

**CITY STORIES:
FROM NARRATIVE TO PRACTICE IN VANCOUVER'S
OLYMPIC VILLAGE**

by

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Abstract

Calls for a more thoughtful and wholehearted inclusion of the humanities and social sciences in defining and answering questions of sustainability have highlighted the importance of integrating a more comprehensive range of values, knowledges and perspectives into our efforts to transition towards sustainable societies. Far from an abstract gesture, such a shift has practical implications for the way sustainability policies and projects are conceived and carried out, including the design and assessment of urban sustainable neighbourhoods.

In this dissertation, I show that the study of narrative offers a potent means of untangling the underlying assumptions and meanings embedded within decisions and characterizations of sustainability and sustainable neighbourhoods, which I explore in the context of Vancouver's Olympic Village. I tell the story of this unique urban development from the perspectives of the many voices that have created it, from its first planners to its present beneficiaries. By combining narrative with insights and methods from social practice theories, I show how the sustainable intentions of the Olympic Village have challenged and intersected with the lived narratives of its residents and managers, two key constituencies in the neighbourhood's unfolding. I investigate the neighbourhood as an intervention both structural and symbolic to reveal the normative (i.e. discursive) and performative (i.e. material) dimensions of the neighbourhood's particular narrative of sustainability, and the way these have intervened into residents' and managers' practices, perceptions and identities.

I conclude that while broad metanarratives of sustainability in both policy and media have played strong roles in shaping the lives of the neighbourhood's residents and managers, the neighbourhood continues to evolve as its constituents perform new practices in the landscape. I show the important intersection between social and ecological goals, highlighting the need to consider and support liveability in the pursuit of sustainability. Finally, I show that while the neighbourhood has been instrumental in pushing sustainability efforts forward, it also missed key opportunities to address the expectations and experiences of its future inhabitants.

Preface

This research is the original, independent work of L. Westerhoff and was approved by the UBC Behavioural Research Ethics Board, Certificate # H10-02497. The author conducted empirical research and analysis for Chapters 3 through 7.

Groundwork for the ideas and theoretical framework presented in Chapter 2 were developed in part as a paper delivered by the author during the *Transformation in a Changing Climate* conference in Oslo, Norway and published in the conference proceedings as Westerhoff and Robinson (2013). The author developed all concepts with the assistance of the co-author, and prepared the bulk of the manuscript.

Data collection and preliminary analysis of the material presented in Chapter 4 was conducted with the assistance of research assistant Maura Forrest. The author provided guidance and conducted the final analysis.

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List of Abbreviations

| | |
|---------|--|
| BC | British Columbia |
| BREEAM | Building Research Establishment Environmental Assessment Methodology |
| CASBEE | Comprehensive Assessment System for Built Environment Efficiency |
| COHO | Co-operative Housing Management Service Society |
| COPE | Coalition of Progressive Electors |
| DDC | Direct Digital Control |
| GBL | Gomberoff Bell Lyon Architects |
| GCAP | Greenest City Action Plan |
| GHG | Greenhouse Gas |
| LED | Light-Emitting Diode |
| LEED | Leadership in Energy and Environmental Design |
| NEU | Neighbourhood Energy Utility |
| NGO | Non-Governmental Organization |
| NPA | Non-Partisan Association |
| ODP | Official Development Plan |
| REA | Reciprocal Easement Agreement |
| SEFC | Southeast False Creek |
| SPT | Social Practice Theory |
| SUCCESS | SUCCESS Housing Services |
| VANOC | Vancouver Organizing Committee |

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For you, Dad.

Chapter 1: Introduction

A cool evening in the winter of 2011 found me on my way to meet a small group of friends at a local pub. A relative newcomer to the city and running late, I rushed out of the Olympic Village Skytrain station and fumbled with my phone as I found my way towards the seawall and on to the Tap and Barrel where my colleagues were waiting. As I walked north towards the water, I became increasingly aware of how few people lined the streets, how quiet it had become. Looking up, I saw that the windows of the condos were dark; even the streetlights seemed somehow dimmer. The area held a strange and empty feeling, and I was glad to see the looming glow of the large but lonely pub ahead. I hurried my way towards it and out of the damp gloom of the empty winter streets behind me.

This somewhat dismal first impression of what I later learned was Vancouver's famed Olympic Village gave no hint of the months and years that I would spend puzzling through the history, policy, and controversy of this relatively new place in the city. The area has undergone an incredible transformation over the course of the city's lifetime. Once the traditional hunting and fishing grounds of the Musqueam, Squamish and Tsleil-Waututh peoples, colonization saw the lands slowly change into an important industrial centre for a growing city. Early sawmills were later joined by ship builders, coal yards, metal works and other enterprises, clogging the waters of False Creek and filling the skies with the smoke and sound of industry. It wasn't until the 1970s that these industries began to recede, making way for the residential developments and parks that together with the architectural remnants of Expo '86 now make up the iconic south-facing portrait of the city's downtown core.

One of the last parcels to be developed, Southeast False Creek has its own unique place in this transformation. Envisioned first as an example of low-carbon living and later as a "model sustainable community", the goals of this now-notorious neighbourhood evolved alongside a growing understanding of the sustainability challenge. It reflects the collective yet often contentious visions of City councils, staff and stakeholders, who together sought to change the way cities were planned in the face of climate change and other global pressures. At its heart is an area now known to many simply as 'the Village', the culmination of the highest of these aspirations. Built in time for the 2010 Winter Olympics, the Village became much more than a

temporary home for world-class athletes, but a focal point of stern debates over low-cost housing, government accountability and the costs of green building. Today, it represents a key moment in the broader evolution of Vancouver's continuing efforts to transition towards sustainability, including its current ambition of becoming the world's Greenest City.



Figure 1.1. A view of Southeast False Creek, 1943
(Source: City of Vancouver Archives)

Though I didn't know it then, my venture into the Village that dark evening was during one of its most tumultuous times, when condo sales were slow and both the future of the neighbourhood and the city council's reputation was being heavily questioned. It has since moved on to see brighter days, and while still young has already begun to find its place in the larger fabric of the city. As I write this, the remaining brownfield around the Village is undergoing rapid development, the last dilapidated warehouses scraped away to make room for a new mix of residential, commercial and institutional spaces. When the last construction crews finally leave, Southeast False Creek and its Village will be home to as many as 16,000 residents, each one living out the story of a city's struggle to balance the needs of its citizens with the concerns of a warming world.

1.1 The urban transition

Of course, Vancouver has not been alone in such aspirations of sustainability. With a growing urban population across the world, cities are increasingly recognizing their role as both a major source and potential solution to global sustainability challenges (Bulkeley & Betsill 2005, 2013). The pressures exerted by aging infrastructures and demands for cities to compete for increasingly scarce economic resources are now coupled with (and exacerbated by) rampant resource degradation and concerns of climate change. Today, cities are faced with the need to plan, develop, design, and manage the various systems for which they are responsible in order to reduce or prevent ecological impacts while simultaneously considering the health and well-being needs of the current and future generations that inhabit them. Instead of passively receiving orders from regional or national governments, many cities are choosing to step outside their roles as mere service providers to become leaders in the urban sustainability transition (Hodson & Marvin, 2010; Bulkeley & Betsill, 2013; Nevens et al., 2013; Childers et al., 2014; Evans & Karvonen, 2014).

That said, achieving the sustainable city is not an easy goal, nor is it a fixed or immovable target (Childers et al., 2014). Different actors with unique sets of interests and expertise are beginning to join the conversation, shifting the vision of what constitutes a sustainable urban environment over time (Hodson & Marvin, 2009, 2010; Nevens et al., 2013). This diversity in perspective also means that the mechanisms through which sustainability can be achieved are often heavily contested, with many suggested courses of action falling in one of two broad camps. On the one hand are “technologists” who advocate the need for technical or scientific advances, such as infrastructural upgrades or improvements in the energy efficiency of residential appliances. On the other are the “behaviourists”, or those who advocate for changes to a city’s social and political institutions, and who often place heavy emphasis on the need for individuals to make their behaviours more sustainable (Shove, 2010; Williams, 2010).

While both sides have their merits, scholars and practitioners alike are beginning to realize the limitations of this ‘either/or’ approach and are moving towards an exploration of the important intersections *between* social and physical urban systems. Those working in the sustainability transition literature explore these coupled socio-technical systems as complex arrangements made

up of urban technologies and other material artefacts, as well as the institutional structures, rules, understandings and practices that emerge to govern or guide them (Rip & Kemp, 1998). In this work, neither the technologies that are used nor the ways in which we use them can be explored in isolation, but must be understood as interdependent, each acting on and reinforcing the other. Different structures and systems emerge, become established, and are eventually destabilized through a combination of material and social pressures that see old ways of living replaced by new ones. These shifts can and often do occur over decades, as they require large-scale changes in everything from ideas to infrastructures to institutions. A modern example can be seen in the shift from urban to suburban forms of development: neither technological nor behavioural alone, this shift encompassed changes to a vast array of system dimensions, including transportation planning methods, construction techniques, circulation patterns, cultural norms, and many others.

Explorations of these broad historical shifts from one regime to another have yielded important insights into the nature of socio-technical system change, which some have begun to apply to questions of how our socio-technical systems might be moved towards more sustainable configurations (Markard et al., 2012). The multi-level perspective is often used to conceptualize the different pathways along which such a transition might occur, and distinguishes between three interrelated levels in a system (Rip & Kemp, 1998; Geels, 2002; Geels & Schot, 2007). Under this framework, it is thought that an established *regime*, or the set of rules, institutions, meanings and infrastructures that together make up an existing system, can be changed via one of two broad means. First, *niches* are small, protected spaces that can act to introduce an innovation which, when sufficiently nurtured and empowered, can rise to challenge existing ways of doing something from ‘below’. A good example is the electric vehicle: while it still represents only a very small share of the auto market, adequate institutional, economic and political support could see it rise to challenge the dominance of conventional gasoline-powered vehicles, and the set of practices, skills, techniques and technologies that accompany them. However, both regimes and niches are in turn nested within the broader socio-cultural and ecological *landscape*, which guides the regime into certain configurations. Changes in the landscape can create a new set of conditions that can force a regime to change from ‘above’ – for example, a steep rise in the cost of oil or in the societal status associated with the ownership of electric vehicles could similarly shift the regime towards an electric system. While the destabilization of a regime often happens

spontaneously and without any predetermined outcome, many are increasingly interested in how they might be intentionally fostered by means of the deliberate cultivation and management of niches, or through the establishment of institutions and forms of governance to guide a system towards a different configuration (Kemp et al., 1998; Hoogma et al., 2002; Geels, 2005; Smith et al., 2005; Kemp & Loorbach, 2006; Loorbach, 2010).

It is here that a conceptualization of cities as socio-technical systems becomes compelling. As the providers of many key services, cities have a unique opportunity to create or catalyse shifts in areas of building, transportation, energy provision, and waste and water management. As potent locales for urban experimentation, cities also hold substantial potential in creating and/or protecting niche innovations, both technical and social, that can rise to challenge dominant regimes of urban policy and planning (Geels, 2011; Smith & Raven, 2012). A city's own pilot projects can act as important seeds of transformation, particularly where the benefits of the innovation are widely communicated and where their outcomes are aligned with future policy interests (Van Buuren & Loorbach, 2009; Nevens et al., 2013). Given the emerging interest in sustainability among cities worldwide, there is an important and exciting opportunity to explore the ways in which cities can foster and indeed are already fostering sustainability transitions in the global urban environment (Nevens et al., 2013).

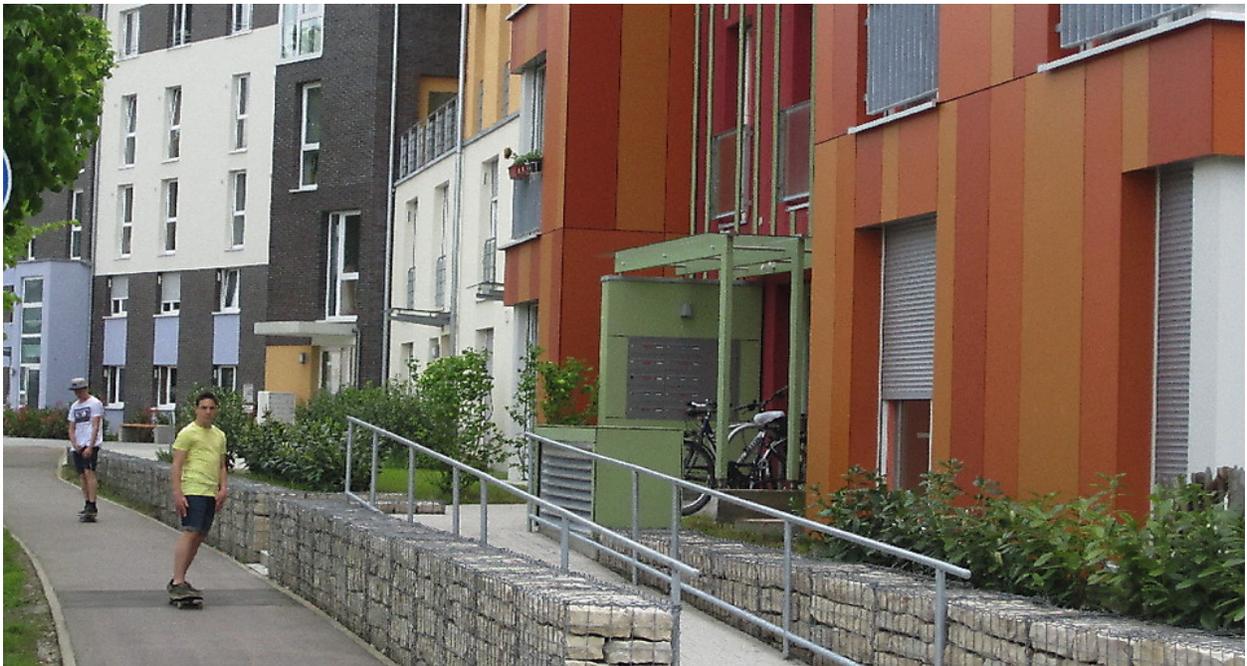
1.1.1 Neighbourhoods as niches

One type of niche activity that is gaining the attention of cities and municipalities across the world is the sustainable urban neighbourhood. As relatively compact spatial units, neighbourhoods form the basis for our daily urban experience, fulfilling multiple functions for living, working, socializing, and meeting daily needs (Clapp & Wang, 2006; Lebel et al., 2007). Their differences add character to the urban environment, and often form the basis for specific identities and place attachments that foster a sense of connectedness or engagement with the cityscape (Kallus & Law-Yone, 2000; Galster, 2001, Kearns & Parkinson, 2001). The developmental trajectories of urban neighbourhoods are influenced by a wide range of factors that guide their form and function, including planning frameworks and regulations, real estate values, broad economic trends, social or demographic shifts, and changing physical or ecological conditions.

Figure 1.2. Examples of sustainable urban neighbourhoods across the world



Beddington Zero Energy Development (BedZED), London (© Tom Chance, with permission)



Sustainable model district of Vauban, Freiburg (© www.vauban.de, with permission)

However, deliberate interventions at the neighbourhood scale hold the potential to effect or enhance broader changes to the established rules of a city's urban development. As such, neighbourhoods can act as "incubators of change" that can introduce notions of sustainability to particular constituencies, trial new technologies, or influence political agendas (Luederitz et al., 2013). While neighbourhoods might be seen or experienced as distinctly bounded physical and social spaces, changes to a single neighbourhood can actually build the capacity and momentum required to initiate larger changes in the urban institutional and infrastructural regime (Seyfang & Smith 2007; Luederitz et al., 2013; Boyer, 2015). Whether they are being retrofitted to improve social and environmental performance or built completely from scratch, neighbourhoods therefore represent an ideal scale for developing and testing new forms of sustainable urban planning and design.

Several cities are already home to neighbourhood-scale sustainability projects, which go by a number of names. "Sustainable urban neighbourhoods", "resilient communities", "Eco-villages" and "Transition Towns" all refer to neighbourhood or community-level efforts to transition towards sustainability. Many of these emerge as community-based initiatives, as in the case of the UK-based Transition Towns movement (Davies, 2015) or in one-off grassroots eco-villages found across the world (Boyer, 2014, 2015); others are developed and championed by advocacy groups or even municipalities themselves, acting in concert with private developers and community stakeholders. Differing in location, extent, form and membership, these efforts nevertheless share in common the broad goal of achieving sustainability in the social, economic and ecological environments (Figure 1.2).

1.1.2 Neighbourhood sustainability assessment

As efforts to make urban neighbourhoods more sustainable increase in number across the world, a number of frameworks for their design and construction have emerged in parallel. Many have already begun to reflect on the necessary goals, resources, processes and criteria necessary for their success, ranging from security, accessibility and economic opportunity, to renewable energy generation, ecosystem rehabilitation and high quality infrastructure, and opportunities for participation, social interaction and cultural engagement (e.g. Berg & Nycander, 1997; Barton, 1998; Churchill & Baetz, 1999; Rudlin & Falk, 1999; Engel-yan et al., 2005; Choguill, 2008).

These broad types of goals are embodied within the many frameworks for sustainable neighbourhood accreditation and assessment that have been developed over the past decade. These assessment systems have largely followed their earlier building-scale versions in identifying distinct performance categories, weighted credits and requirements for each category, and a labeling system to indicate the level of performance that has been achieved (e.g. LEED Certified, Silver, Gold or Platinum). *LEED for Neighbourhood Development*, *BREEAM Communities*, *CASBEE for Urban Development*, *Green Star Communities*, the *EcoDistricts Protocol* and the *Living Community Challenge* are just a few of the frameworks that have been created, all of which are continuously updated to reflect changing knowledge and priorities.

While such assessment frameworks have been important to the dissemination and uptake of approaches to sustainable building and neighbourhood development, they have not gone without some critique. To begin, many have pointed out that the relationship between the neighbourhood and building scales has gone relatively ignored. As important nodes within neighbourhoods, buildings are where many resources are consumed and where the potential to reduce resource use and improve overall well-being is high. However, buildings nevertheless receive little attention in neighbourhood scale assessments (Luederitz et al., 2013; Cole et al., in press), nor do the relationships between buildings, landscapes, infrastructures and neighbourhoods more broadly (Haapio, 2012).

Second, some have issued the critique that assessments often take the form of generic checklists that pay little attention to context (Luederitz et al., 2013). Certain criteria may be inapplicable to specific projects – for example, the consideration of renewable energy provision may make little economic or ecological sense in an area already served by a renewable form of energy such as hydroelectricity. Neighbourhood assessments are also restricted to the area of the neighbourhood itself, with little to no consideration of the development's effects, positive or negative, on surrounding areas. Constraints at the regime or landscape level are similarly neglected, which may play strong roles in determining the success of efforts to create sustainable neighbourhoods (Næss & Vogel, 2012).

Third, many have argued that while certification schemes assess the sustainability of neighbourhood design, the actual outcome often differs from the intent. This case has been made most strongly at the building scale, where there is increasing evidence for a “performance gap” between the sustainable design intentions of green buildings and their actual performance (Bordass et al., 2004; Turner & Frankel, 2008; Scofield, 2013; Fedoruk et al., 2015), but apply to the neighbourhood scale as well. This discrepancy may be in part due to way in which neighbourhood sustainability assessments are conducted. Cole et al (in press) note that in many assessment frameworks, credits awarded for the design and construction of neighbourhoods often overlook or underemphasize important procedural aspects, resulting in a “top-heavy” approach to neighbourhood planning to the exclusion of full stakeholder involvement in the selection and weighting of different criteria (see also Komeily & Srinivasan, 2015). While social and cultural dimensions are often included (in the form of contributions to the local community, for example, or by supporting community vibrancy), many frameworks neglect to reap the benefits of ongoing participation of communities of stakeholders in the various stages of a project, from the neighbourhood’s initial design through to the evaluation of its success (Berardi, 2013; Orova & Reith, 2013, Sharifi & Murayama, 2013, 2014; Komeily & Srinivasan, 2015). Cole et al. (2008) further posit that given the increasingly complex technologies used in sustainable buildings, there is need for continuous dialogue and engagement between the inhabitants of a building (or neighbourhood) and its operations in a process they call “interactive adaptation”.

Finally, much of the work that has sought to evaluate sustainable buildings and neighbourhoods has been predominantly preoccupied with quantitative measures of performance in the achievement of environmental (i.e. ecological or emissions) goals or indoor air quality (e.g. Cloutier et al., 2014; Karatas & El-Rayes, 2015). While these are central to understanding building and neighbourhood performance, they have largely neglected the more qualitatively felt, experiential dimension of being in these environments, including the physical and social effects such projects have on the daily lives of their recipients. This includes both the ways in which such experiences are guided and shaped by particular ideas of neighbourhood sustainability, and how these experiences in turn shape what these efforts come to be, represent and achieve (e.g. Churchman & Ginosar, 1999; Turcu, 2012; Freytag et al., 2014).

1.1.3 A new sustainability

Embedded within these critiques are ideas that are beginning to find their way into broader discussions around sustainability, some of which have been influential in shaping my own thinking on the causes and solutions to sustainability. Many of these ideas flow from the recognition that the prevailing approach to sustainability is rooted in the assumption that problems can be solved simply by improving our understanding of the properties and dynamics of coupled social-ecological and/or socio-technical systems (O'Brien, 2012; Miller et al., 2013). What this approach implies is that once we fill the gaps in our understanding, we will have all the answers we need to transition towards a sustainable society. It has also given rise to what has typically become an expert-driven and science-based method of defining, studying and finding solutions to sustainability problems. Though this science-based model of sustainability studies has produced important insights and significant advances in our understanding of socio-technical systems and their dynamics, the risks and limitations of this model are becoming increasingly evident.

Robinson and Cole (2014) boil these down to four main issues that have arisen from its application. First is the tendency to characterize human activities as inherently harmful which, as I'll explain more in the next chapter, has precluded many from wanting to engage with it at all. Sustainability issues often feel remote or irrelevant to the everyday citizen, devoid of the "moorings" to any local, subjective or otherwise contextual understanding and experience of the world (Jasanoff, 2010, p. 234; cf. Moser & Dilling, 2007; Tábara & Chabay, 2013). Second, this focus on harm and harm reduction ignores both the need and the potential of more restorative solutions that go *beyond* reducing harm to actually rehabilitating existing damage done to global ecological systems. Third, a general tendency to focus on environmental dimensions has led to the neglect of the important relationship between ecological and social justice, or well-being (Agyeman, 2003; Lombardi et al., 2011; Rogers et al., 2012). Finally, the dominance of science-based expertise as the foundation of decision-making for sustainability has excluded the participation of other knowledges and communities in the process. The separation of fact from value and subject from object that the scientific method has sought to achieve has actually served to obscure the inherently socially and culturally constructed nature of sustainability issues (Robinson & Maggs 2015). As Castree and his colleagues have passionately argued, the

predominant approach offers “little or no sense of humans as diverse, interpretive creatures who frequently disagree about values, means and ends; and there is nary a mention of power, violence, inequality and the perennial desire of some people to replace one socio-environmental regime with an entirely different one” (Castree et al., 2014, p. 765; cf. Stirling, 2014).

In response, calls have been made for an “opening up of knowledge systems” to include a range of knowledges in the definition and evaluation of sustainability problems and the courses of action required to address them (O’Brien, 2012; Tábara & Chabay, 2013; Cornell et al., 2013). “We need new coupled epistemologies and a new ontology of knowledge”, Tábara and Chabay (2013) have argued, “one that acknowledges and uses the essential and intrinsic value of multiple sources and configurations of information and knowledge systems that are relevant for sustainability” (p. 72). To do so, many have argued, requires an embrace of disciplines that have traditionally been either ignored or simply incorporated into existing scientific framings, particularly those that come from the social sciences and humanities. It entails taking seriously the knowledge and experience of diverse communities, each with their own unique set of worldviews, institutions, values and visions. Finally, it begs an understanding of sustainability not as a fixed state or goal, but a process through which multiple perspectives are brought together to learn and envision the world as we want it to be, socially, economically, and ecologically (Robinson, 2003, 2004; Robinson & Tansey, 2006; Cornell et al., 2013; Miller et al., 2013). The considerable complexity and high levels of uncertainty that characterize sustainability problems make a simple increase in the amount or quality of information unlikely to actually solve the problems that lay before us (Functowicz & Ravetz, 1993). Instead, what is considered sustainable can be continuously constructed through the combination of scientific and other kinds of “expert” information, and the values, preferences and beliefs of relevant communities, ultimately giving rise to an “emergent, ‘co-produced’ understanding of possibilities and preferred outcomes” (Robinson, 2004, p. 381).

1.2 Approach and research questions

It was in the spirit of this new and different way of approaching sustainability that I decided to craft my investigations into Vancouver’s own attempt at creating a model sustainable community. While many have shown an interest in the neighbourhood’s potential and

performance, there remained an important opportunity to explore the ways in which concepts of sustainability and climate change had been defined, translated and ultimately experienced by the many participants in the neighbourhood's unfolding. To delve into these multiple dimensions of sustainable urban living, I turned to the concept of narrative as a means of teasing out the many different meanings embedded in these simple words. I hypothesized that narratives could offer a means of exploring the ways in which certain constructions of climate and sustainability issues bestow different costs and benefits, imply responsibility or culpability, or suggest different logics or ethics for certain courses of action (see also Harris, 2009). By exploring the many narratives that have emerged in conversations around the Olympic Village (Figure 1.3), my goal was to show how different characterizations of a single place can coincide, compete, and ultimately shape the perceptions and understandings of what a sustainable neighbourhood is, or ought to be.



Figure 1.3. Artist's rendering of the Village
(© 2009 Roger Bailey Inc, by permission)

However, I didn't just want to know the ways that it had been depicted, but also how these depictions compared with the experience of being there. As I noted above, the outcomes of efforts to construct sustainable built environments, whether at the building or neighbourhood scales, are rarely explored after construction. I wanted to know what it was like to live the story of the Village; to find out what worked and what didn't, how the Village was evolving over time, and whether the broad institutional narratives written into either policy or media had played a role

in people's experience of the place. To help in exploring these "lived narratives", I decided to draw on social practice theory, a body of work that has been instrumental in untangling the nuances of "sustainable behaviour" and its impact on improving the sustainability of the built environment (e.g. Hargreaves, 2011; Gram-Hanssen, 2011; Karvonen, 2013). The increasing popularity of social practice approaches is largely in reaction to what many scholars have deemed a myopic focus on the attitudes and choices of individuals to the expense of better understandings of the complex social and material worlds that define, guide, or otherwise inform such choices (Burgess et al., 2003; Hargreaves, 2010; Shove, 2010). Social practice work has shown that every action flows out of interconnected configurations of worldviews, values, skills, infrastructures and technologies that must be understood for any sustainability program or project to be successful. I decided that the addition of the social practice lens would help me to explore the role of narrative as it was reflected in the built environment of the Village, and the way certain technologies, infrastructures and land uses have intervened into the practices of its constituents.

Finally, to ground these ideas into the fabric of the Village, I used theories of place to explore how the interactions between narratives and practices have given rise to a unique neighbourhood with a distinct character and symbolism. As an urban neighbourhood, a neighbourhood such as the Village acts as the meeting point of social, economic and ecological processes and flows that both shape and are shaped by localized patterns of living and working. I explore how this new place in the city is unfolding, as well as whether its presence can be seen as having fostered a broader transition towards sustainability for Vancouver. These broad interests led me to pose the following research questions:

- 1) What kinds of institutional narratives have emerged around Vancouver's Olympic Village, and what do they tell us about how sustainability and sustainable communities are depicted and understood?
- 2) How do these narratives shape or intersect with the actual experience of living or working in the neighbourhood?
- 3) How do these experiences reflect, contest, reinforce or rewrite broader institutional narratives of sustainable urban neighbourhoods?

In asking these questions, I also begin to address the critiques of sustainable neighbourhood assessment. While the Olympic Village received a LEED Platinum award for neighbourhood design and LEED Gold for most of its buildings, neither the continued success nor the lasting effect of this designation has yet been evaluated with respect to the experience of the neighbourhood's beneficiaries. I moreover address the relationship between the buildings and wider neighbourhood plan, and explore the effects of their design and construction on wider City policy and planning.

1.2.1 The blind men and the elephant

Though I bring my own unique approach to the study of Vancouver's 'sustainable urban neighbourhood', I've not been the only one to find this community worthy of a closer look. Parts of the story of the Olympic Village and the larger Southeast False Creek neighbourhood have already been told by other scholars working to understand the nature and shape of sustainability efforts in Vancouver. Irwin (2004), Vaughan (2008) and Sussmann (2012) have all explored the way the narrative of the Southeast False Creek neighbourhood (SEFC) evolved, including the processes, actors and decisions that contributed to final policy texts and strategies. Irwin (2004) provided an evaluation of the SEFC planning process when it was still in its early stages, including the roles of the various actors involved and the decisions that were made leading up to the SEFC Policy Statement. Irwin found that the SEFC policy process made a "valuable contribution" towards sustainable urban development in Vancouver through the explicit definition of what urban sustainable development actually was, as well as the creation of an organized and accessible body of policies that would be applicable to other developments. However, Irwin found SEFC policy to be lacking in its treatment of social and economic sustainability concerns, including aspects of affordable housing, opportunities for community interaction, and incentives for ecologically sound business practices. Irwin concluded that the SEFC planning process had been successful in including the public in decision-making, but that the Policy Statement had achieved only a "weak" level of sustainability overall.

Picking up where Irwin left off, Vaughan (2008) explored the collaborative processes used in the development of SEFC and the extent to which these ultimately influenced the advancement of sustainability goals. Vaughan noted that a strong collaboration between civil society and the

municipal actors involved in the planning process resulted in a comprehensive Policy Statement that successfully integrated the ecological, social and economic dimensions of sustainability. However, as the project reached the implementation stage, Vaughan found that civic participation was minimized in the face of the need to make concrete technical and infrastructural decisions. Vaughan additionally concluded that there had been a “devaluation” of social and ecological sustainability dimensions as a result of tradeoffs with economic concerns.

Most recently, Sussmann (2012) evaluated the SEFC “planning narrative” by outlining the characters, events and issues that contributed to the way sustainability was conceptualized at different states of the planning process. Sussmann detailed the contested nature of sustainability throughout the process by reviewing the perceptions and conceptualizations of sustainability held by the central actors involved in the planning process, and how these finally influenced policy outcomes. In her conclusions, Sussmann is highly critical of what she determines was only an incremental change over conventional development models, and not the transformative approach necessary for SEFC to have been a “truly” sustainable community. Like Vaughan, she critiques the prioritization of economics over ecological limits and social equity, though she credits certain actors, including the SEFC Stewardship Group, with pushing a more comprehensive sustainability agenda.

1.2.2 Chapter outline and contributions

Each of the studies above have told a piece of the story, and were incredibly helpful in providing me with insights into the broader planning and design processes involved in SEFC’s construction. This dissertation draws the story of this unique urban development further along, into the present and the lives lived in the place it has become. The way I present this dissertation is itself a narrative that weaves together the collection of different voices and perspectives to create a larger story of what I understand the successes and failures of the Olympic Village to be. I begin this narrative in Chapter 2 with a more detailed account of the theoretical lenses and methods I use to explore the neighbourhood, including a deeper explanation of the contributions of narrative theory, social practice, and place to the study and practice of sustainability. The chapter is my own account of the evolution of these literatures and some of their more relevant applications,

and describes the way I've approached narrative as both an 'object' of study as well as a powerful method of eliciting lived experience.

Chapter 3 tells the story of the City of Vancouver and the way policy-making and planning have evolved over time, including the way in which concepts of climate change and sustainability have emerged, gained prominence and changed. I explore the impact of key events such as the 2010 Winter Olympics on the way sustainability policy has been designed at the City, and position SEFC and the Olympic Village within this broader narrative trajectory. I show how the environmental policy and planning narrative of the City has shifted from a focus on liveability and environmental protection to one of urgent climate action, both of which are eventually subsumed within a contemporary approach that, despite its focus on being "green", has begun to merge the previously separate concepts of sustainability and liveability together. The chapter also begins to show the effect of the niche neighbourhood of SEFC and its Olympic Village on the broader regime of city planning.

In Chapter 4, I turn to SEFC and the Olympic Village more specifically by offering a detailed analysis of the way the neighbourhood was depicted in local and national newspaper media over the lifetime of the project. Far from a simple trajectory from design to construction, my review of newspaper articles spanning 1999 to 2014 reveals the development of the neighbourhood as a highly contested and tumultuous project that was used to articulate entrenched narratives around fiscal responsibility, government transparency, housing affordability and the high costs of "green". These somewhat simplistic caricatures of sustainability and sustainable neighbourhoods both reflected and shaped public opinion of the development, and eventually influenced the minds and hearts of policy-makers, politicians and even its future residents. In characterizing the different stories that have emerged around it, I begin to develop a typology of different narratives of the Olympic Village from different sources, or authors, and show a single place may be represented differently according to different narrative voices, their aims and their worldviews.

I begin to contrast these narratives in Chapter 5 with an analysis of the neighbourhood's "official story", tracing the narrative of sustainable urban neighbourhoods through the major policy and planning documents that guided the neighbourhood's development. Drawing on interviews with

key members of the planning and design teams, I unpack the neighbourhood's goals and promises of comfortable, sustainable living and describe the narrative of transformation that it embodied. In the second half of the chapter, I detail how this narrative was eventually translated into the specific landscapes, infrastructures, buildings and technologies that make up the Village's built environment. In exploring this translation from policy to built narrative, I show that while its realization remained faithful in many ways, the process saw some dimensions diluted or unrealized, with consequences for the achievement of its sustainability goals.

In Chapters 6 and 7, I bring the story of the neighbourhood into the present with an exploration of the lived experiences of the Village of two major groups that make up its community today. Chapter 6 details the experiences of Village residents, including the ways in which moving to the Village have changed the way they think, act and live. I investigate the way in which broad narratives from both media and policy have played a role in their everyday lives, and then explore where shifts in everyday habits and routines have been elicited by the selection of certain landscape, building and unit features. In Chapter 7, I present the challenges, insights and frustrations of those who have managed and operated the Village buildings, including maintenance coordinators, housing managers and strata council presidents. Both sets of lived narratives reveal the actual experience of being in a neighbourhood designed with sustainability intentions and highlight the ongoing challenges to achieving those intentions, offering important lessons for future efforts at sustainable neighbourhood design and construction.

As a whole, the dissertation contributes a thorough exploration of one city's attempt at defining and ultimately creating a sustainable neighbourhood, from initial design through to inhabitation. By coupling narrative with both social practice and place, I probe the relationship between narrative, materiality and practice to understand how these kinds of sustainable neighbourhoods may actually be fostering shifts towards sustainability. As I'll show in the next chapter, the process through which a particular narrative can actually effect a transition towards more sustainable societies is still poorly understood. Through my exploration of the Olympic Village, I begin to answer questions about the role of narrative in shifting practices, both discursively and performatively, or through its materialization in the design of the built environment. Finally, I explore the connections between liveability and sustainability priorities to make some comments

on their complementarities and the importance of integrating place-based and social dimensions into the design and evaluation of sustainable neighbourhoods. Through this in-depth form of post-occupancy assessment, I shed light onto the way this particular neighbourhood has unfolded and what we can learn from it to ensure certain approaches or issues are avoided through improvement in processes of design and operation. I explore the changes that the neighbourhood has fostered and in doing so begin to understand the larger potential of the Village as a niche for fostering a sustainability transition.

Chapter 2: From Narrative to Practice

To guide my inquiry into the Olympic Village, I've developed an interdisciplinary framework that combines the insights and contributions from narrative and social practice theories. Together, these two literatures offer a means of exploring both the discursive dimensions of the narratives that have emerged around this unique neighbourhood, as well as their materialization in the technologies and infrastructures that make up the Village today. Combined, they also allow for an exploration of what I call lived narratives, or the performances of patterns of practice that may either act to contradict or reinforce broader narratives about the Village. By considering a third body of scholarship on place, the framework is further able to show how these performances may be acting to create a new and transformative place in the city.

2.1 The narrative turn

'Narrative' is a concept that finds its roots in literary studies, a scholarly tradition dating as far back as the first Biblical interpretations, in Aristotle's genres of epic, tragedy and comedy or, further still, in the mythologies of ancient cultures. Its modern usage is frequently associated with the literary investigations of the Russian formalists, French structuralists, and the American tradition of new criticism (Polkinghorne, 1988; Ricoeur, 1991). A recent surge of interest in narrative, however, has transported both narrative theories and methods into a multitude of other disciplines, including history (White, 1984; Cronon, 1992), political science (Fisher, 1984; Roe, 1994), psychology (Polkinghorne, 1988; Bruner, 1991, 2004), health education (Mattingly, 1998; Diekelmann, 2001) and sociology (Richardson, 1990). Not just in scholarly work, the word 'narrative' has come to enjoy widespread use in today's media and popular culture, referred to in everything from political commentary to boardroom meetings, culture and design magazines, and online blogs. Its common usage seems to encompass a wide array of meanings, used to indicate the thread of a conversation, an underlying intent, a general theme, or simply the telling of a story. As a result of this diaspora, in today's discourse "narrative is everywhere" (Richardson, 2000, p. 168).

But why this apparently sudden rush to embrace narrative? In both my own experience and the wider scholarly literature, the enthusiastic "turn" toward narrative is largely a response to the failure of contemporary models of understanding human behaviour to acknowledge either the

plurality or situatedness of human experience (Czarniawska, 2004; cf. Bruner, 1991; Meuter, 2011). Following in the steps of post-structuralist and social constructivist traditions, this turn *toward* narrative constitutes a turn *away* from rational scientific approaches that propose a single way of looking at reality. This form of knowing is what Jerome Bruner (1991) called the logico-scientific or *paradigmatic* form of cognition, which assumes a reality independent of our understandings or interactions with it, to be encountered and verified through the logical and systematic collection of data. Thinking paradigmatically is to approach reality as a set of observable phenomena to be categorized, described and explained, made possible by the separation of the observer and the observed that is fundamental to the scientific worldview (Kuhn, 1962).

Conversely, a *narrative* form of knowing is one that explores reality in terms of the subjective meanings we ascribe to our lived experience of the world. Such an epistemology is based on the idea that we, as humans, understand the world through *story*: we live out our lives through story, fulfilling our natures as storytelling organisms who lead “storied lives on storied landscapes”, at once “engaged in living, telling, retelling and reliving stories” (Clandinin & Connelly 1990, p. 4). We use stories to understand and convey our experiences, make sense of events or conflicts, and account for transformations, both real and imagined. More than a way of communicating our experience to ourselves and others, then, story is itself the fundamental way we experience the world (Ricoeur, 1985; cf. Meuter, 2011). Our stories convey the purpose, direction and meaning that we see or give to our lives, often in a tri-part structure of beginning, or initial state; middle, or some kind of change or struggle; and end, or resolution.

In his work on *Life as Narrative*, Jerome Bruner explains that through our habit of telling of stories, we have actually developed a “recipe” for organizing our lived experience, “to segment and purpose-build the very ‘events’ of a life” (Bruner, 2004, p. 694). “In the end”, he tells us, “we *become* the autobiographical narratives by which we tell our lives”. Narratives can therefore be thought of as the principal means of organizing human experiences, actions and events into temporally meaningful episodes (Fisher, 1984; Polkinghorne, 1988). They are the “lessons of poetry” that both constitute universal human experience while allowing for a multiplicity of stories, or “truths”, each with its own unique position in space and time, wrought from our

interactions with each other and with the world (Lyotard, 1979; Bruner, 1991; Ricoeur, 1991; Fisher, 1984; Squire, 2008). Narratives do not simply reflect our experience, but hold the power to create it, with sometimes important consequences in the “real” world.

2.1.1 Exploring the role of narrative

In wading through the narrative literature, I discovered that ideas on narrative and the role it plays take several different forms, from more structural analyses of narrative in literary works (e.g. Labov, 1973; Barthes & Duiset, 1975), to the study of spoken narrative performances (e.g. Boje, 1991; Maines & Bridger, 1992). My own understanding of the value of narrative is in its ability to reveal the deeper meanings embedded in the stories we tell – in other words, by revealing the fundamental understanding of the world that our stories imply. When we tell stories, whether it be in person, prose, or policy, we convey and reinforce certain values, ideas and norms. The story someone tells (and the way they tell it) provides insight into the way the teller makes sense of events or experiences, and the way they understand something as it “really” is, was, or could be (Squire 2008: 8; Riessman 2008). The narratives underlying these stories therefore reveal our values and intentions, identities and ideals; by unpacking these narratives, we are allowed entry into the socially-constructed meanings that exist in the world, found not only in individual accounts of experience, but in broad socio-cultural discourses that shape our collective notions of what is real, valuable or true.

As individuals, the stories we tell often contain a narrative of some kind of challenge met and the outcome of that challenge – that day I outsmarted my boss, or that time I convinced my wife to marry me. But within that story is a host of logics, values and expectations that convey not just the kinds of things that a particular person has done in their world but “what that world does to that someone” (Mattingly, 1998, in Riessman, 2008, p. 22). In teasing apart the narratives in these accounts of life, we can get a glimpse of what it is like to be that person, to be in that particular story, and the kind of world that such a story even presupposes. It offers us a sense of how that someone’s notions of self or identity are formed, what their hopes and dreams consist of, where their loyalties lie.

Where similar kinds of stories come to be shared across an organization or community, they offer much more than a tale of experience, but give its members a foundation for shared meaning and purpose. At this level of society, stories that are told aren't just about the kinds of activities that a group engages in, but are the means of ordering and understanding those activities themselves that transform disparate events into meaningful wholes (Maines & Bridger, 1992). Collectively shared stories help to consolidate a feeling of group boundedness or inclusivity, make sense of historical developments or recent events, or introduce newcomers to established routines. The exploration of these shared narratives can therefore offer insights into the ways of thinking or doing that maintain a group's shared identity, and by extension to its continued existence (Polkinghorne, 1991; Rappaport, 1995; Czarniawska, 2004).

Where such stories are shared across even larger scales of time or space, they may come to constitute the worldviews and understandings common to a larger culture or society. In Bruner's words, these are the "coin and currency" of a culture, powerful in their ability to lend legitimacy to certain ways of doing or thinking that develop over time (Bruner, 2002, p. 16). As with community or organizational narratives, these 'metanarratives' allow for the collective understanding of the world through the constant perpetuation and negotiation of what constitutes common sense or an acceptable way of acting (Riessman, 2008). Read "narratively", cultural artefacts from arts to advertising can reveal the social norms, understandings and expectations that are perpetuated through mass media and other social institutions that shape culturally-informed ways of thinking and acting in the world.

In this sense, I liken metanarratives to "discourses" that assert particular claims as more truthful or accurate over others and in doing so maintain particular structures of power (Foucault 1972). The stories we tell in our everyday lives often reflect these broader metanarratives, reinforcing the status of "truth" conferred to the ideas within them. While often deeply entrenched, metanarratives can however be contested or challenged by alternative "niches" or counter-narratives that may eventually come to replace the dominant storyline(s) of a culture, including the definition and significance of key historical moments. One contemporary example is the constitutional right to gay marriage: once a niche or fringe worldview, the queer rights movement has begun to shift both notions of what constitutes marriage and the social and legal institutions

that support, bestow or define it. Such metanarratives are constituted by us yet they shape our collective experience of the world; we are both their product and their producer. Exploring how narratives from different scales and sources arise and interact can therefore reveal how certain narratives are formed, come to assume dominance over others, or are contradicted and eventually replaced (Squire, 2008; cf. Merchant, 2004).

2.1.2 Narratives of sustainability

As I found, neither the study nor practice of sustainability have been exempt from the turn towards narrative. As in other fields of inquiry, this turn towards narrative reflects a widening embrace of post-structuralist and social constructivist epistemologies that emphasize the culturally-constructed nature of sustainability definitions, programs and policies. The applications are moreover as variable as in other fields, ranging from broad explorations of metanarratives to individual experiences. In my review of the use of narrative in sustainability literatures, I noted a few broad trends to date.

First, many recent applications of narrative represent attempts to characterize and compare different metanarratives of sustainability as they are held across social or political groups with differing aims and values. These draw on well-known work in environmental discourse (e.g. Hajer, 1995; Dryzek, 1997, 2013; Healey, 1997; Healey & Shaw, 1994), that have sought to understand how the different interests and aims of differing political communities result in the selection of particular pathways towards sustainability over others. For example, Dryzek (1997) presents a framework of eight “environmental discourses”, differentiated from one another by the degree to which they accept or refute the dominant discourse of industrialism, as well as their position along a scale from radical to prosaic. Dryzek further situates each of the eight discourses under one four broad categories (*survivalism*, *environmental problem solving*, *sustainability*, and *green radicalism*) to show how despite sharing similar goals, different understandings and presentations of environmental issues can result in widely varied responses. Though she uses a different approach, Healey (1997) similarly notes four “grand narratives” in broader environmental discourse that represent differing understandings and interests: 1) a narrative of the earth as a pool of assets to be used; 2) a narrative of systems and finite carrying capacity; 3) a

narrative of the environment as “our world”, and 4) the environment as a cultural conception (cf. Meppern & Bourke 1999).

A second body of work has explored the manifestation of these broader sustainability narratives around more localized phenomena by tracing, for example, the evolution of particular environmental or climate change narratives as they are found in media (McComas & Shanahan, 1999; Antilla, 2005; Boykoff & Boykoff, 2007; Doultou & Brown, 2009; Ryghaug, 2009; Wright & Reid, 2010; Fløttum et al., 2014) or in decision making forums (Liverman, 2009; Meppern & Bourke, 1999; Knox-Hayes & Hayes, 2014). Many of these scholars have critiqued the ability of scientifically-determined accounts of environmental phenomena or risk, often produced by scientists and policy-makers, to effectively capture the experience and knowledge of affected communities (e.g. Agyeman et al., 2007; McNeely & Huntington, 2007; Bravo, 2009). Filling this gap are an increasing number of scholars using narrative methods to gain an understanding of individual experiences of actual or imagined environmental risks (e.g. Satterfield, 2001; Harris, 2009), or to compare them with those embedded in sustainability policy at broader scales (e.g. Cruikshank, 2001, 2005; Wallace, 2005; Lejano et al., 2012; Birchall, 2014).

A third approach to narrative can be found in work that has explored its potential as a tool for communication and mobilization, or a means of presenting information on sustainability or climate change in such a way as to make it more accessible, palatable and ultimately convincing to a given audience. This approach has increased in its popularity in recent years in response to the growing recognition of the disconnect between global environmental phenomena and local meanings, and the call to re-link “larger scales of scientific representation with smaller scales of social meaning” (Jasanoff, 2010, p. 238). As such, some have suggested the use of story to convey the relevance or urgency of climate and environmental risks with local concerns and sensibilities (Kearney, 1994; Leiserowitz, 2006; Moser, 2007; Lejano et al., 2012; Dahlstrom, 2014). Recent work on landscape visualization and climate change is moving in the same direction, suggesting that the use of narrative in such visualizations may help to connect climate change issues to familiar places and experiences of the landscape (Dockerty et al., 2006; Sheppard, 2012).

2.1.3 Finding the “right” narrative

This third body of literature raised some interesting questions for me regarding the appropriateness or effectiveness of the role of narrative in efforts to transition societies towards more sustainable configurations. Many scholars, activists and interest groups have argued for a stronger and more compelling narrative that conveys the finite nature of resources on the planet and the need to use these more wisely to avoid catastrophic impacts to both human and ecological systems (e.g. McKibben, 2005; Rockström et al., 2009; Rees, 2010). This narrative is often positioned as a necessary counterpoint to narratives of irresponsible consumption and unrestrained economic growth, and viewed as a more important and accurate narrative of constraint and limitation on human activities that are inherently harmful to the planet.

While this narrative is at first compelling, I’ve come to see that the assumption of a single ideal sustainability narrative ignores the foundations of narrative theory and the multiplicity of different truths and understandings that narrative approaches can reveal. To present a singular narrative around sustainability furthermore represents a simplistic and unidirectional system of knowledge construction and transmission that disregards the growing evidence of the situated cultural and political nature of knowledge and knowing (Hulme, 2007; Kahan, 2010; Cole & Robinson, 2014). Robinson (2003, 2004) has characterized this form of sustainability engagement as a form of “persuasive communication”, in which actors in positions of power determine what information is important and how it ought to be communicated (in this case, through story) in order for the intended audience to take it up. Such approaches also tend to focus on effecting shifts in individual behaviours to the neglect of larger, systemic causes and conditions (see also Robinson et al., 2011; Tanenbaum et al., 2011; Antle et al., 2014). These can be positioned in contradiction to an ‘emergent dialogue’ approach that encourages the participation of all members of a culture, group or society in co-constructing a new and collectively resonant narrative of sustainability (Bendor et al. 2012).

Moreover, such a narrative in fact risks perpetuating an ineffective and even maladaptive theory and practice of sustainability. As I noted in the introduction, a narrative based in denial and limitation has been shown to contain what Robinson and Cole (2014) have called an “inherently uninspiring” message that, contrary to its intended goal of inciting action, risks inducing even

greater feelings of apathy and helplessness than are already commonplace (Lowe et al., 2006; Moser, 2007). They furthermore argue that a focus on doing *less harm* to the planet comes short of the necessary remediation and rehabilitation of the earth's ecosystems, and neglects crucial social dimensions important to the achievement of sustainability. In contrast, they call for a sustainability narrative that is “much more engaging, that goes beyond harm reduction and damage limitation, and one that broadens beyond environmental dimensions of sustainability and a narrowly realist view of science and technology” (Robinson & Cole 2014: 5). Such a narrative, the authors argue, can be found in the concept of regenerative sustainability, which presents an alternative characterization of the sustainability question and our role within it. Instead of a narrative of our inherent culpability and the need for harm reduction, regenerative approaches instead focus on *adding value* to existing social-ecological systems. Under a regenerative framing, human activities are not deemed inherently harmful but seen as able to contribute to the well-being of human and other life. The intended outcomes of regenerative sustainability actions are therefore *net-positive*, replacing a narrative of doing “less bad” with doing “more good” (Cole, 2012; du Plessis 2012; Mang & Reid, 2012; Waldron et al., 2013). Such a narrative must furthermore be developed through the participation of a range of perspectives, each group contributing their own small piece to the production of a larger, co-created sustainability narrative.

2.2 The material dimension of narrative

Notwithstanding some of the more problematic applications of narrative, the inclusion of narrative concepts into sustainability work have yielded fruitful insights into the importance of including different sources of knowledge and experience into the design of sustainability solutions. What the body of work reviewed above shows, however, is that while their material effects are often inferred or implied, narratives have largely been considered as expressions of individual or collective meaning, or the symbolic and largely immaterial aspects of sustainability. As a result, questions remain as to the way narratives actually interact with or even influence the material world. In other words, to what extent do narratives play a role in actually inciting the much-needed transformation towards sustainable societies? Answering such a query is difficult since, as noted by Squire (2012), narratives “do not fully determine the material world” (p. 53-54); where a new narrative is introduced, it may not have a direct effect on the material world but

may instead have only a peripheral or tangential relationship to material changes that occur. Narratives moreover both affect and are affected by “multiple, overlapping social processes”, making their exclusive effects difficult (if not impossible) to isolate (Squire 2012, p. 54).

However, the question of how narrative intersects with the material world is a crucial one, particularly in the context of the very material shifts in land uses, infrastructures and technologies that are required to transition our society towards sustainability. With the often-cited and notable exception of Latour (2005), narrative theory and analysis has tended to neglect the material dimension in an attempt to refocus attention on processes of social construction. My aim is to swing the pendulum back again and explore this connection more fully which, over the next few pages, I do by drawing together the insights from narrative philosophy with contemporary work in social practice theory (SPT). Combined, I believe these approaches can offer one method of understanding how the meaningful and the material intersect, including the way in which policy narratives can play out as material entities that in turn shape or interact with the lived experiences of our every day. In the next few sections, I outline some key points from SPT, some of its major contributions to understanding sustainability in the built environment, and the ways I see these two largely disparate bodies of literature coming together.

2.2.1 Foundations and concepts of social practice theory

As many authors writing on the origins of social practice have already noted, no one theory of social practice yet exists; instead, a set of concepts derived from classic works by Wittgenstein (1958), Heidegger (1962), Giddens (1984) and Bourdieu (1977) have together set a foundation for contemporary investigations of social phenomena that share a particular set of ideas. Like narrative, work under the umbrella of social practice has emerged in contradiction to positivist frameworks that characterize human interactions as operating either under the causal influence of higher structures, or in predictable fulfillment of privately held whims, desires and needs (Shove, 2012). In this vein, Shove has been particularly critical of the prevalent approach to climate and sustainability policy based in this characterization, which she calls the ‘ABC’ model. Those working under this model, she notes, assume that change can be achieved by influencing the values and (A)ttitudes of citizens, often through the provision of information or incentives, in order to change their (B)ehaviour towards more sustainable forms, which they have the (C)hoice

whether or not to adopt. Shove has convincingly argued that such an approach leaves much to be desired, especially when considering the ample evidence for a gap between the purported values of individuals and their actual actions (Blake, 1999; Kollmuss & Agyeman, 2002). Such approaches are furthermore often decontextualized, producing generalized conclusions of the drivers and barriers to behaviour change (Shove, 2003).

In place of this linear understanding, social practice approaches instead consider our social worlds as a complex and emergent property of repeated patterns of social interaction which take the form of social practices. Reckwitz (2002) defines social practices as

“routinised type[s] of behaviour which consist...of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge” (249).

Schatzki (1996) breaks this definition down further by referring to social practices as both *entities*, or the broad configurations of practice as they are widely dispersed both spatially and temporally, and *performances*, or the patterns of bodily behaviour observable when we actually “do” a practice. The relationship between practices-as-performances and as-entities is complex and mutually-reinforcing: as we perform practices, we are in effect perpetuating the existence of practices-as-entities, and in doing so ensure their continued survival over space or time (Reckwitz 2002). For example, as we play a game of soccer, we are reinforcing the elements of the sport and the systems that support it, from the manufacture of soccer balls to the chanting of cheers. Practices are performed through the daily routines that make up everyday life, bound spatially as we move between places of work or play, and temporally through the imposition of socially-constructed configurations of time, such as seasonal calendars, holidays, and work hours (Johnsson, 2012).

Instead of simply attitudes and behaviours, then, social practices are instead thought of as complex collections of structures, rules of conduct, and appropriate roles and rituals that we learn upon entering a society (Johnsson, 2012). In order to perform a practice at all, we must have some prior idea or understanding of what the situation demands – to eat at a restaurant, for example, requires some understanding of communal eating, table service, payment options, and so on. This concept of a pre-cognitive and underlying knowledge of the “right” way to do things

is central to the concept of social practice, drawing on ideas of rule-following and interpretation set out by Heidegger and Wittgenstein (see Rouse, 2007 for a full exploration). These general rules and expectations for a given practice are shared among the members of a society and form the background to our performance of a given practice (or what Bourdieu refers to as the *habitus*). In our performance of practices, we both draw on this background field of knowledge and simultaneously perpetuate it.

Objects and technologies (or what Reckwitz calls *things*) form a second crucial component to practice. As with the rules of a practice, material arrangements both affect the shape of practices while being themselves affected, altered or used. Schatzki (2011) has come up with five different ways in which material arrangements and practice interact. First, practices and materials may interact *causally*, one directly affecting the other. Arrangements may secondly *prefigure* practices (and vice versa), in the sense of setting future conditions for their likely emergence (akin to the concept of path dependence as applied in socio-technical systems literature, see Geels, 2004). Thirdly, where materials are fundamental to the existence of a practice (for example, in the way that the presence of a river is essential to the practice of generating hydroelectric power), they are said to *constitute* it. Finally, where we have thoughts about a material component of practice or where it comes to generate certain meanings for us, the relationship between material and practice is one of *intentionality* or *intelligibility*, respectively (Schatzki, 2011).



Figure 2.1. Tripartite model of social practice

This last form of interaction relates to the third and final component of practice. As we perform practices we imbue them with meaning, which in turn influences the odds of their repeated

performance. The meaning we give to a certain practice is derived from what Schatzki terms our “teleo-affective structures”, or the purpose or significance that we ascribe to something that we do. Perhaps obviously, we do not simply perform practices without feeling that it has some lasting relevance or purpose that resonates with our individually and collectively held feelings and values, including religious beliefs and cultural norms (2002; cf. Gram-Hanssen 2011). The meaning of a practice can be as simple as the comfort it brings us, or one that takes on more symbolic value, such as the association of a car with feelings of freedom or independence. Shove and Pantzar (2005) capture these fundamental characteristics of practice as three principal elements of practices-as-entities that they refer to as *competences*, *materials* and *meanings*¹ (Figure 2.1).

2.2.2 Explaining persistence and change

Under practice theory, it is the reproduction of social practices across space and time that ensures their continued existence in relatively stable forms. Efforts to understand how this actually occurs have been notably made by Shove et al. (2012), who explain that social practices “emerge, persist, shift and disappear when *connections* between elements of these three types are made, sustained or broken” (p. 14-15). To persist, practices must constantly recruit new practitioners by remaining relevant, retaining their value and meaning, and maintaining the same basic materials. For example, the prevalence of mobile phone communication has been consistently maintained over the last few decades through both the continued maintenance and upgrade of mobile devices and infrastructure, as well as an increasing emphasis on personal and professional mobility, heightened abilities and preferences of younger generations in using text as a primary form of communication, and the social status conferred to the ownership of the latest mobile phone models.

Of course, variations in the various performances of a practice do occur as people integrate the three elements in different ways, depending on the time and place of the performance (Warde,

¹ In his definition of practice, Reckwitz draws on the work of Schatzki in noting a fourth element of “embodied action” that acknowledges that practices-as-performances necessarily involve the body (see also Gram-Hanssen 2011). This more performative dimension is similar to Bourdieu’s habitus in that it draws on an often underlying or tacit knowledge, but can be honed and perfected in what might also be referred to as “skill” (Ingold, 2000).

2005; Kuijer & Bakker, 2015). Text messages take on significantly different forms and meanings between for example, a young farmer in Northern Ghana and a café owner in Paris. Schatzki (2011) refers to the persistence of a given practice as a function of a sort of “unity in difference” (p. 6), where changes in the configuration of the elements of a practice or their relationship to other practices are neither too great nor too frequent. Schatzki also points to the “thickness” of the relationships between material entities and practices as a reason for the persistence of co-located and co-existent “bundles” of practice, where the greater number or extent of the relationships indicates a greater likelihood that they will remain.

When changes in one or more elements do occur, a social practice may be dissolved and/or abandoned in favour of a new configuration or form of practice (Shove & Pantzar, 2005; Røpke & Christensen, 2013). Such changes may occur as a result of, for example, an innovation in the technologies used to perform a given practice (e.g. the replacement of pagers with mobile phones), a change in social expectations or norms associated with a particular activity (e.g. what constitutes a reasonable form of communication), or the active reflection or negotiation of how or why certain practices are performed as they are (e.g. through the introduction of more expensive mobile phone plans). Warde refers to changes in one or more elements of practice as a “moment of change” (Warde, 2005; Wilhite, 2012) that in turn creates an opportunity for the scrutiny or evaluation of existing ways of doing (Darnton et al., 2011; Wilhite, 2012). This has been illustrated in social practice work on residential energy consumption; in his work, for example, Karvonen (2013) found that in the implementation of “learning-by-doing” programs for home energy retrofits in the UK, residents were able to “participate in a dialogue” (p. 571) that opened up a window of opportunity for the reconfiguration of practices towards sustainability.

Other work has shown that when confronted with a change in circumstances, residents may either adapt or modify habitual practices as they learn to interact with new technologies, or adapt the technologies themselves to suit entrenched ways of doing certain activities. In their exploration of how residents’ practices changed after moving into energy efficient social housing, Foulds and his colleagues found that certain bundles of practices were shifted in order to accommodate new heating and cooling technologies while maintaining expected levels of comfort (Foulds et al., 2012). Where residents favoured old ways of doing things (and the option was given), certain

other technologies were simply not adopted, leading the authors to conclude that technology takes the role of “steer [sic], not dictator, through the options it facilitates” (p. 9; see also Wilhite, 2008; Pierce et al., 2010). This work also shows that the material structures of a building or individual suites might guide or presage particular practices (e.g. by constraining an individual or household to using the energy infrastructure provided), but may also reflect individual expressions and preferences (e.g. by using certain technologies or spaces for different reasons than others or than intended) (Gram-Hanssen, 2011; Schatzki, 2013). As such, the design intentions behind a given material arrangement can have unintended effects or be used in unexpected ways, particularly where the logics of one practice collide with those of another. These interrelationships between bundles of practice have been noted by several social practice scholars, who acknowledge that most of the activities we perform are part of more than one practice (Shove & Spurling, 2013; Schatzki, 2014). The result is that the addition, removal or modification of certain material arrangements intended to create sustainable outcomes may intervene into practices in unexpected ways and with potentially conflicting aims.

However, it is not always clear when a bundle of practice actually does change, and when we are instead looking at a simple variation in its performance; for example, in the differences between cooking practices from one house, neighbourhood, or culture to another. As Schatzki emphasizes,

[A]n event is not the same thing as a change: not all events amount to a change in something. To be sure, every activity is unique and thereby effects a change in, that is, an expansion of, the total stock of events. Not every activity, however, constitutes changes beyond this. And even when one does, the extra bit(s) of change often does not amount to a change in a social fact or phenomenon. (2011: 5)

Schatzki therefore makes a distinction between unique events and larger-scale changes in practice. Both Schatzki and others have noted that the adaptability or flexibility of a practice is actually a key function in its persistence over time, and that large scale shifts in practices are rare, often the result of a large-scale event (such as a war) or a series of cascading changes that are observable only after the fact (Schatzki 2011; Shove et al., 2012). To identify these changes, many social practice scholars have found it useful to tie social practice studies directly to the socio-technical and sustainability transitions literatures to explain how configurations of bundles of practice change over time to challenge an established socio-technical regime (e.g. Shove & Walker, 2007; Shove, 2010; Watson, 2012).

2.3 Bringing narrative and practice together

Though at first glance narrative and social practice may appear to address very different sets of phenomena, there are in fact broad areas of synergy between them based on their shared emphasis on concepts of lived experience, context and temporality. Both theoretical lenses explore, in different ways, how individuals are immersed in the “flow” of life: where narratives reveal the unfolding of meaning embedded in accounts of personal or collective experience, an exploration of social practices focuses attention on often habitual or routine interactions with the material world. Both draw on similar constructivist epistemologies to explore how social phenomena are produced and reproduced by the actors that sustain them; for example, in the way that both metanarratives and social practices-as-entities are sustained by their continued support across space and time. In their own way, both bodies of work explore the way we constitute our worlds and are constituted by them, opening up ways of analysing social phenomena and change that emphasize the socially constructed, contextual, fluid, and negotiated nature of lived reality.

A few scholars have begun to explicitly integrate social practice and narratives theories in sustainability studies, and have so far focused on the use of narrative methods to better understand the performance of practices and the potential for their transformation. For example, Karen Henwood and Nick Pidgeon’s work on *Energy Biographies* uses autobiographical accounts of changes in the performance of practices over time to identify moments of opportunity during people’s lives in which practices are more amenable to change (Energy Biographies, 2013; see also Butler et al., 2014; Shirani et al., 2015). Similarly, Sarah Hards (2011) adopted an integrated narrative/social practice methodology to explore the co-evolution of environmental values and the performance of pro-environmental practices over the individual life-courses of environmental activists. This work highlights the rich potential of biographical, narrative-orientated approaches for revealing shifts in the meaning of ways of performing particular social practices for participants over the course of their lives and the possible relation of these shifts to wider biographical, structural and political contexts. The elicitation of personal narratives in this work essentially acts as a means of methodologically accessing the “sayings” of social practices and re-emphasizing the ways in which perceptions, norms, meanings and personal commitments to sustainability can be handled in non-individualist ways. However, I believe that the full potential of the integration of narrative and social practice approaches has yet to be fully

explored. Below, I consider two forms of their convergence that set the foundations for the analysis found in subsequent chapters of this dissertation.

2.3.1 Narratives as interventions into practice

First, integrating narrative with social practice offers a framework for exploring the implications of broad narratives for the way we “do things”. Writ at large scales, our socio-cultural narratives contain within them the seeds of particular outcomes, including material arrangements that shape our “field of possibilities”. These are what Wynne and his colleagues (2007) have referred to as the “master narratives” of society that hold both normative and performative dimensions. As I’ve described above, these are *normative* in the sense of asserting how something “should be” by reinforcing or conveying a certain ethic, logic, or worldview (Wynne et al., 2007, p. 75). Our broad socio-cultural narratives therefore give coherence and help to clarify the purpose and meaning of our social practices as entities – essentially, the meaning of a practice or its *raison d’être*. These narratives are additionally *performative*, however, in the sense that where they are implemented as specific policies and plans, they materialize as specific actions, technologies, infrastructures or changes to the landscape.

Where a new narrative is introduced through a particular program or initiative, it can therefore be explored for its potential as an *intervention into practice* (Figure 2.2a). This intervention may occur either normatively, such as the subtle or overt messaging around the meaning of a social practice, or materially, such as the introduction of new building types or energy technologies that in turn shape or guide the configuration and performance of practice. Such interventions may in turn create one of Warde’s moments of change, opening up an opportunity for the abandonment of old practices or the adoption of new ones. For example, one might look at how a certain narrative of sustainability as the need to reduce harm inflicted on ecosystems might translate into the development of a new system of waste collection comprised of *materials* (waste bins, compactors, composting facilities), associated *meanings* (notions of environmental preservation, efficiency, personal responsibility), and relevant *competences* (appropriate methods of sorting, waste collection systems, etc.). Conversely, notions of persistence and change in the social practice literature may help to give a sense of the potential for certain narratives for effecting actual changes in practice.

2.3.2 Practice performance as lived narrative

Associated with the notion of narrative as intervention into practice is the conceptualization of practices-as-performances as the individual “acting out”, or materialization, of certain narratives. This idea both draws on and extends understandings of narrative as the fundamental structure through which we experience the world, or, as Ricoeur (1991) put it, the way in which all human actions represent a “quest” for a larger narrative. As explained above, we use narratives as a way of making sense of and giving meaning to our everyday experiences and a structure to our lives. However, our narratives are not only discursive but fundamentally *embodied*, wrought from the “flesh” of the world and enacted as temporally- and spatially-bounded beings (MacIntyre, 1981; Ricoeur, 1991; Bruner, 1991, 2004; Clandinin & Connelly, 2000). Many authors therefore consider the narratives we live as an expression of our bodily experience and our physical interactions with the world, or what Connelly and Clandinin (1990) call our “lived stories”.

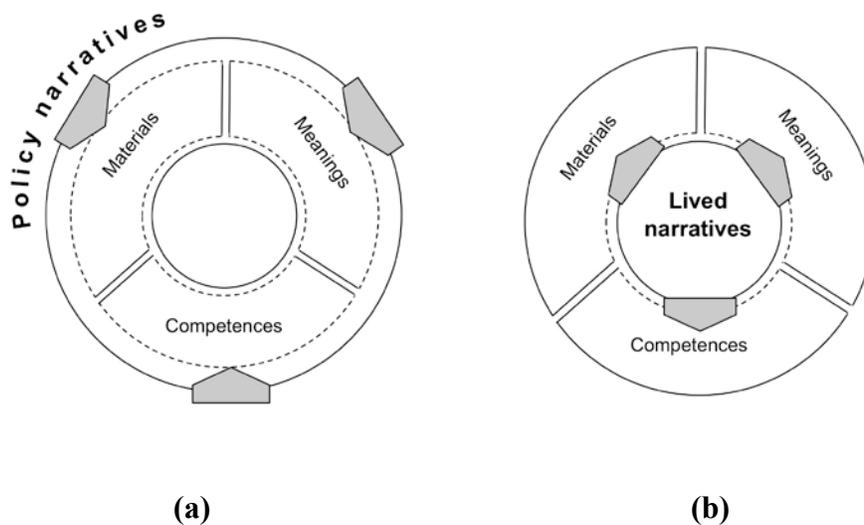


Figure 2.2. Merging narrative and social practice

(a) Metanarratives embedded in policy and planning express particular assumptions, prescriptions and characterizations of sustainability and sustainable communities. These are materialized in the “real world” as particular materials, meanings or even competences. (b) The lived narratives of individuals either perpetuate or counter these broad metanarratives through the performance of practices.

Using ideas from social practice offers a different way of thinking about this. As we live out our own personal narratives, we are engaged in the performance of social practices through our daily habits and routines. As these practices are both socially- and materially-determined, our own personal narratives are necessarily not only our own but reflective of broader forces and

established ways of doing things. I think of these as *lived narratives* that are at once the performance of broader socio-cultural narratives and the powers and knowledges that produce them, and a means of making sense of these performances and reconciling them to our personally-held beliefs, logics and desires (Figure 2.2b). In other words, our lived narratives act as a way of making sense of social practices as we perform them, while simultaneously acting to realize, or “sediment” certain narratives about the world. However, instances where lived narratives come to be inconsistent or in contradiction with these broader narratives offer opportunities for the production of “counter-narratives” that hold the potential to shift or overwrite those at broader scales (see Westerhoff & Robinson, 2014). Changes to configurations of practice can therefore emerge from both broad changes in, say, policy, as well as via innovations at lower scales (again, a concept that is consistent with literature socio-technical system change, see Geels, 2004; Geels & Schot, 2007).

2.3.3 Tensions and their resolution

Though these two means of integrating narrative and social practice hold significant potential, it is important to note the inconsistencies or contradictions between social practice and narrative approaches. In social practice work, individuals are not seen as drivers of practices but agents who “carry” practices as they perform them. By considering agency as distributed, practice theory thus moves away from methodological individualism, or the view that only through understanding individuals’ thoughts and motivations can social phenomena be explained. In shifting the unit of analysis away from individual agents to practices, social practice theories have furthermore shown that efforts to encourage sustainable behaviours through the provision of information to individuals are misplaced (Shove, 2010; Pettersen, 2015). Even when speaking of processes of change and recruitment, social practice literature refers not to the active and conscious selection of practices by individuals, but to the process through which practices gain relevance or meaning across time and space.

Conversely, many narrative approaches focus on individual experiences in depth, using personal stories of transformation and learning as a basis for understanding human experience. An increasingly popular approach that illustrates this is *Narrative Inquiry*, which explores narratives embedded in materials such as oral histories, diary entries, and interviews for the way humans

experience the world (Connelly & Clandinin, 1990). At first glance, such approaches imply a potential ontological contradiction between the two lenses; indeed, to turn our gaze towards individual experience without considering the broader forces and structures that constitute them would be to ignore the powerful ways in which agency and power are located outside individuals. However, I believe that the concept of lived narratives offers a way to escape the individualism of much narrative study that tends to ignore broader system properties. The lived narratives as entities can be seen as the force at work, with the individuals who live and tell them as the essential “mouthpieces” of broader stories and experiences, which nevertheless connect directly to individual experience. The emphasis is placed not on the individual’s account of their individual practice, but what their performance tells us about the persistence or change of practices more generally.

The concept of lived narratives also helps to address recent critiques of social practice approaches over the apparent abandonment of the notion of agency altogether in favour of an almost behaviourist approach to social phenomena in which individuals’ actions can be explained entirely without consideration of individual thought or consciousness (Sayer, 2013; Spaargaren, 2013). To consider individuals as mere “carriers”, Sayer asserts, is to ignore their “dynamic, normative or evaluative relation to practice” (2013, p. 336). I agree with this criticism – in their performance of practices, individuals do not simply follow a set of rules or structures, but interpret them to suit different a given context or different set of circumstances (a position first asserted in the work of Wittgenstein and Heidegger; see Rouse, 2007). Coupling social practice with a narrative approach serves to re-introduce some of this agency back into the picture through the exploration of practices as narratives, with their own central characters, ideas and intentions. The notion of lived narratives resituates the individual as the protagonist of one’s own story, even if that story is a part of a larger one.

A second identified shortcoming of social practice approaches is the absence of an explicit treatment of *power*, including issues of normativity, control, or access to resources that can serve to either constrain or enable the shape or performance of a practice (Røpke, 2009). To explore this idea further, Rouse (2007) draws on Foucault’s conception of power as “a limitation on the field of possible response” that can only be exercised on the actions of free individuals. However,

the social practice literature has tended to ignore variation across societies in the ability to “respond” – or, in other words, be recruited to a certain practice through limited access to the material elements that are required (for example, through limited financial resources or physical disabilities). Furthermore, as social practices are organized around a shared understandings of how something is or ought to be done, they contain an inherent normativity, or the accepted way of doing something. As such, there is an accompanying sense of the “wrong” way to do it. These notions of right and wrong are enacted through our performances on a daily basis, reinforcing the hegemony of current and accepted practice configurations by encouraging the adoption or performance of certain practices over others. Rouse calls this a kind of “holding to account” that is integral to the practice itself (Rouse, 2007), without which Schatzki’s “unity of difference” would be impossible. Taken to its furthest extent, this process takes the form not simply of a “holding to account”, but of actual coercive control of certain kinds of behaviour.

Coupling narrative with social practice helps to address this gap in two ways. First, the normative and performative expressions of our socio-cultural metanarratives highlight the considerable impact that policy decisions can have. Actors who hold authority over these decisions hold the power to shape social practices via the selection of certain material or discursive arrangements over others. Secondly, the concept of lived narratives helps to think about the ways in which the performances of practices may both produce and reproduce certain narratives about the world. In exploring different individuals’ lived narratives, differences in the degree to which they are able to contest or change established ways of doing through the development and potential of counter-narratives can be teased out.

2.4 Exploring sustainable neighbourhoods

What then do these approaches to the integration of narrative and social practice offer to the study of sustainability or the design of Vancouver’s sustainable urban neighbourhood? I believe that by combining the complementary aspects of narrative theory and social practice, it is possible to answer important questions about the way sustainable communities, including the Olympic Village, are both conceptualized and experienced.

First, the investigation of different narratives that have emerged around the Olympic Village can give us a deeper understanding of the assumptions these narratives contain about the “right” way to achieve sustainability in the urban environment, where these narratives come from, and how they might be contested. In characterizing the different and perhaps even competing narratives, it becomes possible to explore the way different sources (or authors) express different characterizations, logics, trajectories, and understandings of sustainability and sustainable communities. This includes the lived narratives of people who are actually experiencing the outcomes of the broad institutional or political decisions that were made in Vancouver, allowing for a deeper exploration of the experience of sustainability efforts than those obtained in more conventional post-occupancy evaluations. By developing this typology of narratives, it is furthermore possible to explore the relationship between narratives of sustainable living at different scales.

Second, by looking at the manifestation of the Olympic Village’s sustainability narrative as a unique set of qualities and characteristics in the built environment, we can explore whether and how an intervention actually leads to a new and presumably more sustainable configuration of practice, and when it simply offers a new variation in the performance of existing practices. This draws on Schatzki’s observation that events that simply shift the performance of a practice are more common than actual changes in its configuration (Schatzki, 2011). As a part of this, the role of narrative to effect social change toward sustainability in the built urban environment can also be better understood. Work in regenerative sustainability and climate change has suggested that reframing sustainability narratives to be more motivating can lead to an increase in community engagement in sustainable activities, but questions as to the appropriate nature and form of this narrative still remain. Do the material expressions of a narrative, such as technologies, infrastructures, and land uses, do all the ‘work’ of eliciting a change, or is the deliberate messaging of the narrative important to the success of an intervention? If so, is it best for the narrative to be subtly conveyed or loudly proclaimed? To answer these questions and more specifically, to understand how different narratives transpire and interact in a sustainable urban neighbourhood, I found it useful to draw on a third body of scholarship that helps to integrate narrative and social practice further: the literature on place.

As the meeting point between material and meaningful dimensions, place theories help to mark the translation of vision, or narrative, into practice, and highlight the continuously evolving nature of a sustainable neighbourhood. In the social sciences (and geographical traditions in particular), *place* is often used to capture the intersection of physical worlds and the meanings human communities inscribe onto those worlds (Tuan, 1974; Gieryn, 2000). In this sense, landscapes or places are made up of much more than their material and demographic attributes – they are alive with the histories, meanings and values of those who live there. In time, landscapes essentially become transcriptions of those who dwell there (Feld & Basso, 1996) and may even become moral landscapes as they often contain within them particular sites that mark events or are emblematic of how we should dwell in such places. Understood this way, the sheer mention of a place name or related object serves as a heuristic for reminding people how to live, and live well – morally and otherwise (Basso, 1996).

Replete with material entities in the form of buildings, public spaces and streets, urban landscapes often contain several symbols that invoke for those who live there what urban life is or represents. Neighbourhoods like the Olympic Village embody both material and extra-material qualities that amount to their ‘place identities’, which, when strongly taken up by those who live there, can result in our identification with and our attachments to them (Hayden, 1997). While the process through which such places and landscapes come into being is yet unresolved (Stedman, 2003), one means through which meanings become attached to places are the narratives that surround them, which can both bring places into being, as well as emerge from within them. As such, intentional narratives are both the stories that are told about places to reiterate a site’s importance and intention (for example, through national or international media), as well as the stories that collect and aggregate in situ that may either reify or contradict official narratives. As with narratives more generally, such place-based narratives can be either broadly historical, such as symbols of iconic events or people, or intensely local, which instead tend to focus on people’s experience of a place – their representation and performance of the world they hope to create – which may or may not comply with more “official” lines (Creswell, 2004).

As they live their own narratives, residents of a development, neighbourhood or city interact with the physical features of its landscape, and in doing so paint them with layers of history and

sociality. Place is more than an additional dimension of meaning (to be added to environmental values or beliefs about the world), but a kind of “glue” that adheres meanings and materials. Certain features of the landscape may serve as reminders or reinforcements of the narratives of intention of a place that, in moments of disruption or change to practice, may help to contribute some answer to the reasons why such a disruption has occurred, as well as provide a sense of the set of rules, norms and expectations that come alongside the narrative. However, even locations imbued with a strong narrative of intention from their inception (as in the case of the Olympic Village) will be constantly in the process of becoming a different kind of place (Harvey, 1993; Massey, 1994; Creswell, 2004) through the lived narratives that transpire there. Reasons and rationales for a particular performance of practice may follow as residents move through repeated patterns of interaction with the built environment of the neighbourhood, and will once again become habitual. Of these, some practices may be reinforcing the intended narrative – as residents interact with the features of the neighbourhood, they may also be, either consciously or unconsciously, helping to etch the narrative into the landscape. The collection of lived narratives may also serve to anchor the formation of identity, fostering a sense of place associated with a particular neighbourhood.

2.4.1 Some details on method

Applying the concepts from narrative, social practice and place to Vancouver’s Southeast False Creek and Olympic Village neighbourhood required me to take a number of slightly different approaches to data collection and analysis. Given the range of narrative sources and my decision to integrate narrative and social practice theories, I have naturally had to make use of an assortment of narrative methods. To discern the broad institutional narratives around the Olympic Village, I took a hermeneutic approach to exploring two principle sources of text: policies and associated materials (such as council minutes and council reports), and media texts in the form of newspaper articles. I explored each of these narrative sources for the particular story it told of the Olympic Village, as well as the way these stories conveyed certain ideas and values around sustainability. To do so, I asked the following questions of each text:

- What events or issues (e.g. climate change, economy, liveability) are considered important to the pursuit of sustainability or sustainable neighbourhoods?

- What logics or ethics are put forward to explain or justify certain actions, and what assumptions do they contain?
- How are the identities, roles and interests of relevant actors described, including City politicians or staff, Vancouver citizens, and others?
- How are the responsibilities of each group of actors allocated and framed?
- What persuasive or expressive tools are used to persuade the audience of a certain characterization or course of action (e.g. anecdotes, rhetorical devices, metaphor, symbolism, imagery)?
- What outcomes are suggested, implied or sanctioned?

To assist in my exploration of the sustainability narratives embedded in *policy texts*, I draw on the work of a small but growing group of scholars that have used narrative to investigate the social meanings and ideologies embedded in policies and other governance processes (Jones & McBeth, 2010; cf. Stone, 1988, 2002; Roe, 1994; Hajer, 1995; Fischer, 2003). In this work, public policies are read for the way that they present a particular public concern (Schram & Neisser, 1997; Fischer, 2003) and analysed for their structures, characterizations and implications (Czarniawska, 2004). I found interpretive approaches that explore the use of particular narrative elements for the broader story that they tell particularly useful (Fischer 2003; Stone 1988, 2002), drawing out the *who* (agent/character), *where* (context/scene), *what* (action), *why* (purpose), and *how* (means) of each text. Each text can also be explored for particular rhetorical devices and symbols that are used to persuade or compel a given audience to accept a certain interpretation of an event or actor (Stone, 2002). Paying attention to these dimensions helped me to reveal the interests and implications contained in the key policies and plans that both preceded and flowed from the creation of the Olympic Village (Stone, 2002, Fischer, 2003; cf. Jones & McBeth, 2010). By coupling this analysis with interviews with key players in the design and construction of the neighbourhood and my own observations, I also identify the way this “intentional” narrative was ultimately expressed in the built form and landscape of the Olympic Village.

To assist in my investigation of media narratives, I’ve drawn on the work of Fulton et al. (2006) in identifying the various “narrativizing strategies” that have been employed in journalistic accounts of the Olympic Village. Fulton and her colleagues consider the use of narrative in reporting as a key method of transforming information into meaningful and relevant news. A journalist writing a piece about a particular policy decision around the affordability of Olympic Village housing, for example, can choose to focus on the political ideals of the decision makers,

the economic implications for taxpayers, or the advantages or disadvantages that might accrue to beneficiaries of the policy. Reporters can guide their readers towards an understanding of the outcome of the decision before the rest of the story is told, prioritize certain interests or events over others, or associate an event with a particular person as a reference point of spokesperson. In employing one or more of these strategies, journalists can intentionally or unintentionally discredit or delegitimize other interests or proposed courses of action entirely. By associating events with particular actors, for example, the perception of their causes can be understood as the result of individual human agency and their impacts as distinct personal experiences, which can in turn obscure or minimize institutional factors or overall complexity (Fulton et al., 2006). Journalists can choose to give particular voice to certain groups over others, depicting them as conventional narrative characters (e.g. the underdog, the hero, or the villain) and painting a certain picture of their motives or intentions. The use of these and other kinds of rhetorical devices such as particular language or metaphors are often used to enliven and ideologically position an “otherwise bald account” of facts that tell a certain story (Fulton et al., 2006; Hallgrimsdottir et al., 2006). Series of events can also be presented in such a way as to indicate causality, or situated within existing and ongoing narratives to give them broader social or significance.

To explore the lived narratives of the Village’s residents and managers, I used personal interviews to access accounts of their expectations and experiences of the Olympic Village. The use of narrative methods in soliciting individual accounts of experience are increasingly common as a means of understanding how people make sense of changes in their lives (Hollway & Jefferson, 1997; Squire, 2008; Chase, 2011). Researchers using narrative methods are often interested in individuals’ personal accounts of an event or experience that elicited some kind of change or transformation, and are often structured in such a way as to allow the interviewee to speak at length and in a storied format with a beginning, an account of change and the interviewee’s efforts to adapt to or reconcile this change, and an ending, or resolution.

As I wished to capture not only the broad trajectory of experience but specific details on any shifts in the materials, competences and meanings that may have transpired as a result of coming to the Olympic Village, I took a slightly more structured approach to these interviews. The

interviews were conducted so as to allow interviewees to speak at length about issues or experiences they thought were important, but also made use of a series of specific questions as well as a map of the Village to guide conversation. As such, the interviews are not “narrative” in the sense that they are one story told from beginning to end, but a series of thoughts, feelings, experiences and anecdotes (or what have been called episodic narratives; Flick, 2006) that together form a narrative of unfolding life in the Village.

Each narrative furthermore accounts for any shifts in practice that may have occurred since the turning point, or “moment of change” of coming to the Village. I explored how either the normative (i.e. discursive) or performative (i.e. material) dimensions of the neighbourhood have intersected with or shifted the performance of certain social practices. For managers, this entailed questions around building systems and technologies for heating/cooling, domestic water provision and electricity, as well as their responsibilities, sources of information and assistance, and other relevant issues. For residents, I focused on in-unit “energy-consuming practices” such as washing the dishes, achieving thermal comfort, and bathing, but ended up speaking to a wide range of practices that new or different material arrangements in the built environment had elicited. In both sets of interviews, I explore how these lived narratives intersect with, support or challenge broad narratives of the Olympic Village, including whether a discernable shift in the performance of these practices has occurred. I also explore the extent to which a sense of collective identity of place has developed.

2.4.2 Ways of analysing

Before concluding this chapter, I want to note the way I’ve analysed the different narratives around the Olympic Village in this dissertation, which takes two broad forms. The first is what can be thought of as a form of thematic analysis (Hunter, 2010; see also Riessman, 1993; Squire, 2008), where a comparison is made across individual texts in order to reveal recurrent patterns or themes in the kinds of symbolism, myths, motifs, logics, propositions, contradictions and assumptions made. Riley and Hawe (2005) refer to this as “putting like with like” – looking for patterns in data within a particular set and grouping them together, or Mello’s ‘textual’ approach to analysis (2002). Using NVivo coding software, I analysed the texts of interviews and other sources *horizontally* by looking for themes that emerged across each source of text, including

policy documents, media reports, and resident and manager interviews. Interviews were coded for the three broad dimensions of social practice as well. All lived narratives were further grouped according to the four housing types found in the Village (strata, rentals, co-op and low-income housing) to find commonalities within and between them.

In addition to a more standard thematic analysis, however, I also found it important to analyse interview texts “vertically”, or as whole narratives in the sense of complete stories (cf. Hunter, 2010). Under this approach, texts (including interviews) are read as whole entities containing elements of plot, character, temporality and telos. In doing so, I avoided running the risk of losing the sense or meaning of stories as a whole and was instead able to obtain the “fuller” meaning of each narrative (Mello, 2002; Riley & Hawe, 2005). Each interview was therefore analysed as a narrative of experience of the Olympic Village, including each interviewee’s prior knowledge and expectations of the neighbourhood, what they encountered upon their arrival, the challenges and delights they had faced, and the outcome of those encounters to date. I treated each interview as a cohesive story with its own narrative trajectory or arc, which gave me a sense of each person’s individual experience. To distil these sometimes lengthy interviews into key elements and events, I condensed each story into a two-page document, and then again into a single paragraph. This exercise also allowed me to begin looking for commonalities across interviewees’ experiences, using each person’s arrival to the Village as the narrative turning point, or intervention into established ‘ways of doing’, whether in building management, in dishwashing, or some other practice performance. In both levels of analysis, exploring the details of social practice entities and performances and not simply the overall picture was important to the successful integration of narrative and practice. While this approach seems to be commonly applied to individual narrative interviews, I apply this to broader cultural texts (i.e. media reports and policy) as well. I placed less emphasis on the structural elements of narratives than on their content and meaning – in other words, on what I read or was told rather than the frequency of specific words (Mello, 2002; Chase, 2005; Squire, 2008). In this way, my research became an exploration of the story of the Olympic Village told from a range of different perspectives – policy-maker, politician, manager, user – which I can compare with one another to draw out the similarities, inconsistencies or connections between them (Fisher, 1984). I begin this story in the

next chapter with the broader planning perspective and the larger story of the City of Vancouver's sustainability efforts over the last several decades.

Chapter 3: A City's Sustainability Story

In the opening paragraph of the Vancouver Greenest City Action Team's first report, the authors describe a moment during which the group watched a peregrine falcon settle onto the ledge outside the room in which they held their ongoing discussions. It was as if, they wrote, the act was a sign of endorsement of the very ideas that were being discussed – the possibility of making Vancouver the “greenest” city in the world. As an endangered species inching back from the brink of extinction, the bird represented “a powerful symbol of hope” and “the living embodiment of Vancouver's greenest city aspirations” (CoV, 2009: 4). In the document's conclusion, the authors appeal to us to remember the falcon as evidence of our ability to both restore the natural environment and enrich our lives.

Such a self-reflective use of imagery is perhaps uncommon in municipal policy documents, but nonetheless serves as an example of the more narrative dimensions of policy texts. As I noted in Chapter 2, policies, plans and other formal texts can be read as narratives that use various structures and strategies to present certain ways of thinking. Political speeches, council reports, media releases and websites all contain often subtle but sometimes overt claims about the way things were, are, or ought to be by using symbols such as the falcon, as well as particular characterizations, condemnations and prescriptions. The final versions of plans and policies hide the very thoughtful, political and often contested nature of their creation. As public documents, they are crafted not only to present key information but to convince others of the rightness of a particular viewpoint or set of conclusions through the careful depiction of a problem or situation (Fisher, 1984; Mattingly, 1998; Bruner, 2002). A narrative analysis can help to uncover these, including the way that certain narratives rise, are contested and change over time (Roe, 1994). By deconstructing the narratives embedded in plans and policies, we can gain valuable insights into the assumptions, values and logics that underlie a chosen course of action (Meuter, 2011; Squire, 2012).

3.1 Vancouver's bright green future

In this chapter, I explore these narrative dimensions in order to trace the nature and evolution of the way concepts of sustainability have been expressed in municipal texts in the City of Vancouver. Vancouver is known across the country and indeed the world for its action on

sustainability, which many date back to the 1960s and the successful efforts of Vancouver residents to stop the construction of an eight-lane freeway into the downtown core (Punter, 2003). The 60s also saw the inception of Greenpeace, which has expanded from a single office in the Vancouver neighbourhood of Kitsilano to become one of the world’s most influential (and certainly one of the most visible) environmental advocacy groups. Vancouver has since enjoyed a global reputation for its environmental leadership, one that has been both noted and promoted by successive municipal governments to the present day. In interpreting the narrative elements of important municipal policies and plans, I show how separate narratives of liveability and climate change action have converged in the Southeast False Creek (SEFC) planning process and continue to be carried out in the City’s current strategy. I also show how the evolution of sustainability policy represents a discursive progression, from the protection of local interests, to a global threat and culpability and finally, to opportunity and celebration.

Table 3.1. Documents analysed

| | |
|--|--|
| Goals for Vancouver (1980) The Vancouver Plan (1986) Clouds of Change (1990) Central Area Plan (1991) CityPlan (1995) SEFC Policy Statement (1999) Vancouver 2010 Olympic Bid Book (2002) Corporate Climate Change Action Plan (2004) | SEFC Official Development Plan (2004) Community Climate Change Action Plan (2005) EcoDensity (2006) Climate Protection Progress Report (2007) Greenest City 2020: A Bright Green Future (2009) Vancouver’s Climate Leadership (2009) Greenest City Quick Start Recommendations (2009) Greenest City 2020 Action Plan (2010) |
|--|--|

To explore these narratives, I draw primarily on a review of municipal documents and texts that directly address or contain reference to environmental and/or sustainability-related goals in the built environment since 1980, as well as the major planning documents for SEFC and for the Olympic bid (a list of the texts analysed for this chapter is given in Table 3.1). I read each municipal text for their narrative elements and the stories about Vancouver and its people they present, including an exploration of the way the citizens of Vancouver, various stakeholder groups across the city, and the municipal government itself are characterized and what responsibilities they are given in the quest for a sustainable city. I also explored how planning and policy texts gave relative priority to social and environmental trends and needs in the city, the kinds of information that were used to define them, and the actions that were suggested as an

appropriate response. Finally, I analysed the way the texts themselves were presented, noting the use of certain images, language and even branding used to present their contents.

In tracing these various elements, I was able to pull out the broad metanarratives embodied in City texts and where the Olympic Village can be situated in relation to them. While I sometimes had difficulty in finding the story and pulling the narrative out of an otherwise dry and straightforward policy document, this process nevertheless allowed me to mark key points in their evolution where different narratives have risen to either extend or replace earlier ones. What wasn't always evident, however, was the reason behind these shifts or the events that might have prompted them. To support my document analysis and better understand the processes through which these narratives were established, I conducted interviews with six regional and/or municipal actors who had been involved in Vancouver sustainability policy or planning in a significant capacity over the last several decades. These included politicians as well as policymakers, each of whom was interviewed during the early months of 2014 for their understanding of Vancouver's sustainability policy trajectory. My conversations with these key actors in Vancouver's history reviewed important changes in narrative over time, but focused on the way Vancouver's most recent approach to sustainability policy in the form of the Greenest City strategy fit within these broader trends.

3.2 The liveable city

I began my analysis of Vancouver's planning documents in the 1980s, a decade during which contemporary notions of sustainability had yet to enter the stage. In 1980, *Goals For Vancouver* was released by the City Planning Commission of Vancouver under the leadership of NPA Mayor Gordon Campbell². The aim of the *Goals for Vancouver* project was to identify and set future goals that were considered central to the achievement of Vancouver's "urban life objectives" (VCPC, 1980, p. 3), and which included a breadth of issues ranging from the quality of the physical environment to issues of job provision, social diversity and fiscal accountability. The report detailed the results of a city-wide survey conducted to determine the values considered fundamental to Vancouver's citizens, later summarized in *The Vancouver Plan* (1986). Both

² The Non-Partisan Association, or NPA, is a major centre-right municipal political party in Vancouver.

reports concluded that eight key qualities were of central importance to the preservation of values in the face of changes in the demographic, environmental and economic landscapes: prosperity, vitality, prudence, equity, beauty, security, health and procedural openness. The specific issues covered under each goal area ranged widely, from heritage conservation and service provision to social diversity and housing affordability.

In both *Goals For Vancouver* and the *Vancouver Plan*, environmental issues are given very little direct attention in favour of an emphasis on the preservation of both citizens' quality of life and the city's unique character. The first section of the *Goals For Vancouver* report characterizes the "natural setting" and physical landscape of the city as a "gift from nature" that must be preserved (VCPC, 1980, p. 6). However, the approach taken to preserving the natural landscape is one based predominantly on aesthetic (e.g. the preservation of mountain views, parklands) and utilitarian (e.g. the importance of access to parks/waterfront for the engagement in outdoor activities) goals. Air quality, for example, is associated with the clarity of the views of the North Shore mountains, while water quality is linked to recreational use of Vancouver's beaches. Vancouverites are in turn characterized as people who have been shaped by this gift, who "rejoice" in the pursuit of outdoor activities and the simple pleasure of being outdoors and who consequently possess a collective identity that is closely intertwined with nature. It is assumed that this enjoyment is inherently associated with a sense of environmental responsibility, as "Vancouverites with their care for the natural setting are concerned about pollution in the city" (VCPC, 1980, p. 13).

The deterioration of environmental quality is therefore framed in these early texts not as an issue of future responsibility but as a phenomenon that stands to threaten the quality of life of present day Vancouverites and their enjoyment of the natural setting of the city. Though links are made, in a very general way, between air and water pollution and health concerns, the reader can detect very little sense of urgency or threat present in these documents with regard to issues of the environment. Pollution is seen as a by-product of increasing human activities that is to be monitored and prevented through appropriate policy measures. Human actions are framed as having little impact on the surrounding environment – in one section of the text, for example, the authors claim that "so massive and close are the North Shore mountains that no amount of human

folly can ever obliterate them” (VCPC 1980: 6). By extension, actions to address these impacts are given little emphasis. For example, the authors note that while restrictions on energy consumption are important, they are unlikely to succeed given entrenched behaviours:

Immediate major restrictions on energy use are not likely, due to our established lifestyle. Unquestionably, though, reductions are required if other parts of our standard of living are to be maintained. (VCPC 1980, p. 59).

A focus is placed on balancing the benefits of economic development as a necessary pathway to achieving a better quality of life, with the proper use of planning techniques to assure that such growth will not exceed certain limits that would impinge upon the city’s character. The *Vancouver Plan* outlines how trends of growth in population, employment and automobile congestion must be managed so as to take advantage of the opportunities that such growth presents to a larger city, while avoiding associated threats such as declining air quality. The reports emphasize the need for City leadership in providing infrastructure and best practice examples, including the promotion of energy-conserving building design and building codes and support for awareness-raising among Vancouver citizens. However, the major focus is on managing growth and development, including through improvements in the transit system to reduce automobile use, improve safety and enhance the overall quality of life and ease of movement in Vancouver’s neighbourhoods.

With a few exceptions, then, these early texts reflect a city’s concern that is largely limited to issues contained within the its walls – in other words, the amenities, services and qualities that benefit the citizens of Vancouver. As such, the focus is more broadly on the preservation of Vancouver’s quality of life in the face of change – in essence, a “preservation for today” – with only a brief mention of the need to preserve natural amenities for future citizens. The municipality is positioned as the protector of its citizens against threats to their quality of life in the form of various forms of growth. The result of such action will be the continued enjoyment of the natural amenities of the Vancouver coastline by its inhabitants.

I found that this focus on enhancing the overall liveability of the city continued through the 1990s, supported by regional liveability priorities identified by regional authorities (GVRD 1996). In 1991, the *Central Area Plan* was created to reduce demand and investment in

transportation in the downtown core by setting seven goals that would guide future developments in the city's downtown peninsula and immediately adjacent lands. As in *Goals For Vancouver*, the focus of the plan is to use planning tools to ensure that levels of growth in the core are balanced with the need to maintain the city's standard of living, including the need to "maintain and improve environmental quality" (CoV, 1991, p. 3). The *Plan* encourages an increase in the quantity and diversity of housing in the central area, including a mix of densities as well as supporting commercial and other uses. In 1995, council's approval of *CityPlan: Directions for Vancouver* continues this liveability narrative through the introduction of a plan to create "a city of neighbourhoods" through compact, mixed-use land use planning to foster a sense of community and a healthy economy and environment. Again, "improving the environment" is one of several targets that together address the need for improved transportation networks, public amenities, and affordability to protect and enhance the city's liveability (CoV, 1995). As in earlier texts, there is little evidence of a sense of urgency, but instead a focus on preserving the character of the city for the benefit of residents in the face of ongoing change.

3.3 The climate-friendly city

Alongside this somewhat benign narrative, a new and more urgent narrative began to develop beginning with two events in the late 1980s. With the release of the Brundtland Report *Our Common Future* in 1987, concepts of sustainable development and the pathways towards it gained prominence among local governments, both in Canada and internationally. The following year, *The Changing Atmosphere: Implications for Global Security* conference represented a global shift towards climate change governance in setting the target of reducing global emissions by 20% from 1988 levels by 2005 (The Changing Atmosphere 1988). In response, Vancouver created a special Task Force on Atmospheric Change to study the issues surrounding "global atmospheric change", including issues of local air quality, ozone layer depletion, and climate change. The Task Force's final report was delivered to Council later that year, making *Clouds of Change* one of the first municipal plans to address the concerns of climate change.

3.3.1 "Atmospheric change means we have to change"

What is immediately notable in *Clouds of Change* is the striking difference in tone from earlier municipal texts. Atmospheric change is framed as a serious problem to be addressed – not "just

another environmental issue” but a complex, multi-dimensional and politically-challenging threat to be avoided (CoV, 1990, p. i). The report takes a tone of stoic resoluteness and paints a grave portrait of the issue at hand, citing work that likens climate change to nuclear war and using terminology to describe the impacts as “staggering” and the status quo as “the devil we know”. The problem and its inherent uncertainties are explained carefully, referencing scientific papers and the work of the IPCC to back up the report’s position: environmental issues are no longer considered the by-product of human activities that can be addressed using traditional policymaking tools, but a formidable challenge that will touch all aspects of life and society.

The report also represents a movement toward a narrative of culpability. Repeated throughout the document is the phrase, “*atmospheric change means we have to change*”, signaling a shift in both the understanding of human-environment relations as well as the placement of responsibility. The authors are now aware of the human ability to “irreversibly alter global processes upon which all life depends” (p. 7), and that the impacts of such processes will affect both Canadians as well as the world’s global poor. The responsibility of industrialized cities such as Vancouver to contribute to a “sustainable relationship with the biosphere” is stressed, noting their disproportionately high contribution to global emissions:

As one of the world’s richest cities, we have a responsibility to address the causes of environmental decline. If a wealthy city such as Vancouver, with a concerned, well-educated populace cannot act on atmospheric change problems, how can we ever expect the less fortunate cities of the world to take action? (CoV, 1990: 21)

As in earlier narratives of liveability, the report confers responsibility for reversing the trends of high fuel consumption and inefficiency to the City itself – “to do less”, the authors remind us, “would be to shirk the responsibility of our generation” (CoV, 1990, p. iv). More than a trend to be managed, the growth and development of the city is now framed as a process that can and must be compatible with the reduction of atmospheric emissions. Efforts are consequently to be aimed at curbing the principal sources of emissions using existing tools of transportation and land use planning, as well as new efforts in energy conservation, efficiency and the procurement of sustainable energy sources. In addition to overall advocacy and leadership goals, the report provides 35 recommended actions that range from monitoring and reporting to technological innovations, changes to planning processes and bylaws, incentive programs, and education and awareness campaigns.

Clouds of Change therefore marks a turning point in the City's narrative. From a focus on generating internal benefits, the report shifts the City's gaze outward to a moral imperative to protect populations distant in both space and time. This shift also reflects a burgeoning self-identity as a global city with heightened responsibilities, an identity that was likely initiated in 1986 during its role as host city for the 1986 World Exposition on Transportation and Communication, or Expo '86 as it is more commonly known. Though both the *liveable city* and *climate-friendly city* narratives reflect an awareness of the need to respond to external processes of change, the story told in *Clouds of Change* is one of heightened urgency in response to the perception of a much greater, more significant threat. Despite the uncertainties, the need for action on climate change is portrayed as much greater than the potential costs to the citizens of Vancouver. However, the liveability narrative is not diminished altogether. As the report notes, climate action is also an opportunity to build on past city efforts to create "a positive vision of how our city can look, and how our lives can be improved, if we plan creatively for change" (CoV, 1990, p. 24). The report notes that by addressing global climate change, improvements can be made in the city's "collective quality of life" (CoV, 1990, p. 67), including the health and well-being of its citizens.

3.3.2 "Can we do it? Yes!"

This narrative of concerted climate action continued throughout the 2000s. In 2002, Vancouver declared its support for the Canadian ratification of the Kyoto Protocol and created the Cool Vancouver Task Force, a multi-stakeholder group tasked with the creation of targeted GHG reduction plans. The first plan completed and approved by City council, the 2004 *Corporate Climate Change Action Plan* (CoV, 2004) outlined the GHG emission measures necessary to meet the newly established target of 20% below 1990 levels by 2010. The plan addresses only those emissions generated by City operations, and as such focuses on energy use in civic facilities, fleet operations and landfill methane capture. A second community-wide emissions reduction strategy was created the following year in the 2005 *Community Climate Change Action Plan*, setting a target of 6% reductions in community emissions from 1990 levels by 2012. Updates on both reports were presented in a subsequent *Climate Protection Progress Report*, issued in 2007 (CoV, 2007).

All three documents reiterate the narrative of climate change in *Clouds of Change* as “the most significant environmental challenge facing the planet today” (CoV, 2005, p. 3). In the *Corporate Plan*, Vancouver’s moral responsibility to act is underscored in the discussion of developing countries’ fewer resources and infrastructure to deal with potential impacts on food supply, increased rates of infection or intensifying extreme weather events. The report continues to emphasize the leadership role that the City has taken and must continue to take in addressing climate change. However, the 2005 *Community Climate Change Action Plan* adds to the cast of characters the need for Vancouver individuals, businesses and institutions to reduce energy use as 80% of emissions are derived from their activities (CoV, 2005, p. 2). Engaging the community through outreach effort on the part of the City is therefore a central element of the plan, with the aim of encouraging residents to “embrace a number of changes in their personal choices” (CoV, 2005, p. 11).

What is also notable from these texts, however, is a general feeling of optimism and sense that the City and its staff are simply focused on accomplishing the task at hand. Action on climate change is framed as possible, desirable, and necessary given projected impacts of a warming climate, both on BC communities as well as further afield. Both explicitly and implicitly, the reports maintain that despite a rapidly growing population, it is still possible to reduce emissions and enhance Vancouver’s reputation of being a “green city” (CoV, 2005, p. 30). Possible synergies between emissions reductions and local benefits are also briefly noted, including “new opportunities for improved air quality, health and fitness, transportation demand management, personal mobility, cost savings, employment, economic development, and community building and empowerment” (CoV, 2005, p. 2). In the years following the release of each climate plan, several actions were taken to reduce emissions from the built environment, including changes to the *Vancouver Building By-Law* and increasing efforts to include renewable and neighbourhood energy systems.

3.4 A convergence of cities

What emerge from these texts are two interrelated yet largely separate narratives – of urban liveability on the one hand, and climate change action on the other. In the former, the City is presented as a key actor in providing an enjoyable place to live for its citizens, a role that is given

much greater emphasis once climate change enters the stage. Though the climate narrative contains a strong moral dimension that almost chastises the citizens of Vancouver for their consumptive habits, the authors reassure us that the climate crisis can be tackled without compromising the well-being of Vancouver's constituency. Neither narrative actively refutes the other, but contains select seeds or elements of each.

However, it wasn't until the late 1990s that these two narratives began to converge more deliberately within the notion of sustainable development. This shift can be credited in part to several emerging relationships between the City and Vancouver's academic leaders, who advocated for an increase in the intensity of the City's sustainability efforts. Coupled with strong advocates such as Gordon Price on City council, notions of sustainable development began to gain traction at City Hall and raising the overall consciousness of sustainability issues among City departments. The application of this new focus on sustainability is first evident in the planning process for Southeast False Creek, and continues in two city-wide strategies that continue to influence the city today.

3.4.1 A model for sustainable development

Tucked in among the recommendations for improved transportation planning, housing and employment opportunities in the downtown core, *Clouds of Change* contained within it one particularly distinct suggestion: "to develop a planning and design process aimed at achieving an energy-efficient development on the southeast shore of False Creek" (CoV, 1990). Shortly after Council accepted the recommendation, the same lands were included into the city's *Central Area*, incorporating SEFC into the City's goal of providing additional housing in the core of the city. Together, the *Central Area Plan* and *Clouds of Change* directive initiated a planning process for SEFC that would span the better part of two decades, a successful bid to host the 2010 Winter Olympics, and several consecutive City councils (see Chapter 4).

The first official document to formally outline the vision and goals of the future SEFC development, the *1999 SEFC Policy Statement* reflects an integration of key elements of the narratives found in both of these earlier texts. For example, the need to develop SEFC as a sustainable neighbourhood is explained as a need to "incorporate principles of energy-efficient

community design”, continuing the language of energy efficiency found in the 1990 *Clouds of Change* report and recommendations in focusing exclusively on energy and emissions reductions. Many of the neighbourhood’s objectives are framed as the need to reduce harmful impacts on the environment stemming from overconsumption of resources and the overabundance of waste. In the section on *Environment*, the addition of a “Rationale” and/or short collection of “Facts” helps the authors to justify the inclusion of environmental targets, such as the impacts of fossil fuel consumption on the environment or Canadian commitments under the Kyoto Protocol.

However, energy efficiency is almost immediately placed alongside a number of broader considerations and objectives in the call to “explore the possibility of using SEFC as a “model for sustainable development” (CoV, 1999, p. 4). The Statement uses the definition of sustainable development provided in *Our Common Future*, or “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. A “sustainable urban neighbourhood” is in turn defined as one that can “integrate into its urban context while protecting and enhancing the social and economic health of its community, as well as the health of local and global ecosystems” (p. 4). The consideration of these “long-term on-site and off-site environmental benefits” is highlighted as the novel dimension of the neighbourhood that is to be added to the City’s existing legacy of providing public and social amenities through large-scale development (CoV, 1999, p. 4).

As such, both external threats as well as local benefits are presented as rationales for the neighbourhood’s creation. The need for a sustainable neighbourhood is explained primarily in terms of the need to avoid unfavourable conditions associated with current development and consumption practices, including “global warming and climate change, energy and resource shortages, food shortages, and economic and social instability (CoV, 1999, p. 4). However, when describing the vision for the community itself, the emphasis is shifted towards a framing of benefits to be accrued more locally, softening the harsher moral undertones of earlier climate narratives. The neighbourhood is presented as an opportunity to improve the overall efficiency, health and liveability of the urban environment, including the restoration of prior ecosystems and soil health, as well as the contribution of environmental objectives to social and economic goals. Elements to be considered for inclusion in the final design of the neighbourhood therefore range

widely, from strategies to reduce energy consumption and waste, to the preservation of heritage buildings, opportunities for local food procurement, and the improvement of social cohesion (explored in greater detail in Chapter 5). As a result of this process, the City formed an official Sustainability Group that in turn issued a formal definition of a “Sustainable Vancouver”, or a community that “meets the needs of the present without compromising the ability of future generations to meet their own needs”, to be achieved through “community participation and the reconciliation of short and long term economic, social and ecological well-being” (CoV, 2002).

3.4.2 The EcoDensity Charter and Actions

This combination of liveability and climate change narratives can also be found in a second text and relatively short-lived planning policy called the *EcoDensity Charter*. Launched in 2006 by an NPA-dominated council led by Mayor Sam Sullivan, the *Charter* and its *Initial Actions* outline ways of managing growth in the city while maintaining liveability and sustainability goals. Once approved by council in 2008, the *EcoDensity Charter* advocated the creation of dense but liveable communities that would simultaneously reduce the city’s overall ecological and carbon footprints. The *Charter* deliberately builds on and combines past narratives by citing text from both *CityPlan* (1995) and the *Climate Change Action Plan*, representing the first time planning and climate change narratives are explicitly merged in one of the City’s overarching strategies. It reiterates the position that climate change represents a significant and pressing concern, and outlines a number of key “facts” that include the need for “deeper and more rapid change” in order to avoid “accelerating environmental, affordability and quality-of-life threats” (p. 2). However, it is stressed that actions taken to address these threats must simultaneously improve the city’s overall liveability and affordability. The *EcoDensity* approach is visualized as a tricycle, where the larger front wheel is “environmental sustainability” and the side wheels providing support are made up of “liveability” and “affordability” (CoV, 2008; CoV 2008b).

Though introduced in earlier texts, *EcoDensity* also represents the beginning of a shift, both toward a deliberate use of the language of ‘green’ and towards a distinct attempt to brand city sustainability policy (cf. Berelowitz 2005). Throughout the text are references to the benefits of green, from the improved walkability of a “greener, denser city pattern” (p. 3) to the beauty and timelessness of “greener and liveable design” (p. 5). The text of the Charter itself is framed in

green, and makes use of bright and colourful depictions of cheerful scenes of some of Vancouver's most pleasant neighbourhoods. 'Density-done-right' is noted as a key element to managing population growth while achieving both a low ecological and a more diverse and affordable housing stock. To accomplish its goals, the *Charter* proposes a number of changes to building design and planning in the city that recall several of the actions outlined in the SEFC Policy Statement (and later, the ODP). These mainly hinge on increasing densities, but also make use of land use and transportation planning to reduce automobile use, increase complete and walkable communities, and improve the overall sustainability of Vancouver's built environment. Developing a sense of place, opportunities for local food, increasing access to green space and the preservation of heritage buildings are a few of the recommended actions that are listed. Despite ample references to well-established and relatively uncontested concepts of sustainability and liveability, however, the Charter was the recipient of widespread criticism across the city. While some felt as though increases in density were proposed without any substantial consideration of how it could translate into much-needed housing affordability (e.g. CCPA 2008), others were critical of the fact that few (if any) efforts to consult with the public had been made in the process of its creation. That the NPA actually acted to reduce the overall proportion of affordable housing in new developments such as the Olympic Village only fuelled discontent; as a result, the NPA lost the following election before many of its initial activities could be put into motion.

3.4.3 The Olympic effect

Before turning to the current chapter in Vancouver's sustainability policy history, an event that is not represented in the city's key strategies but that was nevertheless a key moment in the evolution of Vancouver sustainability narrative was the 2010 Winter Olympic and Paralympic Games. In Vancouver's successful bid to become the host city, the city is depicted as a place "where sport and nature come together" (Vancouver 2010 Bid Corporation, 2002b), highlighting the city's reputation as a highly liveable city nestled in a setting of spectacular natural beauty (Vancouver 2010 Bid Corporation, 2002). Initial texts made strong reference to Vancouver's existing record of commitment to "maintaining and improving environmental quality and achieving sustainability" (Vancouver 2010 Bid Corporation, 2002, p. 21), noting the region's high air and water quality as well as its use of low-emission hydroelectric power. These

environmental accomplishments were fleshed out even more in the official bid book as a legacy of balance between the three spheres of sustainability:

Pursuing a sustainable future is not a new goal for Vancouver. The culture of our people, and the widely shared knowledge that we live in a naturally blessed yet delicately balanced place, dictate a future that balances economic and social goals with protecting our environment (Vancouver 2010 Bid Corporation 2002a, p. 63).

The narrative in the Olympic bid texts reflect a similar progression from environmental quality and familiar characterizations of Vancouver as a city of environmental leadership towards an integration of the three “spheres” of sustainability. However, once Vancouver’s bid was actually accepted, preparations for the Olympics themselves actually served to push the sustainability narrative in Vancouver in new directions. Sean Pander, Director of Sustainability for the City of Vancouver, outlined two major ways in which the Olympics changed the way sustainability was conceptualized. First, the Olympics provided Vancouver with an opportunity to showcase its reputation as a sustainable city, which pushed the city’s politicians, planners and designers to think about new ways of innovating in transportation and the built environment. As a part of its bid, Vancouver showcased a number of projects, including the provision of convenient, sustainable housing for the incoming competitors. The decision to site the Vancouver Athletes’ Village in the city-owned lands in SEFC made the Olympic Village the centre of this innovation in sustainable building, extending existing goals laid out in the SEFC Policy Statement:

I think it being the “sustainable Olympics” still had a major focus on GHGs, but because we were building a whole village in Southeast False Creek, the vision was not just about energy and climate, but more holistic...We had been thinking about those things, but again, having to build a village that was going to be this showcase, this model, that actually the world was going to come see at a given time. We [didn’t] have time to talk anymore. (*S. Pander, personal communication, Feb 6, 2014*)

Pander also noted that the ideas that emerged from the process of planning for SEFC contributed to the City’s eventual turn towards more restorative approaches that moved beyond minimizing damage towards actually improving the state of the local environment. The notion of “world class green” that the Olympics brought to Vancouver also pushed planners and council members to think about going beyond greenhouse gas *neutrality* towards a concept of “net zero” in building design. Though this regenerative approach to design had already begun to emerge in the form of ecological restoration, it had not yet been applied to the built environment:

My belief is that knowing we were going to be on the world stage, and we were trying to say we're the Green Olympics, was a lot of pressure. Council was coming back and asking staff to go, "Well we want to make the Village carbon neutral. We want it to be net zero carbon". We're like, whoa, we're trying to reduce 6 percent by 2012, and now you want a major new development, carbon neutral? We knew we had to figure out a way to get as close to that as we can without pouring buckets of money into the job. That led us to discovering district energy. (*S. Pander, personal communication, Feb 6, 2014*)

The possible siting of a net-positive energy building in the False Creek area made the City's explorations into making the Olympic Village GHG neutral an even more interesting opportunity. Though eventually sited at the University of British Columbia, the planning process for the Centre for Interactive Research on Sustainability (CIRS) added to the momentum, and the SEFC Green Building Strategy and Neighbourhood Energy Strategies are the unique legacies of the Southeast False Creek and Olympic Village planning processes (see Chapters 4 and 5).

Second, to showcase itself as a world class "green city", the newly elected Vision team and Vancouver Economic Development Commission additionally developed the *Green Capital* brand to foster business development and investment in the city, and market the city on the international stage as a green place to live and do business. This branding marks the beginning of a specifically "green" brand, as well as the close coupling of sustainability goals with economic growth visible today in the Greenest City strategy.

3.5 The greenest city

On a platform of eliminating homelessness and turning Vancouver into the "Greenest City in the World", Gregor Robertson and the Vision Vancouver party³ were elected to municipal government on November 15th, 2008. In the months following his election, Mayor Robertson created the *Greenest City Action Team*, which quickly released a report outlining 44 actions that the City could begin immediately planning and implementing (CoV, 2009).⁴ These "Quick Start" recommendations were followed by a more detailed report, *Vancouver 2020: A Bright Green Future*, which laid out 10 long-term goals and 13 targets under the three umbrellas of Green

³ The Vision Vancouver party is a spinoff of COPE that split off in 2002. Dubbed "COPE Light" by the media, this faction represented more moderate positions than its leftist counterpart and was renamed Vision Vancouver in 2004.

⁴ The urgency of the initial *Quick Start Recommendations* was based in part on the need to accomplish several goals before the winter Olympics.

Economy; Green Jobs, Greener Communities; and Human Health (CoV, 2010). In response to the intense criticisms of the *EcoDensity* process (or lack thereof), extensive public consultation was held throughout 2010 and 2011, which moved from the generation of ideas and discussion in early stages to specific feedback on draft action plans, information provision and engagement at later stages. In 2011, the final *Greenest City 2020 Action Plan* (GCAP) was completed and, following two consecutive elections, continues to be implemented today.

These Greenest City texts continue climate action narratives while broadening them out to include ecological degradation more generally. Both are painted as “urgent and monumental” challenges that require an immediate response, as the “future of humanity hinges on cities dramatically reducing their devastating impact on the planet” (CoV, 2009, p. 1). To address the immensity of the issue, the authors say, will require concerted efforts to “turn back the tide of ecological damage that humans have inflicted on the natural world and restore nature’s wonders” (CoV, 2010, p. 4). To act is once again framed as a moral intergenerational imperative, a collective responsibility to future generations of Vancouverites to ensure that the world that is inherited by “our children and grandchildren” remains “beautiful, diverse and healthy” (CoV, 2009: 29). Vancouver’s citizens must therefore cease their unsustainable consumption of resources; it is, quite simply, “the right thing to do” (CoV, 2009, p. 2). An emphasis on joint action is repeatedly stressed throughout the document, citing the need for “everyone to do their part, to rethink, re-evaluate and re-imagine the way Vancouver works and the way we lead our lives” (CoV, 2011, p. 3). The implementation of these programs is ongoing, in some cases in the form of partnerships with academic and other institutions that has resulted in the greater involvement of other sectors (Holden, 2013).

Alongside these familiar characterizations of culpability and associated responsibility, however, are several new narratives. Citizens are still depicted as over-consumers who are exceeding their fair share of the world’s resources, but also as people who have worked hard for what they have and who “deserve a bright green future” (CoV, 2010, p. 6). To achieve this future, Greenest City texts advocate for a focus on *economic prosperity* as a means of achieving high growth in green industries that will provide secure, green jobs in the city while developing low-carbon goods and services. These green jobs are a central component of the plans and touted as actions that will

offer citizens a secure paycheck as well as a sense of personal satisfaction that they are “contributing to a better world” (CoV, 2009, p. 11). For lower income households, improved access to green jobs and lower costs of living are even represented as a “green pathway out of poverty” (CoV, 2009). Such benefits are in turn linked to improvements in overall health and wellbeing, making the “ultimate dividend” of the Greenest City the enhancement of every dimension of urban life (CoV, 2009, p.3). In other words, “green is no longer the colour of sacrifice; it’s the colour of money and job creation” (CoV, 2009b).

The Greenest City strategy also depicts Vancouver’s goal of becoming the Greenest City in terms of *economic competitiveness*: “a race for sustainability”, a “friendly but vital competition”, an “environmental decathlon”, and a “pathway to victory”. Leading cities will benefit from the advantages accrued from being at the fore of the global shift to the green economy, including the improved health of citizens, lower costs to operate and maintain the city, and the continued attraction of a vibrant, creative workforce (CoV, 2010, p. 6). Challenges are once again presented as “considerable and complex, but achievable”, and in some cases in the process of already being solved (City of Vancouver 2009, p. 1). However, it is suggested that that Vancouver is already losing ground to ‘more ambitious cities’, noting that the City already lags behind select North American cities (e.g. Toronto, San Francisco) and world leaders in environmental action (e.g. Stockholm, Copenhagen). Though this tone of urgency is present in past texts, it is now associated with the global competition for economic resources.

Finally, though the idea of *green* first entered into policy texts in the mid-2000s, it was Vision’s call to make Vancouver the *greenest* city in the world that gave the concept of green its foothold in the city’s narrative. This shift towards “green” represents a specifically environmental focus that has nevertheless broadened the city’s approach to sustainability, from emissions reductions in transportation and the built environment, to the inclusion of new efforts such as the promotion of local food, the expansion and restoration of green spaces, and reductions in waste. The presentation of the green narrative itself is notably engaging, making extensive use of imagery and symbolism unseen in earlier documents. The positive tone of the GCAP is enhanced by bright and colourful images of a city under perpetually blue skies (despite a predominantly rainy climate), presenting evidence of nature in the city (e.g. a northern flicker perched in a tree), best

practices already underway (e.g. electric vehicle plug-in stations, green buildings across Vancouver), and folksy depictions of Vancouver life (e.g. laundry hanging on a line, canned vegetables, local graffiti). In a framing that heralds back to *Goals for Vancouver*, the physical setting of Vancouver is credited with inspiring citizens to make consistently “green” decisions in planning the city (CoV, 2009b).

3.6 Tracing an evolving narrative

In comparison to other Canadian municipalities, Vancouver’s narrative has been relatively uncontested, as each successive government has supported action of climate change and sustainability. No council over this time period ever sought to challenge the narrative of Vancouver as a sustainable city, nor has the liveability narrative been ever completely abandoned. This has also meant that certain understandings are never explicitly challenged. For example, the necessity and desirability of growth, whether in population or economy, is never fundamentally challenged, but changes from a trend to be managed to prevent adverse impacts, to one that can actually be harnessed for the greater good of Vancouver. Low-, no- or even de-growth approaches are never suggested or considered in policy texts.

In reviewing the major policy texts in Vancouver over time, however, some key shifts in the City’s sustainability narrative can be noted (Figure 3.1). Up until the 2000s, two broad narratives are discernable. The first is focused on protecting and improving the well-being of Vancouver citizens against the threats associated with unmitigated population growth and local environmental impacts. These early planning policies attempt to strike a balance between maintaining the character and liveability of Vancouver by taking advantage of the opportunities that growth could bring. The tone of these early narratives is relatively unconcerned, reflecting a narrative of self-protection from a local but relatively unproblematic nuisance. With global warming, however, a new narrative of catastrophe and culpability is introduced. The threat to Vancouver’s quality of life is now much greater, requiring a proportionate increase in the magnitude of the response. Vancouver’s citizens are characterized as both victims and villains – both those who will feel the impact of atmospheric change but also those who contribute to it through their lifestyles. The burden of responsibility is based on a moral obligation to protect the world’s populations who will suffer disproportionately the consequences. Counter to the

localized and less daunting narrative of city preservation that preceded it, *Clouds of Change* presents a narrative of defence against a menacing global threat. In both sets of earlier narratives, the City itself is the principal character, cast as the defender of its citizens.

As actions to address climate change are ramped up throughout the 2000s, the climate action narrative is framed with increasing optimism. While climate change is presented as a threat both locally and away, the tone is less condemning than in *Clouds of Change* as the City becomes more focused on action and responsibility is shared with the various citizens and sectors of Vancouver. The reason for optimism during this period may be in part attributed to the increase in political support and resources that were allocated to climate action efforts. In addition to a new and more serious narrative, *Clouds of Change* was noted by several municipal staff and politicians as marking a shift in the City's approach to environmental policy in that it turned the City's focus to addressing greenhouse gas emissions, subsuming actions for environmental protection into climate change goals. As specific targets and metrics for evaluation and monitoring were set, climate change moved from a motivating threat to an actionable and measurable phenomenon against which, when compared to other North American cities, Vancouver was performing relatively well. As such, the story told in the climate change plans of this decade is one of both celebration of accomplishments and dogged determination in the face of climate change. It is during this time that the role of the City begins to shift: once the protector of the realm, the burden of responsibility is now placed at least in part on Vancouver's citizens themselves.

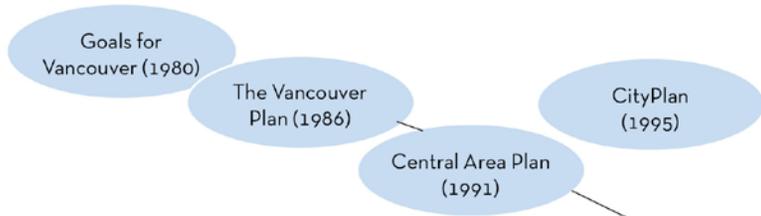
These two narratives also indicate a difference in the temporal placement of concern, from a focus on the needs of current day Vancouver's residents in *Goals for Vancouver* and the *Vancouver Plan*, to an future-oriented narrative in *Clouds of Change* and the climate reports of the 2000s. With *Clouds of Change*, concepts of sustainability were introduced as the need to preserve resources and ecosystems for future generations. Holden and Scerri (2013) characterize the difference between this conceptualization of sustainability and earlier notions of liveability as a tension between meeting the needs of future generations and meeting those of the present generation. The SEFC planning process reflects the beginning of the convergence of these two narratives of liveability and sustainability that has since influenced city policy in different ways.

SEFC and later the Olympic Village pushed the expansion of the concept of sustainability to include not only ecological but social and economic concerns.

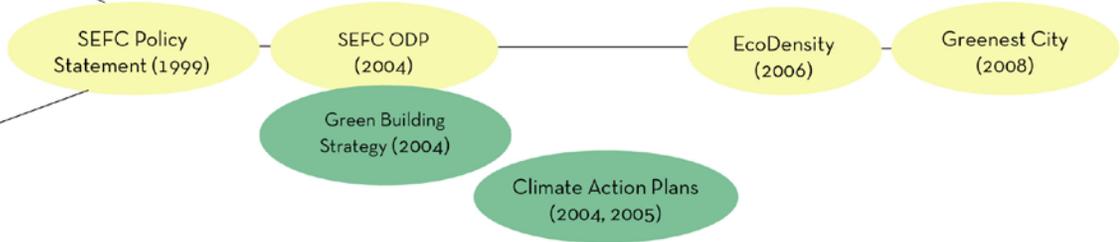
Opportunities to explore ways to improve the quality of life of Vancouver citizens while making efforts to achieve sustainability were given additional impetus under the spotlight of the Olympics and later manifest as concrete policy changes in the ODP and beyond (explored in further detail in Chapter 5). The need to rehabilitate the former industrial lands of SEFC furthermore introduced more regenerative approaches to sustainability that began to reframe ecological dimensions of sustainability not only as the reduction of harm but the improvement of local conditions. Many of these aspects were captured in *EcoDensity*, which sought to address both ecological concerns and quality of life in Vancouver in the midst of growing concerns around a housing crisis.

They are also captured in the current chapter of Vancouver's narrative. Under the Greenest City, the threat of climate and other global environmental changes are depicted as opportunities for Vancouver to become a leader among North American cities in reducing emissions despite growing populations. Economic growth is no longer framed as a process to be managed to prevent environmental degradation, but the key to achieving both prosperity and environmental protection and emissions reduction targets. The portrayal of environment and economics as complementary and not in opposition changes the narrative of obligation and culpability to one of possibility and opportunity (see also Scerri and Holden, 2014). A strong and growing economy is presented as key to meeting environmental targets and creating a vibrant, flourishing and healthy city. Instead of a need to change for the benefit of temporally or geographically distant populations, the *Greenest City* makes present day Vancouver citizens the primary recipients of the benefits of the strategy, with future generations of Vancouverites as the secondary beneficiaries, shifting towards a moral imperative that is lighter and more localized. Using brilliant imagery depicting a rejuvenated and thriving Vancouver, the Greenest City therefore focuses attention on the exciting possibility of what the city *could* become or achieve, as opposed to what it should *not* be.

The Liveable City



The Sustainable City



The Climate-Friendly City



Figure 3.1. Vancouver’s evolving sustainability policy narratives

Framed in the context of the literature on regenerative sustainability, the progression of the City's narrative towards the *Greenest City* also represents the rise of the brand and a shift towards a more attractive narrative than one of avoiding threat or self-sacrifice. Vision's strategy is consistent with current research on the reception of messaging around climate change and other environmental issues. As I noted in Chapter 2, narratives of sacrifice and guilt have been found to be ineffective in motivating action on climate change. Moser (2007) calls the strategy of using fear as a means to break through apathy and incite concern for sustainability issues as 'maladaptive', in that such strategies often only incite emotional numbing, paralysis and even denial. In actual fact, individual responses can even reflect annoyance or the outright rejection of new information in favour of pre-existing knowledge and values (Bingham 2007; Moser, 2007). Other work has found that the perception that climate change only poses a threat to ecosystems, distant populations and places, or future generations can be linked to low perceptions of the relevance of climate change to everyday life (Leiserowitz, 2006; Dilling & Moser, 2007; Whitmarsh, 2009). In recasting present-day Vancouverites as the major beneficiaries of sustainability action and promoting programs in areas such as local food and access to nature, the relevance and appeal to citizens has likely increased substantially. Two consecutive re-elections of the Vision party would seem to support this.

Many planners and politicians I interviewed for this study also suggested that the emphasis on "green" represented a deliberate move towards a more accessible and engaging narrative than one around sustainability. Some shared the view that the *Greenest City* branding and actions had further helped to "raise the profile" of the work of the Sustainability Office. Though some were critical of this shift and the inability of "green" to capture the many dimensions of sustainability, they ventured that it was a concept that was easier to understand and generally more motivating than the more complex and inclusive notion of the "Sustainable City" could be. However, while the Greenest City strategy has had its appeal, it has also led to some controversial and contested changes to the city's infrastructure. The addition of bicycle lanes in select areas of the city have been harshly critiqued by Vision's opponents in an approximation of the cries heard to the east over the City of Toronto's alleged "war on the car". In a recent transit referendum, over half of Vancouver's voting citizens channeled their disdain for Vision's plans and general distrust in

local transit authorities into a rejection of a 0.5% increase in provincial taxes that would see much-needed investments in Metro Vancouver's transit infrastructures.

Beyond transit, Vision's separation of affordable housing from broader sustainability policy has also suffered some criticism (Holden, 2013). The Vision council has been widely criticized for being "in the pockets of developers" and for approving controversial development projects, including high rise towers that have gentrified some of Vancouver's older and more affordable neighbourhoods. The deliberate branding of the Greenest City and its claims to raise the living standards of Vancouver's poor stand in stark contrast to persistently high levels of homelessness, soaring housing prices and the ever-rising cost of living. The EcoDensity approach to sustainability-as-density continues to play out under the current City administration, with little regard to the actual affordability or liveability of the results (CCPA, 2008; Rosol, 2013). As I'll show in subsequent chapters of this dissertation, the Olympic Village has not been exempt from these trends.

Overall, then, the analysis of the narrative elements of Vancouver's major plans and policies shows how the differing characterizations, framing and presentations of environment and sustainability issues have evolved over time. Though there has been some continuity between policies, the overarching narratives within them have shifted from a focus on protection against local and internal threats to one of opportunity and harmony between environment and economy. Despite the varying extent to which their authors drew explicitly on narrative structure or conventions, each policy has revealed certain ways of understanding sustainability, including the placement of responsibility for its achievement and the ways of doing so. Though I've not discussed them here, these shifts in narrative occurred in the context of broader shifts in narrative at provincial and federal levels (e.g. Dusyck, 2013, cf. While et al., 2010), which at different times both constrained and enabled City actions.

This chapter also begins to show how the SEFC neighbourhood and the Olympic Village fit within this broader trajectory and have actually acted to shift Vancouver's urban planning regime. However, a deeper analysis of the narratives that emerged around this now iconic community can reveal much more about the way sustainability and sustainable urban

neighbourhoods have been imagined in Vancouver. I turn now to the Southeast False Creek and the Olympic Village more specifically, which together represent not only an important contribution to the evolution of sustainability and liveability narratives in Vancouver, but a widely contested example of how such narratives should be expressed in their built form. While the narratives embedded in the neighbourhood's plans and strategies crafted a certain story about what the neighbourhood would achieve for both its residents and for the city at large, other voices were critical of many of the City's decisions around green technologies and affordable housing. In the next chapter, I start to unpack these various narratives to see how the neighbourhood was presented and perceived by different political and community actors, beginning with a particularly strong force in shaping public opinion: the media.

Chapter 4: Storying a Village: Fifteen Years in the Public Eye

TROUBLE ON THE VILLAGE GREEN

Tempers flare as city planners and private developers lock horns over Olympic Village

Such were the kinds of headlines that were once found in newspapers across the province of British Columbia and that at times even reached the opposite shores of the country as citizens near and far watched the unfolding drama that became the Olympic Village. From initial questions of how the lands ought to be used, to reports of the neighbourhood's first tenants, every step of the Village's process of design, construction and inhabitation have been carefully scrutinized, discussed and debated by Canadian media outlets. Though they sometimes tend towards the scandalous, these media representations give the reader a sense of the major events in the Village's unfolding and their perception by the public, opening a window onto the broader discourses around the Village. They begin to paint a picture of the many meanings the Olympic Village has come to embody and the different positions that its proponents and critics have taken, from value of the development itself to the responsibilities and intentions of the characters involved.

Though not exactly a proxy for public opinion, these narratives show the intensely political nature of the Olympic Village project invisible through an analysis of policy alone, and the kinds of narratives that continue to echo in the hearts and minds of Vancouverites even today. As I'll show, different municipal political parties have used the Olympic Village as an important symbol in arguing for their respective visions of the city and as a part of campaign platforms over the lifetime of the project. Media coverage similarly ranged in its depiction of the Village from a highly successful and innovative development on the part of the City, to an abject economic and political failure. During the height of the neighbourhood's economic uncertainty, media coverage rigorously questioned the transformative potential of the neighbourhood, as well as the skill and intentions of its proponents. Many of these broad narratives stand in stark contrast to more official accounts of the Village, which championed the neighbourhood as a substantial achievement in the sustainable transformation of Vancouver's urban planning regime (see Chapter 5).

While many of these characterizations reduced a complex process into a relatively simplistic picture of sustainable neighbourhoods, they nevertheless drape an added layer of meaning onto the Olympic Village and what it would represent or signify to the citizens of Vancouver, including those who came to live and work there. As I noted in Chapter 2, an analysis of our broad societal discourses can reveal the metanarratives that they both draw on and perpetuate, including what we value, understand, and prioritize as a society. Media coverage of the Village shows that while the sustainability aspirations of the neighbourhood were never specifically questioned, economic concerns dominated much of the coverage, with social and environmental dimensions characterized in opposition to the pursuit of economic viability. An exploration of these broad narratives further reveals how contrasting counter-narratives can emerge around an event or issue and come to assume dominance even over other, more official accounts.

As I'll show over the course of this dissertation, the counter-narratives put forth by media also demonstrate the power of these broad discourses in shaping not only perceptions of the neighbourhood's value, but certain dimensions of the neighbourhood's overall performance. Attributions of failure would come to affect the City's ability to push through particularly innovative arrangements, and later limited the willingness ability of City staff to either glean or share lessons from the Village experience. Characterizations of the neighbourhood as a missed opportunity to address affordability issues in the city also played a role in shaping certain decisions (Chapter 5) as well as resident expectations and experiences later on (Chapter 6). As in Chapters 3 and 5, the perspectives and experiences of a few key members of the design and planning teams have helped to flesh out the findings I present in this chapter, derived from interviews conducted during the winter months of 2014.

4.1 Teasing out media narratives

Before turning to the way the neighbourhood was depicted in media coverage, it is worth pausing to explain the usefulness of media representations in exploring something like the Olympic Village. As both a signal and arbitrating source of public opinion, media representations have long been of importance to scholars keen on tracing the way events or ideas are publicly framed and discussed. Media holds the power to influence public concern for sustainability and climate change issues in significant ways, from the perception of its importance or relevance to daily life,

to the understanding of specific causes and consequences of particular issues or events. The influence of media on political decision making is often analysed in terms of “issue-attention cycles”, a concept introduced by Downs in 1972 to explain how public interest in a given “problem” can be captured by media attention, creating an initially high demand for action that subsequently wanes once solutions are proposed or other issues move into the spotlight (Downs, 1972). Applied to sustainability issues, many scholars using this model have been able to document correlations between levels of media coverage and public concern for issues such as climate change (e.g. Sampei & Aoyagi-Usui, 2009) or between coverage and actual policy decisions (e.g. Lyytimäki, 2011; cf. Holt & Barkmeyer, 2012). These studies indicate, at the very least, a connection between the volume of coverage and an issue’s salience in the public mind.

However, it’s not enough to simply look at the amount of coverage an issue receives, but how it is presented. Newspaper and other forms of reporting are far from objective presentations of the “facts”, or account of how something *actually* is or was, but instead draw on particular narrative structures that turn information into attention-grabbing news. At times, the narrative structure of an article or news story can be overt, as in human interest stories that deliberately focus on a person’s experience or account of an event. However, the narrative dimension of news is often more subtle, hidden in the use of certain strategies of presenting information. As I noted in Chapter 2, the use of different “narrativizing” strategies can result in the deliberate or unintentional confusing of public understandings of sustainability or climate change issues. For example, the use of journalistic language and the selection of particular narratives can perpetuate certain values or courses of action, while diminishing others (e.g. Antilla 2005; Boykoff & Boykoff, 2007; Doulton & Brown, 2009; Ryghaug, 2009; Wright & Reid, 2010; di Francesco & Young, 2011). In their analysis of climate change coverage, McComas and Shanahan (1999), for example, showed that during different phases of the issue-attention cycle, different narratives can be given priority: in their case, from the danger or threat of climate change on the upswing, to the economics of different policy options on the way down.

The study of media narratives can therefore help us to understand how mass media depict certain issues or characters, what course of action are highlighted or proposed, where responsibility or blame is placed and how these shift over time as new or competing narratives appear and replace

older ones (e.g. Morehouse & Sonnett, 2010; Hallgrimsdottir et al., 2006). Examining how different media sources present or privilege certain kinds of narratives over others or omit them altogether can reveal the dominant understandings or assumptions around a certain issue; for example, that scientific consensus on climate change is equally matched by the number of “deniers” or “skeptics”, or that certain forms of energy development are necessary or even inevitable. Media accounts are not an exact representation of public opinion, but nevertheless remain an important “arbiter” that both reflects and creates social understandings of what is real or important. They represent important “hegemonic moral, economic and political orders” and the kinds of socio-cultural ideals and assumptions that broad discourses act to produce and reproduce (Hallgrimsdottir et al., 2006, p. 267). Studied longitudinally, narratives can also help to reveal typologies of narrative categories and the ways these appear and disappear over time.

4.1.1 Broad themes in Village coverage

To explore the shifting public narratives around Southeast False Creek and the Olympic Village, I used the Canadian Newsstand database to search for articles written about the various stages of the neighbourhood over an approximately 15-year period spanning January 1999 and September 2014. Only newspaper publications printed in Canada were analysed, including select local (*The Vancouver Sun*, *The Province*, and *The Vancouver Courier*) and national publications (*The Globe and Mail* and *The National Post*). The search itself was conducted between the months of May and September 2014, and included editorials and columns as well as news articles. Using the search terms “Vancouver” AND “Southeast False Creek” OR “Olympic Village”, a total of 2,933 articles were found and subsequently filtered for articles that provided insight into the way the development was perceived (as opposed to giving it only a brief or passing reference). This process resulted in a final total of 708 articles that were analysed.

What was immediately clear from the distribution of media coverage over the 15-year period is the concentration of media attention at a few key points in the neighbourhood’s evolution (Figure 4.1). Relatively low interest in the neighbourhood increased after the neighbourhood’s Official Development Plan (ODP) was released, spiking in 2008 and again to a lesser degree in 2010. During these peaks in media coverage, issues related to affordable housing and project economics dominated, particularly during periods of financial uncertainty during and after the 2008 global

recession. As a result, the dominant themes of coverage overall reflect a tendency to report on project financing, followed closely by affordable housing and ongoing developments. National newspaper the *National Post* gave the Olympic Village the least amount of attention overall, in contrast to the understandably high level of local interest reflected in the many letters and articles published by the *Vancouver Sun*. Indeed, it wasn't until 2005 that national newspapers began reporting on the neighbourhood with any significance, and even then remained low compared to regional and local newsprint (Figure 4.2). Financial issues dominated coverage in four of the five newspapers, while local semi-weekly newspaper *The Vancouver Courier* paid more attention to issues of affordable housing (Figure 4.3).

In keeping with the narrative analysis performed on policy and planning texts in Chapters 3 and 5, I also explored each article for different narrative elements, including the way concepts of sustainability are understood and portrayed, how these are linked to others issues, how responsibilities are framed and different roles or interests described, the expressive tools and images used, and the outcomes or tools that are recommended or advocated. With the help of a research assistant, each article was manually coded for the theme or general content of the piece, including the broad narrative arc it followed, any interesting or strong vocabulary used, how different characters were portrayed, the author's implied logic or ethic, and the way sustainability was framed or discussed. In exploring media coverage in this way, I was able to observe the ways in which descriptions and depictions of this important neighbourhood shifted over the 15-year period.

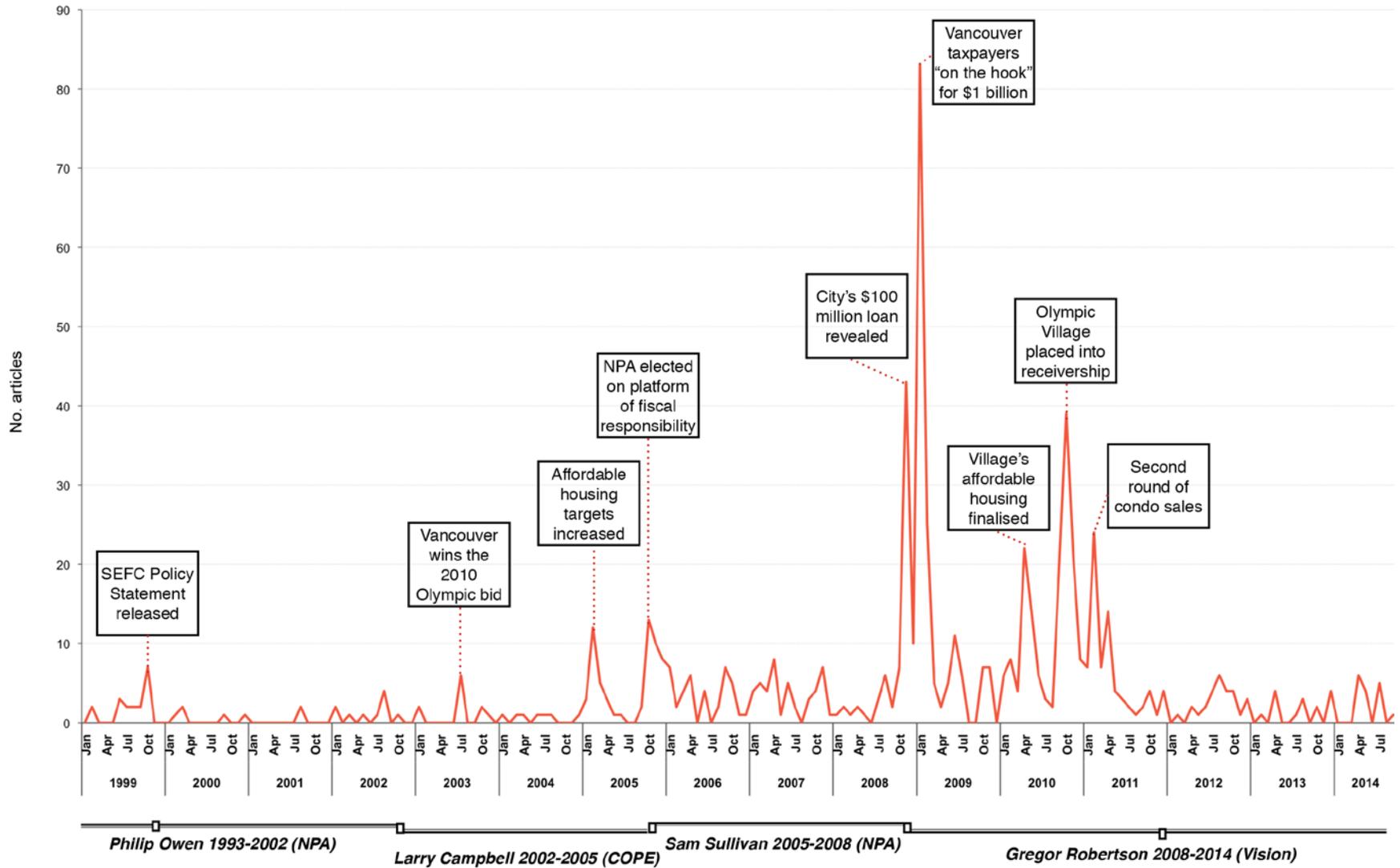


Figure 4.1. Media coverage of SEFC and the Olympic Village, 1999-2014

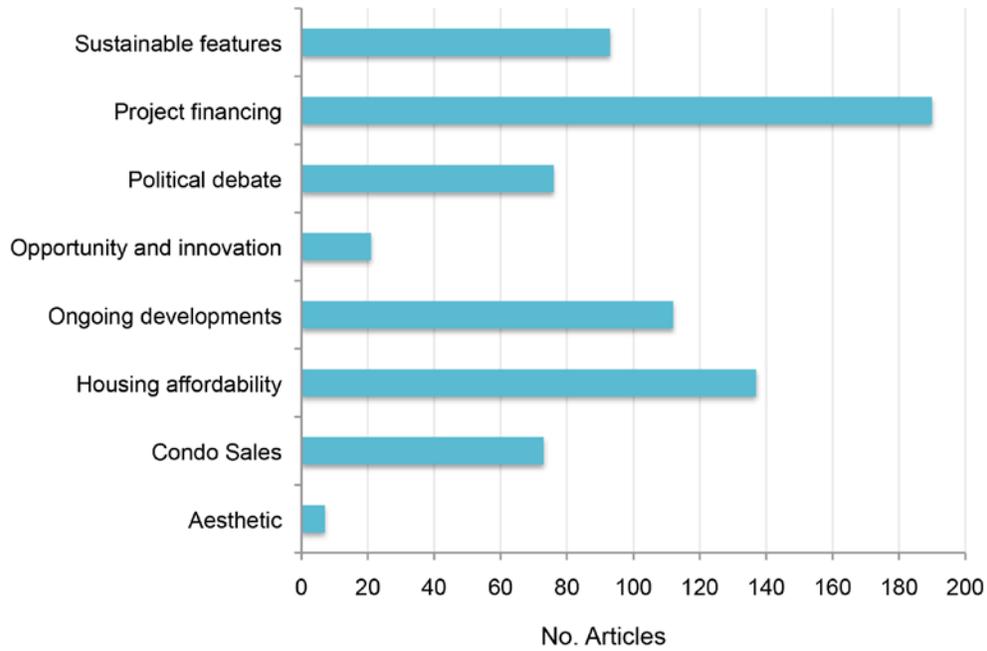


Figure 4.2. Coverage by dominant theme, 1999-2014

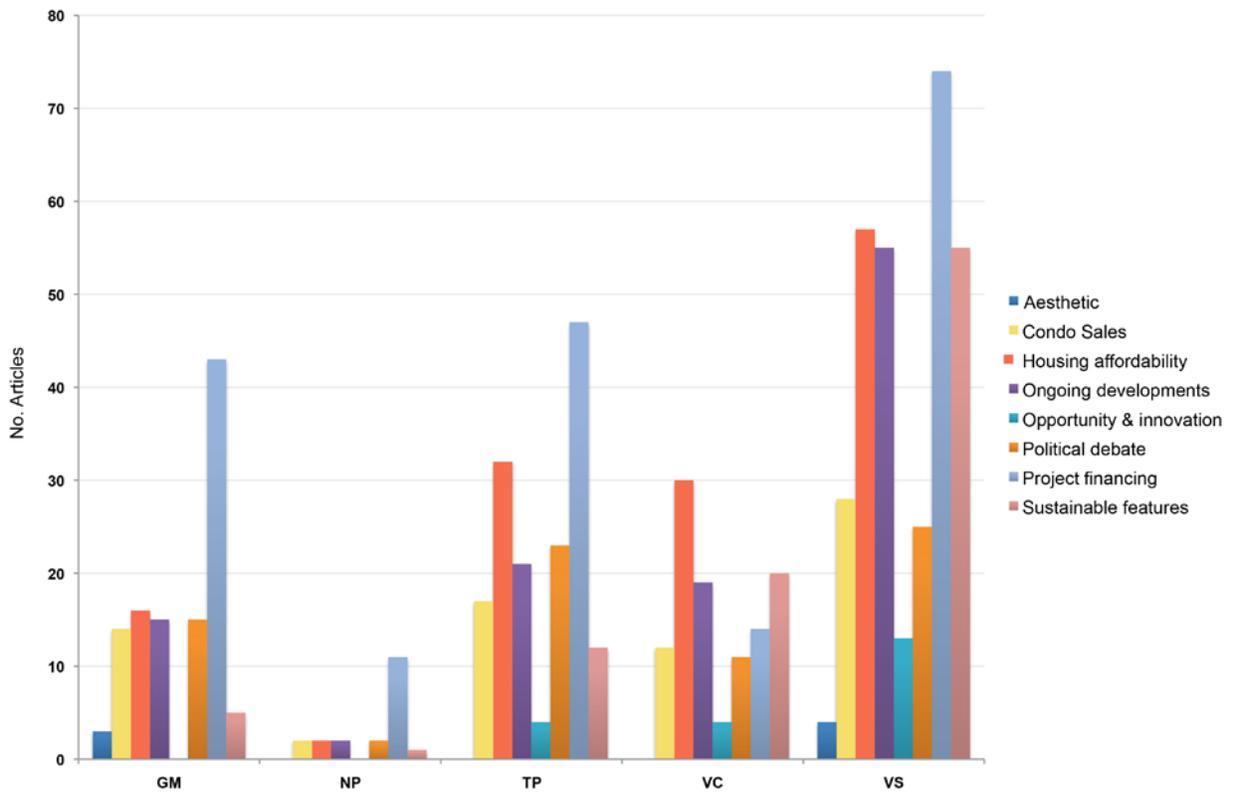


Figure 4.3. Theme of coverage for each newsprint, 1999-2014

4.2 A place in the spotlight

4.2.1 First steps: 1999-2006

Early coverage of the City's plans to develop the southeast shore of False Creek were initially both light and mixed. In the summer of 1999, the Vancouver Sun began to cover a public debate between select local figures in city planning and environmental advocacy over whether the neighbourhood should be constructed as was being planned, or if the lands should be reserved for an urban park. These debates highlighted early on tensions that would come to dominate public discourse over the future neighbourhood, encapsulating concerns over the cost of the project to the city, the appropriate use of city lands, and the degree to which the neighbourhood could even be considered "sustainable". Many arguments against the neighbourhood's design cited the need for an urban park in lieu of "preposterous" expensive towers, or what one author called a "social planning experiment of dubious promise" (*Eastside needs parkland, not concrete and roads*, Feb 9 1999; *Neighbours get a say in False Creek's future*, Jul 13 1999). Others expressed concerns over the high costs of soil remediation and the need to assure taxpayers that a sustainable neighbourhood would also be an affordable one. Authors defending the neighbourhood's promise highlighted key dimensions of the SEFC Policy Statement, then under development, including the neighbourhood's promise to minimize energy use and waste through building design and transportation systems, as well as provide affordable housing to Vancouver's residents.

Following the Policy Statement's approval in October 1999, coverage of SEFC trailed off until discussions of Vancouver's bid to host the 2010 Winter Olympics were initiated. Between 2002 and 2004, the possibility of City-owned lands in SEFC to be used as the Olympic Village was excitedly discussed, with many noting it as a crucial dimension of the City's overall bid. In the midst of larger conversations about the opportunity of hosting the Games, the desirability of specific features of the neighbourhood went largely unmentioned as the city's focus turned to whether or not the bid would even be accepted. However, the overall sustainability 'angle' to the City's bid, as well as the commitment to transforming the Village into low-cost housing after the Games, were noted as important reasons for the bid's eventual acceptance (*How we stack up against the Austrian competition*, Aug 29 2002; *How they rated*, Aug 29 2002; *Congratulations, now the real Olympic race begins*, Aug 29, 2002).

Through to the end of 2005, three narrative strands in media coverage of SEFC and the Olympic Village begin to emerge. First, a positive vision of the neighbourhood's transformative potential was expressed in a series of articles that described the development in glowing terms as "visionary, liveable and sustainable", "Vancouver's most sustainable community", and a "worldwide model for "green" city planning" (*False Creek plan passes*, Mar 5 2005; *Southeast False Creek's bright future*, Mar 5 2005; *City pays \$20m for RAV station*, Apr 10 2005). The neighbourhood was presented as an opportunity to transform a forgotten corner of the city and former "industrial eyesore" into a "neighbourhood of the future". A few articles during this period were especially optimistic about the desirability of the neighbourhood to potential buyers (*Southeast False Creek nothing but gold*, Feb 18 2005; *You could live like an Olympian*, Oct 13 2005). In these articles, the neighbourhood's sustainability goals were discussed in terms of both social and environmental dimensions, and worth the financial "stretch" to achieve them. City staff and council were portrayed as in favour of the development and in some letters to the editor, as deserving of praise for their innovative vision and for the benefits that would accrue to the public.

During this period, however, discussions of the affordable housing component of the neighbourhood's plan gained increasing prominence, spurred on by the COPE council's decision in December 2004 to increase SEFC's percentage of affordable housing from the original target of 22% to 33% (see Chapter 5). COPE's changes to the ODP sparked intense debates over the role of the City in providing affordable housing and whether the neighbourhood ought to include affordable housing targets at all given the costs. These debates reached a peak as the city moved towards the 2005 municipal election, during which time both incumbent party COPE and the NPA used SEFC as a platform from which to attack the other's position on housing affordability and subsidization – for COPE, an example of the NPA's heartless disregard for housing needs; for the NPA, an example of COPE's unwavering fiscal irresponsibility.

Following the NPA's successful electoral campaign, the new council announced that SEFC's affordable housing targets would be reviewed, prompting a second peak in public interest and a series of articles opposing the changes. NPA mayor Sam Sullivan and other councillors were depicted as villains concerned only for finances and not the city's poor (*NPA ignores housing*

needs, Feb 1 2006; *Council reduces land for social housing on False Creek parcel*, Mar 9 2006). Many articles referenced ongoing conversations around housing affordability, and even speculated that to revert back to a 20% target would be to forfeit any claim to sustainability that had been assured in the Olympic bid (*Revised plan angers groups: Social housing to be gutted in development* Jan 17 2006; *City opts for less social housing in False Creek*, Jan 21 2006). The NPA was broadly chastised by advocacy groups for perpetuating the affordability crisis, pricing out the middle class, and creating a city “only for the very rich and the very poor” (*Council reckless in scrapping southeast False Creek development plan*, Dec 24 2005; *False Creek plan would make ‘playground for the rich’*: *MLA*, Jan 16 2006).

In a third set of coverage, a series of articles began to highlight growing concerns over the project’s overall affordability. Though sometimes tied to discussions of affordable housing, these articles focus more specifically on the use of the city’s Property Endowment Fund to finance the neighbourhood, which was depicted as an inappropriate and risky move that furthermore set a bad precedent for future developments (*Costly False Creek development risk for the city*, Feb 5 2005; *Council turns False Creek into a money pit*, Feb 9 2005). The articles’ authors used strong and negative language to describe the neighbourhood parallels the glowing remarks of its proponents (e.g., “suck money away”, “bleak message buried deep in the mounds of documents”; “too rich for our blood”). In general, COPE council are seen as irresponsible in their lack of consideration of the possible costs of the development, but are not yet seriously chastised for the decision to press onwards. In an editorial following the NPA’s decision, the new council is praised for saving the project from “financial damage” inflicted by COPE who “plundered the fund”, and putting it on firmer financial footing (*False Creek plans need sound financial foundation*, Jan 18 2006). Both social and environmental sustainability dimensions are noted as the source of higher costs, with some noting the impossibility of achieving sustainability without consideration of the third, economic dimension (*Costly False Creek redevelopment plan fails the sustainability test*, Feb 19 2006).

4.2.2 Calm before the media storm: 2006-2008

As winter turned to spring, these heated debates over the project’s affordability were reignited by the City’s acceptance of the Millennium Development Corporation’s bid price for the land at

\$193 million in April 2006. Increasing concerns over “obscene” land prices were joined by criticisms of the NPA council for backtracking on commitments to housing affordability and social sustainability (*Olympic Village bid not good news*, Apr 6 2006; *Downtown land prices soar 350 percent*, Apr 6 2006). Though vitriol was mainly directed towards the NPA council, critiques were later extended to include Millennium as well, particularly during the rezoning. In a number of articles, the developer was chastised for its alleged desire to minimize the degree to which sustainability would be “painted on this side” of the buildings in favour of selling to an international luxury market that would presumably care less for the environmental dimensions of the units (*Developer, city clash over village*, Sep 20 2006; *Trouble on the Village green*, Sep 22 2006; *Greedy developers designing our city for wealthy international investors*, Sept 26 2006). Millennium’s requests for added density as a way of maintaining profit margins while still including affordable units was also criticized as evidence that Millennium was placing economic over either environmental or social sustainability concerns. Joining this choir of disappointment in the neighbourhood’s unfolding, a small number of articles spanning 2006 and 2007 began to characterize the neighbourhood as an achievement in mediocrity, the result of dull and conventional thinking on the part of city staff, planners and architects (*Planners trip in race to Olympics*, Sept 15 2006; *A design marathon disappoints at the starting gate*, Mar 30 2007; *A master plan trapped between past and present*, Jul 2 2007).

Despite these ongoing debates, however, this period actually marks one of the calmest in the Village’s tumultuous history, during which positive coverage of ongoing developments in the neighbourhood’s construction was relatively high, peaking in late 2007. The development was portrayed as aesthetically and environmentally unique, a picture that was buoyed by encouraging pre-sales. Reports on ongoing construction and the upcoming Olympics characterized city staff, council and even Millennium as visionaries carrying out the sustainable vision in a unique and positive way, nothing the “white hot creativity” that was giving rise to a “new standard for green development” (Feb 13 2007). This light but positive coverage continued into the early months of 2008 as several journalists continued to report on ongoing developments as they are selected or built, including waste management strategies, building materials, rainwater capture, and district energy. During this period, the neighbourhood’s “green” features were the focus of much media attention, including the LEED Gold standard, sewage heating, and green roofs. The

environmental, social and economic sustainability are portrayed as mutually reinforcing, with some linking the neighbourhood's "green" features to the ongoing success in condo sales, contradicting concerns that green features would detract from sales (*Olympic Village condos selling like hotcakes*, Oct 31 2007; *How green was my valet parking*, Feb 16 2008; *Crisis, what crisis?* Aug 9 2008). The selection of solar-powered waste bins are deemed a "win-win situation" for environment and economics, while the developer's hiring of under-employed residents attracted attention to the neighbourhood's contribution to meeting longer-standing unemployment social goals. The decisions to include urban agriculture and extensive green space were celebrated as promoting social cohesion and an overall sense of community (*Urban agriculture exploding in Vancouver*, Apr 5 2008), as well as ecological goals (*New island attracts wide range of wildlife*, Jul 16 2008). During this time, the Olympic Village enjoyed supportive coverage full of excitement over its potential, what it would bring to the city, and the legacy it would leave behind.

4.2.3 The billion-dollar bailout: 2008-2010

Between cries over affordable housing and accolades for the neighbourhood's features, a few quiet voices in *The Province* began hinting at a dark cloud on the horizon. In November 2006, one article noted with concern the rising costs of the site's soil remediation, followed by another published in February 2007 that derided both the City and the developer for accruing cost overruns and risking taxpayer dollars (*Games watchdog says village costs are being hidden*, Feb 5 2007). Towards the end of October, these lone voices grew into a broader unease over project finances as cost overruns in the midst of the looming economic recession became publically known (*Olympic Village way over budget*, Oct 7 2008; *Developer says no bailout for the Olympic Village*; Oct 30, *Condo towers come up short*). Amid reassurances from both the City and the developer, a leak to the press on November 6th revealed that City council had authorized a \$100 million loan to Millennium to assist it in completing the neighbourhood.

The city seemed to explode; the media certainly did. With this announcement, a period of intense media coverage of the Olympic Village began that expressed both outrage and concern over the project's completion. Once again, the Olympic Village became fodder for different parties and their respective supporters to attack the competition. The NPA-dominated council was lambasted

for the secrecy and the lack of public consultation around its decision, and likened to bumbling villains, outright criminals and everything in between. The NPA itself defended its position, citing sound business practices and criticizing the Vision party for suggesting foul play and the mismanagement of city funds. Despite their protestations, however, the NPA lost the 2005 municipal election to Vision and incoming Mayor Gregor Robertson's vow to uphold standards of public accountability and transparency (*'I will give Vancouver the leadership needed to find and act on the best solutions'*, Nov 14 2008). A few short weeks later, Robertson revealed the results of an independent audit of the Village's finances and dropped the biggest bomb of all: that taxpayers were officially "on the hook" for nearly \$1 billion for the Village's completion.

Robertson's announcement resulted in nothing short of a widespread public uproar. Anger and concern dominated media coverage once again as the newly-elected Vision council began negotiations with the Province over funding for the project's completion, raising questions as to whether the City ought to have taken on financial responsibility in the first place, and how a loan of this size might affect the City's credit rating. Language used to depict the situation is severe, with various critics noting the City's "*serious financial jeopardy*", *breach of the public trust*", and "*cone of secrecy*". Former NPA mayor Sam Sullivan re-emerged to defend his council's decision in insisting that the situation was not as bad as Vision made it out to be, and that the Village would be a success. Millennium itself also gave assurances that it would complete the project, but many remained skeptical. In February, fears were somewhat allayed when the BC government's amendment to the Vancouver Charter allowed the City to first borrow and then lend money to Millennium to help them complete the development, purchasing Millennium's loan from its original lender, Fortress Investment Group.

During this period of crisis, the neighbourhood's specific features once again went unmentioned as the public's gaze was directed towards the more pressing concern of the Village's completion in time for the Olympics. However, the low rumblings over the high cost of sustainability features that were heard as early as 2005 began escalating in this period into a sterner pronouncement of the problem of tradeoffs inherent in sustainability efforts. "Green" features begin to be cited as a reason for high costs and overall development challenges more in earnest than before (Jan 14th 2009, Feb 13th, Feb 17th, Feb 20th, Feb 23rd, July 2nd, Jul 25th, Nov 3rd, Nov

9th, Jan 8th 2010). These added costs were often juxtaposed with cutbacks in affordable housing, and the potential or actual tradeoff between ecological and social goals (*Social housing to cost \$595,000 per unit*, Feb 23 2009; *Sustainability is costly but worth it*, Jul 2 2009; *No pain, no gain?* Jul 25 2009). Into June of 2009, criticism of the costs of affordable housing and indeed the decision to put such housing on some of Vancouver's prime real estate grew louder. However, others argued that while costs were higher as a result of the environmental features, they would be worth it. These supportive articles were joined by a scattering of articles by loyal supporters who continued to insist upon the desirability and likely success of the neighbourhood.

4.2.4 The makings of a 'ghost town': 2010-2011

The city held its breath as contractors rushed to complete the neighbourhood in time for the Olympics, and sighed with relief when on November 5th 2009, Mayor Robertson finally handed the keys to the Village over to the Vancouver Olympic Committee. Through to the end of the 2010 Winter Olympic and Paralympic Games, praise for the Village's beauty and innovation was heard from across the board. Though some noted dryly that the City had narrowly escaped embarrassment, others proclaimed the project an overwhelming success, supported by athletes' favourable reviews and the neighbourhood's receipt of the LEED Platinum designation for Neighbourhood Development.

Alas, the warm glow of the Olympics was unfortunately short-lived, and was quickly replaced by renewed discussions of affordable housing. In April 2010, the Vision council announced that only 126 of the 252 units originally designated as affordable housing (totalling roughly 10% of the Village's 1,100 units) would be retained as such. The remaining half of those units would instead be rented out at market rates, giving priority to "essential workers" such as including firefighters, paramedics and teachers. The decision was met by opposition from nearly all sides; those who supported affordable housing deemed it a loss and a broken promise, while others saw the move as tokenistic and financially irresponsible. A particularly strong voice throughout this discussion was that of Michael Geller, a local real estate consultant and developer who advocated strongly for affordable housing only at low cost to taxpayers and who argued that the presence of low-income housing would deter condo buyers (*Affordable housing can be built at an affordable*

price, Mar 6 2009; *Affordable ownership units' the best use for Olympic Village housing*, Apr 19 2010).

In May 2010, however, a new narrative emerged as high-profile real estate marketer Bob Rennie and his team began to market the Olympic Village condos. Slow sales prompted reports over concerns that the units were overpriced and would fail to sell, reigniting concerns over the potential of a significant taxpayer burden. Articles branding the neighbourhood as “Vancouver’s most high-profile ghost town” began to emerge, becoming more firmly established towards the end of the year (*If you buy it, will anybody come?* Jul 29 2010; *Costs haunt Olympic ghost town*, Sep 8 2010; *Olympic Village trapped in vicious, hollow circle*, Feb 11 2011; Sept 9 2010; Dec 21 2010, Feb 13 2011; Feb 25 2011). The neighbourhood is characterized by a few as aesthetically wanting, a place with “cement and more cement”, and where “they really did pave paradise” (*O Village a cement bunker*, Sept 10 2010; *Mayor expects Olympic Village to become a jewel*, Oct 25 2010). The news was accompanied by a resurgence of quiet grumbles over the expense of “green” features (*City’s costly green initiatives sapping taxpayers*, Sept 27 2010; also May 19, May 28, Sept 25, Oct 2, Oct 16), fostered by a second wave of reports that Millennium had, finally, defaulted on the City’s loan (*Taxpayers on hook as Olympic Village condos remain unsold*, Sept 9 2010; *Taxpayers could get snowed under with Olympic losses*, Sept 25 2010).

When the Olympic Village finally went into receivership on November 10th 2010, the City took over a portion of Millennium’s assets, including the responsibility to sell a number of units. Several articles were once again critical of the move, with one journalist noting that the city was “taking a bath” and as a result, taxpayers were “getting hosed” (*As receiver steps in, value of development in doubt*, Nov 18 2010). The announcement of the final expected financial shortfall to fall on taxpayers in spring of 2011 lead to further scorn over the City’s handling of the debt, calling the Vision council out for its “cloak and dagger activity” (Oct 21 2011) and “inordinate amount of fumbling” (Apr 15 2011). In articles calling for an audit and inquiry into the ordeal the event was referred to as a “gong show” and “sorry saga” (Apr 13/15 2011). Joining reports of financial losses were stories on building deficiencies, malfunctioning components and disgruntled residents disappointed over the use of “ridiculous green technology”, which continued into 2011 (*Tenant of green building sees red*, Oct 3 2010; Mar 17, Mar 18, Mar 23, Apr 6 2011).

4.2.5 Home at last: 2011-2014

To the eventual relief of Vancouver's municipal council, staff and public alike, the ghost town cloud was lifted. In February 2011, Rennie dropped the prices of the remaining Olympic Village condos by as much as a third, and as buyers once again began to pass through the doors of the sales office, media attention slowly thinned out. Coverage of "brisk sales" in 2011 eventually turned into reports of the City's success in eliminating much, if not all, of the original debt. Positive articles were written about improved sales, the overall design and layout of the neighbourhood (as well as its LEED Platinum designation), giving voice to incoming residents who cited positive experiences with their new homes. Even affordable housing tenants were depicted as "feeling like lottery winners" in articles that paint the Village as slowly coming into itself. On September 4th 2012, an article in the Vancouver Sun proclaims that the Olympic Village had officially shed its 'ghost town' label. Throughout 2012 and 2013, various stories are published that note that the Village is starting to feel like a community, businesses are starting to open, and that residents are generally happy. Sustainable features are given little attention in the last few years of coverage, with the exception of the NEU, which is applauded and recommended as a city-wide strategy, and the resident beaver seen setting up shop in the constructed wetland. The decline in coverage indicates that the Olympic Village was no longer a central issue but more of a backdrop to ongoing city life, including an increasingly popular venue for a number of cultural events. On April 28th 2014, the City announced that the debt had officially been repaid with local developer Francesco Aquilini's purchase of the final remaining units under the City's ownership.

4.3 The Olympic Village: boon or boondoggle?

A narrative analysis of media coverage around the neighbourhood reveals three broad narratives that emerged over the course of the 15-year period, each with their own characterizations and treatments of the nature of sustainability. Each one can be roughly traced to show their relative importance in overall coverage over time, which shows a heavy emphasis on economic issues during the project's most tumultuous times (Figure 4.4). In the sections below, I explore each of these three narratives in turn.

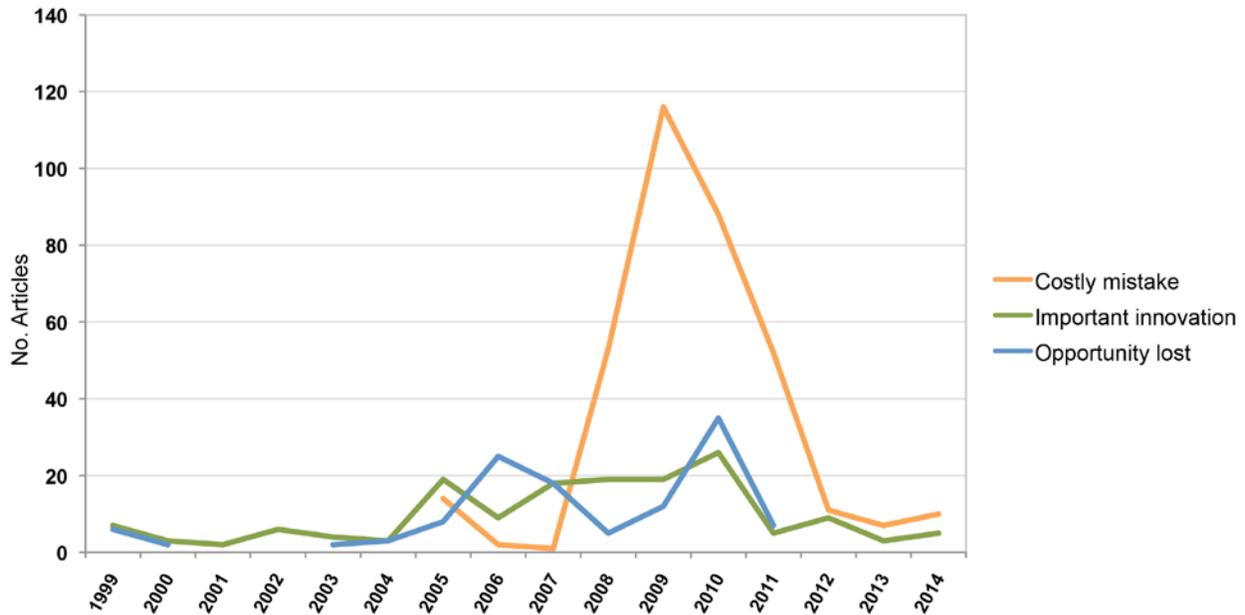


Figure 4.4. Broad media narratives of the Olympic Village, 1999-2014

4.3.1 A costly mistake

Roughly corresponding to the levels of coverage overall is the most prominent narrative to emerge around the Olympic Village, found in news reports, letter and editorials on the political decision making, uncertainty and fallout around the neighbourhood’s construction. This narrative draws principally on themes of political debate, project financing and later, the difficulties experienced in selling the condos that together would frame the Olympic Village as a political boondoggle and blunder that would cost Vancouver taxpayers several million dollars. Even after the Olympics came and went, a narrative of possible or actual failure persisted as concerns turned to the recuperation of the taxpayer debt and the initially slow pace of condo sales. In this narrative, well-known antagonists in the form of the *corrupt politician*, the *heroic whistleblower* and to a lesser extent, the *greedy developer* were frequently evoked, especially in letters to the editor that express particularly indignant viewpoints. All of the various iterations of City council received negatively characterizations as scoundrels and villains, with taxpayers in turn portrayed as the witless victims of the actions of an either corrupt or inept city council. While writers began to express anxieties that Millennium may not be able to complete the development in time for the

Olympics at all, and even chastise the City for their selection of Millennium in the first place, the developer itself was not subject to the same level of criticism as the city's political parties.

A feature worth noting within this narrative is that the sustainability features of the neighbourhood went largely unmentioned during its peak as the public turned to more pressing matters. Where sustainability *was* discussed within this narrative it was largely in reference to the inherent costs of “green” features. Never in direct opposition to sustainability, several articles nonetheless noted the expense of measures intended to reduce climate and other environmental impacts. In some cases, the three-sphere conceptualization of sustainability was evoked as a way of highlighting the importance of the project's sound economics. Though initially quiet, this characterization of “expensive green” began to emerge more in earnest once immediate concerns around the “billion dollar boondoggle” were resolved. To some, this characterization was unfair, as the Village's difficulties were largely the product of circumstances beyond any one party's control:

The credit crunch destroyed the market for condos, even investors for speculative condos in Vancouver for that little window of time. The Olympic Village forced a complete flooding of the market. We had to build all of these buildings that none of us ever would have as a developer, and then somehow green got blamed for a bunch of it. (M. Holland, personal communication, Jan 30, 2014)

You had the collapse of the whole buoyant economy and you had the developer there having to move forward because of our commitment to the Olympic Games where, as you noticed, every single project around them went on hold for a while. But they had to proceed. And that brought a narrative, a negative ‘this is not economic’ kind of narrative to the table. (L. Beasley, personal communication, Jan 30, 2014)

One planner I spoke with also reflected on the role of the Olympics in the negative portrayal of the neighbourhood:

The economic crash had happened in the middle of [construction], so some buildings hadn't even been released for sale. So it felt like a ghost town. And yet all this anticipation had been there to enter the Olympic Village, and then you did and there was nobody there. So it was just an odd, odd situation. (P4, personal communication, Jan 31, 2014)

What is particularly interesting about the “ghost town” narrative that emerged during this time is that despite its negative tone, it was allegedly introduced with some deliberateness in order to divert attention away from the arguably worse narrative of losses and deficiencies. When I questioned him about the challenge of marketing the Olympic Village condos under the cloud of the “ghost town” label, Bob Rennie informed me that he had in fact been the one to introduce it:

I went into the media with no permission and said ‘it’s a ghost town’ [and] everybody went crazy... I said it’s a ghost town because I wanted people to concentrate on something other than financial difficulties, politics and deficiencies. Well, I came back and it was, ‘how can you say that?’, and I said ‘trust me, I will now remove the ghost town cloud’, and then people will say in a year ‘it’s not a ghost town anymore’. And I said it would take me four years to sell it, knowing that I had to sell it to home owners, even if I blew it out at half price...So it was all orchestrated. (B. Rennie, personal communication, Mar 9, 2014)

Whatever its source, the shift in attention proved successful: the ghost town narrative was able to divert some of the public’s attention away from broader financial concerns, replacing it with a narrative that could essentially be more easily dismissed once condo sales picked up.

4.3.2 An opportunity lost

A more moderate narrative than the tales of corruption and failure described above is one of broader disappointment in the translation of the neighbourhood’s vision to reality. Not quite as condemning as the story of the “billion dollar boondoggle”, this narrative emerged from articles that described a series of the missed opportunities that resulted from poor design, planning or leadership. Towards the beginning of the neighbourhood’s design process, this narrative emerged around the selection of particular “green” features and the neighbourhood’s overall design. Early articles that expressed disappointment over the use of the lands for urban development over parkland were later joined by authors who wondered if the neighbourhood would go far enough to reach its environmental sustainability aims; for example, in the selection of LEED as the building standard (over a more aggressive target) and of sewage waste heat as the source of district energy (over the lower-emission biomass option). Others opined that the neighbourhood would be an eyesore, a blight on the urban landscape of Vancouver.

However, this narrative was mainly to be found in conversations over affordable housing. Critiques of the NPA council were plentiful over the course of the neighbourhood’s development, particularly following the council’s decision to reduce the land set aside for low-income housing to be included in the development from 33 to 20 per cent was finalized. To many, the NPA’s decision represented a lost opportunity to make SEFC a unique example of affordability in an increasingly unaffordable city, and linked to broader conversations on housing issues in Vancouver at large. Following the announcement of the City’s loan to Millennium in early 2009, this narrative of lost opportunity began to be more closely tied to financial issues and the

probability of further losses of low-income housing. The narrative reached its peak in with Vision's decision to retain only 250 units as low-income housing.

The implication of much of this narrative was that changes to affordable housing would result in an overall loss in the original goals set by the project. Early on, affordable housing wasn't explicitly linked to "sustainability", but instead drew on longer-standing narratives around housing affordability and homelessness in the city at large. Depending on the politics of the authors, City councils were depicted as either promising too much or too little and in doing so, victimizing either the neighbourhood's future residents or the city's low-income population, respectively. Gordon Price offered his thoughts on the nature of this narrative:

[There was] a big debate over the portion of non-market housing, particularly with Sam Sullivan's [NPA] council. I wouldn't call it marginal, but it's the *degree* to which you're going to pursue...mixed-use or non-market housing, or the *degree* of sustainability. It's not a deviation from the general direction. Now, that's the way those battles get portrayed, and people lose very quickly the strategy of the war because they're concentrating on the individual battles. But no council has deviated from the general pursuit of sustainability at the municipal level (G. Price, personal communication, Feb 3, 2014).

Indeed, much of this narrative used the affordable housing target in SEFC and the Olympic Village as an illustration of broader concerns around housing affordability in the city. Only a few noted that reductions in affordable housing would lead to a decline in the neighbourhood's overall sustainability goals, while others simply referred to concerns that amenities would be reduced and promises wouldn't be kept. As with the more economically-focused narrative described above, the "green" and more innovative dimensions of the neighbourhood similarly went unmentioned during the height of discussions around affordable housing cuts. However, a discussion of the potential conflicts or tradeoffs between social and environmental sustainability goals emerged later on, once again highlighting the costs of environmental measures that pushed up the costs of creating affordable housing units. Throughout the narrative, the desirability of affordable housing was never itself questioned, but, like the neighbourhood's environmental features, discussed in terms of its overall costs to the city.

4.3.3 An important innovation

The third and final narrative that emerged out of media coverage of the neighbourhood portrayed the development as a successful innovation in community building and a positive addition to the urban fabric of Vancouver. This narrative focuses on the neighbourhood's benefits over its

potential costs, evident in articles featuring pioneering innovations in planning and building and general optimism over the potential and future of the Olympic Village neighbourhood. The Village's defenders came from all areas of the city, including letters to the editor written by members of city council and of the neighbourhood's planning team. In early coverage especially, articles that presented this narrative tended to use similar language as that found in the official planning and policy documents for the neighbourhood. This shifted towards a focus on the environmental features prior to and during construction of the Olympic Village. Articles that covered details and progress on the sustainable features of the neighbourhood, such as the system of energy provision, green space or LEED designated buildings, tended to present the Olympic Village in this positive light. However, these more positive articles were all but lost in the chorus of blame and panic during the neighbourhood's more dramatic moments.

Many of the Village's main contributors I spoke with for this study perhaps unsurprisingly supported this narrative. Among those who continue to champion its merits is Scot Hein, a former Senior Urban Designer who noted that despite critiques of Millennium's credentials and intentions, the developer had been on board with the City's vision and even expanded the requirements set out in the ODP by allowing their consultants to generally push them towards best practice. Both Hein and former Green Building Planner Rachel Moscovich also pointed to several policy legacies the construction of the Village left behind, including Floor Space Ratio exclusions that were negotiated between the City and Millennium⁵. Applied across the city, these exclusions now encourage the use of passive design strategies in the construction of new buildings. Other legacies include the use of rainwater for toilet flushing and irrigation, as well as the Village's precedent for net-zero construction targets. Though not developed specifically for the Olympic Village, the SEFC Green Building Strategy has furthermore served as the foundation for the current city-wide strategy.

A second major policy legacy left by the SEFC experience more broadly is the Neighbourhood Energy Utility. A first attempt at renewable district energy, lessons from ongoing operations of the NEU have been incorporated into a city-wide Neighbourhood Energy Strategy (CoV, 2012).

⁵ In the City of Vancouver Building By-law, floor space exclusions are used to encourage developers to improve the energy efficiency of building envelopes by thickening walls without losing usable floor area that can be sold.

The importance of this piece is explained by former SEFC Advisory Group member Jennie Moore and echoed by City of Vancouver Green Building Manager Sean Pander:

The innovation of the NEU is absolutely a strength of the neighbourhood design...I count it as one of the successes of Southeast False Creek in sort of bringing that to a place where it not only happened in this community but it also influenced new policy on large re-zoning sites. It's become more of a baseline expectation that if there's some kind of critical mass, that there's going to be an exploration of renewable, district energy. (J. Moore, personal communication, Feb 4 2014)

Large-scale renewable energy as not being a cost to sustainability but an investment that had a good financial return...all of a sudden [we can do] the right thing, we can do it large-scale, world class, and make good money on it, but not overcharge customers. And that idea, oh my god, put renewable energy on the stage. That was new for the City, that we can do renewable energy, and we can do it way bigger scale than anything we ever imagined before. That was big. (S. Pander, personal communication, Feb 6, 2014)

As I outlined in Chapter 3, the planning process for SEFC and the Olympic Village also had a considerable impact on the City's approach to sustainability in a more general sense. Larry Beasley and Gordon Price both offered their thoughts on the legacy of the neighbourhood in pushing sustainability efforts in the development community:

I think as the city further develops, you'll find what was very dramatically negotiated in Southeast False Creek becomes the stuff you write in before you even do much work in other areas. The test of that will be the next major, larger planning initiative, but almost all those targets for sustainability have been built into everything that's been done since then. And of course, the world has changed too. The development community is now not really afraid of sustainability the way they were years ago so they can embrace sustainable ideas very easily and there are products on the market that allow that to happen a lot more than it used to. (L. Beasley, personal communication, Jan 30, 2014).

It got caught up in, of course, a whole bunch of other things, from the Olympics, to community pressure, to a change of council, a desire for more non-market housing, raising the heights and densities. And a debate over urban form, urban design. But at the same time, they really notched up the whole tech end of sustainability, particularly energy... So I watched as these things were put in. Man, always a danger being on the leading edge of new technologies, some of which they found out. But they actually ratcheted up sustainability as a priority. (G. Price, personal communication, Feb 3, 2014).

4.4 The politics of a sustainable urban community

Both the review of media coverage over time, as well as my own interactions with those who had been involved made it clear to me that the Olympic Village was in no way a simple urban development, but a project that took on enormous political significance. Much more than the sustainable urban neighbourhood envisioned in its plans and statements, the Village became a symbol for everything from broken promises and government corruption to the neighbourhood of the future. Throughout the neighbourhood's lifespan, articles championing the merits of the project remained low but steady, and were highest between major decisions while the project's

construction was underway. Interestingly, the most positive period of coverage coincided with the generally optimistic reports issued by City staff on Vancouver's progress towards meeting their community and corporate climate action goals (see Chapter 3). Conversely, high points in coverage reflected specific and often controversial developments in the project's lifespan, aligning with the well-known tendency of mass media to focus on particularly dramatic or contentious issues.

For example, Millennium's bankruptcy and the subsequent announcement that Vancouver taxpayers would be "on the hook" saw a near-complete obfuscation of any narrative that was not economic (and largely negative) in nature. During decisions around the inclusion of low-income housing, conversations turned to Vancouver's overall state of affordability (or lack thereof) and the different political parties' support or rejection of higher proportions of affordable housing in the Village. Where one side argued that already dwindling funds were best spent elsewhere, others chastised the mere thought of reducing the overall number of affordable units to be included in the neighbourhood. The ultimate decision to reduce the final total to 250 units came as a significant disappointment to many involved in the conversation, a fact that continues to play out in the neighbourhood today (see Chapter 6). As I noted in the introduction, these peaks in coverage can be broadly correlated to the amount of attention and salience that Vancouver's citizens attributed to the development. However, they also show how the neighbourhood was evoked as a way of illustrating the intelligence or incompetence of various actors by linking decisions around the Village to other, longer-standing political narratives around accountability, fiscal responsibility, and housing affordability (see Young & Dugas, 2011 for similar findings in climate change media). While critiques of the neighbourhood and the actors involved were rarely tied to sustainability issues specifically, the neighbourhood nevertheless became, in the words of Larry Beasley, a political "battering ram".

Furthermore, newspaper media not only reflected ongoing developments in the Village's design and construction, but also impacted the way various actors approached the issue. Bob Rennie's supposed attempt at steering negative press away from the tenuous economics of the project towards a narrative that could be more easily overcome is perhaps the most obvious example, given its deliberateness. However, the various councils over the project's lifetime both used and

responded to media outlets as a way of justifying decisions or pointing to the failure of their opponents. At the peak of controversy around the neighbourhood's financing, the Vision Vancouver party in particular was quick to use past council decisions as a way of tangibly demonstrating the way they differed from the NPA, and were even chided for over-emphasizing the jeopardy the project was in. However, this strategy fit well with a more general attempt to completely rebrand the Vision approach as substantially different from the unpopular EcoDensity Charter. Despite the NPA's attempt at including affordability as a key dimension of EcoDensity, the Charter's lack of credibility in this area was no doubt tied to their insistence on reducing the overall percentage of affordable housing in the Olympic Village. These kinds of attempts to describe and characterize the Olympic Village show how public narratives perpetuate the simplification and indeed caricaturisation of an otherwise rich and complex matter (see Shaw & Nerlich, 2015 for similar findings in climate change policy). They furthermore illustrate Fulton and her colleagues' point that characterization strategies often perpetuate the notion that individuals or groups of individuals are attributed responsibility for the failure or success of a project, to the exclusion of broader economic trends or socio-cultural norms that play an equal if not greater role (Fulton et al., 2006).

Though media attention to the neighbourhood has now all but faded completely, the dark cloud of scandal and worry seems to continue to obscure any of the more celebratory acclaims the neighbourhood has received. Of the three narratives that emerged around the neighbourhood's evolution, the depiction of the Village as a costly mistake born by Vancouver's citizens has persisted despite its integration into the city's landscape. A former member of the SEFC planning team reflected on the way Vision approached the neighbourhood in the years following its establishment:

I think at the time, Southeast False Creek was being looked at as a disaster, so there was probably no interest in learning from it at that time. And then the Greenest City piece was about bringing new ideas to the city that hadn't been considered before. Or maybe just a misunderstanding between groups, like, not realizing what each could learn from each other. I don't know how much the group at the City now has wanted to look at the Village positively, just because it's an opportunity still to tell a negative story about someone else. So we'll see this year if it pops up at all and then you can tell if it's a communications strategy. If they start using the same words, if you start hearing 'train wreck' or 'disaster' or those kinds of words, if you hear them over and over again, it's because there was a memo that went out and that's the way to talk about it. (P4, personal communication, Jan 31, 2014)

Interestingly, now that its more turbulent times have faded in public memory, the Olympic Village has been somewhat reframed as a project that is contributing to realizing the Greenest City vision. In one of several short clips celebrating the accomplishments of the Olympics, Mayor Gregor Robertson praises the Olympic Village for its contributions to Greenest City goals:

The Olympic village now demonstrates that we can be world leading in green buildings. We have demonstrated a real capacity, we've applied it to a large-scale project like this, and this in turn should attract capital, green capital, and make this city even greener. This is a direct representation of putting capital into green projects, investing in these new technologies, and creating something that is world-leading. (Mayor of Vancouver, 2010)

The Olympic Village is also briefly celebrated on the City's website as the successful creation of "one of the greenest communities in the world", noting in particular its achievements in affordable housing, natural ecological habitat, and "Canada's first net zero multi-unit residential building", or the "Net Zero" building (CoV, 2014b). In the Greenest City implementation updates, the NEU is consistently highlighted as a key project responsible for the overall reduction in greenhouse gas emissions and progress towards the Climate Leadership goal (CoV, 2012b, 2013b, 2014). This re-framing of the neighbourhood's significance as a means of achieving the current administration's Greenest City goals bode well for the use of the Village as a example from which lessons can be learned, and for the potential of the neighbourhood to effect the broader transformation it intended. However, Vision's initially harsh characterization of the Olympic Village, together with the economic problems the neighbourhood suffered, resulted in a missed opportunity to either learn from the project or more fully support it during important early years.

Chapter 5: Vancouver’s Vision: The Design and Construction of the Village

The positive, if subdued depiction of the Olympic Village by the current City administration presents an interesting contrast with the varying and often damning accounts of the neighbourhood’s progress in the media. These more sanctioned descriptions of the neighbourhood’s potential are, of course, an important part of the story, especially the plans and policies that actually guided the form and function of the actual neighbourhood. From the *Policy Statement* to the final rezoning applications, and all the council reports and strategies in between, these texts tell the story of the kind of place that SEFC and the Olympic Village were intended to be – not just another urban development, but a “model sustainable neighbourhood” with a particular set of goals and its own unique character.

5.1 Getting the “official” story

In this chapter, I turn to this “official” narrative to see what story it tells of the neighbourhood from the perspective of its planners and designers, and how it changed over the course of its planning lifespan. As in Chapter 3, I use techniques derived from narrative policy analysis to explore the key texts (Table 5.1) that shaped the vision of the Olympic Village, and what they tell us about how sustainability and sustainable neighbourhoods are defined and imagined. These official texts and promotional materials present an ambitious and at times celebratory narrative of what the neighbourhood would accomplish in terms of social, economic and environmental sustainability, and are similar in tone and characterization to the more optimistic narratives presented in the media. They depict the Village as an important experiment that will change the way future buildings and neighbourhoods are designed, a key moment in the transformation of Vancouver’s regime towards a new form of city planning.

To end the analysis here, however, would be to ignore the actual translation of this narrative into the new neighbourhood the Village would become. As I discussed in Chapter 2, narratives have both normative and performative dimensions, the latter of which is often expressed in physical changes to the material world. Walking through the Village today, it’s amazing to see how years of planning and decision-making has culminated in the streets and structures of one of Vancouver’s newest neighbourhoods. The infrastructures, buildings and technologies that were ultimately built into the fabric of the neighbourhood are the expression of thousands of decisions

and shifting notions of what constitutes ideal building form, appropriate affordable housing percentages, or the best approach to the visibility of “green”. They also represent a deliberate attempt to intervene into the daily practices of Vancouver’s residents in order to encourage a transition towards a more sustainable way of life. It is this material outcome that I interrogate in the second half of this chapter.

Table 5.1. List of documents analysed

| | |
|--|---|
| Clouds of Change (1990) Visions, Tools & Targets: Environmentally Sustainable Development Guidelines for SEFC (1998) SEFC Policy Statement (1999) Vancouver 2010 Olympic Bid Book (2002) SEFC Official Development Plan (2004) | Interpretive Strategy SEFC (2006) SEFC Public Realm Plan (2006) SEFC Master Art Plan (2007) The Challenge Series (2009) Various council reports (2006-2013) |
|--|---|

To understand how the neighbourhood evolved from decision-making processes and documents to its final expression in the form of the Village today, I turned to the expertise of six of the key members of its planning and design teams. Held either over the phone or in person, these semi-structured interviews occurred between January and March 2014 and gave me a deeper insight into the decisions that were made, and the extent to which they ultimately reflect the neighbourhood’s official narrative. As I found in my explorations of the neighbourhood’s final outcome, the translation from vision to reality remained faithful in many ways. The neighbourhood represents the outcome of a tremendous effort on the part of its planners and designers to push urban sustainability through the inclusion of a number of novel technologies and material arrangements that were intended to enhance the resident experience while reducing the neighbourhood’s overall environmental impact. In others, however, a discrepancy between the neighbourhood’s goals and what it actually achieved can be found. Such gaps in the translation of the neighbourhood’s vision have hampered its ability to achieve the transformative goals that were set out for it, particularly in the provision of affordable housing and thus the ability to achieve a high degree of social sustainability.

5.2 A vision for Southeast False Creek

Though media coverage didn’t begin with any earnest until 1999, planning for the SEFC neighbourhood was initiated back in 1995, with the NPA-led council’s endorsement of the conversion of the 80-acre site from industrial to residential and the exploration of the area’s

potential as a “model sustainable community”. As a large percentage of the land was City-owned, representatives from Real Estate Services and the Property Endowment Fund were present among the actors involved in the planning process, in addition to members of City council and the Planning Department. Guiding the process was an external coalition of 20 resident and neighbourhood associations, social and environmental NGOs, academics and interest groups, self-organized into the Southeast False Creek Working Group. The group’s aim was to support the creation of “equitable and sustainable urban communities in Southeast False Creek and surrounding neighbourhoods through education, communication and advocacy” (Vaughan, 2008, p. 25). Following a council direction, the body was later turned into the SEFC Advisory Group, a collection of citizens appointed by the City to investigate and advocate for sustainability measures to be incorporated into policy around SEFC.

Together, these many actors involved in the planning process represented a range of interests. While the Planning Department had been charged with creating an innovative and sustainable neighbourhood, Real Estate Services and the Property Endowment Fund were concerned primarily with ensuring that the City’s land and financial resources were being used as cost effectively as possible. Initial discussions around how sustainability would be incorporated into the SEFC planning process were informed by two major sources: the SEFC Advisory Group’s *Principles of Sustainable Development for SEFC* (CoV, 1999), and an independent sustainability consultant’s report *Visions, Tools and Targets: Environmentally Sustainable Development Guidelines for SEFC* released in 1998 (Sheltair Group 1998). The former comprised a list of 14 aspects of sustainability ranging from ecological stewardship to accountability, while the latter became a draft policy statement used as the basis for a formal public review process (Sussmann, 2012). This process included a Design Charrette hosted by the Central Area Planning Division, with the purpose of generating different design options for the site that would adhere to the goals and targets outlined in the Sheltair Group’s report. Both the public consultation process and the outcomes of the charrette informed the *Southeast False Creek Policy Statement* released in 1999.

5.2.1 A place of sustainable living

As I noted in Chapter 3, the foundations of SEFC lie in a combination of climate narratives originating in *Clouds of Change*, and earlier planning narratives around liveability. The

concerned tone and outward moral ethic of the former can be found throughout several texts, which highlight the City's obligation to address increasing concerns of ecological degradation and climate change within the neighbourhood's design:

SEFC will be a neighbourhood which helps protect the local and global environment by using less energy and water, by reducing waste and pollution, by minimizing air emissions, and by maintaining healthy soils and habitats for plants and animals. (CoV, 1999: 59)

However, an emphasis on the local benefits that would accrue from such a response is placed alongside this imperative, presenting the neighbourhood as an opportunity to improve life lived in the city:

SEFC is envisioned as a community in which people live, work, play and learn in a neighbourhood that has been designed to maintain and balance the highest possible levels of social equity, livability, ecological health and economic prosperity, so as to support their choices to live in a sustainable manner (CoV, 1999, p. 7).

The *Policy Statement*, *Official Development Plan* (ODP) and later *Public Realm* and *Master Art* plans all describe the future neighbourhood as a place where residents will enjoy life in a community where goods and services will be provided within a convenient walking distance and neighbouring areas can be easily accessed via an expanded transit network. The texts describe the benefits the neighbourhood will provide to future residents, employing positive and occasionally regenerative language in describing objectives in terms of *enhancement*, *creation*, and *encouragement*, or the beneficial changes to the social, ecological and economic environments anticipated to flow from the creation of the neighbourhood. This three-part conceptualization of sustainability is repeated throughout the texts, framing the neighbourhood as a means to achieving an effective balance between the overall social, ecological and economic health and well-being of Vancouver – an integrated and elegant solution to a complex problem. The neighbourhood will be a place where social interactions will be both increased and improved, making daily life for its residents pleasant and convenient as well as low-impact. Highest possible densities are to be achieved while meeting both liveability and sustainability objectives, moving the neighbourhood as much “towards” sustainable development as possible, while ensuring concerns of economic viability and return are met.

In addition to the sustainability challenge, SEFC also represented the last remaining parcel of City-owned waterfront property in Vancouver, making it the last chance to “get it right” (D.

Ramslie, personal communication, Mar 16, 2015). Though a few texts note the site's earlier history as First Nations land (CoV, 2007b; CoV, 2014b), the narrative is focused on its later use as an industrial site that contributed to both the economy of the city and the contamination of the land. Following the gradual exit of industry from the area, the resultant brownfield site is depicted as a blank slate for exploration that helped the team of designers, planners and builders to challenge established ways of creating communities in the design of the future Olympic Village. In our conversation, former Co-Director of Planning Larry Beasley recalled his experience of the early days of the planning process and the ways in which the land's tenure affected the ability to push this vision further:

From the very beginning when we got serious about planning, we already had in our minds what I would call a spiritual intent or objective to make this as sustainable a community as we could, and to use this – because it was City-owned land – to use this to model levels of sustainability that at that time were very hard to negotiate in the private sector, say in False Creek North or Coal Harbour. Other areas where we doing large developments and negotiating with private land owners for that development. We thought, alright, since this is City-owned land and since ultimately we're going to market the land, our intentions would be clear and so it would be reflected in the market value that we could go further. And so on the one hand, we had the strong, spiritual intention laid out in various policy adoptions by Council but ultimately in that South False Creek Policy Statement was where it was most clearly articulated that we wanted to do much better than other areas... [We were] to provide a model of things to be brought into the lexicon of what we did on a day-to-day basis everywhere, not just there. So I think the dedication to sustainability stayed strong and it was very creative. (L. Beasley, personal communication, Jan 30, 2014)

Throughout both interviews and texts, this vision of SEFC as a positive progression remained firm: from desolate industrial wasteland to vibrant and sustainable neighbourhood, from an old way of city-building to a new one.

5.2.2 Developing a plan

This vision of what SEFC would become was fleshed out with increasing specificity over several policies and plans, but it wasn't until the ODP that specific requirements for the neighbourhood's design actually began to take shape. To guide subsequent rezonings, the ODP laid out 12 design principles that ranged from the overall form the neighbourhood would take, to more specific directions for the connectivity, animation and expression of the public realm (Appendix A). The ODP also listed 14 sustainability principles that comprise the achievement of ecological sustainability as well as social and procedural principles such as cultural vitality, accountability and participation (Appendix B). Environmental criteria to be considered in design were given for each of the areas of energy, stormwater and waste management, urban landscaping, agriculture,

ecosystems and transportation, many of which were embedded into the SEFC Green Building Strategy⁶. Social sustainability was to be achieved by “considering equity, social inclusion, security, and adaptability in all decisions” (p. 16), and is broken down into actions that help residents meet basic needs, enhance human capacity, or enhance social capacity. Finally, economic sustainability was conceived as the maintenance of long-term community viability and prosperity that both support and are supported by social and ecological goals (Table 5.2).

However, the ODP itself underwent a series of revisions that changed the content and therefore the ultimate expression of the narrative in fairly substantial ways. Of these, two are particularly notable, beginning with changes that were made to the overall form and density of the neighbourhood. Original plans for the neighbourhood were guided by the approach to community planning visible along the North Shore of False Creek, a district characterized by large commercial podium blocks that form the base for narrow, high-rise towers. A model of development that fits under the broad umbrella of ‘Vancouverism’, this style has been both heralded for its ability to achieve a profitable density without compromising liveability, and decried for its homogenization and sterilization of the urban landscape (Soules 2010). Across the water, however, the idea of a “town” form of development for SEFC based on predominantly low- and medium-rise buildings was proposed as a preferable alternative. In 2004, a letter sent to the Mayor and council from several local architects representing themselves as “dedicated professionals and concerned citizens” pushed this idea furthest in insisting that the basin form of the south shore suggested a “lower form of development” that would reflect the natural slope down to the water at “little, if any, sacrifice to the economics of the project” (The Challenge Series 2009c). It was argued that similar densities could be achieved using this alternative form and that as a result, SEFC would visibly become a unique neighbourhood both in British Columbia and beyond. The letter helped to push the Planning Division towards a medium-density form, which eventually set maximum heights in SEFC at a much lower 13 storeys, with a few designated locations allowed to reach a height of 17 storeys. Though these were later increased in

⁶ The SEFC Green Building Strategy required all SEFC buildings to meet criteria outlined under the Green Building Council’s *Leadership in Energy and Environmental Design* (LEED) rating system. A standard of LEED *Silver* was applied to all municipal buildings larger than 500m³, and a standard of LEED *Certified* (but without the need for actual certification) for the first sub-area rezoning (Sussmann 2012).

response to developers' calls for higher densities, the overall height of the neighbourhood remained lower than those of the downtown peninsula (Figure 5.1.).



Figure 5.1. Building heights following the Village rezoning
(© 2006 GBL Architects Inc, by permission)

A second key issue that, as I noted in Chapter 4, would garner much attention in the media was the number of affordable units included into the neighbourhood's housing stock. Original targets for affordable housing for the neighbourhood were set at 20-22%, a standard percentage for city developments at the time. In 2004, however, the COPE-dominated City council approved of a series of changes to the neighbourhood's overall design, including an increase in community amenities (such as day care and park space), and most notably, a change in the required housing mix. The COPE council directed staff to change the housing mix to one third affordable, one third "modest market"⁷, and one third market housing, reflecting the target set for the neighbouring False Creek South built in the 1970s. While this was a controversial decision, it was also short-lived: the NPA majority council that returned in 2005 deemed the affordable housing mix fiscally irresponsible, and set it back to its original target. The following year, the NPA Council approved the final version of the ODP, which determined the appropriate amount of affordable housing as "at least 20%" of the housing in areas 1A, 2A and 3A, to be increased to 33% in areas 1A and 3A combined "where possible" (Figure 5.2). Modest market housing was to comprise 33% in areas 1A and 3A and where government funded programs were available, in 2A as well. The final ODP also included the aim of achieving a household mix of 35% family housing in areas 1A, 2A and 3A and 25% in 1B, 2B and 3B, as well as the general intent to provide housing to seniors and "disabled persons" (p. 16-17).

⁷ Modest market housing is defined in the ODP as "dwelling designed to be affordable to persons who make up a household, and whose combined gross annual incomes fall within the middle third of income distribution" (City of Vancouver 2007: 5).

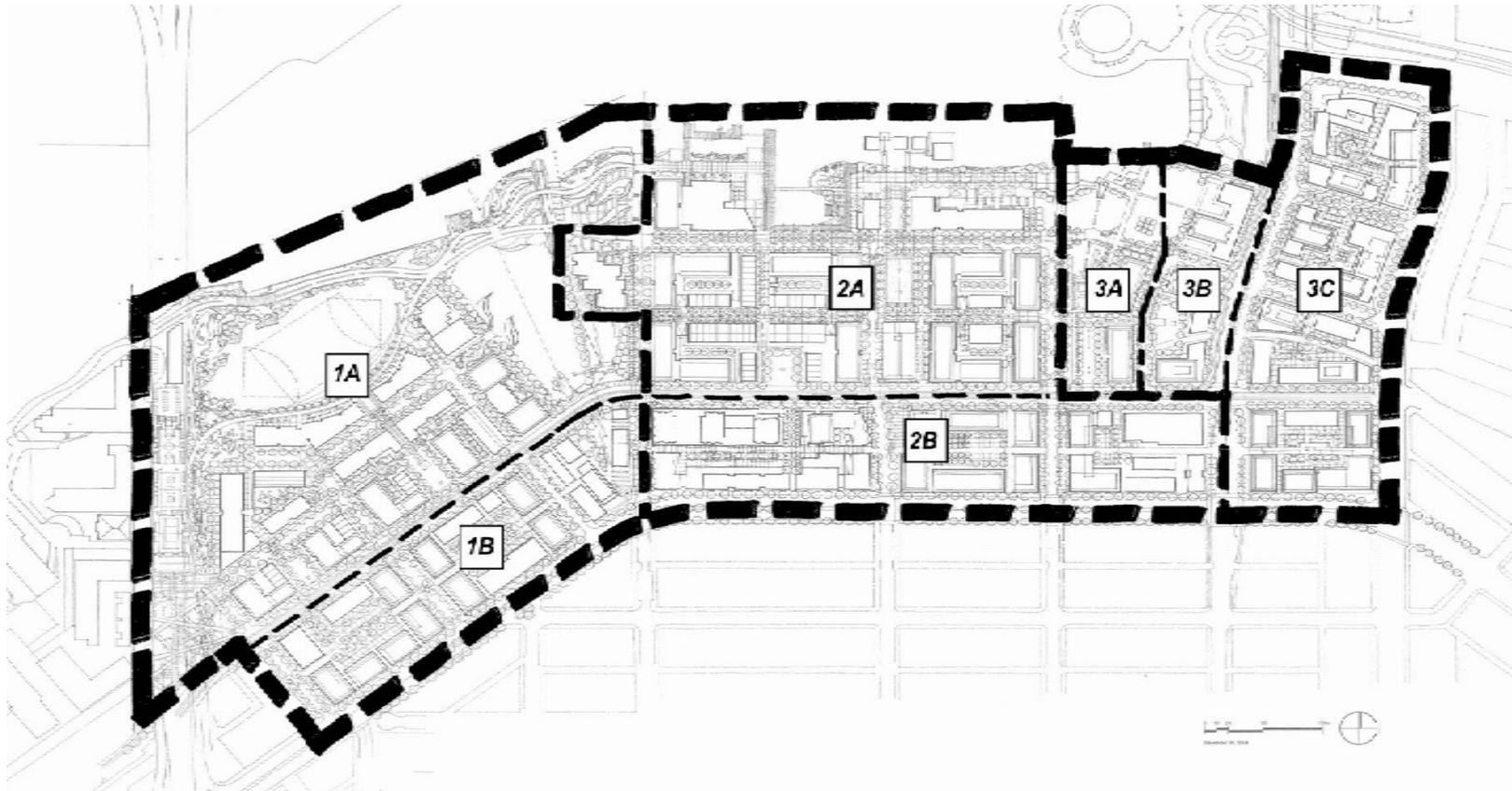


Figure 5.2. The seven sub-areas of SEFC

1A, 2A and 3A comprise lands owned by the City, while the remaining lands are privately owned
(Source: City of Vancouver)

Table 5.2. A condensed version of the SEFC ODP sustainability goals

| Dimension of sustainability | Goals and actions |
|-----------------------------|--|
| Environment | <p>Energy</p> <ul style="list-style-type: none"> • Establish an energy efficient green house gas neutral neighbourhood based on renewable resources • Mix of conservation, core system and heat source/system strategies <p>Water</p> <ul style="list-style-type: none"> • Minimize use of potable water, especially for irrigation <p>Storm water</p> <ul style="list-style-type: none"> • Collection of storm water from roofs and impervious surfaces for irrigation or transport to False Creek via bioswales <p>Solid waste and recycling</p> <ul style="list-style-type: none"> • Requirements for separation, collection and storage of organics and recyclables, with on-site organic composting available for landscaping needs • 50% of landfill diversion during construction <p>Landscaping</p> <ul style="list-style-type: none"> • Inclusion of drought-tolerant species, edible landscapes, urban agriculture and green roofs <p>Urban agriculture</p> <ul style="list-style-type: none"> • Inclusion of community demonstration garden and accommodation of green roofs for use in urban agriculture <p>Habitat and ecosystems</p> <ul style="list-style-type: none"> • Support biodiversity and habitat corridors by integrating ecological needs and the use of native plantings and landscaping into parks and other landscaped areas <p>Movement</p> <ul style="list-style-type: none"> • Descending prioritization of pedestrians, cyclists, transit, goods movement and cars <p>Green buildings</p> <ul style="list-style-type: none"> • Minimum achievement of environmental performance as per Green Building Strategy |
| Social | <p>Meeting basic needs</p> <ul style="list-style-type: none"> • Appropriate, affordable housing • Access to health care • Locally produced, nutritious food • Community safety • Quality, affordable child care <p>Enhancing human capacity</p> <ul style="list-style-type: none"> • Local employment opportunities • Creativity and artistic expression • Life-long learning • Recreation and cultural facilities <p>Enhancing social capacity</p> <ul style="list-style-type: none"> • A unique community identity • Involvement in public processes • Social interaction • Community networks and organizations |
| Economic | <p>A different financial approach</p> <ul style="list-style-type: none"> • Valuing social/environmental measures while considering long-term economic viability <p>Economic security</p> <ul style="list-style-type: none"> • Providing jobs opportunities during and after construction • Equitable hiring practices during construction • Licensed child care in the community <p>Local self-reliance</p> <ul style="list-style-type: none"> • Ability to purchase daily needs without the use of a car • Availability of local products • Affordable goods and services available for low/modest income households <p>Ecological economy</p> <ul style="list-style-type: none"> • Businesses and technologies to build on practices employed in the community <p>Economic advantage</p> <ul style="list-style-type: none"> • Economic gains to accrue from e.g. conserving energy, living close to work/play, and supporting local enterprise |

5.2.3 Roles and responsibilities

Beyond the achievement of its own sustainability goals, SEFC was given the explicit role of niche and tasked with the larger responsibility of providing a learning opportunity for the wider adoption of sustainable approaches and behaviours. For the City and planning department itself, SEFC was to act as a test bed for the development of city-wide policies and strategies, thereby “improving the mainstream practices of urban development throughout the region” (CoV, 1999, p. 7). Not only for planners and policymakers, this learning exercise was intended for all Vancouver institutions and industries involved in shaping the built environment, from developers to engineers, citizens to contractors. As explained by former SEFC Stewardship Group member Jennie Moore, this would come to shape the kinds of initiatives that were selected for inclusion in the final build:

They didn't want Southeast False Creek to be this once overly far-flung future vision or demonstration that could never be replicated because it was too costly or they had to break all the rules to do it...the parameters for moving forward with the model sustainable community were squarely set within the feasibility of what could be done within today's technologies – back then – at those technology levels, proven technologies – things that could be replicable across the city (J. Moore, personal communication, Feb 4, 2014).

The demonstration projects suggested in the Policy Statement therefore include a mix of technological and behavioural approaches, including experiments in policy (e.g. “creative financial strategies to achieve affordable housing in the current climate of reduced senior government subsidies”, p.13) and technology (e.g. “renewable energy supply, water management, green building design and urban agriculture”, p. 8). Public buildings and community centre facilities were noted as key opportunities for demonstration projects, interpretive programs and other educational initiatives for the education and engagement of both residents and visitors to the neighbourhood. In the ODP, this is made explicit in the twelfth design principle of ‘Demonstrated Sustainability’, or the determination that SEFC was to showcase a “comprehensive approach to sustainability” in both public space and building design (CoV, 2007c, p. 11). Specific suggestions to this effect focused on the development of demonstration urban gardens and the use of park spaces to encourage “environmental sustainability and learning” (CoV, 2007c, p. 25).

It is also clear from the texts that the achievement of the neighbourhood's overarching vision was to be placed in the hands of all parties involved: “the City, the landowners, financiers, the public,

senior levels of government, and ultimately, SEFC residents” (CoV, 1999, p. 5). Among this group, the future inhabitants of the neighbourhood are cast as the guardians or stewards of the SEFC sustainability goals:

Making SEFC sustainable requires the will and understanding of all persons involved to commit to the principles and strategies set out in this ODP. Development operating within the framework of sustainability requires a hands-on community-based approach that helps individuals take more responsibility for their neighbours, their environment, and future generations. (CoV, 2007c: 18)

The role of future residents is emphasized as a key part of achieving the vision in that they would be compelled to learn to use innovative technologies and “choose whether to care” to reduce their consumption of energy and water (The Challenge Series, 2009f). However, there is also an assumption that residents who will come to live in SEFC will be those who would seek out and embrace the opportunity to do so, lured in by the promise of high-quality urban living. A member of the SEFC planning team recalled this two-pronged approach:

I think there that was also an acknowledgement [that] there would also be people who weren’t necessarily choosing to live in this place because of those values or because of those goals, but because it’s a beautiful waterfront location in the heart of downtown, close to their jobs. And it’s an amenity-rich community that would be a nice place to live ultimately, right? So I think that both of those thoughts were there and I think the idea was that the way that the place was designed would draw...like-minded people who were interested in actually participating in an experiment of sustainable living. (P6, personal communication, Feb 6, 2014)

The *Policy Statement* reinforces the idea that all efforts have been made in order to support the desire of its future residents to live in a sustainable manner (CoV, 1999, p. 7). To assist in this endeavour, the ODP suggests the creation of a neighbourhood association comprised of residents, property and business owners and “advisors” with knowledge of sustainable development issues to provide community input and monitoring both during and after development. Under the section of *Enhancing social capacity*, the ODP notes the possibility of the Stewardship Group’s eventual evolution into a neighbourhood association for the purposes of promoting public involvement and education. Community organizations, including the community centre, Park Board, strata councils, co-op boards and other local groups, are also recognized as important actors in “fostering a sense of community” (CoV, 2007c, p. 18).

5.2.4 Creating a unique identity

A final aspect worth noting in these official texts is the intent to deliberately showcase the official narrative of the neighbourhood. Though SEFC’s architecture was to integrate into the city’s

existing fabric and allow for ongoing “adaptation”, there was also a desire to create a recognisable identity, in part through the visible demonstration of its “unique ‘green’ characteristics” (CoV, 1999, p. 30). Particular emphasis was placed on communicating, demonstrating and, “where possible” celebrating principles of sustainability, particularly through agriculture, stormwater management, energy and green space (CoV, 2006b; CoV, 2007b). This is perhaps emphasized the most in the *SEFC Art Master Plan* (2007), which makes pains to characterize the neighbourhood’s forward gaze:

The view is spectacular, but it may be the view that you don’t see immediately that will distinguish Southeast False Creek and secure its place in the history of the city, and maybe even the world. Southeast False Creek has a view of the future. A future of sustainability in all its contexts – social, economic and environmental. It’s a view of future generations living and working in a truly sustainable urban village. (CoV, 2007b, p. 4)

However, this emphasis on showcasing the “green” features of the neighbourhood was placed alongside a need to communicate the area’s historical legacy. In the *Policy Statement*, this is noted as a need to firstly celebrate and even enhance the “rich heritage value of SEFC” through landscape design, public art and building retention (p. 34). The *Policy Statement* recommends the development of several “distinct neighbourhood character areas” (p. 33) that reflect their historic uses: important heritage buildings, as well as artefacts salvaged from other industrial sites in the area are to be preserved and displayed prominently where possible. In the ODP, the preservation of “buildings with heritage significance” and the recognition of “historic patterns of former industrial uses” are to be realized in part through the designation of the three neighbourhood precincts that correspond to their former functions. SEFC is divided into three “yards” – the western “works yard” (Area 1A), the central “shipyard” neighbourhood (Area 2A) and the eastern “rail yard” neighbourhood (Areas 3A/B/C).

This move towards preservation reflects what some have called the fourth sphere, or pillar of sustainability, or *cultural* sustainability (e.g. Throsby, 2005). The connection is tacitly recognized in the ODP with the inclusion of Sustainability Principles that call for “the promotion of planning and development guidelines that celebrate the unique natural, social, and historical context of SEFC” (*Principle 2.2.13*) and the encouragement of “vitality, diversity, and cultural richness in a manner that respects the history and context of SEFC (*Principle 2.2.5*.)”. In the *Public Realm* plan, the communication and interpretation of the site’s heritage is conceived in such a way as to

provide future residents with knowledge of the areas, as well as “provoke an interest in the past, stimulate emotional connections, foster a sense of place, and encourage stewardship” (CoV, 2006b, p. 6). The area’s “heritage” is mainly conceptualized in terms of its industrial history and to a lesser degree its pre-settlement natural and First Nations histories, both of which are included as themes to explore in the built environment. Together, the celebration of both green and heritage elements are to give the neighbourhood its own “unique community identity” (CoV, 2007b, p. 18); however, the heritage narrative seems to dominate in later texts. In the *Public Realm* plan, for example, only one in five themes the authors develop for the built environment concerns ecological sustainability specifically, while the others focus on the legacy of the site. The authors of the *Public Realm* plan also included one additional theme to reflect the interim function planned for the site: the Athletes’ Village for the 2010 Winter Olympics.

5.3 Building an Olympic Village

As I noted in Chapter 3, the decision to site the Vancouver Athletes’ Village in SEFC was a key event in the neighbourhood’s unfolding, including its role as an “important catalyst” for the remediation and rehabilitation of the former industrial site. The City’s bid underscored the synergy between the goals outlined in the *Policy Statement* and the ideals embodied by the Olympics, reassuring the likelihood of a smooth integration of the Village into the overall neighbourhood plan. The Village is depicted as an opportunity to showcase green building design and construction techniques, and invest in sustainable technologies that would lead to “long-term operating efficiencies and benchmark the design of such facilities for the future” (Vancouver 2010 Bid Corporation, 2002, p. 5). The bid also highlighted the Athletes’ Village’s contribution to the city’s affordable/non-market housing supply, creating “an enduring legacy for Vancouver residents” after the Games (Vancouver 2010 Bid Corporation 2002, p. 61).

With the eventual acceptance of Vancouver’s Olympic bid in 2003, progress on SEFC began to move more swiftly. A number of key steps towards the completion of the first stage of the neighbourhood were made, including City Council’s approval of the *SEFC Green Building Strategy* in 2004 and the *SEFC Official Development Plan* in 2005. The decision to site the Vancouver Olympic Village in the centre of SEFC also meant a number of key changes to the SEFC planning process, not least of which was a firm deadline for the completion of its first

major phase. In 2005, the SEFC and Olympic Village Project Office was established to lead the development of the 23 acres of City-owned land (Parcel 2A) slated for development as the Athletes' Village and ensure its completion in time for the Olympics. The area itself was further sub-divided into 11 separate parcels, seven of which included residential uses (Figure 5.3).

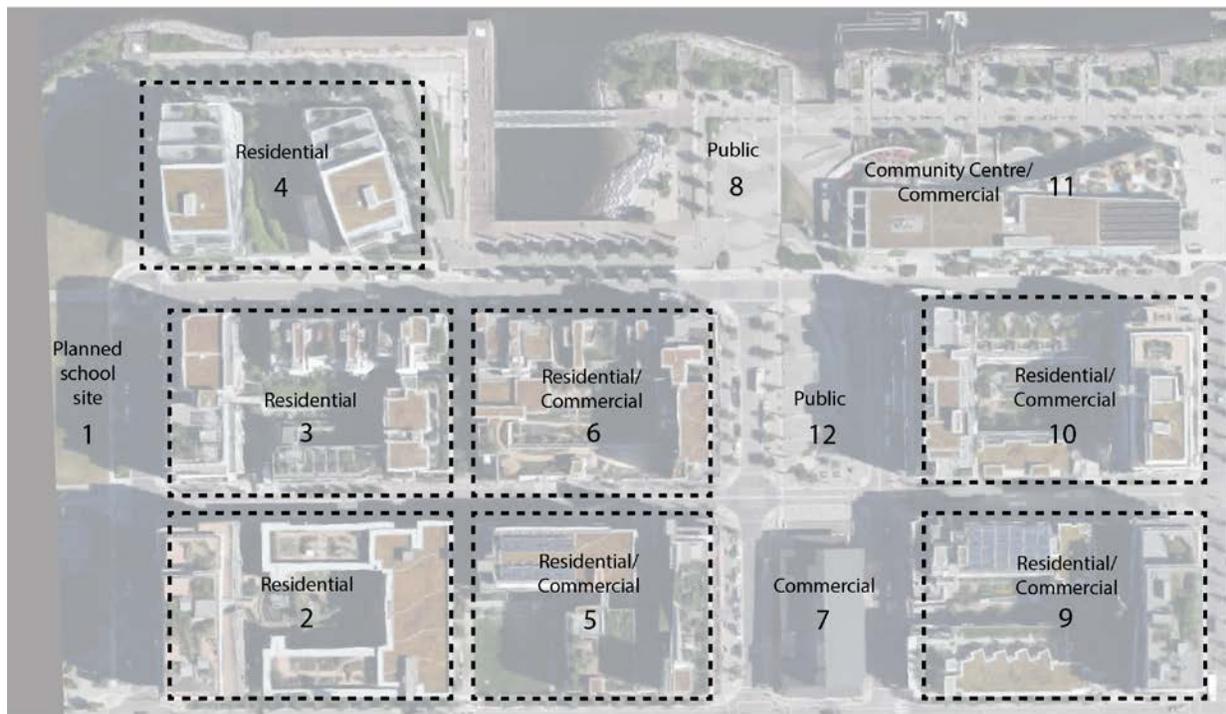


Figure 5.3 The 11 parcels of the Olympic Village

Faced with a condensed timeline, the original plan to sell off parcels of City-owned land to separate developers was also changed, sidelined by the need for a single developer that could be trusted to meet the Olympic deadline. Five developer teams initially responded to the City's *Request for Expressions of Interest*, including Concord Pacific Ltd., Concert Properties Ltd., Millennium Properties Ltd., the Wall Financial Corporation, and Windmill Developments Ltd. Only Concord, Millennium and Wall eventually submitted a formal proposal, in which each developer assured that they could meet the sustainability requirements outlined in the ODP, as well as meet the City's obligations to the Vancouver Organizing Committee (VANOC) to provide housing and services during the Olympic "Exclusive Use Period". Following a formal review process, the committee charged with finding a developer for the Olympic Village selected

Millennium’s proposal on the grounds that it offered the “best value to the City” (City of Vancouver 2006a, p. 9). Millennium’s proposal also offered the highest purchase price of the three developers, a remarkable \$193 million, as well as a modest market housing strategy and a commitment to achieving LEED Gold and Platinum green building standards over the LEED Silver required in the ODP.

Millennium’s application to rezone the Olympic Village site from an M-2 Industrial District to a CD-1 Comprehensive District was submitted in October 2006 and approved by Council subject to several stipulations, including details on overall building design, engineering, crime reduction strategies, environmental sustainability, social planning and housing. The rezoning contained a requirement for the inclusion of approximately 250 units of affordable housing in Parcels 2, 5 and 9, 125 of which were required to be for families with children, and a percentage of modest market housing in the form of rental units in Parcels 3, 6 and 9 (Figure 5.4).

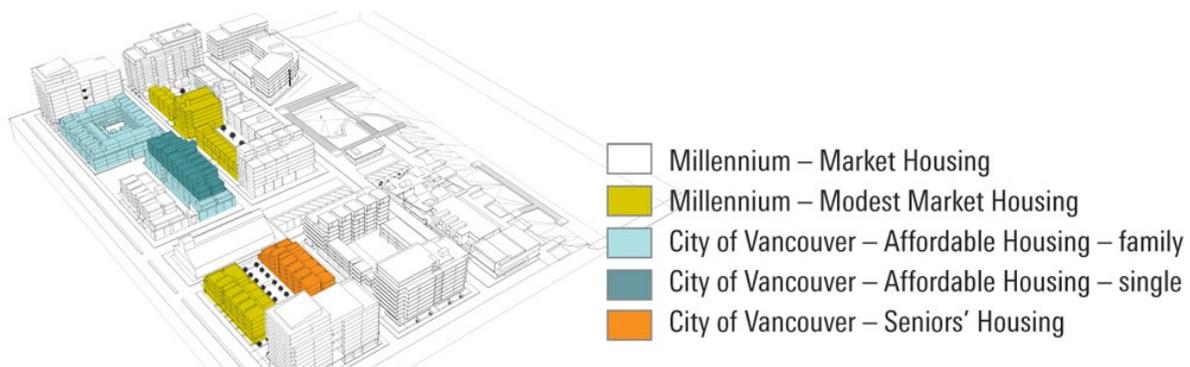


Figure 5.4 Housing mix as determined by the rezoning
(© 2006 GBL Architects Inc, by permission)

Construction on the first phase of the neighbourhood finally began in 2007. Millennium’s team included architecture firms Merrick Architecture and Gomberoff Bell Lyon (GBL), in addition to Thornley BKG Consultants, landscape architects Durante Kreuk, and several other engineering, consulting and construction firms. Among the rezoning stipulations were requirements to ensure that the neighbourhood achieved a varied but cohesive structure and “recognizable identity” (City of Vancouver 2006, p. 21), consistent with the City’s desire to showcase the neighbourhood as a uniquely green community. The variety would be in part achieved by dividing responsibility for

the different parcels among the various architectural design teams: Parcels 2, 5 and 9 were taken on by GBL, while Parcels 3, 6 and 10 were designed by Merrick. GBL was also tasked with the design of a “Net Zero” building that was to provide seniors’ housing while simultaneously demonstrating the potential for a building to produce as much energy as it consumed. The “showcase” buildings on Parcel 4 were to be designed in a collaborative effort between celebrated local architect Arthur Erikson and Nick Milkovich (and came to be known as one of the last buildings Erikson ever designed). On Parcel 11, the Creekside Community Centre represented a collaboration between Milkovich and Walter Frankl. A bit comically in retrospect, Millennium also took the “recognizable identity” order in an interesting direction in submitting a design proposal that drew on the aesthetic of a classical Venetian fishing village, complete with gargoyles. Following substantial pushback from City staff, the design was eventually changed to a more modern aesthetic.

Difficulties in securing low-interest financing, high land values, increasing development costs and the 2008 financial crash eventually forced Millennium to eventually default on its loan, leaving the City to take on its debt and complete construction in time for the Olympics. As I’ve already covered in detail in Chapter 4, the political and narrative consequences of these financial difficulties led to widespread public uproar that had implications for the neighbourhood’s use as a learning tool. In the face of bad press, a new set of “official” narratives was released in 2009 the form of the *Challenge Series*, an account of the neighbourhood’s goals and development up until construction. Funded by the Olympic Village partners and released just prior to its completion in seven monthly installments, the *Challenge Series* was used to both promote its accomplishments and create a wider market for the kinds of technologies and services that would be used. As such, the *Challenge Series* adopts a particularly enthusiastic and championing tone, tying the need to build such communities to the crucial avoidance of the impacts of a warming world. Recalling the tone of *Clouds of Change*, the authors use strong language and framing to set a tone of urgent action (e.g. “life on this planet is in peril”, “change is both essential and urgent”), presenting the neighbourhood as a necessary response to existing “comfortable but failing” planning and resource use paradigms that have served to disrupt the earth’s natural cycles and deplete its natural resources:

Driven by a recognition that change is both essential and urgent, those who would remake our community models are searching collectively for the new paradigms in which community life can flourish in the context of a changing environment and the rapid diminishing of the earth's limited resources. Beyond mere survival, these innovators also embrace new societal structures that reflect an emerging commitment to equity and social balance within our community relationships. (The Challenge Series, 2009d, p. 2)

As the limits of global resources become clear, it is obvious that humanity must cluster around resources to use them in a more efficient and effective way. The question is how to enhance livability so that this environmentally efficient model is also desirable (or it will not be adopted) (The Challenge Series, 2009e, p. 2)

The neighbourhood is described as more than an incremental advancement over current approaches, but an actual paradigm shift in planning for a new benchmark for urban development in Vancouver: “high density, highly liveable, sustainable” (The Challenge Series, 2009e, p. 11). Tales are told of challenges posed and met through unprecedented innovation and collaboration, raising the neighbourhood as both a leading example and beacon of hope that a broader paradigm shift can be made in time to prevent irreversible damage.

5.4 A narrative expressed: the Village today

The Village went on to fulfill its destiny as the athletes' residences during the 2010 Winter Olympic and Paralympic Games. During this exclusive use period, VANOC assumed full control of the area, designating various buildings for their interim use as housing for competitors and their entourages, as well as medical, recreational and administrative facilities. When the Olympics came to a close at the end of February, the Village began its transition to its final form as a mixed-use residential neighbourhood. As the fences came down, Vancouver citizens were finally able to see the outcome of the neighbourhood's many years of planning and dispute. The physical manifestation of the neighbourhood's vision also brought with it a number of features designed to shift the way future inhabitants would interact with their neighbourhood, from the design of public spaces to the fixtures in the units.

5.4.1 From birds to boats

To begin, the neighbourhood's landscape is visibly different than others in central Vancouver. Intended to encourage local living, the Village is comprised of an assortment of medium-rise, mixed-use buildings that make it difficult to distinguish condo from co-op. A central plaza forms the public and commercial heart of the area, anchored at the south end by the Salt Building, a heritage building repurposed (at great cost) as *Craft*, a Calgary-based chain of beer halls and

restaurants. Commercial spaces are mostly home to several larger chains, including upscale grocery store *Urban Fare* and large retail chain *London Drugs*, as well as a range of coffee shops and medical and financial services. Independently owned retail shops are fewer in number. At the centre of the plaza, environmental art in the form of two enormous sculptures of European sparrows sit in a symbolic representation of the immensity and invasiveness of human presence on a once-wild landscape (Figure 5.5).



Figure 5.5. Artist Myfanwy McLeod’s sculpture *The Birds*

Along the eastern edge of the seawall, a LEED Platinum building is shared between a second restaurant-pub *Tab & Barrel* and the Creekside Community centre, which offers day care facilities and recreational activities. The seawall in front of the community centre is additionally home to many of the dragon boats that line the waters during the summer, with a larger non-motorized boating facility planned in the near future. The seawall itself forms a part of the raised pedestrian and cyclist pathways that follow the water’s edge across large sections of Vancouver’s downtown core. The Village waterfront is dotted with interactive furniture such as spinning chairs and undulated benches, and at one point features a series of large stone steps that bring visitors down to the water’s edge. The landscape of the neighbourhood has been planted with

native species intended to reduce the need for irrigation, attract wildlife, and provide a source of local food in the form of edible berries. The priority given to cyclists and pedestrians continues into the streetscape, where streets are narrower and parking scarcer than in surrounding neighbourhoods. Street trees are already larger than in many other Vancouver neighbourhoods, having been planted in deep boxes underlying the streetscape to allow for greater root growth. The buildings are threaded by interior courtyards and green roofs, linked by narrow alleys that allow quick passage between the streets of the neighbourhood.

Following the seawall to the western edge of the neighbourhood, passersby encounter two distinct features. The first is Hinge Park, a roughly one-hectare area of green space that hosts a small enclosed dog park and the Village's first set of community gardens. Through the centre of the park, a constructed wetland funnels stormwater collected in above-ground channels carved in the neighbourhood's streets through a meandering marsh before releasing it into False Creek. Around the wetland are several pathways and interactive features that encourage residents and visitors to explore the area and follow the path of the water to the second notable offshore feature. Officially proclaimed to be Habitat Island (but colloquially known as 'Beer Island' or other similar monikers), the small landform is covered in native trees and plants and connected to the mainland by a series of stones. At lower tide, the "island" is often dotted with families and youth looking for a secluded place to relax and take part in the activities that give it its name(s). Between the western-most parcels along 1st Avenue, a small square of grass makes up a second smaller and much less frequented Pocket Park.

5.4.2 Diminished affordability

While the majority of these landscape features represent a fairly accurate expression of the neighbourhood's original narrative, not all of the goals in the Village's policy texts were realized to the same extent. As I noted above, substantial changes to building density and affordable housing requirements that were negotiated into the ODP were both important events in the project's history. However, the Olympic bid and subsequent decision to build the Olympic Village in SEFC also guided the final expression of the neighbourhood's sustainability narrative in significant ways. First was the way the Olympic deadline forced the City to abandon its earlier plan to develop the area incrementally and instead select a single developer in order to complete

the Olympic Village by the end of 2009. From the outset, this decision had significant consequences for the achievement of the neighbourhood's original goals. Former City Urban Designer Scot Hein acknowledged the limitations that flowed from this decision with respect to the scale and process of the neighbourhood's development:

If you look at the Official Development Plan, there's actually an urban design principal in there called "incremental development" or "incremental parcelization", and we had always thought that this could be an interesting experiment in live/work and mixed-use tenure at a smaller scale. So we could get more democratic participation by many, many more smaller...either developers or owners. But there was no way to manage that with the Olympic timeline (S. Hein, personal communication, Jan 29, 2014).

Research conducted by Sussmann (2012), as well as a number of those interviewed for this research, also suggested that the City's acceptance of Millennium's purchase price for the land instantly inflated unit values over and above the already high value of the land, which subsequently required the construction of a greater number of high-end suites than was previously intended. Sussmann concluded that by extension, units would have to be marketed to an international luxury market, conflicting with the original intention for the neighbourhood to be constructed for a local and presumably more 'sustainability-conscious' population. By way of compensation for the addition of affordable and modest market housing, Millennium furthermore received bonus densities in the form of additional floor space and the guarantee that they could sell the rental units after a period of 20 years had passed. Sussmann interpreted these changes as a weakening of the City's commitment to sustainability in favour of economic priorities that resulted in a higher built form that was originally intended, and a diluted commitment to the provision of affordable housing. Indeed, while the economic crash and its temporary crippling of the housing market had some unforeseen consequences for the neighbourhood's population (see Chapter 6), the overall result was one that reduced the overall number of affordable units and downgraded low-income priorities to the provision of rental units.

The Village's housing mix now spreads different forms of market and non-market housing units across the seven different parcels, including strata, rental units, low-income housing and co-op housing (Figure 5.6). The buildings represent a diversity of forms, from small townhouses to penthouse suites, and that in parcels facing the central plaza share their space with commercial units on the main floor. In August 2013, real estate service providers Bentall Kennedy Residential purchased a total of 119 units across Parcels 3, 6 and 9 that are now rented at market

rates. The 252 units that Mayor Robertson announced would be kept for low-income housing were placed in the Athletes' Village Co-op (Parcel 2) and two City-owned rental buildings (Parcels 5 and 9).



Figure 5.6. Distribution of housing types across the Village

Interestingly, the inclusion of a co-op into the Village was not part of the original plans and the unforeseen result of some of the neighbourhood's more trying times in the media. Reluctance to take on a higher maintenance project among property management services were heightened by damning accounts of the Village's performance in the press. This limited interest created difficulties for the City in finding management for their three rental buildings. At the request of the City, responsibility for the buildings' management and operations was eventually taken on by

COHO Management Services Society, the co-operative management services arm of the Cooperative Housing Federation of BC for a period that eventually spanned two years. Given COHO's area of expertise, one of the three buildings was later designated as co-op housing. In 2013, management of the two rental buildings was transferred via a lengthy handover process from COHO to SUCCESS Housing Services, a local non-profit organization that provides a range of social housing services across the province's Lower Mainland.

While the claim to 252 units of affordable housing was accurate in theory, the number of units allocated to low-income individuals and households is in fact significantly fewer. Federal housing subsidy agreements were effectively terminated in the 1990s, meaning that while many of the existing contracts are only now beginning to come to an end, no new developments will receive any such support. In BC, most non-profit housing societies will also continue to be subsidized by the Province until the end of their operating agreements, which range from 25-50 year terms. 80% of these will expire in the next 25 years, while all new housing developments in BC will receive no subsidies at all. As a result, municipalities across the province are having to come up with new methods of funding affordable housing. Many have adopted a system of "internal subsidy", in which a percentage of units are rented out at market rates in order to allow the remaining units to be rented to low-income households at below-market rates. In the Olympic Village, City rentals are divided along a 55% market to 45% non-market split, while the Co-op has only been able to manage a 20% affordable housing percentage. This translates into a final proportion of affordable units that is closer to 120, or 11% of the total number of units in the Village.

5.4.3 Of energy and envelopes

Of course, the buildings themselves form a major component of the neighbourhood and a key place where shifting sustainability goals were ultimately materialized. Several building features were designed to reduce both emissions and ecological impacts while improving the health and social interaction of its residents, which contributed to a LEED-NC Gold certification for each building awarded in 2010 (with the exception of the Community Centre and the "Net-Zero" building, which achieved LEED Platinum).

First, several passive design strategies were used to increase building efficiency and reduce the need for mechanical heating, cooling and ventilation. Many units have been designed with natural cross-ventilation in mind to improve resident comfort and reduce the need for mechanical circulation. Building envelopes were thickened to improve insulation, and balconies were extended to improve shading. Shades installed over the windows also help reduce incoming summer sun, as do the exterior blinds that have been installed on south and west-facing strata units (Figure 5.7.). Though the blinds have been designed to extend and retract automatically to prevent excessive heat gains in the summer, they can also be controlled by unit residents via a remote, leaving the control over incoming light and heat in their hands. As the actual orientation of the buildings couldn't be maximized given the existing street grid and prioritization of north-facing views, such features were deemed important in reducing overall energy demand.



Figure 5.7. External shades (left) and semi-automatic blinds (right)
These features were installed in Village buildings to help reduce passive heat gain and overall energy consumption

Changes to the communal areas of each building have also been made to reduce the energy use of the Village's buildings, including the installation of motion-sensor lighting in hallways and lobbies. Cooling ponds were added to the inner courtyards of several parcels to cool air flowing

through the buildings, and corridors and stairwells moved to the exterior. Aside from changing the aesthetic of the buildings, such features were also designed to increase physical activity, safety, neighbour visibility and social interaction within each building. Though building rooftops were originally intended to fulfill many of the same functions, the addition of penthouse suites to several buildings have rendered most of the Village's green roofs inaccessible to building residents. However, residents of the rental and co-op units on Parcels 2, 3, 5 and 9 enjoy access to inner courtyard and rooftop spaces, many of which have been transformed into community gardens.

Inside the buildings, hot water used in both space heating and for in-unit consumption is provided by the Neighbourhood Energy Utility (NEU), a district energy system based on a renewable source of energy. The NEU uses a heat recovery system that extracts the heat from untreated wastewater flowing to the nearby treatment facility. Waste heat from sewage accounts for roughly 70% of the neighbourhood's annual demand for heat and hot water, with the remaining 30% sourced from natural gas boilers that come on to satisfy demand during peak loads (CoV, n.d.; The Challenge Series, 2009f). The hot water generated by the NEU is transferred to a separate loop via a heat pump, which in turn carries hot water to the secondary heat pumps of the Energy Transfer Stations located in each parcel. Though each housing type is governed by a separate entity with its own internal decision-making structure, actors within a given parcel share between them the mechanical systems for heating, cooling, and domestic water use. As such, hot water for both space heating and domestic use is metered by the Energy Transfer Station before being distributed via the mechanical systems within each building.

Within each unit, space heating and cooling is provided via a unique system of radiant heat provided via the hot water from the NEU. Instead of more conventional forced air conditioners or baseboard systems, the system is instead made up of capillary mats installed in the ceiling of each unit. These capillary mats, or 'cap mats', provide a source of heating and cooling by regulating the flow of either hot or cold water through a mesh of polypropylene tubes. Instead of a thermostat that regulates unit temperatures, residents instead control the flow of hot or cold water through the tubes using dials installed in each room of the unit. This comfort-based system was selected based on a number of assumed benefits that would contribute to achieving both resident

comfort and reduced carbon emissions. Radiant systems are much more efficient when compared to other more conventional systems, and can be used effectively even with windows open. As there is no need for fans to move warmed air through a space, both dust and allergens and noise levels are reduced, improving air quality and comfort. Hydronic heat is also thought to provide a greater degree of thermal comfort to its residents – by breaking the system up into various zones throughout a unit, residents can control the degree of heating and cooling in each room of the apartment (The Challenge Series, 2009e; Olympic International, 2011).

Energy savings are further supported by the inclusion of in-suite energy monitoring as a part of an Integrated Energy Management System provided by Enerpro, a third party energy monitoring and billing service. In each unit, the Energy Aware PowerTab displays feedback on electricity (wirelessly transferred) and hot and cold water to residents both cumulatively and in real-time with the goal of increasing awareness and enabling residents to adjust their routine to save both energy and money (The Challenge Series, 2009f). Electricity and heating and cooling energy are displayed in kWh, while domestic hot and cold water are displayed in litres consumed. In addition to the data that are displayed, the PowerTab indicates average in-time levels of energy consumption by means of a red, yellow or green light, indicating above-average, average or below-average consumption. Metering and billing for all unit utilities are administered by Enerpro, a local energy management service provider.

Finally, to reduce overall water costs and consumptions, each building has been fitted with an innovative dual-piping system that allows municipal water to be used alongside a system of rainwater harvesting that directs water into cisterns located in the basements of each parcel. Rainwater captured from the green roofs and other permeable surfaces is used for irrigation and in the toilets, while city water is used for all other domestic functions. Units are furthermore equipped with low-flow fixtures in both the kitchen and bathroom, and high-efficiency appliances (including dishwashers and washing machines) in strata and rental units.

While many of these features are found across the Village, there are certain key differences between units. Built to provincial social housing standards, both Co-op and City-owned rental units have been outfitted with fewer features than the others. Appliances and finishes are of

significantly lower quality than those included in the strata and market rentals, and have no cooling option included into the capillary mats. As City-owned buildings, they have also been the site of further experimentation with sustainable building technologies. For example, the “Net-Zero” building on Parcel 9 has been built to a higher energy efficiency standard by thickening insulation and reducing the proportion of glazing in the façade. In both the “Net Zero” building and the second low-income rental building on Parcel 5, solar thermal collectors have been installed to supplement hot water needs and where generation exceeds use, even sell excess energy generated back to the NEU. In the original proposal, the commercial unit where Urban Fare now resides was also designed so as to use waste heat from their refrigeration to meet the parcel’s heating and cooling needs. However, wary of a different system and in the midst of a flurry of bad press, Urban Fare negotiated out of the agreement and is now operating independently of the other buildings on the parcel.

5.4.4 Sustainable, subliminal

While the selection and construction of these various building and landscape features embody the effort to intervene into the material dimension of practice, explicit efforts to convey a narrative of sustainability were made, representing an attempt to use the neighbourhood as a symbol for sustainable living. Certain features in the landscape, such as the exposed stormwater channels and constructed wetland, have been designed so as to render an otherwise invisible process of urban infrastructure visible, inviting residents and visitors to explore the structures and processes involved in urban water management. Community gardens are similarly visible as residents come to work their plots under the summer sun, while building shades and exterior blinds were selected in part for their visibility.

However, many of the neighbourhood’s sustainability features are incorporated into building design (e.g. exposed stairways and corridors) or are invisible (e.g. renewable energy sourcing for heat and hot water), with very little explicit signage that points to either the broad sustainable features of the neighbourhood, or specific energy or other neighbourhood goals. For example, signage for local Green Building Audio Tours is posted near select buildings, but these are often located outside the immediate neighbourhood and require actively calling the tour to listen to a recorded message. Each building has a LEED plaque in the lobby, but these are unobtrusive.

Even the deliberate message of human environmental impact embodied by the sparrows in the plaza goes unproclaimed, no sign to express the meaning that lies beneath their playful presence. What is perhaps more visible is the neighbourhood's historical narrative, as the public realm has been carefully and intensively designed to convey the industrial heritage of the site (Figure 5.7). This is expressed in several ways; for example, the overall layout and lighting fixtures in the central plaza mimic the ribs of a ship, intentionally reminiscent of the former presence of shipyards. Words engraved into the plaza also recall its former industrial use, while lines marked in certain parts of the neighbourhood show the extent of the shoreline at different points in the area's recent history.



Figure 5.8. Subtle symbols of sustainability

A Green Building Audio Tour sign is posted in the central plaza (left). Words that conjure the site's heritage as an industrial site are etched into the plaza landscape

As such, the neighbourhood's sustainability goals are conveyed in very indirect, even subtle, ways. One planner reflected on the reasons why this might in fact be a successful strategy:

You've got to go there and really look for it and there are little words that are carved into the pavers, in the plaza – words like 'saw mill' or 'iron fabrication,' so all the industrial uses that have been on the site before. There's stones and paving patterns that mark the old shoreline and that runs through where the Hinge Park is. So, yeah, there was a very conscious decision. I can remember a meeting and everybody was like, "Well, what about a plaque?" No, there's no plaque. It's not like that. People will learn through experiencing it...it's teaching without people having to go through the pain of learning. And so that's why there are no big placards out. It's not literal like that. (P4, personal communication, Jan 31, 2014)

One way this learning was to take place, according to the ODP, would be through the establishment of various community groups and institutions. At the time I spoke with those involved in the Village, however, the intended role of many community institutions had yet to be fulfilled. The role of the Creekside Community Centre as a place to promote learning on sustainability has been limited to the placement of signs explaining the colour of the toilet water or the proper way to sort waste into one of four bins. A community Stewardship Group had also yet to be formed, a fact that was disappointing to many members of the planning team I spoke with, including Larry Beasley:

What I am sorry about is that the whole idea of environmental learning wasn't followed through. There was this idea that we would create this sort of learning institute there that would use the community as it further develops... And I don't think a lot of that has happened in the way that we had hoped... If you go back through all of the documentation as we were developing it, the intent was to have some sort of a sustainability centre there that would be a learning centre, an education centre. It would be a centre that would develop programs for the residential community there, related to say, all kinds of things like edible landscape, and just you know various things that would – more complex recycling – things that would bring a day-to-day lifestyle dimension to what had happened during the capital construction of the place. And that hasn't occurred in my opinion and in my opinion, that's a weakness and that's too bad. And it's not too late. We're only on Phase One of what will be three or four phases of development. And so it's not really too late to do that, but I don't see an advocate for doing that. (L. Beasley, personal communication, Jan 30, 2014)

5.5 Village, structure and symbol

In Chapter 4, I showed how the Olympic Village became a contentious city project, whose trials and tribulations held the attention of a city over a period of many years and several successive elections. It was characterized and depicted in the media in very different ways by many different voices, from those who wished to champion its accomplishments, to those who would see it as an immense failure. In reviewing the major events and texts that shaped the Village's design, I've peeled back these layers of narrative to reveal the kind of place the Olympic Village was actually intended to be in the minds and hearts of its creators. The narrative these texts tell is one of transformation – of the process of planning urban communities, of ways of living in cities, and of the land itself, from unoccupied brownfield to a healthy and flourishing sustainable community. In these official accounts, the Village and its larger neighbourhood of SEFC represent a key intervention designed to shift urban lifestyles towards more personally and socially fulfilling forms that simultaneously achieve a lower impact on local and global ecosystems. SEFC and the Olympic Village are positioned as an important midpoint between past and future – not quite fully sustainable, but nonetheless a dramatic effort and important step in changing the way

communities would be planned, designed and built. As such, they mark the beginning of a concerted effort on the part of the City to combine the call for urgent action on climate change and the need to improve the liveability of the city's spaces. The achievement of low- or even no-impact living is no longer framed as in contradiction or opposition to living well, but as complementary.

What is important to note is that while these texts tell a story of transformation, they unfortunately tend to disregard the large-scale transformation that the land underwent during colonization. Many of the neighbourhood's plans acknowledge the natural and First Nations histories of the False Creek area, but these are often overshadowed by a much stronger emphasis on its post-settlement nature as an industrial site. In neglecting to more fully recognize the extensive First Nations history that preceded its industrial legacy, policy texts on Southeast False and its Olympic Village perpetuate the tendency to consider Canadian history from non-Indigenous perspectives (Lawrence, 2002). In other words, while these texts do acknowledge pre-settlement histories, their near-exclusive focus on industrial heritage reinforces the notion that the interesting or relevant pieces of Canadian, or at least North American history began only once Columbus landed in 1492 (Atleo, 2011).

As it stands today, the Village represents the physical and symbolic manifestation of these ideas as they evolved over time – the performative dimension of a particular narrative of sustainable neighbourhoods. In many ways, the introduction of the innovative forms and technologies into the urban landscape certainly reflects this narrative. Many of the neighbourhoods' features have been selected to fulfill multiple social and ecological or emissions reduction goals. In building and unit design, the City piloted several new systems and technologies to reduce energy and resource use while simultaneously providing comfort and economic benefits to its users. The landscape and built environment stand in contrast with others in the city's core, from the mosaic of external blinds on the windows, to the repurposed heritage building in the central square. Several of these features were also designed to portray a uniquely identifiable character designed to encourage residents to live more sustainably while honouring the site's past. In keeping with policy texts, this character is expressed principally as the site's industrial heritage, to the neglect of the lengthy First Nations history that preceded it.

However, in reviewing both the neighbourhood's narrative and its outcome in the built environment, it becomes clear that the process of narrative translation wasn't exactly linear. Certain dimensions of the narrative were changed or weakened in response to unforeseen events and changing council decisions. The City's Olympic bid certainly pushed certain ideas further (see Chapter 3), but the deadline later forced certain processes to be abandoned, including a more incremental and participatory form of planning. Under the glare of the media, the City had to make certain concessions to the vision of the Net Zero building in order to reassure incoming commercial tenant Urban Fare that they could operate without additional cost, and ensure the neighbourhood could provide the key amenities it promised. Notions of what constituted an appropriate balance between the three spheres of sustainability sustainable changed from council to council, resulting in a lower number of affordable units than might have been achieved. Of course, as Beasley pointed out, the construction of the neighbourhood as a whole has yet to be completed, meaning that certain features may be added or changed. The overall affordable housing percentage for the area may be substantially higher once Southeast False Creek has been fully built out. Nevertheless, the relatively small number of affordable units has been a source of great disappointment for many affordable housing advocates and continues to be the subject of conversation around the Village today.

With regard to the public realm, the neighbourhood's sustainability narrative remains subtly conveyed, manifest more in the various technological and infrastructural outcomes of the project than through deliberate messaging in neighbourhood programming. Many of these take an informed eye to recognize, and without much signage there is little in the way of explanation for the selection of certain plants, features, or designs. Even the deliberate introduction of the shipbuilding theme appears fairly subtle in comparison to what might have been accomplished with the use of other, more overt means of its presentation. As such, the creation of a place identity founded in the idea of sustainability in the material qualities of the neighbourhood has yet to really occur. With the many other layers of far less celebratory narratives draped across the Village by years of negative press, these attempts at conveying a more positive and encouraging story of Vancouver's sustainable neighbourhood are relatively faint.

Overall, though, the analysis reveals the neighbourhood's role as a key step in the City's broader sustainability policy trajectory. The vision of sustainable communities merges concerns of ecological degradation and climate change into a framework of sustainability that views declining impact on the environment as compatible with improved liveability and social and economic well-being. As I noted in the last chapter, many of the neighbourhood's innovations have furthermore set precedents for infrastructures and policies now being normalized throughout the City, including the Neighbourhood Energy Strategy and increasing requirements in the design of green buildings. Projects such as the Net Zero building or stormwater infrastructures in Hinge Park put the City's burgeoning interest in regenerative concepts into practice, moving municipal policies towards net-zero construction and ecological restoration respectively. Efforts to communicate the neighbourhood's innovative approach to scholars, planners and policy-makers interested in sustainable design are unofficial but ongoing, and tours of the Village led by various members of the planning team do occasionally occur. As one of the most compelling and detailed celebrations of the neighbourhood's promise, the Challenge Series is still available online for anyone who wishes to read it.

Chapter 6: Life in the Village

In some ways, then, the neighbourhood had already begun to fulfill its overarching goal of fostering a transition towards sustainability when, in the spring of 2010, the Village's first residents began trickling in. Of course, a crucial component of the neighbourhood's vision had yet to be realized: the extent to which the City's efforts to change urban practices towards more sustainable configurations actually extended into the daily lives of its residents. With few local amenities yet in place and several building features as yet untested, the Village's first newcomers experienced some of the most tumultuous times, from winters with no heat to toilets that wouldn't flush. Reports from some of the Village's more disgruntled residents initially fuelled ongoing media coverage, but soon faded away as residents settled into their new community. When I began my own explorations into the Village four years later, many of these graver inconveniences had been resolved. With nearly 96% of the Village's units sold and commercial spaces nearly all occupied, the ghost town feel that had once pervaded the narrow streets had given way to a sense of a community coming into itself. Though still in its infancy, this period was in many ways an ideal time to speak with residents and explore their experiences – not yet fully normalized, residents were still able to reflect on the ways that life in the Village differed from past places they'd inhabited.

6.1 Meet the Village people

As I noted in Chapter 2, residents' arrival to live in the Village can be thought of as a turning point in their own lived narratives, and a potential moment of change during which practices could be reconfigured (Warde, 2005). In Chapter 5, I detailed the many ways in which the original vision of the Village had been translated into its built environment, from broad changes to landscape and community design, to the incorporation of new technologies that differ, sometimes substantially, from elsewhere in the city or even the country. In this chapter, I begin to show whether and how these material interventions have changed the way residents perform their daily habits and routines, and to what end for sustainability. Aside this change in material form, the City's deliberate narrative of sustainable neighbourhoods and its accompanying counter-narratives in the media also represent potential interventions into more symbolic and meaning-based dimensions of practice. As such, I explore whether and how these broad narratives created certain expectations or shaped residents' interactions with the neighbourhood, or whether they

have been successful in creating new sustainability-based identities among residents. In capturing residents' lived narratives, I also begin to assess whether and how the Village's goal of shifting residents' practices towards a more sustainable configuration has yet been achieved, and how the various narratives that have been bestowed upon the Olympic Village – of accomplishment, failure or disappointment – actually add up in practice

I met with 20 Village residents in total⁸, many of whom invited me into their homes to show me their units and the way they lived. The residents I spoke with reflected the range of people that eventually came to inhabit despite changes to the neighbourhood's housing strategy: a diverse mix of private condo owners, rental tenants, Co-op members and low-income renters, from families living on small incomes to retired couples in penthouse suites (Figure 6.1). Residents were contacted by affixing posters to public areas throughout the Village including, where I was give permission, the lobbies of certain buildings or through the neighbourhood's Facebook page. Because of this strategy, I only spoke to residents who still lived in the Village, which means that the experiences of those who have, in effect “self-selected” out of Village life, aren't represented here. That said, while the views of those who moved out of the neighbourhood since its occupancy are missing, the tales I heard from current residents by no means paint either a singular or a rosy portrait of the way the Village turned out. Residents also represented buildings across the neighbourhood, giving a well-rounded picture of how various building communities experience the built environment.

During our conversations, I asked residents to describe their impressions and expectations of the neighbourhood or building they lived in, how they had heard about it and what they thought the goals of the neighbourhood were, and whether they thought the neighbourhood was living up to those goals. I also asked whether and how coming to live in the neighbourhood had changed their daily habits, if at all, focusing on their performance of “energy-consuming” practices in the form of common household activities (see Appendix C). What I learned from these conversations was that despite a general appreciation for life in the Village, several technologies were still presenting interesting challenges to the way residents went about their daily lives.

⁸ Not including resident managers, whose experiences I explore in the next chapter

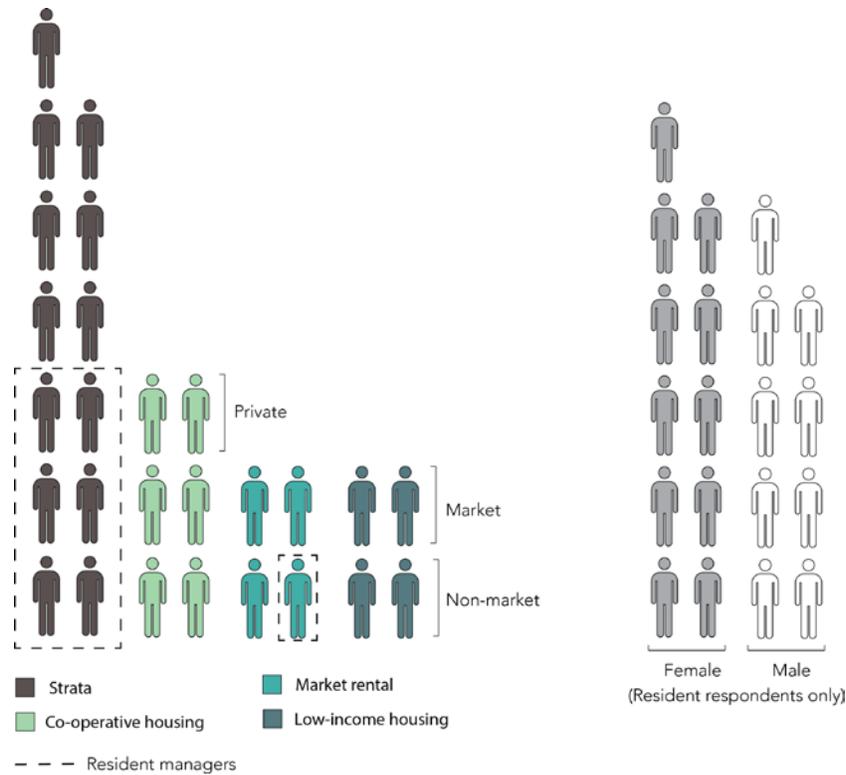


Figure 6.1 Sample of residents

6.2 Village life

I began most of my conversations with a simple question: what had brought these residents to the Village in the first place? Right away, I could see that while the neighbourhood’s plans embodied hopes that Village inhabitants would reflect a particularly sustainability-conscious population, residents’ reasons for coming were often much more practical. When asked if the neighbourhood’s goals had anything to do with their decision to purchase, most condo owners replied in the negative, particularly where the ecological design features were concerned. On a rainy March morning, I sat down with one resident of the high-end Canada House strata who explained his family’s reasons for coming. “We didn’t move here specifically because of the sustainability element,” he recalled, “I liked that, but we moved here because of the location, because of the view, because of the facilities which are available...It had a lot to offer”, he added. For real estate marketer Bob Rennie, this didn’t come as a particular surprise. “I believe that buyers, they’re not philanthropists, they’re buying a home. So they will decide when to save the planet, [and] they don’t necessarily want to put it in their mortgage”. Thus, while all homeowners

were made aware of the buildings' sustainability features, Rennie's approach was to tone down the sustainability narrative. "Those who are interested, we'll talk about it, those who aren't, we don't". Rennie also explained to me that the downturn in the market had additionally shifted the expected demographic of the Village away from an international presale market towards a more local population of baby boomers, looking for a place to settle. For the seven residents I spoke with over the age of 60, this was certainly true. To them, the Village presented an ideal location to downsize from larger detached homes owned elsewhere in the city or Lower Mainland, as in the case of Margaret and Peter*, a couple in their 70s who had been living in a 2-bedroom suite for the last two years:

When we decided to sell our house in North Van, we knew we wanted to downsize but we hadn't thought really about a condo because we never thought of ourselves living in a condo. But the more we thought about it, we thought well, it would be really nice live downtown...And the minute we walked in this condo then I thought yeah, I could live here. (R10F, personal communication, Apr 14, 2014)

Rennie's reduction in the cost of units by nearly a third to buoy flagging sales in 2011 later allowed the entry of a second and younger demographic of buyers looking for an investment opportunity. In speaking to homeowners, I learned that extensive media coverage of the Village's trials and tribulations had made many initially hesitant to purchase in the Village. However, all were eventually sold on the neighbourhood's location, the amenities it promised, and the unit features themselves. "It talked about a village, it talked about families, it talked about walking and it talked about social connection", Ellen, a single woman in her 40s recalled of the marketing package she initially received upon inquiring into the Village condos. "And then I bought into that vision. That's what I wanted" (R12, personal communication, Apr 18, 2014).

Among the other residents I met, reasons to come and live in the Village were somewhat similar to those of condo owners. Many were attracted to the location of the neighbourhood and the high quality of the units compared with other available rentals. For a few, the opportunity to live in a new and emerging neighbourhood in the city was appealing as well, particularly for those who came from further afield and who hadn't heard of the neighbourhood's financial struggles. For low-income and Co-op tenants, these reasons were joined by more specific housing preferences and needs – whereas subsidized rents were the primary draw for the low-income residents I spoke

* I've given residents pseudonyms to maintain their anonymity.

with, Co-op members were interested in the shared ownership and communal lifestyle that Co-operative housing offered.

Regardless of their reasons for coming, however, nearly all residents had been aware of the neighbourhood's sustainability goals prior to their move into the Village, especially since many lived nearby and had followed the development in local news leading up to and following the Olympics. For those who hadn't, building orientations made the environmental goals clearer, as in the Co-op where members are carefully screened to ensure they are willing to contribute to making it a place of community-based, low-impact living. Lucy, a young woman and new mother living in the Co-op, recalled the interview process she and her husband underwent as fairly rigorous: "You had to intentionally want to live in that kind of community to move into this building. They showed us all the features...and they asked those same questions. What does sustainability mean to you? How are you going to participate in the community?" (R5, personal communication, Mar 30, 2014). Though tenants of the market rental units didn't undergo the same kind of screening, their advertising describes the Village as a place "where urban luxury meets green living", and promises private green space, improved resident comfort, direct access to bike and transit routes, and the convenience of local shops and services (Bentall Kennedy Residential Services, 2015). To Sarah, another young woman living with her husband in a two-bedroom rental unit, this kind of marketing made the "green" intentions of the neighbourhood fairly obvious. "When I first looked on the website, it was definitely something that was advertized in the buildings features", she remembered. "I would say the messaging is definitely there for people to know that it's a more environmentally conscious system" (R11, personal communication, Apr 16, 2014).

With the exception of the Co-op, whose residents I found to be more involved and knowledgeable in both sustainability theory and practice, most people I spoke with furthermore felt that the neighbourhood didn't have a particularly sustainability-conscious population, but one that had come only for reasons of location and convenience. Carrie, a quick-witted woman sharing a rental apartment with her husband, was especially sure of this fact. "I don't think people are very aware of it. I've never heard anyone really discuss it in the building," she told me. "I think just the opposite, that people come here because they like the neighbourhood", her

neighbour later affirmed. “They know nothing about LEED, they don’t care about it... I don’t think people are coming here because of the green features” (R18, personal communication, Apr 25, 2014). When asked to identify particular “symbols” of sustainability in the neighbourhood landscape, many residents also had difficulty pointing to a particular feature that explicitly embodied the Village’s sustainability intentions or made the narrative clear in the built form.

6.2.1 Loving life in place

Interestingly, every resident I spoke with also agreed that several changes to their own lifestyles were discernable since they made the move to the Village. Many of these changes were moreover noted as having had very positive effects on their lives, the result of a combination of the neighbourhood’s location, design and overall connectedness to the rest of the city (Figure 6.2).

To begin, many residents found that the Village’s network of bike and walking paths, transit connectivity and availability of car share options had facilitated a shift in their mobility practices towards options that many felt were healthier, more “environmentally-friendly” and even more enjoyable. For Carrie, the way that living in the Village had enabled her to get around on foot, by bike or by transit for both work and leisure was something she greatly appreciated:

My second car has grown an inch to two inches of dust... I cycle, I walk...The Aquabus is fantastic. The sky train is fantastic and then Car2go is amazing right, it’s like a little supplement. So I lost total interest in having a car... I have clients sometimes in Yaletown, sometimes near by Burrard, so thinking that that’s my mode of transport is just amazing. You know, I think of my sister who is on the 401 everyday and I’m just on a boat after a stressful meeting just looking at all the lights and it’s just amazing. (R16, personal communication, Apr 22, 2014)

While Carrie noted that her ability to get around without a car in part flowed from her ability to work from home – “You just don’t need a car when you live here unless you have a job elsewhere” – even residents who continued to commute to work by car noticed that they had been able to greatly reduce the amount of time they spent in the car since moving to the Village:

The car’s parked on Friday, I don’t drive, I use transit but my husband drives for work, for the purpose or employment, and that gets parked on Friday and we avoid it taking it out again until he goes back to work on Monday. So we walk everywhere. (M11, personal communication, Mar 24, 2014)

We’re in a location that we can walk to many of the shops and things that we need to keep ourselves comfortably supplied, and we do that. Since we moved here we have reduced our gasoline consumption, our automotive transport, we’ve increased our use of transit and we’ve hugely increased our foot traffic. We walk pretty well everywhere, hours a week. (M4, personal communication, Mar 7, 2014)

Two of the residents I spoke with had even been able to get rid of their cars altogether, opting instead to use other modes of transportation to get to where they had to go. “I sold my car when I moved here”, Hazel told me, adding that she could walk wherever she needed to since moving into a City-owned rental unit and loved being as close to the water as she was. Living with his wife and daughter in a condo near the seawall, Martin also spoke to the shift in his lifestyle the Village had elicited: “We’re out and about much more regularly and usually on foot, sometimes on bike...so that has completely changed”. The owner of a three bedroom unit in the prestigious Canada House strata, Martin’s experience is perhaps somewhat unique, but nevertheless illustrative of the effect the Village has had: “I mean, we had 4 cars, we’re down to 3, we could go to 2 in a heartbeat” (R19, personal communication, Apr 28, 2014).

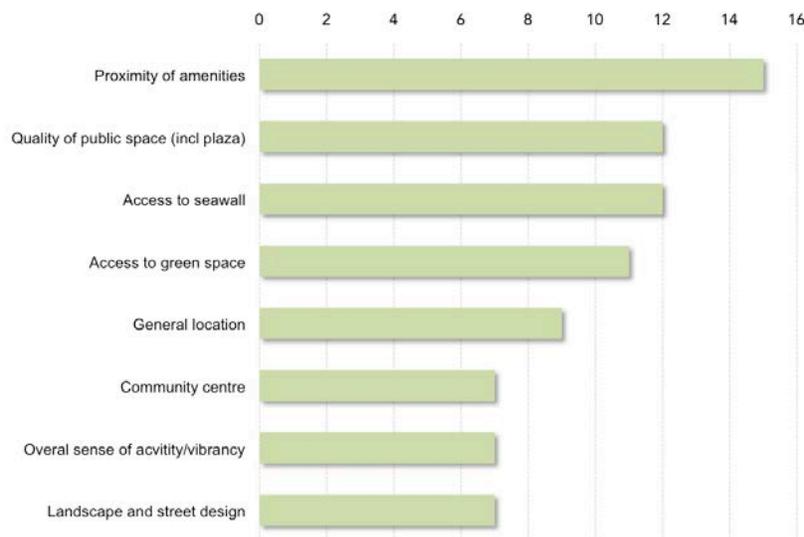


Figure 6.2. Residents’ favourite neighbourhood features

The relative ease of these alternative forms of mobility is in part the result of the neighbourhood’s location, where the low-lying and flatter topography of a shoreline community and general proximity to both the seawall and other parts of the city’s central area have made it easy for people to get around. However, residents’ capacity to reduce their car transit is also a function of the neighbourhood’s mixed-use design, which has allowed residents to live more “in place”. The design of a commercial centre in the form of the plaza and the ease of accessing everyday amenities were highlighted consistently across my conversations with residents as some of the best parts of living in the Village. Having purchased a two-bedroom unit with his wife in

2012, Eric was particularly enthusiastic about the way the Village had brought more convenience into his daily life, especially in comparison to a more sub-urban style of living:

We just pop down to Urban Fare or we pop down to Tap and Barrel or whatever. But if we want to go out, and we love to walk, right, and so these are just too convenient. We'll walk downtown or we'll walk way up Main Street or wherever, we'll walk to Granville Island and do our thing like that...it's just amazing. Here we are in a big city and we can enjoy that kind of water view and everything else. It's just incredible. (R7, personal communication, Apr 9, 2014)

The ability to walk or cycle longer distances along the seawall and access other parts of the city safely and without having to navigate steep hills car traffic was appealing to members of young families, while the convenient proximity of the health and medical services they required was especially appreciated by some of the neighbourhood's senior residents. Alan, an elderly man living with his wife in a one-bedroom strata apartment, could recall the earlier days of the Village when fewer amenities were available, and so noted the convenient location of these amenities with approval:

You know, we're getting on now and it's near to hospital. And it's easy to go shopping and we had to wait some time before the shops came to the Village but they are here as promised. And yeah, it's a really convenient place. Of course the other thing is it's flat. No seriously, because that makes a lot of difference to people our age. (M6, personal communication, Mar 14, 2014)

In addition to the convenience of living in place, some residents also felt that several of the neighbourhood's design features had enhanced their engagement with their community, both physically and socially. Lucy's experience of the Village provides a clear example here, as she felt that her social interaction had increased overall since coming to live in the Co-op, the result of a general proximity of basic amenities coupled with the recent birth of her first child:

I don't feel like I have to leave it to do the things I want to do. We can go out our door and have a picnic close by... Everything is so close and also I just know a lot more people in the neighbourhood than I've ever known in any other neighbourhood. Maybe it was because I was on maternity leave last year, but we formed a little group of moms in the neighbourhood so now when we go out the door, we run into people all the time, which I never had before. It almost feels like a little, like a village, which I guess that's what they call that. (R5, personal communication, Mar 20, 2014)

The plaza, Habitat Island, Hinge Park and the community gardens were widely identified as places to see and meet other people, particularly among young families who have enjoyed exploring the island and wetland. "There's just more places to be", Michelle, another Co-op member and young mother told me, "and there's just a lot of access to places to just exist without having to buy something" (R2, personal communication, Mar 26, 2014) The central plaza and its amenities have furthermore made the Village an increasingly popular spot for community events,

not just for residents but city-wide. Residents who had lived there since the Village's early days noted that this burgeoning sense of activity and vibrancy in the neighbourhood had improved the overall feel of the community. Ryan, a former Co-op member who now lives in a privately rented suite with his wife and child, recalled the emptier feeling of the neighbourhood: "When we first moved here, it was still quite dead, there wasn't a lot of action, not a lot of people walking around." He went on, "But since they've opened up the two pubs and a lot of stuff in [the plaza]...more people are just visiting the neighbourhood" (R3, personal communication, Mar 27, 2014).

Several residents also spoke in detail about the quality of the public spaces and their interactive features, including the natural landscaping, interactive street furniture and bird sculptures in the plaza. To explain their impact on her life, Ellen told me a story that illustrated the appreciation many residents had for such features:

I was walking outside there one day [and] this guy is sitting on the furniture and he says, what is this for, what is this for? ...And I said 'they're for spinning' and he says 'Spin me!' and so I kind of went around the chair and he's going in circles and the other guy with him went 'Me too!' And their wives are in hysterics and I walk off. I would have never have had that opportunity for interaction if it hadn't been for that street furniture. (R12, personal communication, Apr 18, 2014)

This sense of community was a feature many residents appreciated within their individual buildings as well, who noted that whereas they might have had relatively little contact with their neighbours prior to coming to the Village, they now found more opportunities to socialize. This too has been facilitated by building design - for example, the placement of a small row of rental townhouse units into Parcel 3 give the short "block" an intimate feel, which has allowed for a sense of community to emerge. "We love our neighbours", one townhouse resident told me, "We've thought about moving to other units and looked at them, but...we love our laneway. We'll even have little gatherings, just with everyone that lives right in this area" (R13, personal communication, Apr 19, 2014). Inner-facing units connected by exterior walkways and communal gardens in the Co-op, low-income buildings and a few of the rental buildings are similar features that have encouraged social interactions between them. Carrie reflected on her own experience here: "I've made quite a few friends living here which, has been different than other neighbourhoods, it's really a funny thing. Like, I'm in an apartment but I have this garden outside my door, which is amazing". Though such physical features are absent in most strata,

some condo owners also remarked upon the friendliness and sense of community within the building. For Brian and his wife, it was a facet of living in the Village that they hadn't anticipated: "We've made many friends in the building, we socialize with people in the building...It's quite unlike any other condo development that we've seen, and everybody has that sense".

6.3 Delight to delusion

As I'll discuss in section 4.4, such shifts in residents' daily practices of mobility and socialization towards a more local, social lifestyle were not uniform across the Village – there are notable exceptions that are important to explore, as well as ways in which the way the neighbourhood's built form actually unfolded actually hindered such shifts. However, it was clear from my many conversations that the neighbourhood-scale structures of the Village had intervened into the lives of its residents in what many found to be mostly positive ways. The neighbourhood's layout, location and design have all helped to foster or facilitate the use of non-automotive modes of transportation, opportunities for social connection, and the ability to live in place. In general then, the lived narratives of residents would seem to indicate that their arrival to the Village did indeed represent a turning point, after which certain practices were reconfigured towards a more sustainable pattern.

It was against this overall backdrop of appreciation for the neighbourhood's location, structure and amenities that I began my investigations into whether shifts in residents' practices had occurred in response to more unit- or building-specific interventions. What was interesting to note was that when we turned to these, the tone of my conversations often shifted from a sense of overall appreciation to one of bewilderment or even irritation. While many residents were pleased with their location in the city, the easy access to the seawall and nearby amenities, and the overall feel of the neighbourhood, quite a few were less satisfied with the performance of the technologies and appliances that had been selected for their units. This wasn't the case for all dimensions of life inside the units – where interventions weren't particularly problematic or dramatic, residents had little to say. In some cases, the enthusiasm I heard about the neighbourhood was matched by an enthusiasm for features of the unit as well. In general, though, residents' interactions with the set-up of their units raised some interesting questions as to the

neighbourhood's success in achieving its liveability and sustainability goals, as many were frustrated with both their inability to achieve adequate levels of comfort and the apparent inability of the technologies to achieve reductions in energy and water (and therefore the costs of same). In the next few sections, I'll highlight some of the more troublesome or contentious interventions and the ways in which practices have shifted in response.

6.3.1 Wasting water, wasting time

Of the aspects of their units that residents mentioned, the ways in which bathing and washing up could be accomplished was among the ones I heard about the most. A combination of low-flow fixtures and building infrastructure for domestic water provision has intervened into the way many residents were able to go about their daily ablutions. Residents from four separate parcels spoke of their inability to get a higher pressure in their sinks. For some, this hasn't been a particularly significant inconvenience, especially in practices that required only cold water. "You do your teeth under a trickle, not under a torrent, and that makes a lot of sense. I have no problem with that", one resident noted. "Could be more, but you just learn to live with it", said another. For these residents, the low flow of water coming through the faucets was sometimes seen to be a bit tedious, but overall made sense in the context of the neighbourhood's water savings goals.

For nearly half of the residents I spoke with, however, the long wait times to get hot water has been an inconvenience and source of irritation when trying to shower. Many adapted to these long wait times by accomplishing other tasks while waiting for the water to heat up. "I literally turn on my shower, make my bed, you know, hang up my clothing, get undressed, weigh myself and then get in the shower," Ellen told me in exasperation. "I wish I was joking". Living in the Co-op, Lucy noted that she had fewer baths since coming to the Village as the water took too long to fill the tub, making the water somewhat tepid by the time the tub was filled. "It's not going to stay hot for long. The heat dissipates quickly, so I don't really bathe here because it's not enjoyable". Though they'd found ways to get around the problem, several residents were annoyed and disappointed with how much water, time and money they thought was being wasted. A conversation between Martin and his wife illustrated the kind of irritation many felt:

[Martin] This is not an exaggeration, the first shower in the morning you have to have the shower running, and this is not just our unit, this is every unit, we're trying to fix this right now, is about 2.5-4

minutes of just water running, just to get hot water. So not only are we paying for that water, but it's just a waste of water, literally it's just going down the drain.

[Wife] He'll turn it on and go make a coffee. If it's me, I turn the bathtub on. I'm not so patient so I'll just turn it on and get the hot water as quick as possible... Like this morning, I couldn't get it out of the bathroom sink. So it's a pain in the ass, but what do you do?

A few residents told me that while they hadn't done so, they had heard of residents in both the Co-op and one of the strata who had become so frustrated that they had the low-flow fixtures removed altogether (Figure 6.3). "You're not supposed to but if you want, I know at least one resident got a plumber in to take those restrictors out so they took them out so then he gets full pressure", Brian confided to me.



Figure 6.3. A resident's removal of low-flow fixtures

In the Co-op, I heard tales of residents who had replaced not only the kitchen taps, but the low-flow showerheads as well. A board member I spoke with reflected on a possible reason why: "I know a lot of people, it's '*I live in a green building, I live in a green neighbourhood, 95% of my life is green so I'm going to put in my massage shower head because I deserve it*' kind of thing" (M3, personal communication, Mar 7, 2014). As I'll explore in greater detail in section 4.3, this approach wasn't unique to the Co-op but was used by other residents as well, who felt as though they were already doing "enough" to become sustainable in their lifestyles.

6.3.2 Getting warm, staying warm

A second feature of the Village that has been fairly problematic for residents is the unique system of heating and cooling. As the primary source of heat to Village units, capillary mats in each room play a key role in residents' efforts to achieve thermal comfort, and have required residents to undergo a period of learning and adjustment. To begin, the system's operating principles were difficult for many residents to understand, as most North Americans typically understand and experience heating (and cooling) in terms of convection-based systems such as forced air, or in the form of space heaters such as baseboards or radiators⁹. Though in-floor radiant systems are beginning to grow in popularity in Canada, the notion of an in-ceiling system of radiant heat was one that many residents and managers found initially challenging to accept, especially as the idea of heat coming from the ceiling contradicted the commonly accepted notion that 'hot air rises'. The replacement of a thermostat with a dial to adjust flow rate as opposed to temperature was additionally confounding, as many still relied on a measure of temperature to achieve comfort.

As in their interactions with low-flow fixtures, for some this transition was fairly painless. For example, Michelle spoke at length of her experiences with a multitude of strange and sometimes inefficient systems while living in London, which she felt had prepared them for both temperature extremes as well as new and different systems. Following a period of adjustment, she felt that she and her husband were generally pleased with their ability to stay warm during Vancouver's cooler months. Michelle described her method as one of "playing the balancing game" between adjusting the dial and opening or closing the windows to achieve comfort throughout the day. Accustomed to paying high energy bills in the UK, their approach has also been to turn down the dials at night to conserve energy and keep costs low, turning them up again in the morning and adjusting as needed throughout the day.

Several other residents had taken on a similar strategy of adjusting the dial by 'feel'. "It just takes a while you set it up to what you think is right, and it takes about a day. And then if that's too hot, you turn it down a bit more, you know, that kind of thing", explained Adam, a resident of the

⁹ Convection systems provide heat by warming the air in a room to a desired point, after which the system will shut off until the ambient air temperature drops again, cueing the system to turn on again. Radiant systems work by radiating heat to nearby surfaces without changing the ambient air temperature, much like the sun warms surfaces on a cold day.

rental apartments. Living in the Canada House strata, Martin has found that he can adjust the settings for each room just twice a year – in the spring when the system switches from heating to cooling, and in the fall when it switches back again. “I know exactly where to hit the dials in the different rooms to have those rooms comfortable. So literally I can walk around the house in 5 minutes set the 8 different thermostats to where we want them and not touch it again until October”.

In general, Martin and the other residents who were able to feel their way through the settings were generally content with the system and their thermal comfort inside their homes, though some noted that it wasn't as “cozy” as forced air systems. For rental tenants who had previously had little to no control over their heating and cooling, the simple ability to control the dial and monitor their energy consumption costs was something many enjoyed, while residents who had moved from older single family homes with larger areas and lower energy efficiency felt as though they were able to use much less energy than before. The ability to adjust the heating by individual rooms, or zones, was especially appreciated by residents who shared a preference of sleeping in cooler rooms. Albert and Beatrice, a retired couple living in the Brook strata, had even taken advantage of the zone control feature to keep the spare bedroom at a cooler temperature so as to use the space as a “cellar” for their wine collection.

However, several other residents experienced difficulty in achieving thermal comfort during colder months, and was by far the most significant complaint I heard. Some residents attributed their inability to get warm to flaws in the design of the system itself, including the provision of heat from the ceiling. “I mean, the fact that heating comes from the ceiling is really beyond me”, Janet, a resident of the Kayak strata, told me. “Especially for a place with high ceilings and floor-to-ceiling windows” (R20, personal communication, Apr 28, 2014). Terry, a low-income resident of the City rentals, was similarly skeptical of the use of in-ceiling capillary mats:

You know, for the hot water systems, this should have been electric low-volt in-floor heating. You got people in wheelchairs and old folks, we're not jumping up and down and screaming at the ceiling. I mean, you know, there are guys in wheelchairs that never stand up. And you got to break a thermal plane to get your heating circulating. No, they weren't really thinking about it while they did this. (R6, personal communication, Mar 31, 2014)

Unable to get warm, Terry told me that we would often use an electric heater as a way of supplementing the system. “It gets that cold in here I've actually had 3 electric heaters going and

the heat turned full blast”. Janet too had purchased a space heater to use in the main living area and had decided to use the capillary mat in her bedroom only. Janet’s tone and language suggested that she had all but given up on the capillary mat altogether in favour of other strategies, which ranged from putting on additional clothing and blankets to stay warm, to closing inner doors or blinds to try to retain heat inside their unit or in a single room of the house. Her strategy was to first adjust her clothing: “I wear a sweater and big fuzzy slippers at home and fleece pants [but] a lot of people are cold when they come visit me in the wintertime”, she sighed. “[But] there is really no just point in heating it really in the wintertime”.

6.3.3 Cooling off, freshening up

This diversity in experience and the ability to achieve thermal comfort during the warmer months of the year was also something that emerged from my conversations. In the low-income and Co-op buildings, residents have tended to rely more on the passive design features as cooling options weren’t integrated into the capillary mats in these buildings. The majority of these residents spoke of the ease of maintaining a comfortable temperature in their units in the relatively mild Vancouver summers. Lucy was particularly appreciative of the way the unit’s orientation helped to cool the space: “The way this unit is set up too, for heat in the summer, you can open that door and open a window and get a nice cross breeze through, so we haven’t had to plug in a fan like we did in our old place”. Even equipped with a cooling option, residents such as Sarah found that the passive design features seemed to suffice: “In the summer we’ll usually have this window open most of the time and then the patio door for a cross draft” she showed me. Though she and her husband eventually figured out that there was a cooling option in the units, they hadn’t yet used it. “We just never use it because there are windows” (R11).

Residents of upper-level units in particular tended to have more difficulty in cooling in the summer, both those with cooling options and without. Co-op member Jason is an example of the latter, who lives on the top floor of the Co-op with his family. To adjust, Jason’s approach to cooling the unit comprised a mix of closing interior blinds against incoming solar radiation, opening the patio door and windows, and on very warm days, using a portable air conditioning unit. Residents in the other buildings noted similar difficulties in their upper-level suites, despite having the cooling option. “It made no difference really” Carrie remarked on her attempts at

cooling the unit using the capillary mat. “I think you need forced air for that”. Ryan felt similarly, and used a combination of opening the windows and patio door, closing the blinds, and on very hot days, using a portable fan into their bedroom. “June, July, and August from about four o’clock until like 7:30 or so, we have the two layers of blinds down, because that sun is right there”, he told me, gesturing to the south-facing windows. “But those don’t work very well...When they’re on, even in the summer, the sun is right there, those blinds will just go up and down sporadically”, he added.

The performance of the external blinds became a feature in many of my conversations with condo owners, with accounts varying from those who appreciated their novelty and allowed them to rise and fall automatically, to those who intervened directly into the blinds’ operation. “I just let them go”, Eric told me, “I don’t adjust them, they’re fantastic, they do their own thing and they’re real cool”. Others I spoke with were more hands-on with the blinds, adjusting them to allow light in when they wanted it, or programming them in such a way as to ensure they only extended a couple of inches. However, many found that the blinds would extend and retract at unexpected times, often to the point of annoyance, prompting one resident to turn them off altogether. “They’ll be down and randomly the middle one will go up, and then it will go down, and then that one will go up for a bit”, Ryan said, pointing to the different blinds, “So we just shut off the breaker so they don’t go up. So they stay down”.

Many residents also spoke about their ability to achieve an overall state of comfort in relation to their ability to properly ventilate their units. This was particularly the case in the low-income and Co-op buildings, where fans have been installed in washrooms to continuously draw air through the units. All of the residents I spoke with noted that these were both inefficient and irritating, as they failed to clear moisture after a shower. Michelle spoke at length of the need to manually ventilate their unit as they were unaccustomed to having a home so well-insulated: “Closing all the windows is airless, it’s crazy, it’s like you’re sealed into a bubble”, she observed. Though she recognized the bathroom fan as a primary means of air circulation, she and her husband opted to keep a window open and the bathroom door closed in order to minimize the sound of the fan. “Otherwise it sounds like an airplane. But we’re waiting to get that replaced because apparently

there are quieter ones,” she added. As with the exterior blinds, the annoyance some felt at their performance had apparently led some residents to shut the breaker off altogether.

6.4 Learning to adapt

Though several other examples of the way new or different technologies and arrangements have shifted residents’ practices, these begin to illustrate the range of strategies for adapting to new or different material arrangements that have been used by the residents of the Village. As I’ll explore in Chapter 7, some of the challenges residents have experienced can be attributed to the fact that several building systems had yet to be properly commissioned or maintained, including the capillary mats. However, my conversations with the residents of the Village also demonstrated the negotiable role of technologies and other material structures – in other words, that new or challenging technologies are not simply accepted, but negotiated (cf. Foulds et al., 2012; Gram-Hanssen, 2012). Where they’ve been confronted with new material configurations, residents have seized the adaptive opportunities available to them, using or manipulating the structures and fixtures of their units to achieve both comfort and convenience (cf. Brown & Walker, 2008).

Of course, several components of the building systems simply haven’t allowed for either modification or negotiation – residents have no option, for example, to shift to another form of centralized heating and cooling, as the capillary mats form a central component of the hydronic system. Such limitations are built into the fabric of the building and its infrastructure, while others are less structural than legal and institutional. The ODP ensures that all buildings remain connected to the Neighbourhood Energy Utility as the primary source of heat and hot water, for example, while building occupancy permits and disclosure statements determine what interventions into system or building design can be made, as in the case of the rainwater catchment system. The designation of unit components as common property, such as the exterior blinds and closed loops, further limit what residents can adjust or remove. For previous owners of single-family homes, this was a constraint that required some adjustment and, as I note in the next chapter, that has made for some debate over the responsibility for certain strata building costs. Several building features are also integral to the buildings’ LEED Gold certification. While the actual performance of these systems often go unchecked by LEED certifiers once the building

receives its award, Bentall Kennedy and Success both seem to have made pains to ensure that residents are aware what they can and cannot do within their units. City-owned building management has been especially conscientious in maintaining building performance to the LEED standard (see Chapter 7).

However, where residents have been given the opportunity, they have intervened into the material arrangement of the buildings in ways that ensure their comfort. In some cases, direct modifications or interventions into the material arrangements of the buildings are encouraged, such as opening windows or adjusting blinds to allow for passive heating, cooling and ventilation. But where residents have felt the presence or absence of certain fixtures or appliances has impinged considerably upon their material or financial well-being, they may choose to alter them. Flipping breakers and adding fans or heaters are both illustrations of residents' ability to add or change materials in ways that were unanticipated by the Village's designers and that contradict certain energy-saving goals. Another example is the way unit set-ups have affected residents' dishwashing practices – for both Co-op and City rental residents, the absence of a dishwasher often stuck out as something of an inconvenience, particularly to those who were accustomed to using one. In response, Michelle and her husband had purchased a dishwasher from another Co-op member and were about to have it installed. Jason had already had one installed in his Co-op suite, and two of the residents of the City rentals were in the process of considering it.

6.4.1 Old habits die hard

What I also noticed from my interactions with residents was that certain technologies were being used and adapted in ways that met the goals of more than one practice. The capillary mat once again provides a good example: designed to improve both energy efficiency and resident comfort, this form of heating and cooling intervened not only into practices of thermal comfort but into possibilities for unit décor. The absence of radiators gave some residents a feeling of freedom in the way they could arrange their furniture, while the mesh of tubing in the ceiling limited their ability to hang or move overhead lighting fixtures. The selection of the hydronic heating and cooling system has also intervened into residents' laundry practices, especially for those who had moved from a single family dwelling in which the boiler room was used as a place to hang dry

wet clothes. For Michelle, the replacement of more conventional heating sources with the capillary mat also marked the removal of a convenient place to dry more delicate items. “I used to have a drying rack that you could buy [that] hooks on the radiator and then has little racks that hang out so you could do all your ‘smalls’, as they say, hanging off the radiator in front of it so you get the benefit of the heat”, she told me. “I used them all the time”.

As I noted in Chapter 2, the notion that bundles of practice often overlap is not new (see Shove and Spurling 2013; Schatzki 2014). However, the introduction of the capillary mat system also illustrates the way some residents have brought pre-existing strategies to a new situation that may not be applicable or appropriate. As I noted above, some residents approached the capillary mats as they would a forced air system –requesting more heat in the morning and evenings, and turning the system down during the day or at night. Many of these residents persisted in this approach despite the fact that they found it to be ineffective. “I turn it down at night and then when I get up, it’s so cold in here”, Ellen, a resident of the Kayak strata complained. As a way of supplementing this strategy, about a quarter of the residents I spoke with actually used thermometers as an independent gauge of unit temperature, again despite the fact that the nature of the system is such that resident comfort can be achieved under cooler air temperatures than typically needed with forced air systems. While not necessarily a habit that affects the system’s functionality, such practices have the potential to reduce the overall efficiency of the system while simultaneously confounding residents’ efforts to stay comfortable.

At other times, certain modifications of the material arrangements of the buildings have been more dramatic (particularly in response to more novel technologies), and point to ways in which resident practices might be contradicting the neighbourhood’s overarching goals. Where building systems are perceived to be inadequate in providing heat or hot water, for example, certain adaptations have improved resident comfort – bringing in space heaters or air conditioners – but risk compromising intended building performance. Even simple actions such as flipping a breaker or closing the bathroom door have led to problems both for residents (e.g. uncomfortably stuffy apartments) and building management (e.g. poorly ventilated, mouldy bathrooms). Where expectations of either comfort or building performance have gone unmet, frustration and disillusion have spread.

6.4.2 Great expectations

This question of expectations was something that guided my thoughts as I went about my interviews. As a part of my explorations into resident practices, a question that remained important was whether the knowledge of the community's official sustainability narrative had any impact on residents' performances of these various practices. In reviewing my interviews with residents, it was clear that few if any residents had made any major adjustments to their daily habits and routines as a result of intentionally wanting to actively live out the Village's sustainability narrative. Where more specific unit-based practices were concerned, many of the residents I spoke with felt that they were already conscious of their environmental impact, noting that their habits had developed over time and that they were now "trained" to do things in a certain way. When pressed for reasons why they chose certain settings or engaged in certain habits, many residents cited the desire to save energy for reasons of cost savings or environmental conscientiousness more generally. This was particularly the case with members of the Co-op, who felt as though they and Co-op members more generally had brought with them a heightened environmental sensibility.

Many also acknowledged that even their more "unsustainable" habits would likely remain unchanged. Of all the people I spoke with, only Lucy recalled that upon arriving to the Village, she and her husband had tried to change the way they lived in order to live up to the sustainability narrative by buying a timer to shorten the length of their showers: "We were moving in here, [into] a sustainable building, sustainable neighbourhood [and thought], we should be following these principles". Most of my other conversations, however, reinforced the fact that most people brought with them their own expectations of comfort and the habits they'd acquired along their lives, which were unlikely to change. Some residents tended to view their efforts to lower their environmental impact in certain areas of their life as permission to engage in less sustainable practices elsewhere. For example, of her insistence on using the dryer Carrie confessed to me, "It's my big sin, my big environmental sin. But I don't use a car so I think I'm ok". Hazel felt similarly, noting that while she had sold her car and made efforts to live simply, she would still partake in certain daily pleasures. "I take a good shower everyday and I don't care if I'm using a lot of hot water, I use it," she affirmed. For Neil and his wife, the fact that they were in their 70s played a role in deciding this tradeoff: "You know, but we haven't a lot of years left compared to

others, so you might as well enjoy the creatures of comfort that you have. I'm not going to stop making cups of coffee in the machine".

Given this attitude, it was interesting to observe that the promise of both comfortable and ecologically sustainable living set out by promotional materials and other institutional documentation (such as disclosure statements) had nevertheless set a certain expectation among residents that, where it has gone unfulfilled, has led to some disappointment. These ranged from those, like Hazel, who noted that certain features of the units or appliances weren't "as environmental as they should be" – the industrial-sized kitchen sinks in the market units, for example, or the use of conventional appliances in the City rentals – to those who became discouraged that conservation efforts were not only unsuccessful but that certain features made for an *excess* in consumption, as in the case of the low-flow fixtures. Martin was particularly firm on this point:

We've always had a fairly good consciousness around water use and electricity use and lights and all that stuff, so that hasn't changed. The thing that's changed is where we want it to be sustainable and it's not, it's disappointing.... Now, it wasn't a buying decision for us, but by the same token, if you're supposed to get hot water without throwing a bunch down the drain, for me that's just common sense. (R19, personal communication, Apr 28, 2014)

Many residents believed that while they were living more sustainably than before, they felt that the absence of food scrap composting programs, which had yet to be put in place, hindered their efforts. While the Co-op had made use of a few rooftop composters, most buildings had no on-site way of composting. "We did it before we moved and I've still got my stainless bucket waiting for the time that we have a place, Brian told me, "but we have no place to dump it right now". Others felt that while they were able to live more locally, they were still dependent on a car for much of their travel. Though unlikely to shift driving practices where longer distances are involved, a few residents expressed disappointment in the lack of storage space for bicycles and cited it as a reason why they didn't cycle as much as they would have liked to. Despite a bylaw ensuring the placement of 1.25 bicycle storage spaces per unit, in market condos many of these spaces were included inside storage units for purchase, with the remainder built into larger bike rooms. The resulting scarcity had made it difficult for some condo owners to ride: "I bike way less because it's almost impossible to get my bike out and if I do take it out, I'm terrified that somebody is going to steal my spot", Ellen told me.

Such disappointments and criticisms weren't confined to the set-up of the units themselves, but extended to some of the broader features of the neighbourhood. Several residents noted with disappointment that the Salt Building had been leased to Craft, a Calgary-based brewpub chain, instead of being used as an additional community gathering space as had been outlined in some of the earlier promotional materials. Many were additionally unsatisfied with the level of maintenance public spaces were receiving, noting that the amount of waste from local dog owners, as well as everyday garbage that accumulated in the streets, was becoming a problem. To Ellen, these kinds of disappointments added up to an unfulfilled promise of sustainable living:

So here we're saying to people move in, it's wonderful, you can live sustainably. And then you have an apartment that costs way more to heat than your last one because of the fact that the ceilings are so high and your entire walls are glass. That's not so smart. When we're saying that it's sustainable but I'm sorry there is no place for you to put a bike, that's not so good. When you say it's socially sustainable but I don't see my neighbour...that's a lost opportunity. (R12, personal communication, Apr 18, 2014)

6.4.3 The low-income challenge

This anticipation of certain outcomes has played a particularly strong role in the City's low-income housing. "There were a *lot* of expectations", Jennifer Standeven, Vancouver's Director of Housing and Community Operations told me. The reasons behind them, she noted, were that many incoming residents had anticipated receiving BC Housing subsidies, or that all 1100 units of the Village were to be used as low-income housing. "A lot of it was public debate about the Olympics, a lot of public debate about what would be the legacy. So there were lots of hopes pinned on the Olympic village, some of which just weren't realistic", she went on. Despite signing a tenancy agreement to the effect, the fact that residents were responsible for paying their own utilities also came as a surprise to many of the low-income buildings' first tenants. "A lot of people thought that a net-zero building, 80 Walter Hardwick, meant that they would never have a utility bill," Standeven explained, which created several tensions between several residents and the buildings' management team. In an effort to address resident concerns while many of the systems were being figured out, the City agreed to cover the cost of tenants' utilities for the first year of operations, after which they could choose to remain and pay or find alternative accommodation. To assist, the City additionally hired an independent contractor to help sort out resident concerns and put communication structures in place. Nevertheless, expectations among

some of the rental tenants remained difficult to match. “I really underestimated how much education was needed on this one” (M14).

Today, prospective tenants for the City rentals are required to apply and undergo a pre-screening assessment before being accepted into housing, during which management endeavours to be clear on what residents can expect. This includes efforts to ensure that all incoming tenants are aware of what the management team has called the “three pillar approach” to sustainability. These social, environmental and economic goals of the buildings are communicated to residents both through an online tenant guidebook prior to a lease being signed, as well as in-person orientation sessions. “In terms of lessons learned”, one housing manager told me, “when you’re housing people in new technologies, you’ve got to make sure that you really screen your folks carefully”. Concerted efforts to educate and ensure that residents are aware of what is required of them have been made by the SUCCESS team, which they had found to be fairly successful in reducing the volume of resident concerns. “All the people who thought that [they wouldn’t have to pay] have either recognized ‘it is what it is and I like where I’m staying so I need to pay’, or they’ve moved on because they don’t agree with it,” another manager told me. “Any new people that come in, myself, I’ve been very clear with them how these things work” (M12).

However, some low-income residents have remained displeased over the high cost of living in the Village. I was actually unprepared for the volume of grievances I heard from the two low-income residents I spoke with, both of whom spoke angrily about the choices the City had made and their impacts on the well-being and livelihoods of the Village’s poorer residents. As a resident of the ‘Net-Zero’ building, Terry was especially critical of the systems that were put in place, as well as the high administration and monitoring fees that residents pay as a part of their utilities: “They charge you monthly for that monitoring fee. It’s an expense that really shouldn’t be there, it really shouldn’t”. Katrina, another low-income resident, agreed with this assessment: “They’re charging us \$10.00 processing fee every month. Now, these are people on pension, they’re core need people, \$10.00 that translates to a few gallons of milk and bread or something”. Katrina was animated in describing her various strategies to save on costs, which ranged from keeping the heat low and using water sparingly, to the purchase of an in-suite washing machine. However, she was adamant that living in the Village was costing her more than the 30% of her income.

Beyond utilities, certain features of the neighbourhood landscape have also made it more challenging for low-income residents living in the Village. Both Terry and Katrina spoke of their inability to frequent many of the local stores and restaurants, limiting their contact with the rest of the neighbourhood.

The higher cost of living wasn't only noted by low-income residents. Several residents from across the Village complained of the high administrative fees associated with their utility bills, which often stood out in contrast to the relatively low costs of their actual usage. Many furthermore noted the high cost of the local grocery store and some of the other amenities with some displeasure. Even residents of the higher end Canada House strata were unimpressed, including Brian: "We use Urban Fare, but I do so sparingly because I think they're pretty pricey. The drycleaner that's there is a nice service but he's horrendously overpriced [too]". Many residents opted to frequent the lower-priced box stores located roughly 1.5km away which, according to one housing manager, presented yet another issue for some of the Village's more elderly residents:

It's isolation for a lot of seniors, because if you have a back problem, if you don't walk very quickly, if you're on a walker, you have to go from the Village, walk across 2nd St. to No Frills which just opened up about a year ago, a year-and-a-half ago. Or go 6th and Cambie to get your groceries, or you have to have someone deliver them...the shopping here is not realistic. (M9)

As such, while the Village's amenities have been well-received by many, they nevertheless exclude a certain fragment of the Village's intended population. "Urban Fare, Terra Breads – those are lovely to be in the Village, [but] they don't necessarily build community in terms of gathering places, because of their price point" (M9).

6.5 A community emerges

What all of the above has told me is that the unfolding of the neighbourhood four years' into its occupation has clearly not been without its struggles and even its contradictions. The design of the neighbourhood itself was very well received by every resident I spoke with, and has evidently shifted patterns of living towards more local configurations. For many, this has had positive implications for socialization and mobility patterns, while inside the units, new and sometimes perplexing technologies and design choices have presented challenges for many Village residents. This can perhaps be attributed to the innovativeness of the material intervention in

question. While the creation of public spaces and well-connected neighbourhoods is a planning practice that can be dated back as early as the *Central Area Plan*, the use of “green” technologies and building techniques is newer and therefore necessarily less well-established. The novelty of these systems has made residents the subjects of an experiment in sustainability transition – a fact that one resident felt had turned them into “guinea pigs”. Though these experiments were designed to improve residents’ experiences overall, the fact that many had undergone substantial difficulties prompts some questions as to who should bear the responsibility of these trials. This is particularly the case with the low-income population: while owners and renters have the opportunity to move elsewhere, the ability of low-income households to change homes is significantly more challenging. Moreover, while the screening process that low-income housing management conduct is central to informing incoming residents of the new technologies, it may additionally limit the entry of certain populations less able to cope with a novel building form. The City’s agreement to pay for utilities while system issues were being addressed has moderated the potential clash between new technologies and low-income abilities, but some tensions clearly remain.

6.5.1 Community through design

What is interesting, however, is the way these decisions around the material expression of the neighbourhood’s sustainability narrative have had implications for the social dimensions of life in the neighbourhood, and vice versa. First, as I noted in section 2, the physical amenities of the neighbourhood and design features of the buildings have helped to encourage social interaction between residents, from the interactive furniture along the seawall to the inner courtyards and community gardens of the buildings. Broader planning decisions have also had an effect on the kinds of residents who have come to live in the Village, as well as the kinds of social potential the neighbourhood could ultimately hold. The Co-op is the best example here, where communally-oriented housing and decision-making structures have had a positive effect on the social lives of its residents. Ryan’s experience first as a member of the Co-op and later as a privately-owned rental illustrates the potency of the Co-op’s programming to foster a sense of community:

When we lived in the Co-op, I felt really like we were this community that could rely on each other for many things. We grew vegetables on the roof and people helped out with each other’s children and childcare. And if I needed someone to take my daughter for 15 minutes because I needed to do

something, it wasn't a problem. And they really tried to foster that I think. Not everybody there did that or felt the need to do that, but there was a good group of people who really made it feel like a nice little pocket. And I don't get that sense living in this building at all. It's a lot of people who don't talk to each other in the elevator. We don't have a rooftop garden; the rooftop garden is a penthouse. I can't get up there. (R3, personal communication, Mar 27, 2014)

This predisposition of the Co-op towards increased community engagement and social interaction hasn't been confined within the walls of the building, but has radiated out into the neighbourhood. This has occurred through informal groups, such as the Athlete's Village Ukulele Club, as well as partnerships with local stores, including ones with *Legacy Liquor* for the production of a honey lager using honey collected from the Co-op's rooftop garden. Beyond the Co-op, other community partnerships are also helping to provide emergent arenas for socialization, including movie nights and community barbeques sponsored by local businesses such as Urban Fare, Tap & Barrel, and Craft.

In contrast, the relative absence of a strong community at the Net Zero building has remained something of a concern for building management, in part due to aforementioned conflicts over utility costs, but also for reasons of tenancy. Tensions between residents and with management have created some difficulties in the Net Zero building, exacerbating the challenges of an already vulnerable population, many of whom require additional services and support that are not offered by SUCCESS. Nevertheless, SUCCESS staff has made efforts to find means of support using existing networks:

We're really trying hard to connect folks, we've got Mount Pleasant Neighbourhood House here partnering with Creekside Community Centre coming into our buildings to provide at-home services. Which is helping primarily seniors with some housekeeping, transportation, social, visiting. We're trying to create networks and community links, [but] its still fledgling. (M9, personal communication, Mar 21, 2014)

Overall, however, the experiences of residents and my own observations as I've moved through the Village both point to a sense of community that has begun to emerge. For some of the more well-established residents, this community feeling is in part attributable to the 'cohort effect' that transpired when many residents moved in at the same time and while the neighbourhood was still something of an island on an otherwise undeveloped parcel of land. As an early resident of the Co-op noted,

Most people moved in within a year of each other. And being isolated and we didn't know anyone, so anyone you walked around [and saw] was new. So there was an instant community in a sense that, if

you move into a more established neighbourhood, chances are your neighbours might be friendly but they are already established in their routines and it's really hard to break in. So here you kind of got to know people (M3, personal communication, Mar 7, 2014)

As I'll explore a bit in the next section, these earlier residents also endured some of the greater system malfunctions, roughing it through winters without heat and summers without water, and seeking support in one another as issues arose. Those tenants who found the trials and tribulations of the Village systems to be more than they wanted to endure have since largely moved out, with far less turnover in tenancy now than in earlier years of occupation. The trend has been similar among those living in the strata. "Owners are either at peace with the early years," one building manager told me, "or they've opted out...and truly there is a sense of community" (M18, personal communication, Apr14, 2015).

6.5.2 Community through struggle

A second dynamic that I found particularly interesting is the relationship between such examples of neighbourhood and building-wide social interaction, and the material arrangements I discussed in earlier sections of this chapter. From my interviews with residents and managers, it became evident that "communities of practice" were forming among Village residents who share unique or novel technologies in common. Wenger et al. (2002) define a community of practice as a group of people who share a domain of interest, and by extension hold certain knowledge and competences in common. These shared attributes, they argue, can give rise to opportunities to interact that act to strengthen a sense of community; as explained by Macrorie et al. (2014), "core knowledge, accepted frameworks and stories are distributed, maintained and evolve" (p. 28; see also Hitchings, 2013). While the term is largely used in reference to a shared interest, the experiences of the Village show that they can be based in a shared material configuration as well. The capillary mats once again offer the best illustration of this, where ongoing issues and confusion around their function have led to several opportunities for social interaction and the development of shared building or neighbourhood identities. Some of these have occurred through the efforts of building managers, who have gone to great lengths to address many of their residents' concerns. Many of these efforts have involved the repair or maintenance of building systems of heat and hot water provision, but have also extended to the provision of information on these same systems in the hopes that more technical or operational explanations by the systems' designers will assist residents in achieving comfort in their units. While offering a place

to learn about unique or challenging technologies, these workshops provide an additional means of social interaction and an opportunity for residents to share experiences, frustrations and concerns. Where decisions are made without communicating them to residents, or where managers themselves have been unadvised as to changes to building systems (see Chapter 7, section 2.5), these kinds of opportunities for resident engagement and reflection on these shared building features have been lost.

However, residents also have online opportunities to learn of the neighbourhood's features. Initiated by a local real estate agent, the Southeast False Creek Facebook page has developed into a well-used site of community interaction, used to share information on local concerns, highlight security issues, and raise questions about community events and affairs. Residents of the Village have also used the page as a way of learning to use new technologies used in the buildings, posting queries on the proper use of the capillary mats and other dimensions of Village life. Such interactions have the potential to foster a sense of camaraderie and shared experience among the many residents who experience ongoing confusion around the setting of the dial (Figure 6.4). With over 450 members to date, the neighbourhood Facebook site is a unique opportunity for residents to interact with others in the area and obtain information on new and existing programs that have emerged. For example, the page has been a forum for other buildings in the Southeast False Creek area to tap into expertise on developing their own rooftop gardens, or to reserve their place in nearby community gardens. Some of the individual buildings have also developed Facebook pages or blogs, which have provided a similar function, as described by Michelle:

We have a Facebook group just for our Co-op, which is an easier way to ask for help than cornering somebody and asking them about the thermostat. It feels a little less stupid...we'll have discussions about dishwasher installation. And people are pretty good at helping out with 'Does anyone else think their bathroom fan is shockingly loud', or what people do about something else. That's where we have most of those conversations. (R2, personal communication, Mar 26, 2014)

Finally, as I noted above, many residents felt somewhat disillusioned where certain expectations of sustainable living had not yet materialized. Far from passively accepting these, however, many residents offered examples of grassroots efforts that had emerged to put such systems in place. In the absence of an organics waste collection, for example, a few buildings had begun to pilot their own food scraps or composting initiatives in advance of a Metro Vancouver by-law that would require them to in 2015. With the help of the Facebook page, a block watch program has been instituted across the neighbourhood with the aim of improving overall security and reducing

incidences of theft, while yearly community clean-ups have emerged in response to perceptions of scarce maintenance of the Village public realm. The lease of the Salt Building to the privately owned Craft pub and restaurant also provided a rallying point for residents who wished to see it used as more publicly-accessible community space. Though the Craft brewpub has now been firmly established in the neighbourhood, the resident group that formed to oppose it acted for some as a forum for social connection.



Figure 6.4. Facebook as a forum for learning

Such initiatives have not only filled a perceived gap in neighbourhood services, but have also acted as additional forums to share other relevant experiences, including the opportunity to converse on confounding technologies. When I asked her where she got help in understanding how to use the capillary mat, one resident noted that the food scraps program had provided her with the opportunity to talk about it: “It was funny, when I had the first meeting of the food scraps group whenever that was, last fall, we were all talking about that...someone was saying ‘I can never remember how to turn the heat on’” (R14, personal communication, Apr 19, 2014). For

rental tenants otherwise disconnected from a building community of predominantly condo owners, such forums may be of particular value.

6.6 Do good things come to those who wait?

As I made my way through the Village, I noticed with some amusement that while residents often noted a great number of the neighbourhood's issues or shortcomings, this was often followed by reassurances that despite it all, they were quite happy with the way things had turned out. Even those who were irritated with ongoing building issues were also quick to defend the neighbourhood's positive attributes. Following a lengthy conversation about the many mistakes that had been made on the Village, Terry grudgingly acknowledged that living in the Village had actually, in many ways, been a good experience: "I like my home, don't get me wrong, I just want to see it right and working right, that's all... As far as this city [goes], I don't think that I could be better accommodated". Many others noted that they had observed a general contentedness among building tenants: "Everybody seems happy in here. I mean, people do like it, you know. You say, do you like it? Oh they love living here, that seems to be it. And I think these teething problems will eventually wane" (R10F, personal communication, Apr 14, 2014). Many others echoed this sentiment and were hopeful that the Village would eventually achieve the goals that had been set out for it. Towards the end of our conversation, Martin summed up his feelings about his family's Village experience:

I tend to be one of those guys that will look at the things that need to be done better or different or improved upon. But everything I've said is still in the context of: it really is a great place to live. It's a great building, like it really is a phenomenal building, and an incredible village and community. And if somebody sat here and recorded this and listened to it, they'd sit there at the end of it and go, oh okay...on the environmental sustainability thing he gives it a 3, and on the overall likeability of their decision he'd give it a 5...Strip all that away and strip away everything else I said, was it the right decision? A year later, what would I give it? On balance, overall, across the board, everything on the table? I'd give it a 9.5 out of 10. (R19, personal communication, Apr 28, 2014)

Indeed, many of the greatest issues residents raised had little to do with the neighbourhood itself, but circumstances that were largely outside the neighbourhood boundary (Figure 6.5). Concerns over neighbourhood security were largely attributed to the neighbourhood's proximity to both Vancouver's Downtown East Side and several social housing facilities located nearby. This continues to be a topic of much debate both in and outside the neighbourhood, including the occasional heated discussion on the Facebook page, where residents often argue over the desirability of the social housing structures going up around the periphery of the Village. Also

high on the list was the noise and disturbance of surrounding construction, an issue that will be resolved in the next few years as the rest of SEFC is completed.

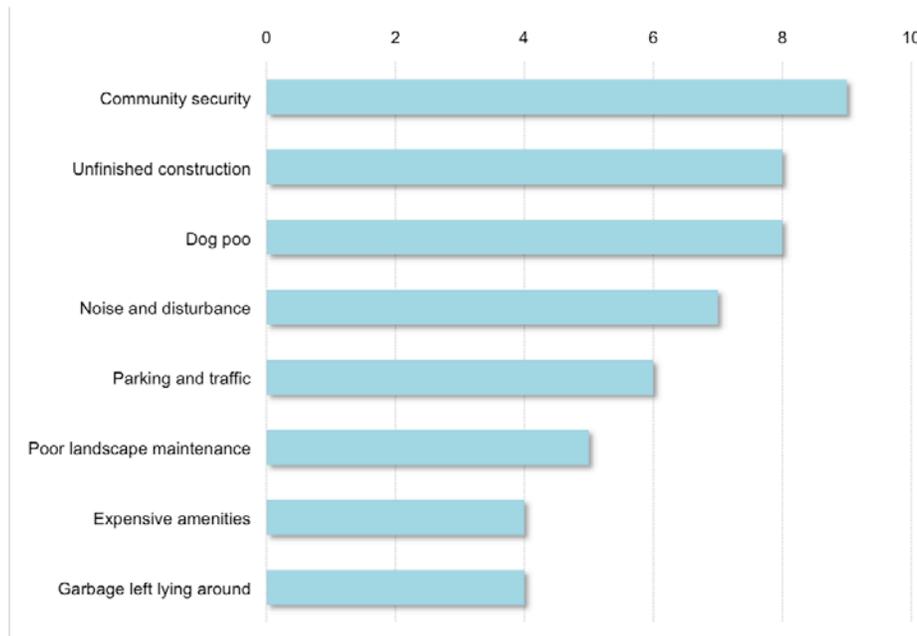


Figure 6.5. Residents' least favourite neighbourhood features

Still, a complicated picture emerges from residents' lived narratives – one that reflects several contradictions inherent in the success of the Village as a sustainable urban neighbourhood. With the exception of the Co-op, most residents didn't come to the Village because of its promise of sustainability, but have nevertheless appreciated the impact that the move has made on the overall sustainability of their lifestyles. I've found evidence that several design features in the Village landscape have been quite successful in this regard, reinforcing the work that has pointed to the benefits of medium-density, medium-rise developments on both social and environmental well-being (e.g. CMHC, 1998; Gifford, 2007; Fincher & Gooder, 2007). Residents widely commented on the vibrancy of the area, the increase in social contact, and their enjoyment in moving through the city without the use of a car. The ability to live in place has been largely successful in the Village as well, moving its residents towards lower carbon and healthier patterns of living.

However, a deeper exploration of the way the Village has shifted residents' practices reveals yet more contradictions, this time between the intentions of the planners and designers, and the actual

experiences of Village residents. The examples I've presented in this chapter are only a few of the many practices that residents engage in on a daily basis, and yet they are powerful illustrations of the disconnect between sustainability goals and their potential outcomes. First, the continued performance of traditional practices are showing the limited potential of certain interventions to effect significant shifts. Where they are able to, residents are performing their daily practices more or less the way they did before, informed by their past experiences and aligned with ingrained logics and reasoning (see also Chiu et al., 2014). Where a changes to the material component of a practice have been more dramatic, Village residents have not been passive in their receipt of new technologies, but bring to them pre-established understandings and approaches that guide their interactions. Where they've been able to, residents have added, removed and changed fixtures in order to improve their comfort, convenience and cleanliness, even where these stand in contradiction to the buildings' "green" goals. This greater range of possible adaptations echoes findings on interactive adaptation to energy retrofits by Chui et al. (2014), who found that the technical malfunction of new technologies prompted a wider array of adaptations and efforts to achieve an adequate level of thermal comfort (see also Foulds et al., 2012). For many residents, the sense that they were already performing their daily practices in a fairly sustainable way has given an added justification for their persistent performance of less sustainable practices. Such findings indicate the strength of entrenched practice and the enduring influence of broader notions of what constitutes a normal or desirable state of comfort or convenience.

Secondly, significant changes to the way the buildings themselves were made with the goal of shifting other resident practices towards sustainability, which were thought to have additional benefits of improved liveability. However, it is clear that the harmonization of residents' comfort and the opportunity for cost savings with ecological and emissions goals has not been achieved in several areas. Ongoing mechanical issues have played a strong role here, which make information and guidance of little use and which give residents little reason to attempt to live up to the narrative, especially where their own comfort is compromised.

Chapter 7: Righting the Ship

While residents worked through the innovative features of their new homes, other actors were busy figuring out how to get them working from the other side of the wall. In this final empirical chapter, I turn to this key group of players in the unfolding of the narrative of Vancouver's Village: those responsible for managing and maintaining the systems and processes of the neighbourhood's buildings. While these kinds of actors often remain excluded from either building or neighbourhood design processes, or post-occupancy evaluations of same, they are being increasingly recognized as integral to the performance of green buildings. As I'll show in the following pages, they have certainly been central to the vision of the Olympic Village neighbourhood that through their efforts has come closer to its realization. Managers' practices have necessarily shifted as they have been faced with novel technological arrangements that demand a higher level of learning, communication and coordination between parcel actors. The emergence of a more integrated form of parcel governance is beginning to show results in the reduction of overall management and maintenance costs. However, managers have been burdened with what is a disproportionate share of the responsibility for getting the systems up and running, particularly given the relatively low level of expertise many brought with them. Poor commissioning and handover processes have therefore made their transition a difficult one, despite a high level of commitment among these important actors.

7.1 Defining managers' practices

Before exploring these experiences themselves, I want to pause to briefly discuss the way I've used social practice theory (SPT) to help analyse the stories told to me during this part of my research. As I explained in Chapter 2, SPT has more conventionally been used to explore social phenomena as they are created and expressed through repeated, often daily, performances of practitioners that, over time, form relatively stable patterns. Some scholars working in the social practice tradition have insisted that it is here that the strength of the approach lies, and have even suggested that the use of social practice theory ought to be limited to these forms of social activity, as I've used it to explore the practices of residents in Chapter 6 (Shove, 2014). However, some more recent applications and explorations of social practice theory have begun to suggest that this unique focus on the habitual has limited the potential of SPT. Watson (2012) has been particularly adamant in this point, noting that the "microfocus of practice research" (p. 489) on

the specific details of everyday life has made SPT useful for the exploration and description of “everyday mundane goings-on” (p. 492), at the risk of overlooking its broader and perhaps even more radical implications. He also suggests that the emphasis of social practice work on the “repetition and reproduction” of practices over time has furthermore left little room for an exploration of innovation and change, which he suggests has limited the ability of such work to explore broader systemic transitions. Birtchnell (2012) refers to this self-limiting nature of SPT as its “flat ontology”, which he suggests would benefit from a rebranding effort to emphasize the potential of SPT explore and explain activities “outside of everyday life, the domestic and the home” (p. 497).

In his work on domestic retrofits, Karvonen (2013) has begun to take SPT in this broader direction. While remaining inside the home, he explores the more “periodic and inconsistent” but nonetheless important activities that make up the broader practice of domestic energy retrofitting. Using Warde’s concept of the “moment of change”, Karvonen explored domestic retrofits as events that could hold the potential to shift or reconfigure the multiple and overlapping practices that make up a person or family’s long-term habitation of their home. I’ve taken a similar approach in this chapter on building governance and management, as I found that for the majority of the managers I spoke with, there weren’t any set, habitual patterns of practice. I had entered into this part of my research with the assumption that I would be able to identify and trace specific building management and maintenance practices into which either the built form or symbolism of the Village had intervened. What I instead found was that in lieu of habitual practices, managers have often had to learn or adopt several different and sometimes changing roles that have together made up the experience of managing the buildings of the Village. This is in part because I’ve used the term ‘managers’ here loosely, as the actual roles and responsibilities of the individuals I spoke with varied considerably, from broad decision-making roles taken on by City staff, strata councils and co-op board members, to the coordination of maintenance by trained facilities managers and building technicians (Figure 7.1). Furthermore, coming to the Village and assuming the responsibility for ensuring buildings were managed and maintained properly was for many an entirely novel experience – in the case of strata council members, one that they had neither sought out nor expected to take on. Even those who had previous experience in building maintenance and management were confronted with a surprising array of challenges.

I spoke with a total of 18 Village managers over the course of March and April of 2014. These conversations were in person in their home or office (with the exception of one interview that was held over the phone), and often ranged between one and a half to two hours. During these conversations, I asked managers about their experiences with the management and operations of their building or buildings. Though I came to each interview with a list of general topics and questions I wanted to cover, the managers I spoke to often led the conversation in directions that were of interest and relevance to them, which made each conversation both personal and unique.

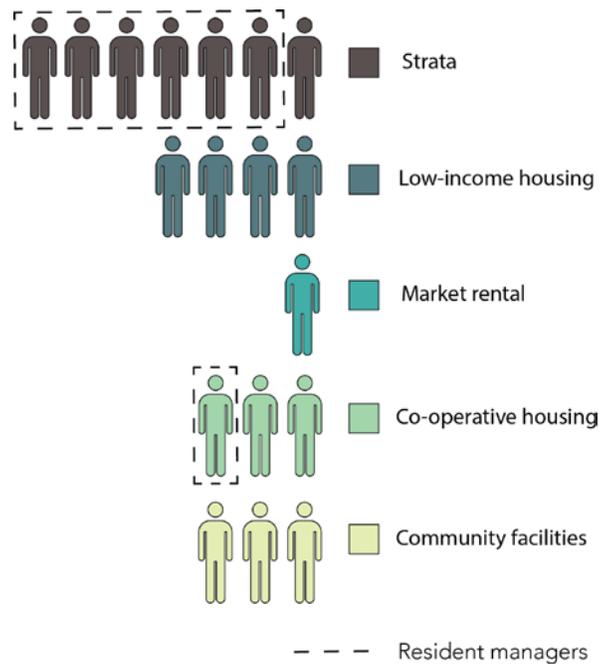


Figure 7.1. Sample of managers

7.2 Adventures in Village management

My first meeting with a Village manager was with Kieran*, a resident of the Village who also acted as the president of his strata’s council. As with other strata council members I spoke with subsequently, we met in the main lobby where I was offered a deep armchair and a view of the pleasant interior courtyards. As the evening light faded from the large windows, Kieran filled me in on the many tasks and challenges he faced in managing the building and its systems. In what in

* As in Chapter 6, names have been changed to protect the identity of the people I spoke to.

retrospect seems like an incredible understatement, Kieran told me that the job of strata council president for a Village building was, in sum, “kind of tough”.

I ended up speaking with strata council presidents and council members from five of the seven strata who help to govern roughly 85% of Village residents who purchased their own unit. The strata structure itself is one that unites decision-making on issues of common property and assets shared between each of the condos on a given parcel. Each strata is governed separately by a six-person council, nominated and voted for by building residents and overseen by a council President. Councils are responsible for making decisions on behalf of the building, which they do with the assistance and guidance of a strata manager. “Managing a building”, Kieran told me, “it’s got everything to it, from financing, profit, loss, dealing with people, managing contractors, managing people, managing the building, energy...it’s really not all that different than running a small business”.

Despite this fairly straightforward job description, none of the strata council representatives actually anticipated the scale of the task at hand when they came to live in the Village. Of the six council members I spoke with, three were retired residents who had come to live in the Village as a way of downsizing their family homes and locating themselves closer to the central amenities of the city. As with other residents, strata council members had above all been attracted to the area for its location and amenities, but were intrigued and appreciative of the buildings’ water and energy saving features and decided to contribute their time to building affairs. Upon volunteering for the strata, however, they were faced with a number of concerns.

First, a number of issues with the integrated systems for heating and cooling began to surface. In at least two parcels, several of the three-way valves used to separate the hot and cold water provided to individual units’ capillary mats were failing to close all the way, resulting in the provision of a mix of hot and cold that thwarted residents’ ability to warm their units. Installed on market condo units to assist in passively cooling strata buildings, the exterior blinds used to shade west and south facing strata units were also found to be malfunctioning. The poor placement of sensors designed to ensure the blinds would retract under higher winds and the mechanisms responsible for their smooth extension and retraction were failing to perform the way they were

intended, causing several blinds to jam or tear. In addition to difficulties in heating and cooling, many units were also experiencing long delays in the receipt of domestic hot water. Similar issues also arose with the system of rainwater harvesting – switched off during the Olympics, the cisterns were re-activated shortly after residents began occupying the Village. However, issues of both quantity and quality quickly arose in buildings across the Village – water was found to be dark and odorous, and in some buildings was so turbulent that the toilet fixtures themselves became inoperable and had to be replaced or repaired. In one strata, water shortages were preventing residents’ ability to flush their toilets at all. Finally, two of the strata councils have also faced issues with the provision of bike storage. As I noted in Chapter 6, in several Village buildings the required number of bicycle parking spaces were placed inside storage units that had to be purchased in addition to the units themselves. As such, several residents had difficulty securing a place to park their bikes, a situation that two of the strata councils were actively trying to change at the time I spoke with them.

These issues immediately created substantial workloads for many strata councils, but in some ways were just the beginning as they were soon faced by a second hurdle: the need to ensure that once repaired, the systems would be properly maintained. Building functions that require regular maintenance include the monitoring, filtration and treatment of the cistern water, as well as the series of loops that provide heating and cooling to the unit capillary mats, which in turn need to be regularly checked and repressurized to ensure that heating and cooling is actually provided. Though these systems are shared by multiple users on a parcel, the distribution of responsibility for their maintenance and operations costs is determined by a Reciprocal Easement Agreement (REA), a legal cost-sharing arrangement that creates different “air spaces” within a single parcel and outlines the rights and responsibilities of each parcel member. Under each parcel’s REA, the strata are designated “Air Space One” and as such are given responsibility and authority for the maintenance, repair and operations of all shared systems, including the cisterns and energy transfer stations.

However, few managers had any knowledge of the actual maintenance procedures for each of these complex building functions. Brian, a retired resident and council president for one of the seven strata, explained that he had come to the Village expecting many of the systems to be up

and running. Learning that the systems weren't being maintained properly therefore came as something of a surprise:

We had a meeting almost a year into the building and our property manager from First Service said, oh by the way, your closed loop systems are dirty and they're not balanced. And the meeting had just adjourned so I said, well we're finished, we'll deal with it next month. And she handed me this piece of paper...and I looked at it and I talked to some other council members and I said, what the hell is a closed loop? And nobody knew! We're all sitting there saying, well it's dirty and it's not balanced, but we don't know what it is. What does it do? How much is this going to cost us? So there were things like that just kept coming up. (M4, personal communication, Mar 7, 2014)

Brian's experience was by no means limited to his strata either, as across the Village it became increasingly clear that many of the buildings' systems were not being monitored or maintained in the way that was required.

7.2.1 A pattern emerges

When I spoke with other managers across the Village, I began to realize that these kinds of challenges weren't limited to the strata, but were being encountered by other parcel actors as well. In contrast to the strata, each of the other housing types in the Village is overseen by small teams of actors who work together to ensure buildings are operating smoothly. Placed in charge of the City-owned rental units, SUCCESS' small management team is comprised of a housing manager, a maintenance coordinator and maintenance technician, as well as an independent contractor hired to assist in putting policies and procedures in place. A Bentall Kennedy property manager, who in turn oversees a local building manager and an assistant, similarly looks after the private rentals. The Athlete's Village Co-op is governed by a Board of Directors made up of six members, four of whom are, like the strata, residents of the Co-op itself. However, they too are additionally staffed with by COHO housing and maintenance managers, who provide support and information to the Board.

I spoke to several of these managers during my visits to the Village, many of whom had similar experiences as the strata councils to share. Upon asking Nina to reflect on her initial impressions of the Village, she noted that it was not quite what anyone had anticipated:

Well, everybody knew about the Olympic Village. Nobody really knew what to expect... It was new for everyone. You go in expecting little to no maintenance needed because the buildings are...you expect the regular maintenance and the annual and monthly and everything else, but in terms of

repairs you don't expect much because it's brand new. It wasn't quite like that. (M15, personal communication, May 28, 2014)

Though they haven't had to address many of the mechanical issues under the purview of the strata, these managers remain responsible for systems and structures within their "airspace", which, as in the strata, have been found to be problematic. For example, the individual unit vents in both the Co-op and the City rentals were found to be of low quality, giving rise to several complaints of both poor ventilation and noise. In the Co-op, the shared laundry facility was found to require additional ventilation despite the use of condensation dryers, as the high frequency of use was leading to issues of moisture and mould. Under the easement agreement, SUCCESS is also responsible for the repair and maintenance of the solar systems installed in Parcels 5 and 9. However, a DDC programming error had prevented valves from opening and hot water heated by the panels from circulating throughout the building. In an unfortunate climax, pressure built up inside the units forced the release valves open, exploding glycol into the mechanical room. In Parcel 5, the glycol unfortunately hit the building's DDC panel, the door to which had accidentally been left open. At the time I spoke with the SUCCESS team, the solar panels on the rooftops had been unceremoniously draped in a series of tarps, shielding them from the sun as the system underwent repairs.

As in the strata, the novelty and complexity of many of the buildings' systems have led to maintenance issues as well. "Everything was new and needed to be understood, even something as easy as flushing the toilets" Nina told me, which meant that ensuring that the mechanical systems within the building are operating properly required constant attention. "It never ends" Gillian echoed, noting that even 4 years into the buildings' operations they were still finding that some components had yet to be turned on, such as the rooftop irrigation system or hallway light sensors. "The maintenance aspect of these buildings is intense" she went on. "Never mind the main mechanical systems, even just going in the units". She further explained that in shifting away from centralized systems of heating and ventilation to individual unit systems, maintenance requirements were increased. One such instance where this was the case, she explained, was in the maintenance of the health and pressure of the capillary mats:

I have to go into everybody's unit, I have to get them to empty their space where the unit has to be found. They don't know if they hear pump noise, they don't know if there's a big leak in the ceiling, maybe they never go in the storage room. It's not conducive to maintenance. It's so hard. And it's

disruptive to their lives. It should have been in the hallway. That's where the valve system should've been so we could maintain and fill them. The cap mat system, when they first fill it up with water, it needs to continually be checked for the first 3 months to maintain that water pressure (M16, personal communication, Jun 5, 2014)

Both the private and publicly-owned rentals have even taken on responsibility for changing the in-ceiling halogen bulbs installed in the units, considered too delicate to allow tenants to replace them themselves. "Nothing is simple" Gillian shook her head, "not even a ballast. Not even a light".

7.2.2 Learning on the fly

With full-time staff dedicated to overseeing the maintenance and repair of the buildings and fewer responsibilities than the strata, the Co-op and low-income rentals have certainly had some advantages. Maintenance coordinators are responsible for the maintenance and upkeep of the buildings, and bring with them background knowledge and expertise in mechanical systems and building maintenance. The simple existence of these positions presents a contrast to the experiences of strata council, where council members have little time for, nor experience in running a building. "Having professional management has been great," a Co-op board member told me, "and having on-site maintenance and on-site management helps a lot" (M3, personal communication, Mar 7, 2014). As the primary contact between incoming trades and housing management, maintenance staff are key actors in the overall functioning of the buildings and have been instrumental in figuring out the systems and putting maintenance procedures in place. They have received additional support from the Community Services and Facilities Management departments at the City, as well as Parks Board staff, whose technicians are responsible for the maintenance and operations of several community centres and associated buildings across the City, including the Village's LEED Platinum-designated Creekside Community Centre. To Gillian, this kind of expertise is invaluable: "Normal property managers, including me, have maintenance backgrounds. If you don't have it, it's a huge component you're missing, because especially down here, you have to get the basic concept, and you have to hear what tenants are telling you". This was especially true as many of the manuals typically left behind for building managers had been lost or accidentally thrown out, forcing managers to locate relevant information on their own. As one manager noted, this created a gap in their overall knowledge and understanding of the systems:

You get given this beautiful project, but nobody takes the time when you've taken it over to say to you, 'now this is how you need to run it'. Yeah, you get the mechanical logs and you get the electrical logs and you get all of that, but it's like a missing link. (M5, personal communication, Mar 12, 2014)

As a result, the newness of the technologies has presented even experienced maintenance staff with considerable challenges, and they too have had to learn the specifics of LEED-certified, multi-unit buildings. Compare this, then, to the experience of the strata councils: "I thought I would move in, turn on my heat, keep it low, it would do its own thing...and the systems would be there", the council president of a particularly problematic strata told me. "I didn't really think much about my participation in it at all. The only thing I thought was okay, community garden, recycling. Sure, I can do that" (M11, personal communication, Mar 24, 2014). The technologies themselves have therefore been especially confounding, and have required strata councils to dedicate considerable time and energy to figuring them out. During our conversation, Brian recalled how confusing the technologies in the mechanical room had been when he first began running the council:

The first time I went down there, it just looked like a big cruise ship to me. It was just full of equipment and I had no idea what any of it was at all. It wasn't part of my academic preparation. So we had to figure out how all of these systems operate and we had no maintenance schedules. We had no idea who was supposed to do the maintenance and what was involved in the maintenance and how much it was going to cost. (M4, personal communication, Mar 7, 2014)

The newness and complexity of the technologies introduced into the Village have additionally compelled strata councils to understand some less familiar dimensions of building management, including common property law and other legal arrangements. Within the integrated energy systems of the buildings, unit technologies such as the capillary mats and exterior blinds are integral to the building's performance as a whole, and are therefore considered common property. Addressing resident concerns and sorting out the responsibility for payment has been a large part of the strata council experience. "We're in constant battles about whose job it is to repair the blinds", Kieran told me in frustration, "and whether or not we should repair them at all". With the exception of Kieran, none of the council members I spoke with even had any prior experience in running a strata, having come from single family homes or apartments from in and around Vancouver.

Realizing that a clear understanding of the basic function of the mechanical systems was needed in order for them to make important decisions on their upkeep and maintenance, councils began

looking for answers. However, they found that the kinds of information they required to make such decisions were difficult to obtain. Again, Kieran expressed his frustration here:

There should be maintenance contracts, there should be all your drawings, your riser drawings of all your systems, it should all be easily stored in a room where all your contractors can find it, and all that stuff. And really depending on who you ask, that was never really done...so here we are, three years later, with nobody ever really putting policies in place to maintain the health of the buildings. (M1, personal communication, Mar 3, 2014)

Some strata members explained that even where technical information had been made available by the original contractors, these hadn't always been interpreted or translated into a useful form that councils could understand. "There wasn't a kind of a nice little compendium that said, here are the maintenance issues that you as a strata council have to deal with", Brian told me. "And so we would just figure them out as we went along".

Several strata have tried to make up for this knowledge gap by electing council leadership with experience in relevant fields such as building information systems and engineering. President of his strata's council, Ryan pointed to his own technical background as a definitive asset to the council: "It's definitely key... just being in the industry. If there is something you don't know, I easily have contacts who do know. So if I have just a simple question about something I can easily talk to someone and get an answer" (M8, personal communication, Mar 19, 2014). In one strata, the collective expertise of the council as a whole has been seen as particularly useful:

[One member has] the engineering background...We've got a lawyer who deals with condo law, we've got an accountant who deals with our finances. We have an owner of a building supply place who knows contractors. I mean, we've got a cross-section of people that lets us address just about everything we need to know. (M4, personal communication, Mar 7, 2014)

Where councils have had less experience in relevant matters, they have had to rely more heavily on external support, including the advice of engineering and legal professionals.

7.2.3 Left adrift

The primary source of support, however, has often rested in the hands of professional managers hired by each strata to manage the concerns and communications of the building. This aspect of Village affairs marked one of the most contentious issues I encountered throughout my research. At the time of building occupancy, a single strata management company had been hired by the receiver to manage strata affairs across the Village. Though decision-making authority rests with

the strata councils themselves, professional strata management was put in place to liaise between the council and other relevant parties, including the receiver and any necessary trades. However, several strata council representatives I spoke with were disappointed in the strata management services they had received, and blamed the initial state of disrepair of many of the buildings' systems on the failure of strata managers to learn and communicate the needs of the complex building technologies. Many felt as though initial strata management had moreover failed to put preventative maintenance schedules in place or to address deficiencies in a timely manner. "Obviously a lot of people on strata are just volunteering," Ryan explained, "so they don't really have any expertise in anything [and] you rely on the property manager to make sure that the proper maintenance is being done. We found that it wasn't being monitored and now we're just kind of playing catch-up". At the time I spoke with them, discontent with property management had led four of the seven strata to cancel their contracts with the original strata management service and move to a competitor. Others had retained their original contracts, but had been through a number of individual managers in their quest to find someone who was able to provide them with the services they need. Some of the more well-resourced councils had even chosen to deal directly with the receiver and with the various trades in order to understand what they needed and how to achieve it.

After many failed efforts to secure an interview with a representative of any of the current property management companies operating in the Village, I finally managed to speak with Paul, a strata manager whose services were still employed by two of the Village strata nearly a year later. On the high turnover of property management in the Village, he was candid: "I'll be the first to admit, we've had some terrible strata managers working at the Village. And it was like...no one wanted to go on the Village properties here...some of them hardly spoke English, it was a poor fit" (M18, personal communication, Apr 14, 2015). In fact, none of the local strata management companies had wanted to take the project on in the first place, he noted, since knowledge of the project's financial troubles and innovative technologies was widespread. Once a strata company finally did accept, the new technologies combined with the high expectations of the residents made for an especially challenging job. "It's a lot of extra work, it's a group that is high maintenance, they expect extra treatment because they're in this fishbowl, this experimental

thing”, he explained, “Coupled with the fact that they’re new to strata living and they don’t really understand that they don’t get their strata manager 40 hours a week”.

Both Paul and the other managers I spoke with also noted the difficulty in securing contractors who could be trusted to properly monitor and maintain the systems. “The technology was unproven and they didn’t have the maintenance expertise on the ground ready to follow up with it”, Paul told me. He used the capillary mats as an example:

It’s a European-style system, and there really weren’t many mechanical service providers who were familiar with that, they don’t have branch office in Europe. So they had to learn on the go, and the first several companies we used for that were horrible, and so now we finally found one that we can work with and they’re pretty good. We’ve got a much better handle on it, but it’s an ongoing issue. (M18, personal communication, Apr 14, 2014)

In some cases, this slow process of learning led some managers to feel as though many trades couldn’t be trusted to know how to do the work, or that they wouldn’t be deliberately charging for work that wasn’t done:

Fortunately, a lot of contractors are helpful, but they’re also in the business of making money. Sadly, you’d like to think that your contractors would help you put policies and procedures in place that would help maintain the health of the building, but would also minimize costs. They don’t do that. They just come and fix whatever’s broken. So it’s been three years of fixing whatever’s broken at large costs to all the buildings. (M1, personal communication, Mar 3, 2014)

Even where managers had no critique of specific trades, all noted the challenge of finding the right contractor for the job who had both the expertise for the task at hand and who could perform it efficiently.

7.2.4 Integrated systems, integrated management

From the experiences of management described above, it is clear that the novelty of the technologies themselves, as well the expertise required to run them, have been primary reasons for some of the Village’s stumbles out of the gate. However, a third dimension to Village governance emerged in my conversations that seems to have also played a role. As I explained in section 2.1, the parcel-based structure of the Village requires several mechanical systems to be shared between multiple actors, with a series of reciprocal easement agreements put in place to ensure a fair distribution of costs and responsibilities for their care. Though such agreements are becoming more common practice in mixed-use, multi-tenure buildings, those for the Village were

noted as one of the sources of the ongoing maintenance issues. Jennifer Standeven, Director of Housing and Community Operations at the City of Vancouver, explained the problem:

The reciprocal easement agreement, when you look at highly stratified air space parcels, it's some lawyer's dream, probably an operator's nightmare, because you have all these different partners who need to learn to work together. But when you first open up a property, all you're interested in as the operator is your four square feet...And what we found over the years is that this is a team sport, and you have to learn to work together. The reciprocal easement actually says that, that people are supposed to work in the spirit of good will and cooperation. Making it happen is always difficult. (J, Standeven, personal communication, May 20, 2014)

Indeed, the focus of each individual parcel member on their “four square feet” has been credited with many of the tensions that have emerged between parcel members. As changes in one building can often affect the systems of the other buildings, major repairs or even general maintenance performed by a strata can and have created difficulties for the other parcel members, especially where they haven't been communicated. Where changes affect the entire parcel, a lack of communication can turn a step towards getting the systems online and functional into a headache, as in this manager's experience:

[We were] given 1 or 2 days' notice to tell our tenants that the [rainwater] system was going to non-potable and it was going to be happening on this designated day...We're getting the vision of the Village up and running, it's really a very positive move forward. However, it requires a process to be put into place that creates that very positive outcome, and [residents] need to be educated...we didn't have that opportunity, it just suddenly appeared. And then we had to gain access into everybody's suites because a certain piece of mechanical something needed to be attended to in the toilets. So at the last minute [we] are putting something together as quickly as we can to notify the tenants and then we get the phone calls coming... (M9, personal communication, Mar 21, 2014)

In some parcels, the “four square feet” approach has created strained relationships between actors, particularly where some non-strata actors feel that they have been “cut out” of decision-making on shared systems. High turnover in strata council leadership has also meant that decisions made are often fleeting: “A new council can come in and dislike everything the old council agreed on...[and] want to go in a new direction, and that means a new management company” Paul explained. Such shifts have made progress towards consistent maintenance more challenging, not to mention the formation of relationships between longer-term actors in the Village. The absence of a coordinated approach to building maintenance has been problematic across parcels as well as within them. Each of the Village strata have taken a slightly different approach to building maintenance, even bringing in different trades to service their systems and adding to the existing complexity of system management. The wide variety in actors and actions has been costly in both time and money – for example, the diversity of strata councils and their

approaches to parcel maintenance has required the private rentals to be run as three separate businesses.

A second point of concern held among some parcel actors has been the allocation of costs between “airspace”. Set prior to the actual inhabitation of the buildings, REA cost sharing is based on the square area of each parcel actor – for example, where a strata occupies 40% of the total parcel area, they have been responsible for 40% of the cost of a shared utility or mechanical service. Shared costs extend to shared maintenance of common property both in and outside the buildings, and include services such as pest control, water/sewer usage, mechanical servicing, landscaping and energy provided by the NEU. In some cases, these percentages have been renegotiated between property management in order to more accurately reflect the actual uses of the buildings – for example, where one building does not receive any cooling, they can negotiate the cost sharing agreement to reflect this disparity instead of simply defaulting to the total area. Even where percentages have been negotiated, some actors quietly questioned the fairness of the arrangement and suggested that they have perhaps paid more than their fair share. This was particularly the case where repair and maintenance issues were expensive and ongoing. As one manager noted: “These systems are so intertwined that if you do not have one person overseeing all of the shared systems, you’ll spend hundreds of thousands of dollars a year tweaking things that’ll never be fixed” (M12, personal communication, Apr 24, 2014).

7.3 Making it work

The more I learned from my conversations with the Village’s many building managers, the realization of the neighbourhood’s official narrative as a viable, sustainable community was beginning to look a bit like an impossibility. Despite their countless challenges, however, many Village managers felt that several issues were in the process of being resolved. Indeed, some of the worst issues seemed to be in the past – the faulty three-way cap mat valves had been identified and replaced, several buildings had been recommissioned, and the rainwater catchment systems had either been serviced and were in the first months of operation or were about to be repaired. In the Co-op and City rentals, fans were being replaced with higher quality and more efficient fixtures, and the laundry facilities in the Co-op had been successfully upgraded. Maintenance schedules for the buildings’ mechanical systems had also been put in place in many

parcels, which managers hoped would prevent any further issues with the buildings' heating and cooling. While certainly not all issues had been resolved – the solar panels still remained inoperable, for example – I got the sense that many managers were beginning to feel as though calmer waters were on the horizon.

7.3.1 Sustainability costs

With these aspects of building management are worked out, managers were now turning to address the overall cost of maintenance and building operations. Concerns over finances are not unfounded: in 2014, estimates as to the cost of addressing deficiencies ranged into upwards of \$20 million, the vast majority of which were paid for by the receiver and billed to the City. As Nina explained, many of these costs were accrued as system maintenance was simultaneously being figured out:

Overall it's costing, I would say, quite a bit more money to maintain everything, even the getting to know the system process. Even the contractors, even if they had experience with the DDC system, for example. For the first two years, it's been difficult getting them on site. It was a learning process for them as well, and we ended up paying for that, or the building ended up paying for that...So it wasn't smooth, let's say, from the very beginning. It ended up costing a lot of money. (M15, personal communication, May 28, 2014)

Even four years into operation, the novelty of the buildings' systems have still required maintenance staff to spend additional time and effort systemically thinking through all aspects of building performance. The complexity of the buildings also eliminates the possibility of using lower-cost, in-house maintenance staff to address smaller repairs, as even simple changes can result in larger effects on overall performance. As such, all work has to be contracted out to trades with the right certification and expertise. Even simple issues have the potential to “snowball” from what would be a typical repair in a conventional building to one that requires considerable communication and care. “You walk into a unit and the type of faucet, the type of countertops, the washrooms, the lights, everything is different, you know?” Nina went on. “The doors, the patio doors, the glass, everything requires a bit more extra work. A bit more extra time to get it done and get it done properly”. The materials and fixtures themselves can also be expensive to replace, especially considering that many are manufactured overseas and have to be ordered from afar.

For the stratas, these higher overall costs have made for higher strata fees. “They’re not extremely high”, Kieran told me, “but they’re quite a bit higher than any other average building because to sustain the health of this building is expensive”. “Everything sustainable costs more,” Brian echoed, “that’s a given, it’s just an automatic”. That said, many are now seeking ways to reduce these overall costs and avoid the need to increase strata fees further. For Ryan, this has meant reviewing service contracts to ensure the strata receives competitive rates for the many services the building requires, including landscaping, security, building management, and maintenance. He was hopeful that once the remaining units were sold, costs would continue to go down:

A lot of the issues we ran into initially where we had a high cost were these instances where the system wasn’t installed properly, and then you have a unit that was left empty for a long time. The strata warranty had expired and then someone moves in, finds out the system’s not working and then we more or less have to fix it and pick up the bill. So in the last year our costs have gone down substantially from the year previous, just because we don’t have as many issues (M8, personal communication, Mar 19, 2014)

Retired strata council president Alan added that simply getting systems to work efficiently and as they were intended to would also save costs – for example, in activating the motion sensor lighting in common areas, which had been installed but never switched on. Three of the strata I spoke with had also begun to make material investments that promised to reduce costs over time, including the purchase of a capillary mat recharging “cart” (that would otherwise have to be rented each time the mats were serviced) and the replacement of common area lighting fixtures with cheaper and longer-lasting LED. However, some substantial costs still loomed for some strata, including ongoing repairs for the exterior blinds that could cost up to \$250,000 according to one strata’s estimates. As warranties expire, strata will no longer be able to claim repairs as building deficiencies, making budget overruns a constant possibility.

Higher costs are a particular concern for those responsible for the low-income housing. The termination of financial low-income housing subsidies by both provincial or federal governments have meant that low-income housing organizations across the province are having to come up with new ways of housing low-income tenants without external financial support. As I briefly noted in Chapter 5, SUCCESS is currently experimenting with a strategy of internal subsidy, where 55% of units within each low-income building are rented out at market rates, which help to subsidize the remaining 45% rented out to low-income tenants who are charged 30% of their

income a month. These market rentals also pay for operational expenses, including maintenance and staffing costs. As such, subsidy cuts have also meant smaller operating budgets for housing organizations like SUCCESS – “at a 55/45% split in here, we are skin of our teeth getting by every single month. As soon as anything goes wrong, I’m screwed. And I’ve got nothing to fall back on” (M12, personal communication, Apr 24, 2014). Though expenses had been largely covered by warranties or by the City at the time of our conversation, Gillian worried that future costs would overwhelm already tight budgets:

The problem is you’re going to run out of money and these systems are not cheap to fix. There’s huge costs to these buildings. Huge costs... We’re making it work because we have to make it work. We have tighter guidelines when it comes to maintenance at SUCCESS because they’re non-profit. They have options, of course, but you can’t go back to the City unless it’s a huge building deficiency. (M16, personal communication, Jun 5, 2014)

The Co-op has also been subject to the same funding cuts, and have similarly adjusted the proportion of market to below-market tenants to make up for the shortfall. They currently support a 25% below-market occupancy, with the goal of increasing it to 40%. To help reduce costs, both the Co-op and other Village actors have conducted building assessments that would allow them to plan and budget for future repairs and maintenance over the lifetime of the systems. Others had begun to source materials more locally in order to avoid long wait times and heftier shipping costs. Like Ryan, many were hopeful that as systems were now being maintained properly, costs would begin to decline as fewer repairs and emergency fixes would be needed. “We’re still learning, absolutely”, Nina told me, “but we’ve got everything in place now”.

7.3.2 Learning to communicate

Managers are also finding that the more they talk to each other, the fewer costs they accrue as well. As many managers explained to me, this was especially pertinent to building maintenance:

If you have one trade rather than 3 trades managing the heating systems, costs are going to go down. If you have information sharing – ‘Oh, we’re doing pest control in our building annually, oh well why don’t we all share the pest control and have pest control at the same time? How about if we all do window washing at the same time?’ Then your costs go down. (M9, personal communication, Mar 21, 2014)

Though costly in the interim, independent contractors that provide detailed information and monitoring have been hired to prevent larger, even more costly incidences and repairs. As the official contracts rest in the hands of the original contractors employed through the strata, these

trades have been limited to observing and monitoring. Still, where such contractors have been hired, these independent assessments have nevertheless helped to smooth operations and ease overall building management: “When you have the right company leading you, things just run so much more smoothly”, Gillian explained, “and that’s what we have to share with the other parcels – having a bunch of independent contractors helps you not at all”. It also became clear to me that wherever coordination between actors had been established, life was made easier. On some parcels this has occurred more informally, as in Nina’s case:

Whenever we do things on our side, we always talk to them and say, hey, this might affect you. How do you feel about this? Whenever there’s a security issue, because usually when our parkade gets broken into, and it happens, theirs gets broken into as well. So we come together and then we decide, okay, how do we improve security here? What upgrades are necessary? What do you feel needs to be done on our side to help you? What can we do on our side to help you? What can you do for us? And things like that. Whether you like it or not, you do have to work with the other property managers. (M15, personal communication, May 28, 2014)

Where this kind of easy collaboration was in evidence, managers’ perceptions of both the buildings themselves and the agreements used to allocate costs for their maintenance were generally more positive. One manager even spoke of the REA as an important means of getting everyone to talk to one another: “[It] certainly does build a sense of cooperative management...because people have to talk to each other. And I think it’s been a learning experience for all parties, and not necessarily a negative one either” (M10, personal communication, Mar 21, 2014). On some of the more litigious parcels, attempts to make a more formalized approach have been made as a way of smoothing relationships and easing the flow of information, but had unfortunately not yet been accepted by all parties.

Improved communication between actors *within* a single organization has helped things along as well, as in the case of SUCCESS. Upon hiring a transition manager to facilitate SUCCESS’ entry into the Village, procedures were put in place that ensured regular communication occurred between previously-separate spheres of housing and maintenance. Though it has demanded of managers that have not traditionally been involved with technical aspects to become more involved in these dimensions, the integration of these two aspects of building management has helped managers from both sides of the organization to access information and problem-solve more strategically. Informally, regular “Presidents’ meetings” between strata council presidents have created important opportunities for strata to share lessons learned and communicate their

experiences with different technologies or trades. Through this forum, concerns that are shared between multiple strata can be taken on more efficiently with the potential to increase synergies across the Village in terms of the trades that are employed, or the kinds of services that are used. For example, a landscaping committee had been in the process of formation under the Presidents' guidance, charged with the task of bringing outdoor maintenance concerns to the City and organizing neighbourhood-wide clean up parties. At the time I spoke with them, the Bentall Kennedy representative had also been invited to sit in on these meetings, and I later found out that Co-op board members had also begun to attend, widening the network.

7.4 The dangers of being on the frontline

As with residents' experiences, a similarly complicated picture of Village management emerges from all of the above. It is clear that the Village's complexity in both building stock and management has presented everyone involved in building governance, from housing to maintenance, with challenges that exceeded even more seasoned managers' expectations. New technologies and integrated building systems have required managers to navigate steep learning curves, made steeper still by a number of initial technical glitches, installation issues, and inadequate commissioning. As Village actors become more familiar and comfortable with the buildings' systems, the amount of time, energy and cost that has been invested may begin to decline; however, it seems likely that overall, higher costs will remain.

It was interesting to note that most managers I spoke with didn't attribute the challenges and difficulties they encountered to the vision of a sustainable neighbourhood itself, but to its execution. Many pointed to the rush to finish construction in time for the Olympics as a reason for why several deficiencies were found. Strata council members in particular had a sense that the direction of construction from east to west was a major reason why some buildings were constructed better than others:

I think our building is pretty good, maybe even compared to some of the other ones in the Village. Well, the Village was built west to east I believe in general... So it was around before they ran out of money... But I don't think that has had, like, a huge effect on things but I don't know. We definitely haven't had a lot of issues really with our building and I've heard comments too from other stratas that I think our building might be the best one in terms of issues and stuff like that. (M8, personal communication, Mar 19, 2014)

Our experience is probably a lot worse than some because our building was the last one completed, or our parcel was the last one completed... We believe that that's the case. (M11, personal communication, Mar 24, 2014)

Others noted that the neighbourhood's financial troubles and eventual placement into receivership led to a period of confusion during which time important information on building systems and their maintenance was lost. A few managers told me that it was sometimes difficult to get in touch with some of the original contractors – some no longer existed, while others were uninterested in getting involved in a project that had cost them so much. Both the receivership and slow initial sales were also given as reasons for the difficulty in getting building systems in place and online. Scot Hein, who I spoke to for Chapter 4, noted that amid the chaos, proper support procedures were lost:

Typically if you're an owner-developer and you have your consultants involved, they would stay involved for the first year to work with owners, strata, etcetera, to show how to test drive, to drive these pretty sophisticated buildings. And I think the bankruptcy debacle thing, there was like a disconnect, a moment where the consultants said 'thank you very much'...I have a feeling that [no one] actually stayed involved to liaise with the stratas and the residents to help them understand number one, how the buildings worked, and number two, why systems were designed as they were. So I think there's a disconnect there as part of the whole financial thing. (S. Hein, personal communication, Jan 29, 2014)

The result of this gap was not simply that certain technologies were left without proper maintenance, but that, as one manager noted, “guarantees were lost, deficiencies and timelines were gone” (M9, personal communication, Mar 21, 2014). Even where they tried to get ahead of the curve, the long gaps between initial commissioning and actual occupancy of many units rendered some managers' efforts futile. As Standeven explained:

We started to rent out in December, but we weren't doing a lot until late spring, early summer. We were, 'Oh wow, let's get all the mats fixed and serviced'. Sounds great, right? It's absolutely worthless, because at that point there was no draw on the system, and if there's no load, you aren't getting the water moving through the mats, and you're not finding air bubbles. So that whole first service was probably a waste of money...hindsight's 20/20. (J. Standeven, personal communication, May 20, 2014)

7.4.1 From vision to reality

What all these issues also begin to point to is what many saw as a tangible difference between the vision and the reality of the Village. For example, though many council members acknowledged the exterior blinds to be an interesting and even beneficial feature in theory, their execution was seen as a failure. Faced with either fixing them at high cost or voiding the building envelope warranty by having them removed, strata councils are in a difficult position that they feel is the

result of poor planning and poorer installation. The lack of bicycle storage areas is another example – in the Village’s official narrative, ample storage would be provided to support a presumably cycle-conscious resident population. As this particular dimension of the narrative failed to be adequately realized, it was in the process of being actively contested by two of the strata councils. These kinds of discrepancies were for many, disappointing:

We thought moving here was a good step in that direction, this being a green environment. But I’m less and less confident that we know what we’re doing when it comes to this stuff. What I see happening is that there is some wonderful theories and people attempted to develop a practical solution, which turns out not to be very well thought-out and then is not very efficient in terms of conserving resources (M4, personal communication, Mar 7, 2014)

The cost of those things has come down for the homeowner to do, but when it comes to a LEED building, it’s almost a façade. It just...there’s nothing green about this building. Definitely not the maintenance part of it. We use a little bit less energy off the grid, but we’re not net zero, we’re not self-sustainable. (M16, personal communication, Jun 5, 2014)

Even those who were supportive of the neighbourhood’s sustainability goals reserved judgment on the overall desirability and functionality of the systems. As one council member noted, “the jury is still out”. However, there is some evidence that Village buildings have been performing a at least 20% better than the rapidly increasing number of buildings elsewhere in the Southeast False Creek area, indicating that the higher standard of energy efficiency imposed in the Village may be paying off (Table 7.1.).

Table 7.1. Olympic Village buildings’ energy usage, 2011-2014
(Source: City of Vancouver)

| SEFC Thermal Data | Floor Area | 2011 | 2012 | 2013 | 2014 |
|--|------------------------|-------------|-------------|-------------|-------------|
| Olympic Village EUI [kWh/m ²] | 119,000 m ² | 90 | 87 | 85 | 86 |
| SEFC Non-OV EUI [kWh/m ²] | 105,000 m ² | 117 | 119 | 108 | 107 |

The translation of the Village’s sustainability narrative into practice has also been problematic in the area of economics. One of the many goals of the neighbourhood outlined in the ODP was to support both environmental and social goals while considering “the long-term economic viability of the community” (CoV, 2007c). Even excluding the significant economic costs that were accrued during and after Millennium’s bankruptcy, the high costs associated with operations, maintenance and repair put the achievement of this goal into question. Though these have been

mitigated somewhat over the first few years of operations, it raises the question of tradeoffs between the different dimensions of sustainability. For some, the achievement of environmental goals (via the proper maintenance and operation of building technologies designed to improve environmental performance) was synonymous with higher costs, but nonetheless desirable:

I think once we get it all sorted out, we're going to get it sorted out I think within a year or so, it'll be quite efficient. And I think we'll just feel good about the fact that we are using less in this community than most places in the city, and with still a good result. But it's also clear that overall we'll pay more. It seems to be the reality that green is more expensive. But I think people are prepared to pay that in order to feel that they are making a difference in terms of how they live and operate. (M4, personal communication, Mar 7, 2014)

It was supposed to be a place where a sustainable community literally where, you know, the LEED items are in effect. In terms of achieving that, I would say that it has, to a certain degree. It came as a bit of a surprise to us how much money it takes to actually maintain the building to those standards, but as far as I know, there is less water consumption, there is less energy consumption... So I would say, I would consider it a success. It hasn't been easy getting here, but I would definitely consider it a success. (M15, personal communication, May 28, 2014)

7.4.2 In defence of the vision

It's clear that in many ways, the managers of the Village's buildings have been, and will continue to be, key players in the achievement of the Village's original sustainability narrative. Through their efforts, building systems are finally coming online, moving them towards the neighbourhood's original goals of reducing emissions and resource use. Of course, the realization of this narrative itself has not necessarily been the guiding principle. Among the people I spoke with, there was a sense of simply wanting to make life easier, to get things working the way they were intended to, to getting the job done right. Managers' dedication to seeing the neighbourhood achieve its goals and become a functional and viable community has played an important role in the neighbourhood's success to date, one that can't be overlooked. As one manager noted, "Everyone really, honestly and truly wants it to work, and I do think that it can work. But it needs one person or a group of people who are really committed to making it work" (M12, personal communication, Apr 24, 2014).

All managers are clearly working hard to see the community realize its full potential, despite the considerable effort that it's taken in some cases. Certainly a sense of adventure and professional pride have helped them to surf some of the steeper learning curves, as in the case of Paul: "I enjoy the challenge. In this business it's kind of fun to take on a difficult project and turn it

around and get it so it's running well, and the council appreciates your efforts". To Nina, it has been an all-around positive learning experience:

This building basically represents everything in terms of making this, trying to make this better, and trying to make the environment better and getting ready for what's about to come. And I know it may seem idealistic to some. It certainly seemed to me idealistic at the very beginning, but it is doable, and there is a purpose to it all. I truly feel that. (M15, personal communication, May 28, 2014)

However, managers' personal investment in the realization of the narrative has also been central to the neighbourhood's unfolding. More than anyone, strata councils and Co-op council members have both a personal and financial investment that the smooth operation of the buildings helps to protect. Everyone I spoke expressed delight with the neighbourhood at large and spoke in glowing terms about the strength and desirability of the community, clearly a motivating factor in their efforts to "right the ship". At the end of our conversation and a lengthy list of all the challenges they'd faced, I asked Brian to tell me what he thought could have been done to improve the neighbourhood. Given all that had gone wrong, his answer surprised me:

First of all, before I answer that I'll tell you that I will not move from here for anything. It's just been such a good experience moving here, living in this community, meeting the people in the Village, realizing how much healthier it is for us to live here. I don't think anyone who moved into this building, I don't know about the other ones, but I don't think anybody knew how good it would be. And they're all kind of surprised that this is a great place and a good place to live. (M4, personal communication, Mar 7, 2014)

As I briefly noted in Chapter 6, residents' expectations of the neighbourhood had been tempered by media accounts of the neighbourhood's financial difficulties and the negative portrayals that often accompanied them. For many of the strata members, these negative accounts of the Village had given them pause when deciding to purchase there, but some later felt as though such negative portrayals were unfair. Other managers had similar thoughts:

Really, for the time, the longest time, it was all negative. Nobody had anything good to say about the village, for a whole number of reasons... I don't know, I think all the bad press, and Millennium going bankrupt, and the City, the real estate market tanking, there was all this bad publicity going around, and I think a lot of the good stuff about the Village got lost. (M1, personal communication, Mar 3, 2014)

I watched it grow and I think it's quite amazing. I mean, the negative publicity didn't do it justice, I think it's been quite an amazing project from my perspective... And I know that there are still some units that haven't been sold and all of that. But I think where we are now, it's been leaps and bounds. (M5, personal communication, Mar 12, 2014)

Even those who were frustrated expressed an appreciation for the neighbourhood and its potential:

I think they made a mistake on the heating system. But you know, having said that, you have to move forward. The whole concept is the right concept. I mean, I love the idea of being able to walk and travel and not have to commute, and have a community that is likeminded, that's green. That wants to make sure that we're reusing what we can reuse...yeah. And I think with council being diligent, it'll get there, it's getting there. (M11, personal communication, Mar 24, 2014)

Despite their many challenges, none of the resident managers expressed any disappointment over their move to the Village. As Ryan told me at the end of our conversation, "This was the place, and two and a half years later we definitely don't regret any of it, and it just keeps getting better".

7.5 An Olympic effort

As in the preceding chapter, the experiences of managers highlight a number of contradictions inherent in the unfolding of the Village and produce a compelling image of the trials and tribulations the translation of the Village narrative has undergone. The exact nature of management practices was challenging for me to characterize, in part due to the encompassing way I've used the term "manager". However, it is evident that the introduction of a new material configuration (i.e. the buildings' technical systems) has forced a shift in the way buildings are managed overall, including a new set of competences. The novelty and unfamiliarity of the buildings' systems have presented a challenge to those used to more conventional buildings, from understanding their needs and finding the appropriate trades to maintain them, to communicating with other managers. The nature of strata ownership has also meant that the majority of Village units are being managed by those who have little experience with either strata living or with building maintenance. In the absence of clear guidance or support, managers are learning, communicating and adapting in order to bring the buildings to a state of operation that more closely resembles its intended performance. However, a much greater degree of support would have gone a long way in helping managers to overcome the many hurdles they faced, including information on the systems themselves and guidelines for their proper maintenance.

What is also evident is that the kind of new and integrated systems used in the Village demand an integrated and perhaps equally complex governance model which has yet to really find a foothold. Instead of discrete bodies of actors working in isolation, Village parcels demand a collaborative model that allows for and supports information and experience sharing between the buildings and parcels, to facilitate the learning curve associated with these new systems and configurations. Networks forming within and across parcels are creating opportunities to share

lessons learned that have reduced both costs and frustrations. However, the lack of appropriate skills and knowledge of the managers are by no means the only issue to have created such challenges, but the technologies themselves. The poor installation of exterior blinds and use of faulty valves in building heating and cooling loops illustrate some of the more significant errors in the translation of the neighbourhood's vision into the built environment. The general consensus from planners and managers alike is that much of this can be attributed to the rushed construction, in turn the result of an unforeseen bankruptcy and the Olympic deadline. Still, the newness of the technologies used in the Village required a much greater degree of support and guidance than was provided, which has certainly created problems in the buildings' performance.

Finally, as with residents, social dimensions have proved key to the success the neighbourhood has already achieved, including the meaning that managers attribute to their activities. Where difficulties have been encountered, the personal and professional dedication that managers have shown has often been the key to what success has been achieved. For some, their awareness and support of the Village's official narrative has driven their desire to see it work. Strata managers especially have shown enthusiasm for the neighbourhood's potential, and have wanted to see any lingering negative perceptions of the Village dispelled. Such enthusiasm is not a limitless resource, however, as there is evidence that many have grown frustrated with the lack of clarity and support they feel they have received to date.

Chapter 8: Conclusion

Southeast False Creek became this sandbox in which the aspirations, the intellectual aspirations of the future for so many people, academic, community, government, came to be a flashpoint. And it got put up on a pedestal of sorts. And as such when it fell off, I was not at all surprised to see it fall off its pedestal...and frankly I have to say, given what it meant, that project should have died so many times. There were angels looking after it and it just kept going, and it never died” (M. Holland, personal communication, Jan 30, 2015)

In this dissertation, I’ve provided an in-depth analysis of Vancouver’s Olympic Village, one that paints a complex picture of a now-iconic neighbourhood in the City of Vancouver. In the course of learning about the many dimensions of the Village, I was presented with interesting contradictions both between and within accounts of the Village’s aims, aspirations and outcomes – some certain that the promise of sustainable living would be fulfilled; others less so, or not at all. I heard exclamations of both pride and prejudice, staunch defence and harsh critique in almost equal measure, making an assessment of its success a more challenging endeavour than I could have imagined on that first evening when I navigated its dimly lit streets.

As such, this research adds considerable nuance to the more simplistic notions of success or failure that many have been eager to attribute to the Village, or indeed to the City’s sustainability efforts more generally. Unpacking the neighbourhood’s many narratives, both written and lived, allowed for an exploration of the City’s attempt at sustainability innovation from a multitude of perspectives, each of which contribute a piece of the larger whole that the neighbourhood has become. In this final chapter, I’ll summarize the results of this research and present my evaluation of the neighbourhood’s success, both in terms of meeting its own goals, as well as its potential to foster a broader transition towards sustainability. I offer some suggestions for the design and evaluation of sustainable neighbourhoods, and conclude with some comments on the usefulness of my theoretical and methodological approach to the research, their contributions to the narrative and social practice literatures, and possible directions future research could usefully take.

8.1 Competing narratives of a Village

I began my inquiry by exploring the kinds of institutional narratives that have emerged around Vancouver’s Olympic Village, and what they reveal about how sustainability and sustainable

communities are depicted and understood in Vancouver. I was initially drawn to narrative theory for what I thought it would bring to the exploration of sustainability – some secret, underlying meaning that once illuminated would explain the way forward. In applying a narrative analysis to some decidedly dry policy texts, its promised magic seemed to immediately wane. However, in laying out the broad narratives that emerged around the Village, I found I was still able to reveal how the design and interpretation of key policies and plans constructed and reinforced particular ideas about sustainability. Through this narrative analysis, I acquired interesting insights into the way both sustainability and the sustainable urban neighbourhood of the Olympic Village were presented and understood by different actors and how these compared to one another.

To situate the Village in the broader context of changing sustainability narratives in the city, I first presented an analysis of Vancouver's key plans, policies, and events, including the Olympic Village itself. I showed how relatively unperturbed narratives of liveability and concerns of environmental protection predominated early on, in which responsibilities for achieving clean and healthy spaces were placed largely in the hands of the City itself. Alongside a growing awareness of climate and other global environmental changes, this narrative was joined by a second and much more pessimistic storyline that placed considerable urgency on widespread societal changes in order to live up to the city's moral responsibilities. While the City retained responsibility for making many of these changes, the burden began to be shared with others, including the citizens of Vancouver themselves.

In both Chapters 3 and 5, I showed how in planning for SEFC and the Olympic Village, efforts to achieve sustainability in the built environment began to see these narratives coalesce as the need to improve urban liveability was placed alongside efforts to achieve longer-term sustainability. Net-zero and regenerative concepts were introduced, underscoring the possibility of achieving both social and ecological well-being. Overall, the Village is presented as an important opportunity in which to transform traditional approaches to the built environment in such a way as to ensure benefits could accrue to all three spheres of sustainability. It is framed as a pilot project designed to trial new ways of designing and building sustainable neighbourhoods, including new technologies selected to both improve liveability and reduce overall environmental impact. While much of the responsibility of achieving the transformation is bestowed upon the

City itself, a wide range of stakeholders are implicated in making such a transformation possible, including the citizens and community groups who would ultimately come to dwell there.

My analysis of media coverage around the Village in Chapter showed an interesting contrast to these more official accounts, which took the form of three broad narrative arcs. Instead of harmonizing the three spheres of sustainability, each arc tended to focus on a different dimension of the sustainability triad. Articles that championed the neighbourhood's innovative approach to meeting ecological and emissions reduction goals most closely resembled the City's official narrative of the neighbourhood as an important and transformative project. In contrast, stories published in the newspapers that questioned and contended with the official vision of a sustainable and liveable place in the city presented strong counter-narratives. Those who described the Village as an opportunity lost tended to focus predominantly on the social dimensions of the project, notably the decline in the Village's affordability that would exclude a certain demographic from inhabiting there. At the height of coverage on what many seemed to think was the neighbourhood's inevitable failure, project economics became the major focus.

These counter-narratives represent important challenges to the Village's official story, and diminished a complex and ever-evolving process involving multiple interests, events, constraints and interests into simplistic sketches. These narratives often drew on longer-standing narratives that perpetuated somewhat reductionist notions of the city and its projects, including the roles of certain key actors in the neighbourhood's unfolding. The challenges and failures of the neighbourhood were often attributed to individual actors' decisions or mistakes, to the exclusion of an analysis of the broader forces that played an important role. At the peak of media coverage, Vancouver's citizens were in turn characterized as unsuspecting dupes in a larger scheme to part them from their hard-earned money in ways they did not see fit. Though the most trying times have all but passed, the harsher narratives of costly mistake and worse still, financial boondoggle, still echo in the minds of Village residents and even today continue to cloud more celebratory narratives.

8.2 From normative to performative

The second goal of my research was to explore the ways in which the City's policy narrative went from a normative claim on the nature of sustainability to a material expression and manifestation in the actual fabric of the Village. Despite the many negative characterizations it suffered, my research found that the neighbourhood's execution remained faithful in many ways to its original vision. The Village's planners and designers experimented with a new form of city-building that today sits in stark contrast to the block-wide towers across the water. The public realm has been praised as an example of high quality open space that appeals to both social and ecological concerns, and the buildings themselves have been designed in line with the many social, ecological and economic goals outlined in the ODP. The process of planning the Olympic Village neighbourhood furthermore gave energy and legitimacy to several ideas that have been instrumental in shaping current City policy. As I described in Chapter 5, the neighbourhood's district energy utility provided the basis for the City's current *Neighbourhood Energy Strategy*, while requirements in the neighbourhood's *Green Building Strategy* have gone on to inform future iterations of the City of Vancouver Building Bylaw. As such, the policy legacy of the Village provides evidence of its function as a niche innovation that has had broad and important repercussions for transitioning the City towards a more sustainable regime. While the *Challenge Series*' promise of a full scale paradigm shift was perhaps a bit far fetched, the hope that the Village would come to represent an important learning opportunity and a key turning point between past and future has therefore, in important ways, come to pass.

However, some aspects of the City's narrative were lost in translation, with important implications for the realization of the neighbourhood's vision. Some of these reflect specific choices and changes made by the neighbourhood's overseers – the decision to enter the neighbourhood into the Olympic bid, for example, created a timeline that considerably shortened time available for consultation with different publics, making the process less co-creative than originally intended. This also had an effect on certain physical dimensions, including the choice to use waste heat recovery instead of biomass in the NEU, and likely the poor installation of some of the more novel building features as well. Broader trends and established development pathways limited the Village's accomplishments in significant ways as well - the ability to design buildings to a higher level of energy efficiency, for example. While passive design measures

were to be maximized in principle, the existing street grid orientation, coupled with high demand for mountain views, constrained building designers in considerable ways. The temporary collapse of the housing market spurred on by the 2008 global recession is another example, one that prompted several financial difficulties for first the developer and later the City. Others were simply choices made in the implementation of the vision that saw parts of that vision lost – in the absence of bike storage, for example, or the loss of rooftop gardens. The failure to adequately create or support low-income households is perhaps one of the Village’s most significant, and certainly one of the greatest losses in the translation of narrative to practice. With the NPA’s decision to limit the amount of affordable housing to 20%, the neighbourhood’s vision of social sustainability was instantly impaired, made worse by provincial and federal legislation that has made the provision of low-income housing even more difficult. In the Village, the vast majority of units are now inaccessible to lower-income families, adding to the increasing affordable housing crisis in the city at large. Even middle-income households are finding that they are being priced out of the city they call home, and despite its earlier condemnations of the NPA for its poor affordable housing record, the Vision Vancouver team has yet to produce any concrete plans to address it.

Finally, while some attempts were made to explicitly convey the narrative in the neighbourhood’s built form, it was in a sense diluted by other attempts to evoke both historical and Olympic narratives. Today, there are few examples of either signage or symbol used to visibly mark the City’s attempt at creating an iconic neighbourhood. The overlapping narratives bestowed by media and etched into the land by designers intent on communicating the site’s past have obscured much of the neighbourhood’s “official” narrative in the messaging on the landscape. Of course, the neighbourhood is yet to be finished, and already new signage is beginning to appear.

8.2.1 Implications for practice

This manifestation of the vision into the built form of the neighbourhood has had mixed results with regards to the practices of its constituencies. Building management practices have shifted considerably in response to the introduction of new technologies and their associated forms of governance as traditional methods became untenable. They have necessarily evolved from a more siloed approach to one that is networked within and across parcels to ensure resources are used

effectively, lessons are shared and in many parcels, system care is undertaken in coordination with multiple players. Many managers are playing a key role in the unfolding of the neighbourhood, both in a technical sense but also as a key source of information and community building for residents. This added responsibility is consistent with the broader narrative trajectory of City policy, which has placed an increasing proportion of the burden of success of sustainability efforts into the hands of average citizens. However, these shifts in practice have not come easily or smoothly, and for those in more complicated parcels or where support was not as forthcoming, frustrations and complications persist. For both low-income and Co-op management, fine economic lines have furthermore been made even finer as maintenance costs remain high and the eventual replacement of some of the system components loom large.

Residents' practices too are shifting, especially in areas of mobility, socialization and living in place. With the exception of Co-op residents, few of the Village's residents had been influenced by the City's sustainability narrative itself in deciding to rent or purchase there, drawn instead by the landscape, location, amenities and importantly, the housing options on offer. Nevertheless, residents spoke to changes in their performance of many practices, notably including a shift towards the use of alternative forms of transit, and an increased ability to procure daily needs without the use of a car. Many additionally felt as though they were more engaged with their community than they had been in other areas they'd lived in. Such perceptions of sustainable performance have been satisfying for many residents and were offered up as a principle reason for their overall contentment with the neighbourhood.

Inside their units, the introduction of new material configurations and technologies has had varied results, where more novel interventions have unsurprisingly led to a new and broader range of adaptive possibilities. However, these have not always had their intended effect; where the physical, legal or institutional structures allow them to, residents have intervened into the physical layout of their units in order to achieve their own comfort or convenience. These findings echo others from the social practice and sustainable building literature, which have shown residents' considerable adaptability in response to new material configurations (Wilhite, 2008; Pierce et al., 2010; Foulds et al., 2012) Many of the adaptations and interactions undertaken by Village residents were evidently unanticipated by building designers, as in some

cases they have acted to suppress important building functions (e.g. ventilation) or even contradict ecological goals (e.g. using more water). Where residents have been unable to figure out the new systems, they have largely defaulted to old patterns of doing that have not always resulted in either optimal system performance or resident comfort. Efforts to provide information to residents on ideal system use have been made, but they have been limited in their usefulness given ongoing technical issues that had yet to be resolved. As such, while residents' experiences offer evidence that some practices have indeed been shifted, they have not always been towards a greater degree of sustainability, particularly as ongoing technical issues have significantly limited the extent of their success or uptake.

8.2.2 Between narrative and practice

These findings begin to illustrate an interesting relationship between narrative and practice, and the role of narrative in setting certain expectations in particular. As I noted in Chapter 3, the Village represented a movement away from the narrative of sacrifice introduced with the climate change imperative towards the harmonization of the needs of both present and future generations. This approach resonates with a growing literature on the need to connect broad sustainability goals to local realities in such a way as to make the sustainability “problem” more tangible and relevant, and less overwhelming. In line with this narrative, residents were assured that they would be the beneficiaries of a low-impact form of living that would be harmonized with low-cost comfort. Despite the fact that many incoming residents assigned little importance to the “green” features of the area and its buildings, the neighbourhood’s goal of sustainability transformation nevertheless set an expectation among incoming residents that it would be achieved.

Where this expectation has gone unmet, two forms of response have emerged. First, in cases of general landscape maintenance, social interaction, bike parking and organic waste collection, residents have evidently rallied to bring the neighbourhood’s performance in line with its stated goals. Strata councils have been key actors here, who have gone to great lengths to see the promise of the narrative fulfilled, as have particularly engaged members of the Village community. Together, these actors have worked to see the community meet the expectations set out by its narrative of sustainable urban neighbourhoods, and in doing so have essentially lived it

into being. Second, where the failure of the narrative has impinged upon residents' comfort inside their homes, high expectations of the neighbourhood's performance have turned into feelings of disillusionment and frustration. Many residents have employed measures to reduce their discomfort and annoyance, even where such actions contradict the neighbourhood's ecological or emissions goals. As most were generally supportive of the low-carbon and other environmental goals of the neighbourhood, this disconnect between the neighbourhood's promise and the actual achievement of either comfort or low-impact living has led to some disappointment and for some, even the sense that any additional efforts to see this dimension of the narrative realized would be futile. The attitude that their patterns of living had become more sustainable in other areas even gave some residents "permission" to engage in some of these less sustainable practices.

There is also some evidence that the media storm that engulfed the Village also had a role to play in shaping and perhaps even tempering these expectations. Though the more damning condemnations of failure never came to pass, they nonetheless created certain expectations among its future residents, evidently among lower-income residents in particular. The strong politicization of the project additionally left a stain on an otherwise ambitious and well-intentioned project, one that continues to dismay its participants and proponents. However, this heavy and negative coverage of the Village's tumultuous beginnings helped to give residents something to attribute their difficulties to, in such a way that many have come to blame not the City's vision itself, but to the poor nature of its execution. In this way, press coverage of the many trials and tribulations the neighbourhood faced offered a kind of scapegoat, tempering the expectations of high performance and offering a reason for the buildings' shortcomings. For some, negative press even motivated an attempt to champion the neighbourhood's vision and to prove the more damning accounts wrong.

8.2.3 From material to social

Interestingly, some instances in which the neighbourhood faltered or where the outcome didn't precisely match up with the original vision have led to some surprising and even encouraging results. For example, slow sales early on in the neighbourhood's history led to a shift in the expected demographic of the Village from a more international buyer, to one that was more local and therefore more eager to invest in the neighbourhood's potential. The later addition of the

Athletes' Village Co-op as one of the housing types in the Village has also had positive repercussions for the Village. Communally-oriented and sustainability-conscious Co-op members have been active in sharing their outcomes and experiences with managing the rooftop garden, and have extended the invitation to some of their many social activities to other members of the Village community. Both members and staff have brought with them a generally higher competence in the kinds of interventions that were made, an established sense of their importance, and an interest in seeing both the building and neighbourhood move forward. Finally, where certain activities or programs have been perceived as absent or inadequate, these and other community members have taken up the slack and promoted community-based compost programs or clean-up days. While these are largely the work of a few engaged individuals, their existence and uptake indicate a potential in the neighbourhood at large and show that a relatively small number of committed and engaged members hold the potential to push a community towards sustainability.

What is also interesting to note is that while many residents found the systems to be irritating or disappointing, the innovative features that were selected to achieve emissions reduction goals have, in a sense, provided the basis for some shared sense of community identity to emerge. The unique and challenging heating and cooling system once again presents the most compelling example here, which formed the material basis for a new community of practice. While initially difficult, a substantial number of residents have been able to figure out the buildings' innovative systems and are helping to share their competences with others through a number of forums. In navigating the challenges of adapting to this novel system, residents have begun to develop some sense of camaraderie, one that has been certainly fostered by the neighbourhood's notoriety, its distinct boundary, and its near-simultaneous inhabitation. Through increased social interaction and an overall appreciation for the neighbourhood, a burgeoning neighbourhood identity has furthermore helped to anchor residents' loyalties to the Village. The high quality of the neighbourhood's public spaces and the sense of community that these have fostered are the features that kept many residents around when the going got tough, and that have helped to move the neighbourhood towards achieving many of its sustainability goals. Together, these social dimensions are helping residents to learn to use the new systems, optimizing both liveability and sustainability goals in the process. The ease with which residents will be able to achieve comfort

while also fulfilling the intended goal of reducing the use of energy and other resources will increase even further as the systems themselves are optimized.

8.3 Village as niche?

Overall then, the findings of this research indicate that the Olympic Village has had some success in eliciting a transformation towards sustainability in the city's urban regime, but that opportunities to support it and more fully harness its potential as a niche were lost. The Village represents a concerted effort to shift the current regime of city-building, and has left a legacy of policy changes that have pushed Vancouver's approach to city building towards a more energy efficient and lower-impact building stock. The Village played an important role in extending the City's trajectory towards sustainability more generally, introduced concepts of net-positive and regenerative design, and set a narrative in which present day benefits could be harmonized with the prevention of future impacts.

However, the City's attempt at innovation also came up against significant challenges along the way. Established physical patterns, socio-cultural preferences and economic trends played strong roles in dictating what could be achieved at the onset, limiting what the neighbourhood could accomplish. Such findings reinforce other evidence that socio-technical innovations can be limited by the landscape factors in which they are situated (Næss & Vogel, 2012), and are consistent with Sussmann's earlier conclusions that the Village would likely represent an incremental change over business-as-usual approaches to sustainability and not the transformative effect it might have had (Sussmann, 2012). Furthermore, the shifts in practice it has elicited have not always been towards a more sustainable configuration. As such, several lessons remain to be gleaned from the Village experience that can help to reveal its more transformative potential.

8.3.1 Taking a procedural approach to neighbourhood assessment

First, this research underscores the high levels of uncertainty that should be expected when designing individual building interventions, especially given the intersecting nature of residents' practice performances. While sometimes unintended, residents' modifications of unit features and technologies represented a weaker form of interactive adaptation – in interaction with building

features, they are creating conditions to improve their comfort, which in turn change the buildings' overall performance. In the absence of direct feedback and communication between building designers and inhabitants, many of these adaptations have resulted in a contradiction between the neighbourhood's goals and its actual performance. Such findings highlight the need for continuous feedback and creation of opportunities to adjust interventions in such a way as to enable the best possible result. Further, once residents feel comfortable living in a "sustainable neighbourhood", their Village experience may very well constitute a new baseline for what is considered normal or desirable.

As such, life in the Village has the potential to create new expectations that residents may transport with them throughout their lives, including to new environments. Their experiences may also serve to recruit new members into these forms of sustainable practice as they become less demanding and more mutually beneficial. The process of realizing sustainability in the built environment must therefore be thought of as an ongoing process, one that does not end with its construction and which a single snapshot or pre-occupancy evaluation cannot hope to capture. This points to the importance of neighbourhood-scale post-occupancy evaluations that go beyond a one-time certification or even quantification of achieved performance to explore the way interventions actually intersect with practices at both manager and resident scales.

8.3.2 Enabling shifts in practice

The findings of this research secondly give support to the importance of supporting shifts in practice, especially where new or complex technologies and systems are introduced. The lived narratives of residents showed that interventions into the built environment hold the potential to encourage reflection and create a more conscious engagement in practice performances at both individual and collective scales. While the Village represented a key moment or opportunity to shift practices towards a more sustainable configuration, however, errors in the installation of new technologies prevented many residents from making this transition smoothly. Similarly, opportunities for the neighbourhood's designers and engineers to communicate system needs and support managers' learning were largely lost in the confusion that followed Millennium's bankruptcy. In contrast to the "soft landing" approach advocated for in sustainable building literature and practice (e.g. Clark, 2012), the process of handing the Village buildings over to

their managers was hard and fast. As such, building management was given more responsibility for the success of the neighbourhood than they could reasonably bear, given the existing competences of even more informed or experienced managers.

This raises an interesting question as to accountability, especially given the trend of increasingly distributed responsibility for the achievement of sustainability at the City of Vancouver. A shared stake in the neighbourhood's success was built into its design, as it was the intent of the Village's original planners and designers that community organizations would be heavily involved in its unfolding. Indeed, networks have formed between managers that have begun to address important building decisions, and residents have established their own means of sharing experiences and learning, indicating that these sorts of support structures can and have emerged independently. But while these kinds of social groups and forums have been able to provide support around complicated new technologies, there is a need and an opportunity to more deliberately create these kinds of spaces for learning and interaction that could further support transitions and help to alleviate ongoing frustrations. The research shows that a distributed responsibility for the neighbourhood's success requires an ongoing and collaborative process to ensure each actor holds the resources and capacity to do shoulder this responsibility. In lieu of letting the neighbourhood's constituencies to sort out the difficulties on their own, then, more institutionalized forums for support and learning should have been put in place to reap the rewards of social engagement and foster an emergent community of practice, while avoiding some of the more traumatic peaks of the learning curve.

8.3.3 Involving constituents in neighbourhood design

This research thirdly underscores the importance of connecting the design and operations stages of novel sustainable buildings, a point that has already been made by others in the green building literature (e.g. Bordass et al., 2001; Fedoruk, 2014; Fedoruk et al., 2015). While the Village design team encompassed a large number of actors from different fields and backgrounds (Sussmann, 2012), the integrated design process still fell short of including certain key stakeholders. Given the unforeseen implications of many of the Village buildings' technologies, the incorporation of the knowledge and expertise of the neighbourhood's beneficiaries could have been instrumental to the overall building design. In other words, had the Village's designers

consulted with those who eventually came to manage the neighbourhood, many of the Village's more troubling issues might have been avoided, including the somewhat baffling appointment of a single property manager at the beginning of the neighbourhood's occupation. The experiences of low-income housing management in particular would have been helpful to include in the process, as the needs of their resident population could have been better understood and taken into account. This was difficult in the Village case, as those who came to manage the City-owned buildings were unknown until well after the design stage had come and gone. Nevertheless, the important intersection between low-income needs and the novelty of the technologies illustrate the kinds of important considerations that could have better informed the process. From the experiences of low-income residents, it is clear that several dimensions to neighbourhood and building design have limited the extent to which low-income residents are able to reap the benefits of local living. High-cost local amenities, limited local transportation and lower overall socialisation all limited the participation and enjoyment of certain low-income residents in their neighbourhood. These issues compound already low levels of affordability overall given the relatively few affordable units that went on to be included in the Village.

8.3.4 Communicating successes and challenges

Finally, to fully harness the potential of the Village, lessons from its unfolding should be explored in further depth. Now that the more tumultuous days of the Village have passed, it's important that both the strengths and weaknesses of the project are celebrated and communicated more widely in order to foster learning and uptake elsewhere. This includes successes in neighbourhood design, from the central plaza to the seawall and Village landscape, as well as its policy legacies in green building standards and neighbourhood energy systems. Resident and management experiences must also be harnessed to continuously improve building performance in situ, but also to inform the future design of green buildings elsewhere in Vancouver and beyond. If shared across the city, these experiences could play a crucial role in helping to ease the transition towards novel sustainable building requirements now in effect across the world. Without a detailed record of these experiences and a means of sharing them with other actors, potentially transformative projects such as the Village risk slowing the uptake of successful practices and perpetuating those that are not.

To assist in this endeavour, Table 8.1. outlines some more detailed recommendations for the City of Vancouver to take forward when designing future sustainable building and/or neighbourhood policy.

Table 8.1. Recommendations for the City of Vancouver

| Provision | Specific recommendations |
|---|--|
| <i>A softer landing</i> | <ul style="list-style-type: none"> ○ Bring in future management actors and trades into Integrated Design Process ○ Expand roles and responsibilities to ensure planning and design positions include time dedicated to supporting and learning from finalized projects ○ Require funding to be set aside in development proposals for commissioning and ongoing support |
| <i>A forum for learning</i> | <ul style="list-style-type: none"> ○ Set up Stewardship Groups earlier on in occupancy process and ensure continued participation of City staff and/or local organizations (as well as local constituents) ○ Continue to foster opportunities for spontaneous social connection and learning through e.g. green roofs, community gardens, clean-up programs, funded community initiatives, etc. |
| <i>An affordable community</i> | <ul style="list-style-type: none"> ○ Given the new financial climate for affordable housing, set targets for affordable housing higher and ensure they remain firm ○ Convene a panel of low-income housing experts to advise on affordable building stock and low-income population needs ○ Ensure the inclusion of lower-cost amenities to support low-income populations ○ Ensure a proportion of commercial spaces are set aside for smaller and more affordable retail outlets and service providers (as opposed to large scale box stores) |
| <i>Improved building design and assessment</i> | <ul style="list-style-type: none"> ○ Foster the assessment as standard design practice for new construction by including post-occupancy evaluation requirements into rezoning policies ○ Ensure provisions are made for covering the costs of POE in rezoning applications ○ Reconsider use of LEED building standards in favour of an assessment framework that takes a more procedural approach (e.g. Living Building Challenge) ○ Close building design loopholes that make the engagement of certain sustainable practices more difficult (e.g. the provision of bike storage in individually-owned storage units) |
| <i>Improved neighbourhood design and assessment</i> | <ul style="list-style-type: none"> ○ Continue to support medium-density, mixed use neighbourhood design ○ Replicate highly successful design elements, including the central plaza and interactive street furniture ○ Ensure full transit connectedness and prioritization of non-automotive modes of transit in all new developments ○ Include areas for social interaction at low or no cost into future design (e.g. community centres) |

8.4 Sustainable reflections

In concluding this chapter, it is important to reflect on the utility of the integrated narrative-social practice lens in exploring and evaluating sustainable neighbourhoods. In the next sections, I offer some further thoughts on the findings of the research and the contributions they have made to sustainability and other theories theory more broadly.

8.4.1 Living sustainability into being

In Chapter 2, I contended that few scholars interested in narrative have yet made any explicit effort to connect the discursive with the material – in other words, to connect the assumptions and logics embedded within sustainability narratives with their outcome in physical form. I described my approach to exploring the translation of narrative into practice as an injection of the neighbourhood’s actual built form in between the way it was designed and the way it is now experienced by key constituencies in its current form. This step proved important as a means of linking the policy narrative to the lived experiences of those who came to live and work in the neighbourhood. On their own, broad narratives about the Village remain abstract and unreal, particularly policy narratives that were unable to account for the events and circumstances, trials and tribulations that the neighbourhood underwent in its execution. The non-linear translation of narrative to built form was important to consider in evaluating the neighbourhood’s outcome, as many changes to both the material and immaterial realization of the City’s sustainability narrative occurred. Adding a SPT lens allowed me to explicitly consider the material dimension of narrative in a way that helped unpack how the introduction of novel technologies had or hadn’t intervened into practice.

Using the concept of lived narratives furthermore helped me to explore the ways in which the performances of practices have both produced and reproduced certain narratives about the Olympic Village, and sustainable living more broadly. In Chapter 2, I described my conceptualization of practices-as-performances as the individual “acting out”, or materialization, of certain narratives about the Village. The idea behind this conceptualization was to explore how a narrative could actually unfold in the world by connecting it to practice. This research shows that the lived experiences of two of the neighbourhood’s primary constituencies are essentially re-writing the story of neighbourhood – they are realizing the policy narrative in ways that

transform it into a different, lived and therefore more powerful narrative. The Village represents a new place in the city and the meeting point between narrative and practice – where the intended and actual meanings collide and new meanings are formed, enacted and reproduced through the everyday adaptations in the practices of living that occur there. Over time, what the Village is and represents in the city's history will be overwritten by these patterns of living as older narratives lose their potency or salience in the public mind.

Such findings therefore support an understanding of sustainability as an ongoing process in which multiple understandings and experiences interact and unfold. As I noted in the Introduction, the need to acknowledge a wide range of perspectives and knowledges in the construction of sustainability efforts has led to calls for more participatory approaches to the design of projects such as the Olympic Village. This 'co-production' of sustainability is often thought of with regard to the foundational stages of sustainability projects – for example, in the design or scoping of a project, where multiple actors are invited to participate in the co-creation of a project's goals and the determination of its favoured outcomes. However, this research lends more weight to the notion of sustainability as something that is recurrently negotiated and re-defined even after a project has been completed and its authors have moved on. Both the meanings and materials of the Village continue to take on new forms and dimensions – the original notion of what a 'sustainable urban neighbourhood' was as expressed by its founders and critics has undergone constant changes as it is interpreted and lived out in different ways by different members of the community. Taken collectively, these experiences demonstrate the emergent and shifting nature of sustainability and what it comes to mean in situ.

8.4.2 The role of the im/material

Many scholars and activists have called for more compelling narratives of sustainability and climate change so as to encourage interest and action among a broader public. By combining narrative and social practice, my research shows that while this normative (i.e. discursive) dimension does in fact play a strong role in inspiring changes in practice, the performative (i.e. material) dimensions of sustainability are equally important. The findings of the research show that neither the material expression nor the narrative itself alone can be considered the secret to success of sustainability efforts, but a combination of both. Though few came to the Village for

reasons of sustainability, many found that their lives had changed, indicating that the built environment has played a strong role in shifting practices. On the other hand, this research also shows that the neighbourhood's sustainability narrative can still play a role in motivating efforts to see the narrative come to fruition, supporting the turn towards more motivating and engaging narratives and away from those of sacrifice. Of course, there is a finite motivational potential in narrative, especially when its implementation goes awry or where the poor performance of certain building features contradict the stated goals of the neighbourhood. However appealing, a narrative of transformative sustainability has limited impact when confronted with longer-standing culturally and socially-ingrained notions of what constitutes an acceptable level of comfort, and what makes sense to do to achieve it. As a result, my findings also resonate with social practice literature that has demonstrated the enduring influence of established practices in the face of change.

Exploring the translation from normative to performative also helped me to distinguish the role of the narrative itself and its expression in the built form in intervening into practice, and thus to characterize the relationship between the material and the immaterial. This approach helped to illustrate the relationship between technical and institutional dimensions of sustainability efforts. Many of the problems that have arisen in the Village case were clearly technical in nature, where faulty installation or the poor quality of certain components has been to blame. The range of adaptive strategies that have been employed and the difficulties many experienced were also the result not of the technologies themselves, but errors in their installation. Other problems were instead institutional in nature, as complex systems have evidently demanded an equally complex system of governance to adequately manage and maintain them. Legal arrangements, job titles, and processes of commissioning and handover all require significant revamping to account for the added complexity of novel building systems. As such, while many of the neighbourhood's greatest issues were technical in nature, the process through which they are being resolved has been largely a social one.

8.4.3 Between social and ecological

The research furthermore demonstrates the important relationship between liveability and sustainability goals, and the ways in which the built environment can play an important role in supporting the achievement of social and, by extension, ecological sustainability. In the Village, the material realization of the neighbourhood's sustainability narrative in the built form and landscape was shown to enhance social interaction at both the building scale (e.g. courtyards and rooftop gardens) as well as through the overall landscape design (e.g. central plazas). This social connection, in addition to widespread appreciation of the neighbourhood and what it offered in terms of amenities and location, acted as an important variable that anchored residents during their interactions with more challenging technologies. As I noted in section 8.3.2, the communities of practice that emerged from shared material struggles have also gone a long way in facilitating shifts in practice that once established, will help to achieve the intended results in resident comfort, low-cost living and low resource use. Such findings further emphasize the benefit of prioritizing options that maximize both ecological and social goals, as these go a long way in achieving other, more hard-to-achieve shifts in practice. They once again reinforce a growing literature on the need to make sustainability more relevant and appealing to everyday communities, and the desirability of narratives that emphasize local benefit (i.e. adding value) in the pursuit of longer-term sustainability.

However, my findings with regards to affordability issues also echo concerns emerging from the urban renewal literatures that income diversity and social sustainability can often suffer in projects designed to improve the sustainability of urban brownfields, including others in Vancouver (e.g. Dale & Newman, 2009; Quastel et al., 2012). Beyond the percentage of affordable units, the relationship between these and the ecological goals of the neighbourhood raises interesting questions about the role of power in shifting practices towards sustainability. As I noted in Chapter 2, questions of power have enjoyed little discussion in the social practice literature, and yet those with authority over the normative and performative dimensions of narrative have the ability to shape social practices by selecting certain material or discursive arrangements over others. In the Village, the City's attempt to intervene into practice had considerable, if unanticipated impacts as regards the recruitment of low-income individuals into newer forms of practice, with lower-income residents unable to participate in the benefits of local

living to the same degree as others. This research therefore illustrates that concerns over the intersection between affordability and sustainability go far beyond the total amount of affordable housing, but the kinds of relationships that arise between low-income goals and the desire to trial new “green” technologies.

8.4.4 Narrative, social practice, and place

Finally, beyond their contributions to sustainability theory and practice, my findings have specific implications for the various theories I’ve drawn on in this research. To begin, both narrative and place lenses have helped to address some of the limitations of social practice theory. For example, taking a narrative approach to social practice and exploring practice performances as lived narratives helps to expand the more conventional meanings-materials-competences framework of social practice approaches. This is because in looking at the Olympic Village as a turning point in a broader story, I was able to look beyond the specifics of practice to a more encompassing view of lives lived. One of my initial research designs limited investigations of residents’ practice performances to those that were specifically in-unit and energy-consuming – adjusting lighting, achieving thermal comfort, washing dishes, and so on. However, in situating these practices within a broader arc, or lifecourse trajectory, it became clear that shifts in other, neighbourhood-scale practices formed an important part of the resident experience and thus the lived narratives of the Village. Adding narrative to practice therefore broadens out the meanings component of practice considerably to include not just the immediate reasons that are given for doing something a certain way (such as cost or convenience), but the way intentional metanarratives of sustainability can influence or intersect with daily practices. Had I remained focused only on “energy-consuming practices” and hadn’t expanded my inquiry to see how managers and residents experienced their neighbourhood more broadly, I might have come to very different and much less nuanced conclusions about the success of the Village.

Considering notions of place has additionally highlighted the importance of exploring not just the context in which practices occur, but the way a sense of community identity can act as an important anchor during periods of transition from one form of practice performance to another. The unique history of the neighbourhood, combined with its distinctive material configurations, have allowed for a new community of practice to emerge, one that is facilitated by and

contributes to social relationships based in a shared sense of place. The findings of the research therefore bring the situatedness of practice to the foreground of practice theory. They also demonstrate the way places themselves are created through repeated patterns of practice performance, reinforcing theories of place that consider place as an active, co-created process. What each of these contributions point to, ultimately, is the importance of designing, assessing and interrogating sustainability projects (such as the one presented here) in such a way that the complex and almost messy nature of efforts to transition towards sustainability can be captured. Individually, each body of theory has helped to contribute a piece of the overall sustainability picture, but together offer a more comprehensive theory of change that allows for an exploration of how material and meaningful dimensions of such efforts are negotiated and co-produced as they are taken up and experienced by different constituencies. The combined approach used in this dissertation has turned the spotlight onto the experiential dimension of what sustainability projects actually feel and look like in practice.

8.5 Challenges and future directions

Coupling social practice with narrative also had important implications for the way I was able to conduct the research, which gave rise to a few challenges. The few existing applications of narrative theory to questions of sustainable practice have tended to adopt a more narrative approach to interviewing that allows interviewees to speak at length on autobiographical subjects with minimal interruption. As I wanted to more specifically capture the details of certain practices, I was obliged to use a more structured approach to interviewing. I found it difficult to balance a more narrative approach with the specific details I requested, which sometimes led to awkward moments when in an interview the subject would shift from broad experience to the way an individual might sort their laundry. Here, adopting a social practice almost seems to give rise to an overabundance of minute detail on the various dimensions of practice residents engaged in throughout their days. It was a considerable challenge to sort through the selection of certain settings or sources of support residents required to find the patterns within them, as there seemed to be almost as many approaches to practice as there were interviewees.

Furthermore, as I noted in Chapter 7, in trying to apply the social practice framework to management practices I came up against the challenge of defining what exactly the practice of

building management was. My inclusion of several different job titles certainly added to the challenge, but likely the novelty of sustainable building management in general played a role here as well. In the Village, new technologies and ways of building have given rise to new roles and responsibilities in building management, which require a range of skills and knowledges from dispute negotiation to green building certification. As such, the application of SPT to the management scale initially seemed inappropriate. However, research on management practices highlights possible uses of social practice theory that have yet to be fully considered. As it has been used in energy and sustainability studies to date, social practice has been largely limited by its emphasis on repetitive actions that form habitual and partially unthinking routines. I found that the use of a social practice lens could be instrumental in looking beyond these kinds of practice, to the less defined bundles of practice performed by managers of various types. Though its coupling with socio-technical transition literature has allowed the exploration of the role of practice in understanding larger scales of change, restricting its application only to the very large or very small risks overlooking crucial practices that fall somewhere in the middle and doesn't do its potential justice.

Finally, while this dissertation has added to the literature on sustainability transitions and the role of sustainable urban neighbourhoods, several questions remain that could be answered by researchers interested in pursuing similar lines of inquiry. In the process of conducting this research, it became clear that trades people and contractors have played a key role in the neighbourhood's unfolding, and whose competences and capacities have been similarly challenged. The intervention of sustainable neighbourhood design into the practices of these important players would yield important insights into the ways in which sustainability transitions can be better supported. Second, this research has been limited to the experiences of those who have remained in the Village, to the exclusion of those who have since moved on. These "silent narratives" are stories that have been left untold, and yet could reveal additional insights into reasons why people stay and why they leave. Similarly, it would be of considerable value to compare the experiences of Village residents with others interacting with similar technologies (such as the capillary mats) but who live in neighbourhoods that have no such "sustainability narrative" and/or that were developed under different circumstances. Third, while this research contributed important insights through the use of exclusively qualitative methods and a smaller

sample of in-depth interviewees, it would be of value to conduct similar research using a mixed method approach that could combine resident and manager experiences with a broader survey of experiences and quantitative measures of performance.

Epilogue

As I walk through the streets of the Olympic Village today, the many changes to the landscape that have occurred over my years of study make it hard to imagine a time when the neighbourhood's future seemed bleak. The Village now bustles with activity as its residents crisscross the square, tourists take pictures of themselves in front of the birds, and events bring people from across the city to its streets. It is harder still to conjure an image of the place it was before it became the focus of the city's aspirations or even earlier, before towers loomed less largely on the downtown peninsula. Despite the many and sometimes conflicting claims on its potential, that the neighbourhood represents a transformation is a fact that cannot be contested. Its present form is dramatically different from the place it was even a decade ago, and marks a crucial if challenging step towards urban sustainability, however imperfect its outcome may be.

My own personal experience of the Olympic Village has undergone a similar transformation, from a series of empty avenues to a place laden with value and significance, the meeting point of expansive ideas and lives lived. Of course, the story of the Village is far from over – residents continue to move in and out, the landscape continues to change and new towers continue to rise all around it. It is a complex and ever-evolving place, whose lasting significance in the broader quest for sustainability will be revealed in many ways only after time has passed. In writing this dissertation, I've added my own layer of meaning onto its landscape in the hopes of pushing its potential a little further and ultimately helping to drive a larger transition towards sustainability, both in Vancouver and beyond.

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Appendices

Appendix A The 12 Design Principles of the SEFC ODP

1) Overall basin form legibility

Development is to create a legible overall form that reinforces the idea of the False Creek “basin” with lower buildings near the waterfront stepping up to higher buildings between 1st Avenue and 2nd Avenue. Higher buildings are to frame significant public parks and terminate views through and across SEFC

2) Distinct neighbourhood precincts

SEFC is to consist of three neighbourhood precincts that derive their form from the historic patterns and uses of SEFC, adjacent communities, and False Creek

3) Integrated community

Integration of all areas is to occur through street pattern, ground plane design, and overall building form.

4) Street hierarchy

The street network is to provide access but discourage through traffic circulation.

5) Connected public open spaces and parks

Parks and public open spaces are to be central features in organizing the community, and open spaces are to connect with adjacent areas by foot and bicycle paths to create a walking and cycling friendly neighbourhood.

6) Integrated transit

Development is to allow for an integrated public transit streetcar system to serve SEFC and adjacent neighbourhoods with stops at community and commercial locations.

7) Vibrant commercial heart

A vibrant commercial focus along Manitoba Street from 1st Avenue to False Creek is to act as a “heart” for the community, anchored by the Salt Building in its current location on 1st Avenue and a community square between the Salt Building and waterfront.

8) Waterfront animation

Development is to engage and animate the public waterfront through the selection of land uses and design of shoreline features.

9) Clustered community services

Development is to include a centrally located broad range of community services and amenities with good access to parks and waterfront.

10) Heritage recognition

Preservation of buildings with heritage significance, and recognition of the historic patterns of former industrial uses, is important.

11) Incremental varied development

Development is to encourage land parceling and a co-ordinated parking strategy that allows for incremental development at a variety of scales.

12) Demonstrated sustainability

SEFC is to encourage a comprehensive approach to sustainability reflected in both open space and building design.

Appendix B The 14 Sustainability Principles of the SEFC ODP

1) Implementing Sustainability

SEFC is to promote the implementation of sustainable development principles in an urban setting, and thereby contribute to improving the mainstream practices of urban development throughout the region.

2) Stewardship of Ecosystem Health

A significant goal of changing the land use from industrial to mixed use is to improve the ecological health of the False Creek basin. A further goal is that the need to conserve, restore and manage the local and regional ecosystems, including conserving resources and reducing waste, may help satisfy the needs of present and future generations.

3) Economic Viability and Vitality

Development is to create a framework for economically viable projects, to enable the transfer of knowledge gained to other developments, and to create opportunities for employment and investment to ensure long-term prosperity.

4) Priorities

Priorities include setting social and environmental performance targets at the beginning of the development process, with the intent of finding ways to meet such targets in an economically viable fashion.

5) Cultural Vitality

Development is to encourage vitality, diversity, and cultural richness in a manner that respects the history and context of SEFC.

6) Livability

Development is to promote livability, and enhance the social and natural environment by creating a walkable, safe, and green neighbourhood that contributes to the well being of residents and visitors.

7) Housing Diversity and Equity

Development is to promote opportunities for housing for a range of income groups along with social and physical infrastructure that is accessible to the whole community, especially children.

8) Education

SEFC is to encourage awareness and understanding of the principles of sustainability, and how their implementation can occur.

9) Participation

Development is to encourage public involvement in decision-making.

10) Accountability

Development is to include implementing a process to promote accountability for decisions and actions by monitoring impacts and outcomes using post-occupancy studies and community consultation.

11) Adaptability

Development is to promote adaptability and diversity by ensuring that SEFC is a community that, as it grows and changes, can renew and adapt itself effectively to new social and economic conditions, policies, programs, legislation, and technology.

12) Integration

Development is to promote the integration of SEFC into the city through planning, urban design, community involvement, and the provision of public amenities.

13) Spirit of the Place

Development is to include the promotion of planning and development guidelines that celebrate the unique natural, social and historical context of SEFC.

14) Complete Community

SEFC is to develop as a complete community that enables its residents to live, work, play and learn within a convenient walking, cycling or transit-riding distance.

Appendix C Prompt used in to generate discussion on household practices

| TYPES OF EVERYDAY HOUSEHOLD ACTIVITIES | |
|---|------------------------------|
| Washing the dishes | Doing the laundry |
| Cooking a meal | Turning lights on/off |
| Cleaning up or tidying | Showering/bathing |
| Adjusting the temperature | Relaxing or unwinding |
| Entertaining guests | Working or studying |