBAN MAGNETS

Urban Magnets are unique locations that become deeply loved and knitted into the lives of the activity subcultures around which they are built, and as a result, become powerful forces of vitality in an urban area.

The history of the concept evolved out of a longstanding fascination of this article's authors with the success of Granville Island in Vancouver. While many have copied the physical character of the Island in various projects, none have been as successful. Granville Island commands some of the highest retail rents in the city of Vancouver and is a high-profile tourist destination in the country. Millions of people visit Granville Island every year.

However, the design of the Island is inconsistent with the normal rules of successful retail and tourism including visibility (it is under a bridge and not visible from any major street), easy access (it has very difficult access under the bridge), convenient parking (it is notoriously difficult to find parking), high quality, expensive urban design (it is comprised of largely run down and repurposed marine industrial buildings), and others.

These apparent contradictions triggered fascination and years of watching, thinking, analysis and study in our team of both Granville Island and other similar projects that were similar but less successful. From this work, the Island's unique patterns began to emerge in our minds as we saw past the urban form and into the unique combinations of land uses, subcultures and programming that we believe are the cause of its success. And from that analysis, the concept of Urban Magnets emerged.

THE SIX DIMENSIONS OF AN URBAN MAGNET

The six dimensions of an Urban Magnet that can create a strong locus of authenticity and vitality in a new development or existing urban fabric include:

1. **The activity-based subculture that is its core animating group.**

The essential element of an Urban Magnet is its activity-based subculture group – a group of people who deeply love what they do (for work or play) and often do it together with others who love the same activity, and whose activities and shared identity can animate urban space.

These people will undertake their activities with a reasonable level of self-absorption, creating a core sense of authenticity in the place in which they are active. There will of course be some "wannabees" who are more enamored with the romance of being part of the group than the activities themselves, but the core group are doing things because they authentically love to do them.

Interestingly, historical places with a unique sense of authenticity are more than a collection of old buildings. Rather, their physical form is based on the past function that the space had for a specific group who undertook activities and lived their lives in a place in a unique way – miners, farmers, meatpackers, mah jong players, many others. The fact that the place accommodated their lifestyle and reflected their values and identity are what makes the place feel authentic, beyond the fact that the buildings are old.

2. Specialty retail

Members of the activity subculture need to purchase special items such as supplies or equipment to support their activity and therefore they need retail that will meet their unique needs. For instance, a mountain biking subculture needs an excellent mountain bike store to supply them with bikes, specialty equipment and clothing. Artists need a great art store, and so on. If the store carries a good supply of specialty goods catering to the most enthusiastic and committed subculture members and its leaders, it will draw extensive business from the subculture.

Historical subcultures who shaped space that anti-gentrification advocates feel is authentic almost always had a store to supply the unique needs they had – farming, marine, etc… and the loss of these old businesses is concerning to the preservationists of authentic historical areas (Brown-Saracino, 2009).

This is the point where the "commercialization" can impact authenticity. If the retail role in a Magnet plays too important a role (e.g.: one created by a retailer with the other elements only trying to attract customers) or expands to result in the majority of the retail being unrelated to the Magnet's primary subculture and ultimately undermines the core subculture experience, the place's authenticity can become diluted.

3. Production and/or repair of subculture-oriented goods

The inclusion of spaces for the production and repair of the physical elements involved in the subculture activity lifestyle (e.g.: art, boats, clothing, bikes, food, furniture, etc.…) is one of the most important aspects of an Urban Magnet to engender authenticity. The link between blue-collar work, the resulting grittiness and a sense of authenticity is well documented in those who speak to the loss of authenticity due to gentrification (Zukin, 2010; Brown-Saracino, 2009).

In spatial terms, we call this principle "back-of-house is front-of-house." When back-of-house is integrated into the front-of-house, the self-conscious aesthetic characteristics of the front-of-house area may be altered by the presence of the authentic objects, activity and gritty activities associated with back-of-house – and thereby increase the sense of authenticity.

A tradesperson at work has little to no interest in what an onlooker is thinking. The tradesperson is focused on what they are doing for its own intrinsic purpose. In response to being watched, a tradesperson may offer what we call the "disinterested stare." While we as an onlooker might find them and their activity interesting, they are disinterested in us. They are doing their job and getting on with real life. We are the outsider (the other) and merely a spectator.

Due to the rise of technology in every sector, there is increasingly a white-collar aspect to our economy. Unfortunately, the reality of sitting at a desk working on a computer lends little vitality to physical space. As such, we believe that it is imperative to endeavour to include the industrial, artisan, trades and crafts aspects of the activity subculture in an Urban Magnet – and thus the focus on production and repair.

While this aspect of a magnet is critically important for authenticity, it is also the most difficult to integrate into new developments, for several reasons. The first is zoning as city planners tend to not support the integration of industrial activities with other land uses (commercial, retail, residential) in order to avoid possible conflicts. The other reason is financial in that production uses often need larger areas but cannot afford to pay the same lease rates that retail, office or other urban service uses can. Therefore, within an Urban Magnet, the developer or property owner will likely need to consciously plan a cross-subsidy between the higher paying uses and this production or repair space. This can be seen as "the price of authenticity" in an Urban Magnet.

If the Urban Magnet becomes successful, the increased customer traffic and perceived desirability of the Magnet may permit increased

lease rates for the retail and other uses, to offset some of the reduced revenue from the production space. This has occurred in Granville Island in part through its unique governance and financial model in which its government land owner and management agency, the Canadian Mortgage and Housing Corporation, has secured the tenure or commitment to many of the artisan producers on the Island.

4. Education and organizations

The fourth element of an Urban Magnet is the more intellectual aspect of education and an institutional or organizational presence. The role of an educational element is key in both the economic and social aspects of the subculture.

Every activity subculture has new members who are learning the activities around which the subculture is based (cooking, sewing, furniture making, artisan production, playing music, etc.…). The educational aspect encourages new members to join and allows current members to both increase their skills, and to instruct new members. It also creates a stream of revenue and employment that keeps the physical elements of the Urban Magnet economically viable. In some cases, as with Granville Island's art school and culinary school, the educational element may be one of the largest economic participants in the Urban Magnet. The presence of the educational element supports continuity and longevity of the subculture and its activities in the place.

The experience of both teaching and learning, when taken seriously, becomes self-absorbing and thereby conveys a sense of authenticity. The mistakes a student makes while learning and the associated authentic emotions and expressions of embarrassment, laughter and genuine concentration, imbues learning spaces with integrity and authenticity. In a similar manner to the experience of the worker described above, while the students are concentrating, they are disinterested in us as an audience – we are a largely irrelevant spectator and outsider to them.

In addition, notwithstanding the comments above about the low level of vitality associated with white-collar work that often is associated with institutional entities, it is important to include this dimension in the Urban Magnet, as it offers stability, economic impact and a sense of organized identity to the subculture. The teaching element of education provides an intellectual framework and touchpoint for the subculture and its central activity, and other associated organizations provide structure, continuity and self-awareness to the subculture and the place.

5. Subculture events

Events are important to the ongoing culture and economy of an Urban Magnet as they become the key points in time when the subculture gathers to both do things together in a place (e.g.: bike racing) and to celebrate each other and their subculture in general.

It is here that the Watching Principle happens writ large as individuals who are not from the subculture gather to watch the action (BMX acrobatics, ballroom dance competitions, marathon starts and finishes, etc…). The watching of many people doing things they are passionate about stimulates in many of us an interest or desire to participate or explore the activity further – and therefore these events become key recruiting moments to draw new members into the subculture. They are also critical moments where a subculture takes over public space to express themselves and be recognized by the mainstream culture.

The context of events is complex from an authenticity point of view. In most cases, the actual "doing of the activity" takes concentration and leaves little room for self-consciousness, and therefore maintains authenticity. However, because of the visible "brand" of the subculture at the event, there can be an increased level of self-conscious "performance" occurring both for other subculture members and for spectators. It can also become a place of significant commercial activity and self-conscious portrayal of various brands and myths about the subculture and its core activities. In contrast, there can also be an unself-conscious, genuine exuberance of subculture members in simply being amongst others like themselves. In addition, the commercial exchanges of specialty goods and services from deep within the subculture convey a sense of authenticity, as most spectators will not understand the finer points being discussed and negotiated around these unique subculture goods.

6. Subculture-responsive physical urban form

The final element in a Magnet addresses the physical form of the place. The form of the Urban Magnet needs to both visibly support the unique activities of the subculture as well as embody, in its formal aesthetic qualities, the shared identity and values of that subculture group. We proposed at the beginning of this article that urban form is a mistaken focus of our industry in addressing authenticity and vitality. However, if the goal is to create a "living room" for people undertaking their authentic activities and social interactions within their subculture, it helps to have unique urban form to respond to the needs and identity of the subculture.

This fact interestingly can also be applied to historical places. Places of any era that have an aura of authenticity, appear to have their physical form reflect the identity, values, lifestyle, social and economic functions of their time in a manner that appears "different" than other environments. The perceived authenticity of historical sites is not just because they are old, but because their form reflects the lifestyles, social values and norms of their historical residents.

EXAMPLES OF URBAN MAGNETS

We will now turn our attention to exploring some places that embody these Urban Magnet characteristics to a greater or lesser extent. This concept has evolved out of both field research and analysis as well as from theoretical work.

Urban Magnets is not a widespread concept within the planning, design or real estate development and as such, there are few examples of consciously designed Urban Magnets with all of the elements to study and critique. There are many places that attract subcultures and they may have some or many of the elements of an Urban Magnet, and we reference a few later. However, these are not common and as noted above, both planning theory and regulations as well as real estate economics raise roadblocks or even prohibit the unique constellation of land uses and form that comprise an Urban Magnet.

There is no set size for a Magnet, and it can occur within one building, or it can take up several city blocks or more. Regardless of the size, a strong Urban Magnet will have all six dimensions present. Other places can be magnetic but the "magnetism" of the place to its core subculture and others will be in relation to the strength of the total number and quality of those six factors.

GRANVILLE ISLAND

Granville Island is a Canadian landmark – a waterfront site in the heart of Vancouver, under the Granville St Bridge. It was an industrial site until the 1970s when the Canadian Mortgage Housing Corporation (CMHC) took it over and led a process to re-vision it and develop it as a unique urban lifestyle destination for arts, marine activities and food.

Granville Island is one of the most visited and iconic urban locations in Canada and many have tried to copy it in other cities. However, none have achieved anywhere near the level of success that Granville Island has enjoyed, given the millions of people who visit every year, and the status it has amongst tourism destinations in Canada. Our diagnosis of many other locations that tried to emulate Granville Island is that they focused on two things: industrial or shanty style

architecture and primarily retail uses, especially food markets. This has given many of the others a low level of authenticity and a shallow level of performance on many factors, as they become largely small scale, shopping centres with an industrial aesthetic. And many projects with this approach have failed and while others survive, they have little of the reputation and destination power that Granville Island has.

Granville Island includes three Urban Magnets in one place and it is the depth of the connection to those subcultures and the diversity of uses serving each that keeps it vital and successful and engenders authenticity.

A FOOD MAGNET

Granville Island's most famous Urban Magnet is for the "foodie" subculture. It has a large artisan food market, which includes numerous regular and specialty food outlets as its retail element. Many of its locations produce food and there is also a brewery and distillery on the Island for its production element. There is a major culinary school at its entrance as its education element and there are food events going on throughout the year. The urban form has food embedded everywhere and in keeping with the back-of-house principle, there are boxes of food stacked along the sidewalk, composting and garbage bins of discarded food waste in several public locations. These five elements have supported a major "foodie culture magnet" on Granville Island – and attracted tens of thousands to come, learn, sample and watch.

AN ARTS MAGNET

Granville Island has had a major arts school, Emily Carr University of Art and Design as its education element. Unfortunately, Emily Carr University moved recently, leaving a major void in this Magnet element. The Island also has the best art supply store in the province (OPUS) as its retail element. There are many artist studios throughout the Island where artists work and can be seen by passersby as its production element and sell directly to them. There are art shows and events throughout the year and the public realm has art everywhere including sculptures and artistic signage, as its events and urban form elements respectively. In addition, there are several theatres, costume shops and many performing arts offering events year-round, as well as the best children's extra-curricular arts school in the city – Arts Umbrella.

A MARINE BOATING MAGNET

The final Magnet on the Island is built around its proximity to water. It has major marinas associated with it along with sailing, boating and diving schools as its education element. It has excellent boat supply stores and chandlers, in addition to yacht and boat sales, for its retail element. Boats are built and repaired in many areas adjacent the marinas and the public can walk around large boats in dry dock being repaired, as its production element. There are boating events throughout the year and the marine theme is one of the most visible in the urban form of the Island, as its event and urban form elements respectively.

Combined, these three Urban Magnets have created deep connections to these activity subcultures – across many age groups, ethnicities, genders and levels of income.

OTHER URBAN MAGNETS

Our work to find other examples has not uncovered any as strong as Granville Island but we have not undertaken a comprehensive global survey of such places, so others may exist. A few notable locations have caught our attention including the following:

COLUMBIA ROAD FLOWER MARKET

The Columbia Road Flower Market is an iconic attraction and centre for the activity subculture of gardeners in London, England. It has a thriving cluster of flower and related retailers. The Hackney City Farm associated with it produces many flower related goods and offers classes and workshops to all. The Market is an event in and of itself and attracts thousands. The physical form in the area has evolved to embody much of the form and character of this subculture over time. As such, it has deep roots and a magnetic economic and cultural presence in the city.

SIXTH STREET

Sixth Street in Austin, Texas, is a music-related Urban Magnet. It is one of the liveliest music event hubs in North America with numerous night clubs and live music venues. It has a strong retail presence of musical instruments and related goods. There are educational companies offering music and music production lessons and certificates along the street. The urban form supports music performance and the street is closed for festivals regularly. It is a gritty and dynamic location that embodies all aspects of the commercial music business. As such, it has become a legendary attraction for music aficionados as well as the rest of us, and is a strong element of the city, because of its magnetic strength.

RAW TEMPLE DISTRICT

The RAW Temple District in Berlin has many of the elements of an Urban Magnet. It is a repurposed industrial space now drawing skateboarders, urban climbers and its associated subcultures. It has some specialty retail for this subculture, and there are classes offered on skateboarding and related activities. The urban form embodies the values and aesthetics of its subculture and there are events throughout the year for this group. It would benefit from a deeper connection to the production and repair of the gear associated the subculture to build a deeper economy within it. Interestingly, the RAW Temple District is undergoing change and gentrifying rapidly, which may change the nature of this unique place and make it less authentic, unless significant attention is paid to remaining attractive to its original core subcultural groups.

WHISTLER BLACKCOMB MOUNTAIN RESORT

Whistler is one of the highest rated mountain resorts in the world and it embodies most Urban Magnet elements, albeit at a village scale. It has year-round outdoor mountain recreation and retail that sells all the equipment needed for any outdoor activity. It has a year-round roster of events for various outdoor subcultures and offers classes in many of the activities, especially snowboarding and skiing. Its building and landscape forms clearly reflect the market's expectations for Tyrolean-inspired architecture of many destination mountain resorts. Whistler's main village area is challenged from an authenticity point of view in that it has little production or repair linked to the main village area and the associated grittiness and as such, its subculture depth and authenticity is overshadowed with its focus on entertainment, shopping and consumption. The resort has moved the grittier uses to another area of the municipality (Function Junction), thereby removing an important opportunity to add authenticity to what can otherwise be experienced as a mountain resort lifestyle centre and themed outdoor mall.

CONCLUSION

Authenticity cannot be based solely on the undisturbed presence of the past in culture or form when one works in the planning, design and development industry.

Authenticity has many facets and we can learn from what makes some places feel authentic, including historical ones, but we can take the "origin" dimension of authenticity forward, and

create new places that have authentic roots and expressions – a neoteric authenticity.

City planning has a history of spreading an urban form and function that is relatively generic, including the public realm and main urban streets being focused on retail . In response to these challenges, and because of the professions' focus on physical form, city planning and development have often succumbed to the Wax Museum Syndrome and adopted a near total focus on physical form as a basis for generating vitality. We have copied places that were vital in the past, hoping that replicating such forms would restore historical, authentic vital community sociability and function – however, most are unsuccessful in achieving a strong sense of vitality and authenticity.

The Urban Magnet equation addresses land use and programming, as well as urban design and provides an equation of elements that form a strong foundation for a vital authentic place. These elements are based around a cornerstone in contemporary society – that activity-based subculture groups.

Urban Magnets offer a unique model of how to create new authentic places in both existing and new neighbourhoods and developments, including being particularly relevant for new development. There are few examples of mature Urban Magnets available for easy reference in today's cities because city planning and development practices has been largely ignored subcultures as a driver of programming and design.

Vital interesting places have emerged in some areas, where for various reasons, subculture groups gather and to a greater or lesser extent engage in activities other than just shopping and eating in public. Granville Island and other unique places are examples of how special and successful a place can become when it integrates most or all aspects of an Urban Magnet into planning, design, development and management.

There remain challenges, both economic and regulatory, to widespread creation of new, authentic places. However, by using Urban Magnet theory in the planning, design and development of new areas of cities, we can learn from what has made older areas authentic and increase the vitality and authenticity of new areas of our cities and communities.

ACKNOWLEDGEMENTS

The concept of Urban Magnets that forms the core of this chapter was developed initially in the late 1990s by Mark Holland after studying Granville Island in Vancouver, Canada. The Urban Magnets roots lie in the unique patterns created by architects Norm Hotson and Joost Bakker in their original ideas and design for Granville Island. The Urban Magnet concept was then developed further and refined with colleagues, Bruce Irvine (now with CityForum Consulting), Bruce Haden (now with Human Studio) and Alan Boniface (now with Dialog Design). Norbert Jakube created the term "Urban Magnets." Michael Gordon and Angus McAllister also contributed to the concept in its early years.

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VICTORIA'S SUBURBAN SPRAWL AS A BARRIER TO SUSTAINABLE DEVELOPMENT

Lyra A.J Hindrichs*

*School of Urban and Regional Planning, Department of Geography, Queen's University, Kingston ON, Canada.

ABSTRACT: Canada is a nation where over two-thirds of the population lives in some form of suburb (Gordon & Janzen 2013). It is important to monitor the locations of population growth within our nation as it has profound effects on our economic effectiveness, environmental sustainability, and our overall public health. The purpose of this study is to estimate Victoria's 2016 suburban population using housing density and journey-to-work transportation data to classify the Census Metropolitan Area (CMA) into exurban, auto suburb, transit suburb, or active core. Using Transportation Method 9 (Gordon 2018), it was found that 74.9% of Victoria's population lived in suburban settings in 2016, with 65.3% situated in auto suburbs at the time of the 2016 census. Victoria had Canada's highest active transportation average at 16.9%, with the second highest being Kingston at 9.5%. The population living in Victoria's active cores was 21%, a 4% increase from 2011 with only 17% active core.

Keywords: Victoria, CMA, Suburbs, CT

INTRODUCTION

In 2011, Statistics Canada estimated the 'urban' population to be 81% based on the Stats Canada definition of 'Urban' and 'Rural' (Statistics Canada 2015). However, these classifications fail to incorporate the spectrum of 'suburban' development, and thus paints a false picture of Canadian urbanization. In 2013, Gordon & Janzen classified Canada as a suburban nation, with 66% of all Canadians living in some form of suburb in 2006. This is an important distinction to make, as suburban development has important impacts on social, environmental, and economic growth. The urbanization of suburban areas is a key issue in contemporary urbanism, in particular in North America where suburban, car-oriented development was prevalent in the last 60 years (Taranu, A. 2018). While urban areas are becoming more and more expensive, the urban lifestyle is becoming more and more popular, so suburban towns and developers are increasingly catering those looking for a more walkable, dense community.

This article is a continuation of Gordon et. al's Still Suburban? Growth in Canadian Suburbs 2006-2016 (August 2018). We begin by demonstrating that Canada is a suburban Nation, with two thirds of residents living in suburban areas. By mapping population growth for the 2006 – 2016 period, we determined that only 15% of Canadian growth was in sustainable active cores and transit suburbs, and that 67.5% of Canada's population lived in some form of suburb in 2016.

This article takes a more in-depth look at the Victoria CMA growth trends in the 2006-2016 period, using the Transportation Method 9 (T9) from Gordon et al (2018) to classify the Census Tracts (CTs) into four distinct categories based off housing density and journey-to-work data: active core, transit suburb, auto suburb, and exurban. Dr. Gordon's research team determined this to be the best algorithm to define Canadian cities after testing the method over all Canadian CMAs with consistent results (Gordon et al 2018). Active core and transits suburbs represent the more 'sustainable' neighborhoods, having high active transportation (walking and biking) averages. Auto suburbs and exurban areas represent the auto-dependent 'unsustainable' neighborhoods or areas of 'urban sprawl'. The findings of this article show the auto-dependence of Canadian residents, and insignificance of the inner-city condos booms as compared to the population growth in auto suburbs and exurban sectors. This article will also compare Victoria's results to other mid-sized Canadian cities and Vancouver, both covered in Still Suburban? Growth in Canadian Suburbs 2006-2016.

LITERATURE REVIEW

Why should we care?

Despite the recent condominium booms and intensification trends of downtown cores, Victorian planners should still be worried about suburban sprawl as a threat to sustainable development. The increase of dwelling units in 'sustainable' neighborhoods looks great initially but does less to balance the numbers in terms of population count. Sprawling suburban areas are witness to higher rates of automobile use and vehicle ownership (Ewing et al. 2002). In such areas, people own more cars, drive longer hours, and commute less by public transit. Extensive automobile use leads to more air pollution and greenhouse gas emissions compared to commuting by transit, walking, or cycling. With more people commuting longer distances and living consumer lives in their single-detected homes, these suburban settings demand more transit cost, infrastructure, and loss of greenfield (Ewing et al. 2002).

The migration of residents to the automobile-dependent suburbs has also taken a toll on human health and vitality. A study from Universities of Oxford and Hong Kong show evidence that suburban lifestyles are correlated with higher obesity rates and that walkability is no longer just an ideal (Florida 2014). Obesity is less common in densely-built areas because of amenities within easy walking distance, providing more incentive to walk to them, while densely-built environments can also de-incentivize driving because of their congestion and limited parking. The study also suggests that "a highly compact dense residential environment might act as a proxy for enhanced community social capital and support," (pg. 284, Sarkar et. Al 2017) thus reducing crime, improving health, spurring creativity, and encourage more civic engagement in our communities. Furthermore, the lack of walkability has also been found to be significantly and negatively correlated with neighbourhood foreclosures, as found when examining a cities Walk Score (Gilderbloom et al 2015). There are substantial costs associated with urban sprawl, which are, ultimately, paid for by the taxpayer. Greenfield development and servicing infrastructure investments burden the city with costs that are far below the cost-benefit of the inner city (Thompson 2013). A report on suburban sprawl estimates that infrastructure of low-density development costs $1.50 per every real-estate tax dollar, meaning that large cities such as Halifax and Calgary could save upwards of $700 million and $11 Billion respectively by densifying development already in the urban core (Diamond & Thompson 2013).

Defining the Core

The original construction of a North American city had the commercial node of the city surrounded by the lower-income housing. City residents were migrating into the suburbs as the result of higher incomes, rising city crime, and industrial pollution. Higher income families were willing to pay higher transportation costs (i.e. time) for the country lifestyle. With the rise of densification planning, gentrification of Canadian cities has introduced desirable inner-city apartments; forcing low-income families out of the city and attracting highly educated and

skilled workers (Gordon & Vipond, 2005). A study done by Peter Saunders (2017) shows that core cities are attracting educated Millennials that desire pedestrian friendly, mixed-use neighborhoods. The incoming generation's living habits are more aligned with that of city-living, valuing social time over longer commutes to suburban estates, and desiring to congregate where they work, live, and play (Saunders 2017).

Defining the Suburbs

Defining the suburbs is a difficult task and has many plausible answers (Forsyth 2012). Over the years, definitions have been made based upon dwelling age, individual assessment, commuting status, income, and home ownership. Arthur Nelson describes American suburbs as "low densities spread across vast landscapes, they are dominated by one land use: the single-detached home on a large lot, dependent on the automobile, and so inefficiently developed as to rob America of economic vitality" (Grant et al 2013). Anthony Hommik notes that there also appear to be at least two types of suburbs: inner and outer (Hommik n/d). Since urban growth is a fluid process, it can therefore be reasoned that some current inner suburbs will likely be enveloped by the inner city in the future. It might then be assumed that these inner suburbs are more densely populated and therefore better served by public transit. Consequently, rates of transit usage would be higher than in outer suburbs where the automobile is likely to be more dominant. As summarized by Jackson (1985), suburban residents "commute elsewhere to work, [whereas] city residents work nearby". Studies on urban sprawl and public health have also found the built environment of outer suburbs a growing concern. The lack of sidewalks and mixed-use infrastructure partnered with high speed traffic and mobile focused transit functions to discourage physical activity, ultimately increasing the risk of obesity and poorer overall health (Lopez & Hynes, 2006). Based on the literature above, this study will classify suburban CTs based on auto-dominance and limited active transportation and public transit use.

Defining Exurban

Defining exurban (or rural) areas appears to be a lot simpler, as there is often a clear visual line between the uniform suburban town houses and the farmhouses that require a ten-minute walk just to see your neighbor's driveway. In general, rural areas are defined by location and density. Statistics Canada loosely defines rural as "sparsely populated lands lying outside urban areas" and more specifically where the "population is located outside centres of more than 1000 people and with densities less than 400 people per square kilometre" (Statistics Canada 1999, 226). Drawing on the findings on Chris Vandyk's (2009) Masters research in this project, Victoria's CTs with a population density <150 / km2 will be classified as exurban.

Victoria Official Community Plan

The purpose of the Official Community Plan (OCP) Annual Review 2016 was to provide an annual snapshot of progress towards achieving the OCP, which Council approved in July 2012. The review focused primarily on land management and development and was used to identify emerging trends and issues that may impact the OCP. The key findings of this review included the "highest amount of housing unit creation since the OCP was adopted" and a "greater vibrancy through increased number of activities in public spaces", encouraging a strong downtown core and a network of vibrant walkable villages. The three main Targets relatable to this paper observed in the OCP were:

- 90% of all housing units are within 400 metres of either the Urban Core, a Town Centre or an Urban Village by 2041
- The Urban Core accommodates a minimum of 10,000 additional residents from 2011 to 2041
- At least 70% of journey to work trips by Victoria residents take place by walking, cycling and public transit by 2041
- OCP Annual Review 2016

The measurement of urban and suburban growth is paramount to coordinated and consistent decision making that focuses on how people, land use, transportation, infrastructure and technology can mitigate and adapt to change (2018 CRD Regional Growth Strategy). The classifications in this article provide a visual aid of the suburban areas requiring planning attention to achieve the OCP goals.

METHODS

This article compared the 2006 and 2016 CT data by examining the changes in population and dwelling unit counts. 2006 Census data was extracted from P-Census and 2016 data was downloaded from the Statistics Canada 2016 long-form census. The CT shape files were also obtained from Statistics Canada and edited in ArcMap to remove all water features and grouped into the CMAs. CTs that were split from old CTs in 2016 were given estimated 2006 data by using Allen and Taylor's (2018) calculation method based on day-symmetric and built-form weights. This report then applied Transportation Method 9 (T9), modified from Transportation Method 8 (T8) established by the Canadian Suburbs research program (Gordon & Janzen, 2013), to classify each of Victoria's CTs as outlined below:

Exurban areas are defined as areas with gross population density less than 150 people per square kilometre.

Auto Suburbs are defined as CTs with a gross population density greater than 150 people per square kilometre, transit use less than 150% of the metro average, and active transit less than 150% of the metro average.

Transit Suburbs are defined as CTs with transit use greater than 150% of the metro average for journey to work, active transit less than 150% of the metro average, and transit use at greater than 50% of the national average and 150% of the metro average.

Active Cores are defined as CTs with active transit greater than 150% of the metro average for the journey to work and greater than 50% of the national average.

Using the Victoria CMA data, the Victoria active core floor was calculated as ((CMA total commuters using active transit) / (Total CMA commuters)) *1.5

Active core floor T9 = 28 885/ 170 830 = 16.9% x 1.5 = 25.37%

Since 25.37% is over the national floor of 10.34%, the Victoria CMA active floor is used to classify the Victoria CMA (table 2).

A similar method was used to classify the transit suburbs, using instead the average public transit use data to calculate the floor.

Transit suburb floor T9 = 18 610 / (170 830) = 10.89% * 1.5 = 16.34%

All remaining CTs not meeting the standard for exurban, active core, or transit suburb are classified as 'auto suburb' (using the method outlined by Gordon & Janzen, 2013). Any CTs without journey to work data or determined by visual analysis to be significantly unpopulated are changed to 'unclassified'. This may include industrial yards, First Nation reserves, and parks.

Mapping

Once classified, the Excel worksheets were imported into ArcMap and the data was joined with the corresponding CT, using the FID number as the unique identifier. Using Google Earth and Google Maps to verify the results, Geographic Information System (GIS) mapping techniques were used to create final classification maps available to overlay on satellite imagery and compare with previous research results. Any anomalies found on the transportation map where CT classification seemed to differ from the overall pattern were checked by overlaying the map layers in Google Earth.

FINDINGS

Using the 2016 classification, the Victoria CMA was 21% active core and 65% auto suburb. 19% (7,222) of Victoria's growth over the 10-year period occurred in active cores, while 73% (27,274) occurred in auto suburbs. In comparison to other mid-sized Canadian cities, Victoria has almost double the population (21% to 12%) living in active cores and 11% less than the average exurban area (15%). This is unusual for mid-sized cities, as the exurban population surrounding them is not exposed to the longer and slower commute found in larger metropolitan areas, and thus often have more exurban residents. When looking at other Canadian mid-sized cities, the exurban sprawl is often in the form of farmland surrounding the cities suburbs. Victoria's geographical location, surrounded by a mountain range and the Juan De Fuca Strait, provides a physical barrier to restrict exurban areas from spreading as much as they do on the mainland. Compared to most other Canadian CMAs, Victoria has achieved more sustainable results. With a 10.3% walking average, and a 6.6% biking average, it has gained bragging rights as the CMA with the highest proportion of active transportation in the journey to work (Figure 1).

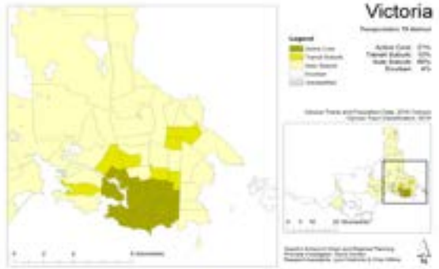
Walking and Biking Across Canada

2016 Rank (of 33)	CMA	Walking (%) 2006	Walking (%) 2016	Cycling (%) 2006	Cycling (%) 2016	Active Transportation total (%) 2006	Active Transportation total (%) 2016
1	Victoria	10.4	10.3	5.8	6.6	16.8	16.9
2	Kingston	9.8	7.8	2.4	1.9	12.8	9.5
3	Halifax	10.1	8.2	1.0	1.3	11.1	9.5
4	Vancouver	6.3	6.7	1.7	2.3	8.0	9.1
5	Ottawa-Gatineau	6.8	6.3	2.1	2.4	8.9	8.7
9	Montréal	5.7	5.2	1.6	2.0	7.3	7.2
National CMA average		5.7	5.3	1.4	1.6	7.1	6.9
11	Toronto	4.8	5.2	1.0	1.4	5.8	6.7
14	Winnipeg	6.0	4.6	1.7	1.7	7.7	6.2
15	Calgary	5.4	4.7	1.3	1.5	6.7	6.2
27	Edmonton	5.1	3.7	1.1	1.0	6.2	4.7

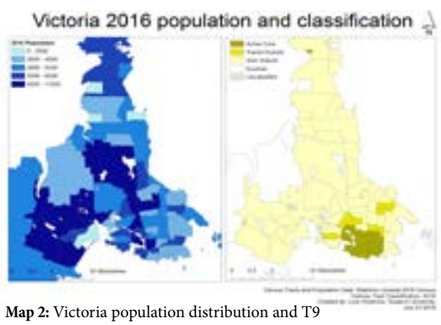
Figure 1: Walking and biking in The Journey to work across Canada. Data source: Statistics Canada

Classification

Map 1 shows the Victoria CMA classified using the T9 method. The Census Tracts classified as active core are highly clustered around Victoria's downtown sector (Map 2). This aligns very well with the Metropolitan center in the Victoria OCP as well as the visually identifiable areas as seen on Google Earth Street view.



Map 1: Victoria T9 classification, 2016



Map 2: Victoria population distribution and T9 classification

Using the Transportation Method 9 developed by the research team, there are two main ways to analyze the growth data, each of which will be further discussed. The CT classification changes over the years depending on the census data, and therefore the data can be examined by freezing the classifications as they were at 2006 or looking at them as they are most recently in 2016. A third option would be to examine the changes with 2006 data classified as it was in 2006 and 2016 data classified as it was in 2016. However, this method provides challenges as it provides no common ground for comparison due to the difference in CT classification, and therefore the growth numbers will be highly affected by classification changes.

2006 Classification Looking Forwards (Table 1)

By retrieving 2006 journey to work census data and classifying it using T9, we can examine the growth patterns according to the development as it progressed over the years. As seen in table 1, 16.2% of Victoria's growth was in the pre-existing active cores, but a 75.2% increase in the unsustainable auto suburbs. In this case however, the distribution of total population living in active cores actually decreased by 0.5% and increased by 1% in auto suburbs.

	Moving Forward -->		2016 CTs/delineation data using 2006 T9 classifications				
Victoria	2006 Population	2006 Population (%)	2016 Population	2016 Population (%)	Population Growth 2006-2016	% Population Growth 2006-2016	% of Total Population Growth 2006-2016
Active Core	73,775	21.4%	78,853	20.9%	5,080	6.9%	18.2%
Transit Suburb	24,179	7.0%	32,053	8.7%	7,874	32.6%	28.2%
Auto Suburb	225,273	65.5%	244,343	66.3%	19,070	8.5%	68.4%
Tourism	13,928	4.1%	14,345	3.9%	417	3.0%	1.5%
Total	336,155		369,594		33,439	9.9%	

Table 1: *2016 Classification in both 2006 and 2016*

2016 Classification Looking Back (Map 2 & Table 2)

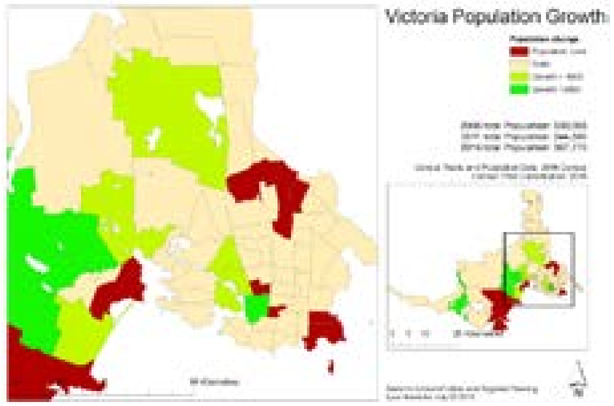
By using the population values in 2016 classification, the story shows an even higher growth in active core areas, due to more CTs in 2016 being classified as active cores. This analysis shows that over the last 10 years, the population grew by 8.6% in the CTs that were active core in 2006 (Table 2), for an overall 10.3% growth rate in the active core CTs identified in the 2016 classification including the 2016 classifications (Table 2). This shows a successful densification and use of active transportation in more sectors, and the continued improvement of mix-use areas. An impressive 25.1% of Victoria's overall growth was in the sustainable active cores and transit suburbs, as compared to the national CMA average (15%). A total of 30.6% of the population lives in these sustainable CTs, which is over the CMA average of 26% and mid-sized city average of 20% (Figure 1). Victoria has out-done larger cities such as Toronto (27%) and is almost on par with Vancouver and Montreal at 31% (Gordon et al 2018).

Table 2: *Top 10 Growth Census Tracts*

Population Change (Map 3, Table 3 & 4)

The 2018 CRD growth strategy has predicted the greatest growth areas from 2011 to 2038 to be Saanich, Colwood, Langford and Sooke (Table 3), aligning with the 2006-2016 results that show the largest growth areas (Table 2). However, most of these areas highlighted as large growth areas are classified as auto suburbs, presenting a concern for increase in suburban sprawl. As shown in Map 3, there are a few high growth CTs in the downtown area, but the majority are large CTs in the suburban and outlying communities. The greatest auto-suburban population growth areas are: Happy Valley (doubled from 3,701 to 7,720), Bear Mountain, Langford Lake, and Sooke inner city. The downtown core, Victoria West, and Burnside active core areas all have population growth over 1000. The census tracts with population decline (Table 4) did not surpass a loss of 100. The two active cores also had a small dwelling unit decline, while the

population loss in the other census tracts may be either maturing neighbourhoods with children leaving or family homes being converted to student housing.



Map 3: Population change in Victoria CMA 2006 – 2016

	2011			2038			Population Change	
	Population	Dwellings	Employment	Population	Dwellings	Employment	Total	Percentage
Core								
Esquimalt	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Oak Bay	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Saanich	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Victoria	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
View Royal	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Saanich Peninsula								
Central Saanich	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
North Saanich	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sidney	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
West Shore								
Colwood	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Highlands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Juan de Fuca EA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Langford	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Metchosin	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sooke	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Urban Futures, 2014

[illegible]

Table 3: Population, dwelling unit, and employment trends, 2018 CRD Growth Strategy

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 4: *Tracts with population decline*

Dwelling Units (Table 5 & 6)

If we look at the change in dwelling units, a slightly different story will be told (Table 5). It can be seen that there is a higher growth rate in active core dwelling units than with the population. On average, a dwelling unit in Victoria's active core houses 1.8 residents, while a dwelling unit in an auto suburb contains 2.4 persons (Table 6). Similarly, there is lower growth in the auto suburbs dwelling units. This can be understood when one considers the average number of persons living in a downtown apartment versus a suburban townhouse.

By calculating population / occupied dwelling units, we can determine the average persons per dwelling unit in each type of classification (Table 6).

Since there is a higher average population per unit in auto suburbs and exurban areas, it can be realized that new units in these communities will have a higher demand for human services such as schools and health care. For every downtown apartment suite, 1.3 times the numbers will be moving into a new townhouse. Map 5 outlines the higher population associated with the dwelling units in the suburban regions. The dwelling unit map shows the highest concentration clustered around the City of Victoria, whereas the population map shows the greater spread of higher numbers throughout the CMA. Thus, when planning for human sustainability, it is best to focus on population numbers and not dwelling units.

Victoria	2006 Total Dwelling Units	2006 Total Dwelling Units (%)	2016 Total Dwelling Units	2016 Total Dwelling Units (%)	Total Dwelling Unit Growth 2006-2016	% Total Dwelling Unit Growth 2006-2016	% of Total Dwelling Unit Growth 2006-2016
Active Core	40,982	26.3%	45,212	26.2%	4,230	10.3%	22.8%
Transit Suburb	16,097	10.3%	16,945	9.8%	848	5.3%	4.6%
Auto Suburb	92,978	59.1%	103,828	60.2%	11,850	14.2%	69.3%
Exurban	5,953	3.9%	6,574	3.8%	621	10.4%	3.3%
Total	156,010		172,560		16,549	12.0%	

Table 5: 2016 classification used in both 2006 and 2016, Dwelling unit counts

Classification	Average number of persons per household
Active Core	1.8
Transit Suburb	2.2
Auto Suburb	2.4
Exurban	2.5

Table 6: persons per household ratio 2016

City of Victoria Versus Victoria Suburbs

When comparing the results of this report to the goals of the CRD Regional Growth Strategy (2018) and the Official Community Plan Annual Review (2016), there is questionable success. The Urban Containment Area outlined by the CRD contains not only the active cores and transit suburbs, but also the majority of the auto suburbs. The goals of achieving 95% of new dwelling units within the Urban Containment Policy Area by 2038 is well on track with and 96.7% of growth in active cores, transit suburbs and auto suburbs in 2016 (Table 7). However, when looking at the City's OCP, the municipal boundaries only include the inner core of the CMA. By breaking down our results into 'City of Victoria' and 'Victoria suburbs', we can compare the growth patterns. By comparing with the municipal OCP boundaries, the City of Victoria was determined to be CTs 001.00 to 014.02. The growth within the city was 7,734 new residents, 95.5% of which was sustainable (Table 8) in active cores and transit suburbs. In the suburbs however, only 7.0% of the 29,901 population growth was sustainable (Table 7) in comparison to Vancouver's suburbs at 16.7% sustainable growth (Table 9). Similarly, the dwelling unit growth in the city was 97.6% sustainable (Table 10), but only 5.4% sustainable in the suburbs (Table 11). The OCP Annual Review outlining that at least 70% of journey to work trips by Victoria residents take place by walking, cycling and public transit by 2041. The 2016 Victoria City public transit use was 14.3% and active transit use was 34.4%, totaling 48.7% (Table 12). So, the City of Victoria is only 22% under the its ambitious 2041 goal.

Victoria Suburbs	2006 Population	2006 Population (%)	2016 Population	2016 Population (%)	Population Growth 2006-2016	% Population Growth 2006-2016	% of Total Population Growth 2006-2016
Active Core	109	0.0%	94	0.0%	-15	-13.6%	0.0%
Transit Suburb	28,753	11.4%	30,841	10.9%	2,088	7.3%	7.0%
Auto Suburb	209,447	83.1%	236,371	83.8%	26,924	12.9%	90.0%
Exurban	13,769	5.5%	14,672	5.2%	903	6.6%	3.0%
Total	252,077		281,978		29,901	11.9%	

Table 7: 2016 T9 classification, population growth in Victoria Suburbs

Victoria City	2006 Population	2006 Population (%)	2016 Population	2016 Population (%)	Population Growth 2006-2016	% Population Growth 2006-2016	% of Total Population Growth 2006-2016
Active Core	70,038	89.7%	77,275	90.1%	7,237	10.3%	93.6%
Transit Suburb	4,462	5.7%	4,610	5.4%	148	3.3%	1.9%
Auto Suburb	3,557	4.6%	3,907	4.6%	350	9.8%	4.5%
Exurban	0	0.0%		0.0%	0	0.0%	0.0%
Total	78,057		85,792		7,735	9.9%	

Table 8: *2016 T9 classification, population growth in Victoria City*

City of Vancouver	2006 Population		2016 Population		2006-2016 Population Growth		Share of Population Growth
Active Core	269,015	46.6%	310,311	49.0%	41,296	15.4%	73.9%
Transit Suburb	181,113	31.4%	193,382	30.5%	12,269	6.8%	22.0%
Auto Suburb	127,119	22.0%	129,445	20.4%	2,326	1.8%	4.2%
Exurban	-	-	-	-	-	-	-
Total	577,247		633,138		55,891	9.7%	

Vancouver Suburbs	2006 Population		2016 Population		2006-2016 Population Growth		Share of Population Growth
Active Core	66,913	4.4%	86,765	4.7%	19,852	29.7%	6.7%
Transit Suburb	140,539	9.2%	169,923	9.3%	29,384	20.9%	10.0%
Auto Suburb	1,279,416	83.3%	1,514,074	82.7%	234,658	18.3%	79.6%
Exurban	47,757	3.1%	58,658	3.2%	10,901	22.8%	3.7%
Total	1,535,553		1,830,293		294,740	19.2%	

Table 9: *Vancouver population growth inner city and suburbs, 2016 T9 classification, Gordon et al 2018*

Victoria City	2006 Total Dwelling Units	2006 Total Dwelling Units (%)	2016 Total Dwelling Units	2016 Total Dwelling Units (%)	Total Dwelling Unit Growth 2006-2016	% Total Dwelling Unit Growth 2006-2016	% of Total Dwelling Unit Growth 2006-2016
Active Core	40,936	91.4%	45,172	91.8%	4,236	10.3%	95.6%
Transit Suburb	2,080	4.6%	2,168	4.4%	88	4.2%	2.0%
Auto Suburb	1,767	3.9%	1,872	3.8%	105	5.9%	2.4%
Exurban	0	0.0%	0	0.0%	0	0.0%	0.0%
Total	44,783		49,212		4,429	9.9%	

Table 10: *2016 T9 classification, dwelling unit growth in Victoria City*

Victoria Suburbs	2006 Total Dwelling Units	2006 Total Dwelling Units (%)	2016 Total Dwelling Units	2016 Total Dwelling Units (%)	Total Dwelling Unit Growth 2006-2016	% Total Dwelling Unit Growth 2006-2016	% of Total Dwelling Unit Growth 2006-2016
Active Core	46	0.0%	40	0.0%	-6	-13.1%	0.0%
Transit Suburb	14,017	12.8%	14,777	12.0%	760	5.4%	5.4%
Auto Suburb	89,211	81.7%	101,956	82.7%	12,745	14.3%	90.3%
Exurban	5,953	5.5%	6,574	5.3%	621	10.4%	4.4%
Total	109,227		123,347		14,120	12.9%	

Table 11: *2016 T9 classification, dwelling unit growth in Victoria Suburbs*

	Total communters	Active transportation users	Active transit %	Public Transit users	Public transit %
VictoriaCity	42,961	14,808	34.4%	6,145	14.3%
VictoriaSuburbs	127,891	14,085	11.0%	12,410	9.8%
total	170,860	28,893	16.9%	18,615	10.9%

Table 12: *Active transit and public transit use, city and suburbs, 2016*

CONCLUSION

Although the City of Victoria is growing in the sustainable active cores and transit suburbs, if the metropolitan area is to reach its sustainability objectives it must also focus on building more sustainable suburban regions. The CRD can be happy that it is meeting its goal of having 95% of new dwelling units within the Urban Containment Policy Area, but unfortunately 74.6% of the total dwelling unit growth (Table 5) is in unsustainable auto suburbs and exurban areas. The suburban areas outside of the City of Victoria account for 76% of total dwelling unit growth from 2006-2016, containing 3.3 times the population as the city (Table 7 & 8). Within the suburban area, only 5.4% of dwelling unit growth (Table 11) is in the sustainable transit suburbs. Sidney and Sooke are examples of suburban towns that must be developed in a less auto-dependent manner if the region's sustainability objectives are to be met during future periods of suburban growth. If the current trends of continue, the Victoria CMA will become less sustainable and more suburban.

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CHAPTER 2
CULTURE, EXPLORATION, AND HAPPENINGS

EMERGING ISSUES IN CANNABIS: A LOOK AT HOME PRODUCTION FOR MEDICINAL USE IN BRITISH COLUMBIA

Cody Bator*

*Student, Master of Community Planning (MCP) Program, Vancouver Island University

As of October 17, 2018, the Government of Canada has legalized the sale and consumption of cannabis for recreational use. Although marijuana has only recently become legal for those of majority age, local governments have been dealing with issues surrounding grow operations for some time now. Personal use production licenses have opened the door for home-based marijuana production facilities, and at the end of the 2017/2018 fiscal year, over 3,800 of those licenses were active in British Columbia (Health Canada, 2018c). Lack of regulatory monitoring around licensed medicinal grow operations have prompted concerns of health and safety. With restricted access to information and limited resources, local governments struggle to enforce bylaws and building regulations that aim to protect residents from these potential risks.

Since 2000, individuals have been able to apply for a license to grow medicinal marijuana plants for personal use (Clare, Garis, and Maxim, 2017). Under this licensing, individuals are permitted to produce a small amount for themselves or designate someone else to produce for them. In the latter circumstance, producers are only allowed to grow for themselves and one other person that is registered with Health Canada (Health Canada, 2016). The number of plants allowed depends on the amount prescribed by a doctor. The ratio of grams per day to plants allowed is 1 to 5 (Health Canada, 2018a). For example, if a patient is prescribed 2 grams of marijuana per day maximum, they are allowed to have 10 plants. If there are more individuals in the household with medical licenses, more plants can be grown. This differs from growing for recreational purposes. Upon legalization in October, individuals are now permitted to grow up to 4 cannabis plants per residence for recreational purposes (Department of Justice, 2018)

Health Canada claims there are routine inspections carried out by their organization to verify ongoing compliance. In reality, this is not achieved due to the large amount of personal medical licenses issued nationwide, and a limited number of inspectors (Stevenson, 2011) which means ongoing oversight does not happen in the vast majority of cases (Clare, Garis, and Maxim, 2017). This also means concerns dealing with "suspicion that someone may illegally be growing cannabis" are delegated to local law enforcement (Health Canada, 2018b). However, law enforcement does not have authority to inspect grow ops unless they have reasonable grounds that illicit activity is taking place (Stevenson, 2011).

Privacy legislation prevents Health Canada from disclosing the location of licensed production facilities to local governments. This is intended to prevent potential 'grow-rips'(stealing from a grow-op) and the violence associated with it. At the same time, it means local governments are unable to effectively ensure building code and safety regulations are met. A 2017 study found that nearly 30% of medicinal grows surveyed in Surrey, BC were found to have electrical issues, not including the issue of a missing smoke alarm (Clare, Garis,

and Maxim, 2017). Since municipal authorities are unaware of the grow, many go uninspected. Little inspection and enforcement is undertken to ensure both compliance with the building code or other municipal regulations and the terms of the grow license (Clare, Garis, and Maxim, 2017).

According to Health Canada's website, licensed producers are expected to obey all relevant federal, provincial, and municipal laws and by-laws, including municipal zoning bylaws (Health Canada, 2016). Unfortunately, this has not been the case in many instances. Clare, Garis, and Maxim (2017) found that 86% of medical grow ops examined in their study contravened zoning regulations and 97% had work done without a permit. The producers in these cases had made structural alterations to their homes or had constructed buildings that were in contravention to zoning and building bylaws. These infractions include, violations to safety legislation (e.g., the BC Building Code, the BC Fire Code, the Residential Tenancy Act, and the Public Health Act) and local government bylaws relating to land use and zoning (Clare, Garis, and Maxim, 2017). This may cause health and safety issues for the residents, future owners, and immediate neighbours as well as for emergency first responders who enter into these buildings in cases of emergency (Clare, Garis, and Maxim, 2017). There are electrical and fire safety risks, along with health risks such as mould and mildew that they may be exposed to, which can result in long term health issues (Stevenson, 2011).

Potential grow operations are sometimes caught by local governments during the time of building construction, which in most cases require a building permit and inspection. If the proper building codes and zoning are not met, local governments can impose fines and even a Notice on Title, which discourages bank loans for future buyers of the property. Another way these issues could be remedied is by more regular inspections from Health Canada. These inspections could also verify that electrical and other safety regulations were being met. If the grower is found to be in violation of their license agreement, they could potentially have their license revoked. Perhaps stronger approaches such as restricting or cutting off electricity, in the interest of health and safety could be a potential strategy in dealing with these violations, although this would require further consideration.

Planners have an obligation to enhance the quality of life of the citizens they are working for. This includes ensuring the health and safety of the community. One of the ways planning departments can do this (besides bylaw enforcement inspections), is by educating the public. Now that many individuals are legally permitted to grow marijuana in their homes, there is a need for public information on how to protect your dwelling and your family from the potential hazards that come with home production. A town with a housing stock of mouldy, fire prone homes does not make for a safe and healthy community.

Before October 2018, only individuals with a valid medicinal license were permitted to grow cannabis in residential homes. Now, everyone 19 years of age and over in BC will be permitted to grow four plants per residence for personal use. It will likely be frustrating for municipal agencies tasked with protecting citizens by effectively enforcing bylaw and building regulations to prevent injury and loss. Municipal agencies are already stretched thin, policing other non-compliance issues such as illegal rooming houses and building without permits. Ensuring marijuana is grown safely and legally will be a challenge without a proper framework for communication and regulation between government agencies. Solutions to this problem are yet to be realized, which adds to the ever-growing list of complex land-use issues that planners deal with in the 21st century.

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CREATING A CONNECTED CAMPUS: THE IMPORTANCE OF PLANNING FOR UNIVERSITIES

Lindsay Malbon, Aaron Dixon*, Niccolai Zicong*

*Student, Master of Community Planning (MCP) Program, Vancouver Island University

When the words "urban planning" are mentioned, it is likely that municipal and land-use planning comes to mind. Although diverse types of planning are often discussed, one area of planning that appears to be underutilized is planning for universities. The built environment of a university has the ability to shape the experience of staff, faculty, students, and visitors in many different ways. Having a successful campus plan can improve the quality of life and change the way people move around and spend time at a university.

Universities are unique places with people from different backgrounds, lifestyles, and incomes (Balsas, 2002). Campuses are distinct in the sense that they offer an ideal human scale and resemble a small community neighbourhood (Balsas, 2002). However, it is not uncommon for academic institutions to be viewed as a place that is removed from the real world (Bunnell and Lawson, 2006). Traditional designs of universities have reinforced this perception by separating the campus from the neighbouring community (Bunnell and Lawson, 2006). Furthermore, many universities have focused on policies that involve increasing diversity, improving safety, and achieving higher graduation rates (Dalton et. al, 2018). Although planning is not directly linked to those issues, literature shows that campus planning can offer a supportive and strong physical environment (Dalton et. al, 2018). It is only until recently that campus planning is beginning to garner some attention (Dalton et. al, 2018)

This is where our story begins. This summer, we were hired by the Mount Arrowsmith Biosphere Region Research Institute (MABRRI) at Vancouver Island University (VIU) to create a Campus Mobility Plan and a Public Realm Plan. As VIU Master of Community Planning students, we have spent a considerable amount of time on campus. However, working on both of these plans gave us the opportunity to see the campus in a new light.

The Mobility Plan has a strong focus on transportation demand management because VIU is a commuter university - many of the users travel to attend classes. Because of this reality, we provided recommendations for car sharing programs and active transportation that would reduce the use of single occupancy vehicles. Active transportation refers to getting to one place from another with your own power such as walking and biking (Government of Canada, 2018). Cars are often the main influence and focus of planning decisions for transportation systems. (Balsas, 2002). Over the past fifteen years, it has been difficult for campuses to offer access and mobility without tarnishing the community feel of a campus. Active transportation was relevant in our Public Realm Plan as well, because parking spaces could be turned into pedestrian friendly public areas. Our goal was to make VIU a place for people and favour pedestrians, since walking is the expected way to move around campus.

In the Mobility Plan, there is a chapter devoted to universal accessibility. VIU is located on a steep hillside which makes it difficult for people with disabilities to move around campus. We had the opportunity spend the day in a wheelchair and take the designated barrier free route from the lower to upper campus which changed our perspective of mobility at VIU. We quickly realized how the campus's built environment greatly impacts the way universal access users have to move around the university. What would be a ten-minute walk up the stairs from the bottom to the top of campus, took over an hour in a wheelchair and involved elevators, steep slopes, and ramps. The recommendations we provided in this section included applying universal design to all areas of campus, planning for adverse weather conditions, and creating back up plans for elevators (because the barrier free route is inaccessible without working elevators). An area of great importance for the Mobility Plan was to improve way-finding and maps to help navigate the campus efficiently and safely for universal access users.

For the Public Realm Plan, we used photo surveys to identify existing public spaces and used the photos for design renderings. Taking photos gave us the opportunity to see the current state of campus and its public spaces, which allowed us to make informed recommendations on how to improve certain areas. We included a chapter called "Dream Plan" in which we recommended any idea that would improve the public realm. This included a chalkboard and outdoor movie wall (VIU has many blank walls), an outdoor observatory featuring seasonal star charts, and a rock-climbing wall in the campus breezeway.

Our experience working as campus planners was the perfect mix of collaborating with project stakeholders, conducting meaningful community engagement, and stretching our imagination and creativity to improve life on campus. Although each plan had a different focus area, it became apparent that both plans were connected because they informed each other in many ways. We were able to see the importance of community partnerships and their necessity in improving mobility and the public realm on campus. We believe that staff, faculty, students, and visitors can be stewards of planning by lending their voices to emphasize the importance of the human dimension by planning for people. Planning is not just about local government and land-use, it's also about making places like VIU more inclusive and enjoyable.

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CHAPTER 3
PLANNING PERSPECTIVES

MAKING SPACE FOR BEES, RADICAL PLANNING AND THE MESSY CITY

Kirby Delaney*

*Student, Master of Community Planning (MCP) Program, Vancouver Island University

ABSTRACT: Bees and other pollinating insects are increasingly at risk in agricultural spaces, due to years of intensive monocultures, pathogens, imported species and pesticides. New research identifies urban spaces as a bastion of insect biodiversity, but in order to maintain these precious species space must be made available to combat loss of habitat. As the spaces need not be large, radical and activist planning efforts to introduce pockets of wilderness in the cracks of the city may offer the best hope to maintain bees in urban environments.

Keywords: Victoria, CMA, Suburbs, CT

INTRODUCTION

A bee, as defined by the Merriam Webster dictionary, is: "any of numerous hymenopterous insects (superfamily Apoidea) that differ from the related wasps especially in the heavier hairier body and in having sucking as well as chewing mouthparts, that feed on pollen and nectar, and that store both and often also honey." This broad definition is the most workable definition for a family that includes over 20,000 different species, 4,000 of which live in Canada alone. There is increased awareness that bee are struggling, disappearing at an alarming rate and the attention and care is largely being lavished upon the more glamorous bees: the ever productive honey bees. Of course, honey bees are only a small fraction of bees, and so the problem must be approached from multiple angles if it is to be solved in an urban setting and to that end, this literature review will approach what is currently known about these diverse insects from several lenses: bee health and scientific studies conducted on the subject, the role that these species play in human lives and landscape and urban design decisions.

THE ROLE THAT BEES PLAY

Bees have always played a role in human society as a beneficial insect. There is evidence that early humans would have noticed that the honey they desired would be easier to harvest, if honeybees were encouraged to build their nests in human supplied cavities. Neolithic cave paintings show humans seeking hives, but it was likely Fifth Dynasty Egyptians who first harnessed these animals for their own exclusive use. From that point on, the fate of honey bee and human has been inextricably intertwined. The cultural value of bees was so important to the Egyptians that the bees themselves were referred to as Tears of Ra, the manifestation of the sun. From there, beekeeping spread across the ancient world, with different styles of hives being preferred in different locations, vertical in Africa or horizontal in Greece, and the familiar Langstroth boxes seen dotting orchards across North America.

Despite their abundance in Europe and Africa, honey bees were late arrivals in North America. The first record of their importation was in 1621, in Virginia. From there, honeybees have spread across North America and become a fundamental part of agricultural systems.

Quantifying the role that bees play in human lives is difficult. Setting aside the human agricultural value, for a plant, bees are irreplaceable. Millenia of coevolution has left many plant species with no means of reproducing without the assistance of pollinators, the most common of which are bees. Angiospermic plants, those that produce fruits, are especially dependant on bees, as those without self pollination ability require assistance to transfer pollen. This means that even for plants that are able to self pollinate, pollinators provide the ability to transfer genetic material to new plants, ensuring genetic diversity and a better chance to flourish in the face of future adversity. In a world without bees, fruit species such as grapes and tomatoes would still exist, but without the size and sweetness to which we have grown accustomed.

Much of the literature surrounding the role that pollinators play within agriculture is grappling with the role that these insects play in pollination,and envisioning a world where these services are no longer available on demand. *Native Bees, native plants and crop pollination in California,* an article put forth by the California Native Plant Societies periodical, Fremontia, Claire Kremen investigates the role that native bees play in California's agriculture." Most agriculture dependant on bees focuses its attention on honeybees, as these creatures are easily transported and can be shipped from site to site where they are needed. As climate change and colony collapse plague the imported honey bees, pollination services have declined by half, even as demand increases.

Canadian native bees are considerably less studied than honeybees. They do not live in hives, generally, and they do not require human interaction to survive. They do not create honey, wax or pollen that we desire and so their involvement in our lives is less immediately noticeable. That does not make them less important. For some plant species, such as blueberry and and alfalfa, native bees are better pollinators than honeybees. Unfortunately, native species are seeing a concurrent decline with their agricultural relatives, as issues of climate change, pesticide use, fungal infections, and habitat loss are leading to population collapse in some once common bee species. Unlike honey bees, native bees cannot be moved from place to place as needs arise, and so alongside calls to monitor these creatures and research their status are calls from the scientific community to create spaces where these bees can live alongside agricultural land. Also, unlike honey bees, native bees cannot easily be coaxed into nesting in manmade homes, choosing instead underground burrows, compost heaps and nooks, leaving them especially vulnerable to territory loss.

There is a lack of awareness about the issues faced by pollinating species and wild bees in particular due to a general lack of interest and lack of historical record keeping. Often, records kept by amateurs note species as being rare, or common, without a benchline to compare what these terms mean. Complicating this, is the fact that many wild bee species are not specialists, meaning that the loss or diminishment of one species can go unnoticed at first. Some plants, however, would not survive the loss of their pollinators and should habitat encroachment and climate change continue to affect the bees without recourse we will see the loss of certain bee dependant species such as watermelon and gourds.

The role of bees agriculturally has been quantified. It is estimated that 66% of plant species are pollinated by bees, 90% of cultivated species are visited by bees, and 30% cultivated species rely on bees as their pollinator. The Agricultural Department of the United States of America estimates that honeybees alone are responsible for 5-14 billion dollars of value every year. Nutrition is a factor as well, with pollinator dependant plants providing the majority of fluoride, folic acid, and vitamins A and C in the human diet.

Most research done regarding the role bees play in human health and agriculture relates to cash crops and large-scale agriculture. The role of wild bees is beginning to be researched, as honey bee colonies have collapsed by half their number since the 1950s. It was noted in the study Crop pollination from native bees at risk from agricultural intensification that native bees could provide the same pollinating services as honey bees, but that current agricultural practices were greatly diminishing native bee populations because honey bees are favoured.

HUMAN ROLE OF BEES IN THE CITY

The role of bees in cities cannot be separated from human involvement. Creating places for nature within urban spaces can be difficult; land is a premium commodity, and development, housing, and commercial uses are considered more valuable than undeveloped, often wild and scruffy looking green spaces.

Interactions between humans and bees can be more than purely economical; in urban environments, visitor to a new community garden should look between garden boxes for smaller wooden boxes, for native bees, or larger stacked boxes for honey bees. Native bees do not require tending in the way that honeybees do, and so management takes the form of providing flowers and spaces for them to nest. The article Safeguarding Pollinators and Their Values to Human Well-being, put forth a good summary of the value bees, as a pollinator species, hold to human survival and continued agricultural variety, but also touch on the less tangible benefits. These include cultural values, such as art and "aesthetically important flowers", as well as religious and symbolic meaning connecting people to home and landscape.

GARDENS AS EDUCATION

Some apicultural garden communities focus on education as a form of community building. In Colorado, amateurs and curious alike are able to join volunteers to learn how to manage their own hives, or to gain familiarity with the skill. Since the hobby can be a daunting one to begin, the classes are offered for free in order to maximize accessibility. Conversation and dialogue are crucial in beekeeping. Education is often included in these spaces as "attention to beekeeping shows complex entwinement of control and care, working with and against bee capacities, feelings of captivation and indifference, negotiations of life and death." It is important to note that although beekeeping is often combined with agriculture, urban beekeeping plays a role partially separate from that. Due to the use of pesticides within cities the honey that is gathered risks contamination, and therefore cannot be sold except through personal networks. The flowers that they pollinate are not necessarily fruit bearing, and the hives are not moved to areas where farming is present, as in commercial beekeeping, and so there is no agricultural component to the bee's cultivation in these spaces. The beehives that are managed with an urban setting are managed for different, less tangible, reasons and the communities that care for them and promote them do so for personal reasons. When residents have no room, or lack the skills to maintain a beehive and instead choose to create and host small 'bee hotels' the reasons for doing so are not necessarily because native bees will result in better tomatoes, but something more complicated and emotional. One of the challenges noted in the preliminary research on the subject of urban spaces for bees is grappling with the 'why'. As noted above, there is a wealth of knowledge and justification as to why certain bee species are invaluable for human and agricultural well being, but why create spaces for the insects that are not so clearly precious?

For this reason, among many, it is important to involve the community in the creation, propagation, and management of bee habitats. It is noted in the article Beekeepers' knowledges and participation in pollinator conservation policy that there is knowledge within the beekeeping community that is difficult to quantify and tap into for the purpose of scientific inquiry. The authors note that the beekeeping community rely on traditional environmental knowledge, a field of knowledge traditionally separate from scientific study. This is why the authors chose to use mixed methods, an inquiry background combined with sixteen in depth interviews, to see what information regarding habit and hive health is in the hands of apiarists. Two issues this study brought forth are especially valuable for future inquiry. Firstly, the article notes that there are parallels with indigenous land management and indigenous environmental knowledge in the oral nature of this knowledge and the relative lack of value given to this knowledge in comparison to western scientific process, despite clear value. Secondly, the authors note that there is great distrust and competition about value between these two bases of knowledge, leading to gaps in practice and understanding.

This gap is between local and Indigenous knowledge and city park practices is especially crucial regarding the Garry Oak ecosystem that is celebrated and preserved in Beacon Hill Park, Victoria. Unlike a grass lawn, camas fields, the beautiful purple blue flowers that hum with insect activity in the spring, are the product of generations of Lekwungen burning and harvesting and require management in order to continue to thrive, even as the endangered ecosystem is threatened by land development and fragmentation. Knowledge is crucial to creating plant gardens that are beneficial for insects, knowing that these spaces might not be best or most desirable for humans. Well meaning gardeners seek to remove beneficial plants seen as weeds, such as milkweed, stinging nettle, dandelions and death camus, or destroy spaces that create nesting sites such as misidentifying carpenter bees as more destructive carpenter ants, spraying rose bushes when chewing becomes apparent, and removing rotting logs and composting leaf piles without knowing that they are killing bees.

CONVERSATIONS ABOUT BEES

Beekeeping both wild and domesticated, by its nature, involves conversation and education, bringing people in and, in educating and working to be accessible to new and curious community members. In these environments, where mutual interest brings together people of diverse backgrounds and interests and unites them in a shared space separate from both work and home, beekeeping sites can reasonably claim to be 'third spaces'. Because bees are largely self managing, their hives do not require visitors to attend to them at specific times. People may come and go as they please and engage at their leisure. In their study of Glasgow's community gardens, The authors of The Work of Community Gardens: Reclaiming Place for Community in the City. note that the role these spaces played in the community was not simply food production. "It is important that the garden is much more than just food growing and it is a space people can come and use for storytelling and crafts and music performances and things like that."

For those neighborhoods that do not have a dedicated park space or skilled beekeepers ready to manage a new hive, they will bring a hive to a backyard, and begin the education through there, thereby ensuring that even in denser neighborhoods no one is without the option of trying this new hobby. By doing so, the volunteer backyard becomes the nexus of apiculture within that neighborhood. Where there are no backyards, but the location is near a public park, as is the case for the New Horizons Activities Center in James Bay, Victoria, beekeeping and native bee gardens are managed by volunteers from the community to create a space that is open for all. Though the management of the hives is done by a professional, the garden and the native bee boxes are open to all, amateur gardeners and those who are simply looking for a floral place to rest in the park.

Still, providing public wilderness spaces within urban areas requires consultation and community buy-in. Not in my front yard explores community perspectives regarding urban pollinator meadows. The United Kingdom researchers did this by exploring two fundamental questions "1) What do urban greenspace managers perceive as the key factors determining the opportunities and challenges of managing GI as perennial urban meadows? 2) Does perception of the relative importance of these factors vary between individual managers based on their values and their managerial role?"

Cities in particular provide an exciting opportunity for pollinators. It has been noted that for bees, and especially bumblebees, that chose to nest in compost, mouse dens and other underground spaces which leave them vulnerable to intense landscaping, cities offer the possibility of greater species numbers and diversity than previously thought, and small planning decisions can provide outsized benefits. Biodiversity, especially, is highlighted as a benefit cities are able to provide if land is managed effectively. If done poorly, urbanization, especially pavement, buildings, overwatering, digging and non flowering lawns, mean the death of bees. In Vancouver, peak bee diversity was found in undeveloped lots and naturescapes, rather than, as expected, in private gardens. This suggests that cities, as well as and perhaps more than homeowners, have the ability to create refuges for these creatures. The same study though noted that once common bee species, such as Bombus Occidentalis, had declined dramatically in twenty years, perhaps linked to the rapid growth seen in Vancouver's downtown and the development of previously agricultural land.

The author of 'Bee Hotels' as Tools for Native Pollinator Conservation: A Premature Verdict notes that a large part of the enthusiasm for bee amateurs comes from the belief that by creating these spaces they are 'saving the bees' and providing a necessary service. Author J. Scott MacIvor notes that creating and placing these spaces needs to be done with a firm understanding of science, lest the creator do more harm than good.

Professionals developers are also recognizing the economic value that urban gardens and apiaries can create, some developers viewing them as "an added amenity for tenants, similar to a gym or a media lounge." Citylab author Steve Holt's article on the subject notes a comparison to a media lounge which suggests that the purpose of creating these spaces within a development is not simply for the esthetic beauty or the food creation, but as a community space and a way for people to engage with their surroundings and entertain themselves when they are not at work or in their homes. This suggests that planners and designers of these developments see urban apiaries and their surrounding gardens as third spaces when considering what requirements must be met for a successful new community.

A ROLE FOR RADICAL PLANNING

The theory that could be applied to a beehive, when tended by people who create these communities in spite of local government by-laws that either do not support or don't acknowledge them, is radical planning. Radical planning is, as described by the authors of Comparison of Current Planning Theories: Counterparts and Contradictions "associated with spontaneous activism, guided by an idealistic but pragmatic vision of self-reliance and mutual aid." Mutual aid, one could argue, could be the beneficial relationship of bee, plant and human consumer. Though the act of creating a community apiary space does not seem radical in itself, the act of creating these spaces within an urban area, in underutilized lots, in the areas

at the foot of driveways, organizing and creating community gardens, is often an act of self planning, done bottom up and often with initial pushback from governing bodies, whose zoning does not always accommodate these activities. As beekeeping can be classed as agriculture, and output product, if sold, can create a business, the difficulty of determining legality and ordinance has led to some beekeeping communities to act extralegally. As beekeeping communities have grown, however, cities across North America are being pressured to amend their zoning and bylaws to allow these spaces, either privately or communally owned. In part, this move to address regulation issues was done in recognition of the spaces role in the urban fabric. As noted in the report Towards a New Approach to Beekeeping Policy in Urban Ontario published in 2012: "Beekeeping allows practitioners to engage with nature seldom found in urban areas, and to develop like-minded communities. From this perspective, the benefits of beekeeping encompass the wellbeing of communities broadly, as citizens provide their own secure food supply and build connections."

Authors Rina Ghose and Margaret Pettygrove, in their article Urban Community Gardens as Spaces of Citizenship note that community gardens are rarely the first choice for land use, and the act of carving out a space for the community to garden, especially when land values are high, is not always easy. "Conflicts over urban land use and rights to space are common, as urban redevelopment projects prioritize economic development and housing over community gardens." They note that creating these spaces can be an act of social defiance and "civil disobedience" when the city does not offer a permit, or the zoning does not support.

This is radical planning at its most elemental. Though in the above noted situations the government did come to legalize urban beekeeping communities, it was not through straightforward political activism or legal precedent, legislation came about to recognize and affirm actions that were already taking place within communities. Community gardens, and beekeeping are "conceived as spaces through which citizens can challenge dominant power relations and claim rights to the city." By creating these spaces large and small, and creating them before they are recognized by bylaws and regulation, citizens can create for themselves third spaces that do not require commerce to survive and are instead built around mutual interest, education and space occupation. When bylaws do not support beekeeping, or worse, ban it, those interested in the hobby have to resort to extra-legal alternatives, leaving otherwise law-abiding citizens to become bee fugitives as was the case in Edmonton when in 2013 Malcolm Connell, a retired English teacher, began running an underground beekeeping community. He believed the following about his work:

"It helps kids understand nature, and the cycle of life, and the relationship between plants and creatures." Connell says there has been a quiet influx of urbanites to the Edmonton District Beekeepers Association, and he hopes that someday Edmonton will join Toronto, Calgary and Vancouver and allow hobby bees within city limits."

The education and community provided by the Edmonton District Beekeepers Association, though run surreptitiously and kept tucked away from bylaw officers eyes, provided a third space for those 'quiet urbanites' to engage in a community outside of their work and home life. In 2015, in recognition of the "value of urban beekeeping" already taking place in its city, Edmonton legalized urban apiaries in its city limits, a success for radical planning and recognition of a movement taking place amongst its citizens. This same cycle, of amateur underground apiculture being recognized after it has already become a vibrant scene, has played out globally. In 2014 Los Angeles was moved to review its zoning to allow urban beekeeping, which had been underground, in order to encourage local beekeepers to come forth about their hives. They wanted to encourage these communities, as agricultural beekeeping had been faltering in the advent of colony collapse disorder. Urban bees were not numerically strong enough to replace their agricultural counterparts, but the knowledge in the community as well as the hives that remained intact were a bolster.

A small search into urban and provincial pollinator strategies in Canada yields very little. Ontario seems to have the most forward-thinking policies regarding pollinators and strategies for their health and well being. Toronto has been given a special designation, first Bee City in Canada; this is a title that indicates that pollinators are given a priority in its city space, as it seeks to "1) Create and enhance habitat 2) Design and connect green spaces 3) Partner and build relationships 4) Invest, incentivize and inspire 5) Educate and train 6) Celebrate and recognize achievements." Toronto's policy notes the honeybee, as it is the most familiar species and is the species that requires specific bylaws for its management in urban centers. However, the city was undaunted, stating that though colony collapse leads to massive hive loss, farmers and apiarist can simply purchase new ones. The focus is on wild bees, whose numbers are lower and more sensitive. On a Federal and Provincial level, Ontario continues to lead, with the department of Agriculture and Agri-Food issuing the document Native Pollinators and Agriculture in Canada and the Ontario Province's "Pollinator Health Action Plan."The Department of Agriculture's focus is, naturally, food and agricultural uses for bees. The Provincial plan is broad, covering all aspects of bee health and threat, but since it must cover a large and diverse geographical area the advice it offers would need to be tailored to local concerns. In provinces with broad ranges of different biospheres, more tailored plans focusing on the identification, integration and preservation of unique biologically rich areas should be done on a local level. Some native species are specialists, and the loss of their prefered plants is a devastating blow, the first step of the city should be to protect the areas most ecologically valuable, with the understanding that no matter how beautiful a garden is, it will not replace an intact environment.

While city support is crucial in maintaining the pre-existing spaces that are favoured by bees and other pollinators, there is room for and there should be support for radical planning initiatives to support and augment this. Local concerns, and local knowledge, are best employed by the people who understand their unique communities best: locals. Citizen scientists, such as the Butterfly Rangers trained under the auspices of the David Suzuki Foundation, work to educate and inform other concerned citizens in the best way to create pollinator spaces downtown; other citizen brigades monitor and track numbers within their neighborhoods. These homemade corridors can be created by citizens without funds or design, and can function to connect existing ecosystems, creating pathways that prevent isolating habitats and creating a network of greenery throughout the built environment. Boulevard garden guidelines, in both the City of Vancouver and Victoria both provide guidance to gardeners regarding sightlines and city access, but allow residents to express their own creativity in creating these green spaces. In Victoria, this program was created by citizens, and was adopted and perfected by the city to reflect what was already taking place on the streets.

While local governments will always have the final say in land use, there should be spaces made for flexibility and spaces set aside other than relying on the goodwill and knowledge of those with backyards. As bees thrive in unattended areas, on underappreciated weeds, filling in gaps and making use of land that is perceived to lie fallow, so to do neighborhoods. Ironically, areas that are the largest blights on cities, such

as under developed or contaminated brownfield sites often have the largest diversity of species. On Vancouver Island, bees thrived in Garry Oak ecosystems, but meadows are increasingly difficult to find and overgrown lots filled with flowers may be the closest substitute. As an aside, it is worth remembering that Garry Oak Meadows were originally managed ecosystems, cleared of forest carefully weeded and burned and therefore selected as the best locations for development of farms that would become cities.

The best way for the city to support the effort to reclaim these spaces by insects (and citizens) might be to back away. There will always be risk associated with insect cultivation and consumption, but in this case, the bigger risk is losing these spaces in the quest to create perfect, manicured, sterile spaces. The current order, centralized top down bureaucratic planning, is ill equipped to deal with imperfection, mess and weeds. Monetizing the value of the land pushes out less economically valuable, though perhaps valuable in their own, intrinsic way, land uses. Crucial, wildflower filled brownfield sites, even those with expensive remediation requirements, will eventually feel the push to develop as cities grow. It is only when community gardens and wilder downtown growing spaces become legitimized in both the views of the public as well as the municipal planning goals do they become permanent, but these spaces can be created before they are officially recognized through the work of local initiative to carve out spaces for the insects that are losing territory. Cities can assist this effort by providing support, education on native landscapes and acceptance of these spaces, perhaps resulting in spaces such as the beautiful boulevard gardens that brighten up the streets of Downtown Victoria. Support and education about the valuable native species in the backyard can assist those who wish to take on projects of their own, guiding future gardeners without enforcing overly burdensome requirements.

If beekeeping, wild or domestic, is beyond the ken of the average homeowner, a meaningful way to help still exists. Do less. Worry less about the state of the lawn, or the dandelions in the street cracks. Do not concern yourself with the pile of leaves in the back corner, raked and piled but never bagged, the bees thank you. In the words of a Butterfly Ranger, if munch marks in your garden are causing you stress, take ten steps back! Nature thrives in imperfection, messy, spontaneous and uncontainable, and so does radical planning.

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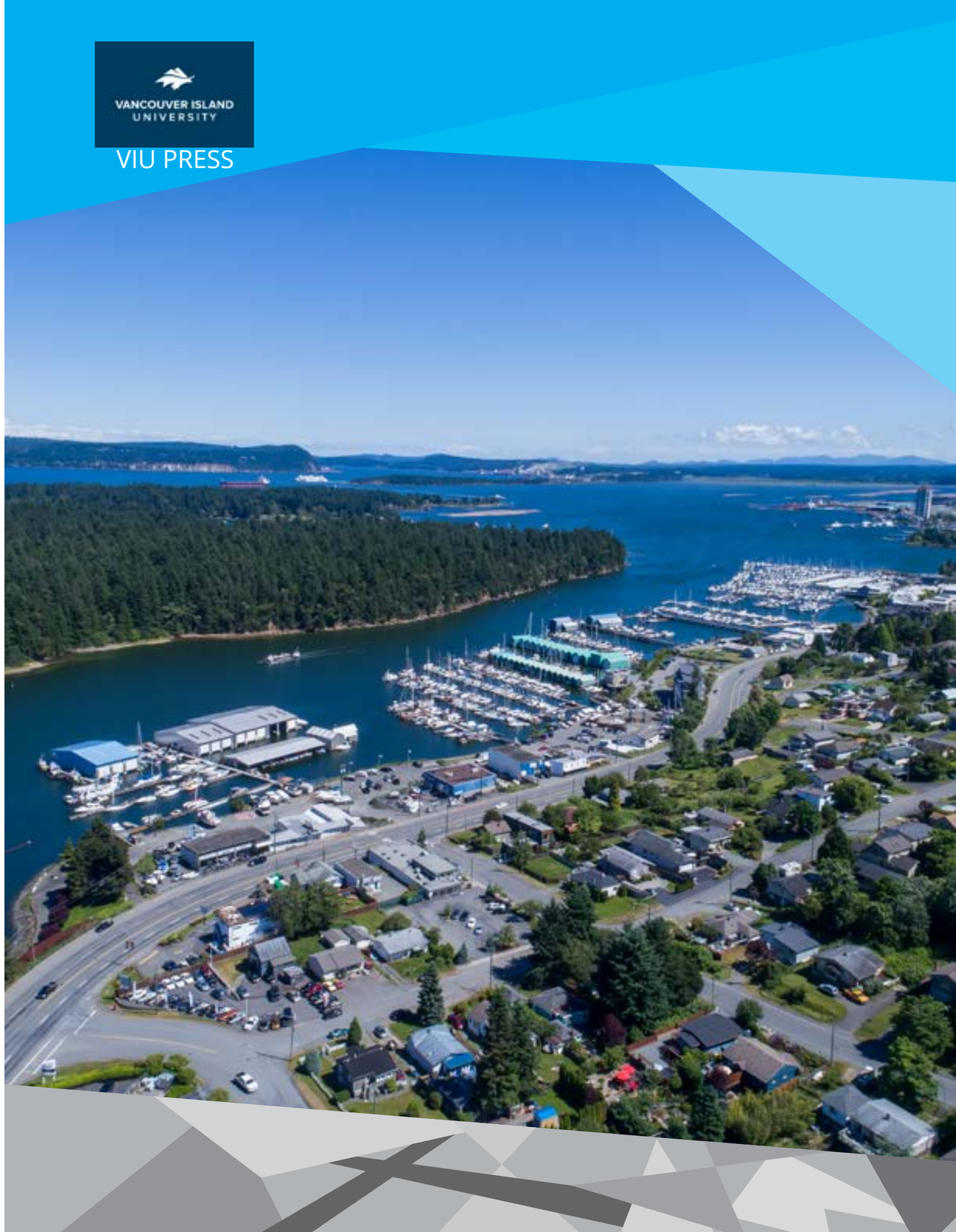
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