trail six

an undergraduate journal of geography

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Thanks and Acknowledgements

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Foreward

Dear Readers,

Many of you have wandered down from UBC, off the Point Grey peninsula, past the Upper and Lower Quadra sands, and arrived at Wreck Beach. Presumably, you have also hauled yourself back up those same stairs. This is Trail Six. In some five minutes it takes you from the comfort of the academic campus to - depending on the time of the year- the cold, windy, and rainy ocean in the winter, or to the circus of sun, sand and skin that is Wreck Beach in the summer. The city is invisible from the beach; there is only the ocean, the sand, the mountains, and Trail Six leading back towards UBC and Vancouver. We chose it as the title because it is beautiful, it is local, and because in its limited space the trail reveals a spectrum of geographical issues.

Reading a journal might be a poor excuse for the physical experience of the real Trail Six, but it does similarly straddle the boundary between the natural and the human- or, more specifically, the urban. The articles contained here fall into three categories. Most fall into the first category, the urban, and deal with the processes of growth and change within city systems. The second category of papers contains those which link human systems to natural systems. The third category of papers analyzes the structures of and changes in natural/physical systems. By our count, this volume contains six urban papers, two papers which focus on the links between human and physical geography, and one physical geography paper. If this journal has an urban bias, then it is both a reflection of the number of students studying urban geography, and the amount of submissions representing urban topics.

The papers selected for this inaugural journal cover a lot of ground around the Lower Mainland, the province of British Columbia, and around the world. We begin with Callista Haggis' critique of the re-imagining of Vancouver's Gastown. Next, Daniel Hodgins examines the spatial characteristics of the high-tech industry. Returning to Vancouver, Emma Ellison questions the inclusiveness of the kind of queer village found in Vancouver's West End. Steve Chou's paper emphasizes that it is not just government regulators, but increasingly private property developers who affect the type and pace of change in urban areas. Caroline Cho then tells the ongoing story of highways in Vancouver, from the Georgia Street Viaduct in the 1970s to today's controversial Gateway Project. Rory Babin offers a unique and useful interpretation of Saskia Sassen's World

City thesis, while Katy Fulton analyses the history and politics of over-fishing in West Africa. Melissa Ewan analyses the impacts of woody debris on streams in different forest types. Last but not least, Emma Hume chronicles the uncertain fate of abalone in a commodity chain which stretches from British Columbia's coast to fine New York restaurants.

We hope that you enjoy reading these papers as much as we have. This is a journal written and produced by and for undergraduates because we feel that, beyond just the content, there is value to reading and discussing our own peers' work. And while it is the first of its kind, we hope that it will not be the last, or the best!

Danny Oleksiuk and Christopher Chan

Editors-in-Chief
Trail Six, April 2007

The New Woodward's

The Importance of Social Meaning in Urban Redevelopment Strategies

Callista Haggis

Introduction

Narratives of urban redevelopment provide rich material for investigating how different meanings are attributed to place (Mills, 1993). The competing interests of community members, planners, and developers inform the symbolic construction of urban landscapes. The language used to explain these processes affects the value-laden perceptions of urban change, attracts economic investment, and draws certain individuals to particular places (Mills, 1993).

 In this essay, I examine key aspects of the Woodward's site redevelopment in Vancouver's Downtown Eastside (DTES) neighbourhood. First, I consider the historical context of the area as this provides insight to numerous factors that inform the representation of the DTES and the Woodward's building. Second, I examine how the community consultation process informed the redevelopment plans. Third, I analyze how Rennie Marketing Systems represents this space in their marketing campaign. I argue that by promoting ideas of cultural heritage, diversity, and social inclusion the Woodward's redevelopment is cast as an attractive and socially acceptable form of urban redevelopment. I also contend that investors' aims to attract investment and cater to cosmopolitan consumption appear to have over-ridden the issue of the potential negative effects that this development may have on low-income residents in the DTES. Before specifically focusing on the Woodward's site redevelopment, I begin by discussing how studies of gentrification offer theoretical insights into the nature of urban redevelopment and its ramifications.

Key Aspects of Gentrification Studies: The Codification of Meaning

Although gentrification researchers are critical of paying undue attention to theoretical divisions between factors

that cause gentrification (Slater, 2004), or 'squabbling' over "what is gentrification?" Slater, Curran and Lees identify the significance of having a clear definition. They explain that concepts of gentrification influence how processes of urban change are evaluated (Slater, 2004). A traditional definition of gentrification is: "'the new middle class ' buying up older, often 'historic' individual housing units and renovating and restoring them for their own use" (Lambert & Boddy, 2002, p. 20; Slater, Curran & Lees 2004, p. 1143). Contemporary researchers have broadened this definition due to the pervasiveness of gentrification – it is now a "generalized urban strategy" evident on a global scale (Smith 2002). Neil Smith suggests, "gentrification is no longer about a narrow and quixotic oddity the housing market has become but the leading residential edge of a much larger endeavour: the class remake of the central urban landscape" (Slater et al., 2004, p. 1144). He also explains gentrification as "the reinvestment of capital at the urban centre, which is designed to produce space for a more affluent class of people than currently occupies that space" (Smith 2000, p. 294). Central to this definition is the recognition that social transformation occurs as land values increase, and a new population moves into the area (Smith, 2000).

My research suggests that many studies have failed to address the issue of displacement that may accompany gentrification. While some authors indicate that displacement has "been at the centre of heated analytical and political debates over gentrification and urban change for almost 40 years" (Newman

& Wyly, 2006, p. 23), Slater, Curran, and Lees suggest that more recent studies of gentrification focus on urban policy and the role of middle class gentrifiers (Slater et al., 2004). The authors state, "The true nature of the consequences of gentrification for people living in the neighbourhoods experiencing it (or adjacent neighbourhoods) is an issue on which there has been almost total silence" (Slater et al., p. 1142). Although some may view this as an overly strong statement, it nonetheless suggests that the class-change dimension of gentrification is commonly concealed. Despite evidence of new modes of resistance to displacement (Newman & Wyly, 2006), gentrification is an issue of continued importance in relation to discussions of urban redevelopment.

Probably as a result of the negative connotations associated with the term 'gentrification,' its public use has decreased in the professional areas of development and policy (Lees, 2000). Slater, Curran and Lees state, "many political administrations now avoid using the term 'gentrification,' preferring class neutral terms such as; urban regeneration, urban sustainability and urban renaissance, that effectively deflect criticism and resistance" (Slater et al., 2004, p. 1145). This change in terminology is significant as it further masks potential negative associations with the phenomenon of gentrification.

The change in nomenclature also illustrates how discourses constructed to explain urban change reflect the ideas and values they aim to promote. In critiquing Richard Florida's influential work for city managers and planners, The Rise of the Creative Class, Jamie Peck addresses current trends in urban

development strategies. He explains,

"In the field of urban policy...creativity strategies have quickly become the policies of choice, since they license both a discursively distinctive and an ostensibly deliverable development agenda. No less significantly, though they also work quietly with the grain of extant 'neoliberal' development agendas, framed around interurban competition, gentrification, middle-class consumption and place marketing" (Peck, 2005, p. 740-741).

Fig. 1 Map of the DTES

In addition, Ley states, "Recently there has been an intensified economic colonisation of the cultural realm, to the representation of the creative city not as a means of redemption but as a means of economic accumulation" (Ley, 2003, p. 2542). These authors suggest that urban developers harness ideas of culture to attract investment and thus, promote a particular image of 'socially acceptable' forms of urban transformation. I address this notion further after discussing the transformation of the Woodward's

building in Vancouver's DTES.

A Brief History of the Downtown Eastside

The DTES (Figure 1), historically the city's centre, has longstanding significance within Vancouver (City of Vancouver, 2006a). During the 1900s the sawmill industry in the Burrard Inlet fuelled economic growth and contributed to the DTES becoming an entertainment and retail centre (City of Vancouver, 2006a). However, in the 1940s this economic growth declined and by the 1960s the area contained a high concentration of retired resource workers and "a transient population of middle-aged and elderly men, some alcoholic, Native people, and transient youth" (Ley, 1994, p. 175). The socially marginalized position of many of the inhabitants, along with an increase in local crime and drug use, contributed to the area becoming stigmatized as 'skid row' (Ley, 1994).

The economic doldrums persisted through the 1960s to the 2000s. Commercial activities shifted away from Hastings Street in the DTES towards Granville Street, the area termed "the new city centre" (City of Vancouver, 2006b). This shift further intensified poverty and devalued property; today the DTES is characterized as "the poorest urban neighbourhood in the nation" (City of Vancouver, 2003).

However, the DTES provides the example that a lack of economic resources cannot automatically be equated with lack of qualitative wealth of the community. Many community members are critical of the

characterization of the neighbourhood as a place of overwhelming despair, where individuals form no attachment or stable connection to the area (Downtown Eastside's Resident Association (DERA), 2006). An alternative depiction is that the DTES is a place of "death and love, and art and anger," (Blomley 2004, p. 35) that many long-term residents consider home.

In addition to being a low-income area known as a location with much higher than average drug use, the DTES is characterized by active community groups, such as DERA, that engage in vigorous community-support initiatives. This non-profit organization strives to reverse the stigmatized perception of the area, and improve the quality of life for community residents (DERA, 2006). It successfully lobbied the provincial government to provide low-income housing, increase housing safety and implement a policy to limit alcohol sales. The group characterizes its strategy as "confrontational but very effective," and is an example of local empowerment (DERA, 2006). On a broader scale, DERA represents a manifestation of the DTES residents' struggle to remain visible within their own neighbourhood.

Along with community-driven action, various levels of government have attempted to combat the social hardships in the DTES. In March 2000, the Federal Government of Canada, the Provincial Government of British Columbia, and the Municipal Government of Vancouver signed The Vancouver Agreement to facilitate urban development in Vancouver (City of Vancouver, 2006c). The formal mandate stated that members from each level of government would work in partnership with communities and business in Vancouver "on a coordinated strategy to promote and support sustainable economic, social and community development" (City of Vancouver, 2006c). The DTES is the primary area of focus. In relation to this district, the agreement aimed "to increase economic development, to improve the health of area residents, and to increase public safety" (City of Vancouver, 2006c). Central to the plans to stimulate economic growth was the redevelopment of the region surrounding a DTES icon – the Woodward's building.

History of the Woodward's Building

City officials and some Vancouver residents describe Woodward's as the historic "core of the downtown neighbourhood" and "heart of Vancouver" (GVTV, 2005). The building is characterized as integral to the community's development since it served as a locus for social interaction and met the functional needs of local residents by providing them with a location to purchase food and household necessities at affordable prices (GVTV, 2005). The building also contributed to economic growth by attracting additional retail to Hastings Street (GVTV, 2005).

During the 1980s and 1990s the decline of Woodward's paralleled that of the local community. The department store chain declared bankruptcy in 1993 (Smith, 2000) and led a local newspaper to declare: "Woodward's closure turns downtown area into ghost town" (Smith, 2000, p. 288). Smith explains how Woodward's closure "precipitated a rapid decline in the retail economy of the surrounding streets" (Smith, 2000, p. 288). The subsequent store closures and the significant reduction of pedestrian traffic are likely to have contributed to the growth of illegal activity in the area.

Although the building was mostly vacant for the following 10 years, its importance is illustrated by the fact that it remained a focus of debate for community members, city planners, and private investors. While the details of the different development propositions are beyond the scope of this paper, I briefly outline several key events that underscore the competing interests that come to bear on the redevelopment of the Woodward's site (Blomley, 2004).

In 1995, Fama Holdings Ltd, a private development community bought the Woodward's site (City of Vancouver, 2006b). They proposed to redevelop the space into a commercial and market condominium site with approximately 360 units. However, DTES community activists protested against the redevelopment (Downtowneastside.ca, 2006). They viewed the redevelopment plan as a moral issue and argued "there was an ethical basis for Woodward's to be turned into nothing but low income housing for community's impoverished in need" (Downtowneastside.ca, 2006). In addition, Heather Smith explains, bringing new residents "into the DTES where many current residents were already inadequately or not at all housed was seen as morally reprehensible" (Smith, H., 2000, p. 287). However, those in support of the redevelopment viewed market housing as key to the community's success, by providing a catalyst for economic growth in the area (Smith, H., 2000).

Due to the investors' claims of the government's "bad faith bargaining" (Smith, H., 2000, p. 286) Fama's proposal was never carried out and in March 2001 the Provincial Government purchased the building for $22 million (City of Vancouver, 2006b). While various development options where being discussed, protestors set up a camp on the site, "The Woodward's Squat," and claimed that the community was taking back the Woodward's site. This protest illustrates Woodward's importance to local residents; the community has a sense of entitlement to the building and see it as one solution to the need for low-income housing. Thus, they strongly resist developments that threaten future displacement (Blomley, 2004). This pressure from the local community, and a lack of available funding led the Provincial Government to abandon redevelopment plans.

In March 2003, the City of Vancouver purchased the site (City of Vancouver, 2006b). The City claimed it was in the best position to find a workable solution to the future of the site: "a solution that could take into account the various and sometimes competing needs of the broader community" (City of Vancouver, 2006b). Reflecting these competing needs, the change in ownership marked the beginning of a more collaborative development process.

Community Consultation and the 'Guiding Principles'

To generate ideas and foster inclusion, the City engaged in a process of community consultation (City of Vancouver, 2003). Community visioning workshops provided "the public with the opportunity to express their ideas for the redevelopment of the Woodward's site" (City of Vancouver, 2003). These consultations were then synthesized into 'guiding principles' for project redevelopment. The guiding principles had three central themes: inclusion of the Downtown Eastside community, urban revitalization, and environmental sustainability (City of Vancouver, 2003). Throughout this process the historical significance of the Woodward's building was reinforced with claims by city officials and developers that the building was a representation of "the hopes and dreams" of DTES residents. Vancouver Mayor Larry Campbell stated that he could not "impress enough how important Woodward's is symbolically and practically" to the revitalization of Canada's poorest neighbourhood" (Wasilewski, 2005, p. 1).

The guiding principles informed the criteria for evaluating the redevelopment design competition that was held in 2004. After three architectural firms were short-listed, Westbank Projects and Peterson Investment Group were awarded the contract for a $300 million redevelopment project. In a plan that covers almost an entire city block they proposed:

- 536 condominium apartments costing around $250 000 to $600 000

- 200 units of non-market housing

- 4, 600 square foot lounge and fitness centre

- the new Simon Fraser University School for the Performing Arts

- office space (including business, and non-profit organizations)

- retail amenities (including a drug store, a grocery store)

- underground parking

- child development centre

- outdoor meeting areas: public park, urban plaza

(Woodward's Redevelopment Group, 2005, p. 14)

Although all three finalists in the architectural competition incorporated diverse and comprehensive elements into their proposals, the central factor that set Westbank's plan apart from the others was the degree in which it incorporated the heritage of the Woodward's building. Gregory Henriquez, the principal architect, emphasized the legacy of the Woodward's family as community builders and the store as an "anchor of well-being." He stated, "That's the record that has to be maintained, the architecture has to start from there" (GVTV, 2005). In explaining their final choice among competitors, the City suggested that along with the specific design elements, the incorporation of the historic 'essence' of Woodward's into the future design was pivotal (City of Vancouver, 2003). I note that those ideas of heritage have been carried forward in Rennie Marketing Systems' real estate advertising campaign.

The Marketing of the Woodward's Redevelopment

Urban Geographers have identified that places are constructed in particular ways to attract gentrifiers. I explain these characteristics and then relate them to Rennie Marketing Systems' advertising campaign. The parallels suggest the importance of creating a particular image of place.

An overarching characteristic of wealthier individuals who are attracted to urban living is that they position themselves in opposition to suburbia (Slater, 2004). They reject suburbia as homogenous and conservative and seek to reside in the inner city which is represented as more tolerant of diverse lifestyles (Lees, 2000). Lees states, "gentrification is deemed to be a spatial manifestation of these new cultural values" (Lees, 2000, p. 393).

Sites that particularly appeal to gentrifiers have close proximity to imagined sites of cultural authenticity and diversity, while also providing access to amenities that cater to a cosmopolitan lifestyle. Ley explains "Part of the allure of gentrification is such a claim to position ... culturally or politically on the edge" (Ley, 2003, p. 2542). Rennie Marketing Systems' advertising of the Woodward's redevelopment provides an example of such strategies.

Creating Appeal Through Culture

In the glossy brochure for the Woodward's redevelopment, a montage of photographs borders a map of the area described as 'The Woodward's District' (Rennie Marketing Systems, 2006). These photographs represent the area's landscapes, buildings that evoke the neighbourhood's heritage, and people from different ethnic and class backgrounds (Rennie Marketing Systems, 2006). Historic icons include rustic signs for Woodward's, Army and Navy, Gawler's Mews, and an antique shop. Shots of red-brick walls covered with ivy and the gateway to China Town further emphasize notions of heritage (Rennie Marketing Systems, 2006).

The pamphlet also foregrounds contemporary draw cards for a 'hip' population with a disposable income – stylish clothing and furniture stores, cosmopolitan restaurants, and of course, Starbucks Coffee (Rennie Marketing Systems, 2006). These trendy outlets are juxtaposed with counter-culture graffiti art. Taken together, these images present a lively picture of a diverse neighbourhood. They also suggest that the target market consists of middle or middle-upper class individuals attracted to an 'urban lifestyle.'

Further promoting the idea of an 'edgy' urban lifestyle, the "Gallery" section of the website contains a computer-graphic representation of the future development with the complementary text: "You will recognize the incredible potential – this is an emerging area. Not a sanitized

Fig. 2 Map of the DTES by Rennie Marketing

environment. Neighbourhoods like this are rare and offer an authentic mix of cutting-edge culture, heritage, and character" (Rennie Marketing Systems, 2006). This demonstrates that the concept of progressive values and cultural richness are mobilized as promotional tools.

Even more blatantly than the photographs on the brochure, the marketing slogan appeals to those individuals who are commonly portrayed as the gentrifying class. The phrase states "be bold or move to suburbia" (Boyce, 2006). Clearly, this caters to a population that desires to define themselves in opposition to suburbia.

An additional strategy to market the redevelopment is the focus on the site's historical significance. This website provides photographs of bustling street scenes in front of Woodward's in the early 1900s. The text also explains, "The history of Woodward's is a story of tradition, values and respect. Once the bustling hub of Vancouver, the new Woodward's is set to

reinvent the heyday" (Rennie Marketing Systems, 2006). This emphasis on the romanticized heritage of the area strategically focuses one's attention to the past character of the neighbourhood, and illustrates how place-marketing provides space with a moral texture. In addition, an overemphasis on past legacies may overshadow the importance of integrating the current DTES community into the new vision of Woodward's.

Creating Appeal Through Consumption

Examining the depiction of the "Woodward's District" on Rennie's brochure map and website evidences limited integration of the current community into the redevelopment plans. The highlighted area includes about twenty city blocks on the edge of Downtown and the DTES. The map contains services that are highlighted as community attributes. The legend that categorizes these components (indicated by colour-coded dots on the map) include: Arts/Cultural/ Education, Professional Services, Entertainment and Nightlife, Personal Care/Beauty Fitness/ Hotels/Motels/ Hostels, Shopping, and Restaurants/ Delis/Coffee Shops (Rennie Marketing Systems, 2006). What is significant is that these locations cater to a specific type of consumer by appealing to an affluent population.

In stark contrast to the emphasis on outlets for higher-end goods and services, the map ignores most of the services that are utilized by the current

low-income residents. For example, the Eastern edge of the map cuts off such important landmarks as the Carnegie Community Centre – one of the busiest community centres in North America (DERA, 2006) – but the Western edge expands to include the upscale Birk's Jewellers on Granville Street (Rennie Marketing Systems, 2006). This illustrates a symbolic shift of the Woodward's development away from its connection to the DTES and towards the more affluent neighbours of Central Downtown and Gastown.

This symbolism is important to consider in relation to the material effects it may produce by reinforcing ideas about who belongs in this space. It is noteworthy that a possible result of 'community' being equated with consumption is that those individuals who do not consume certain goods may then be considered 'out of place' within the Woodward's District. Further, this partial representation of the area created by the marketing campaign marginalizes the low-income residents of the DTES by excluding their interests from the vision of the Woodward's District. This may cause one to speculate about the level of support that will be provided to foster genuine integration between new and the old residents.

A Gentrifier by Any Other Name May Still Produce Displacement

An interesting aspect of the narratives about the Woodward's redevelopment is that despite the site's obvious appeal to potential gentrifiers there is specific denial

of gentrification. Larry Beasley, City of Vancouver's 2005 Director of City Planning, stated the redevelopment project "is not about gentrification at all. But we can create a social mix to build much more economic activity. Our idea of a complete neighbourhood includes community and commercial infrastructure" (Bermingham, 2006). His statement reflects the broader trends in the discursive language that is used to explain urban change. Claiming that this is 'social-mixing' obscures the class change that will occur as more affluent individuals move into the area. Moreover, beyond incorporating 200 units of non-market housing into the redevelopment, it is clear that the influx of wealth associated with the Woodward's redevelopment will lead to gentrification.

Examining the Woodward's redevelopment advertising campaign in relation to trends of terminology used to explain urban change raises many questions about the eventual impact that this project may have on the DTES community. While the project development began with a high-level of community involvement during the open consultation process, this engagement is not evident within the marketing campaign that offers an imagined lifestyle to an affluent population.

This evidence suggests that while comprehensive redevelopment plans that incorporate a diversity of interests may offer innovative strategies for urban redevelopment, the longer-term impacts of this type of redevelopment are still a threat to many current low-income residents. Woodward's is expected to attract further investment in

the area, and increase housing demand and cost (Constantineau, 2006, p. H3). Thus, the low-income population is at risk of being unable to afford to continue to live there.

Although the City of Vancouver has policies that aim to limit the negative effects of gentrification, their effect on the DTES development remain uncertain. The City policy to retain the existing 10, 000 units of low-income housing in the Downtown Eastside, Strathcona, and Chinatown is countered by redevelopment initiatives that may push low-income residents away from the urban core (City of Vancouver, 2006c). This tension is seen in Blomley's statement that, "planners and politicians vacillate between attempts at retaining affordable housing and policies that seem to facilitate gentrification" (Blomey, 2004, p. 35). What it does suggest, is that government cannot be relied upon to prevent displacement.

Conclusion: Legitimizing Actions

The constructed image of the "new" Woodward's development is significant in how it provides a legitimizing discourse for the process of urban change. This is achieved by how it highlights the importance of reviving Woodward's as a cultural icon, and an economic 'anchor for the community' (City of Vancouver, 2006c). However, one may also contend that this carefully constructed discourse, informed by the stigma of gentrification, silences the potential negative effects of the redevelopment. Based on the strength and out-spokeness of community activists, it seems evident that careful consideration went into producing and marketing a product that would not create opposition. This questions the genuineness of the claims that the project aims to wholly include the interests of the current DTES residents. Finally, characterising the Woodward's site as a panacea for the social ills in the DTES, without also acknowledging the systemic changes that must occur to reduce poverty, suggests that this solution is, at best, short-sighted and over-simplistic. However, if wider-scale considerations for low-income residents are maintained in accordance with the guiding principles of the project, the DTES may well become a model of progressive urban redevelopment. Nonetheless, if the marginalized interests of the current DTES community, as depicted on the map of the newly coined 'Woodward's District,' are a reflection of the central intentions project, the area may see a renewed, visible and voluble struggle by community members to resist displacement.

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Images

Figure 1: Map of DTES, (2006). City of Vancouver.

Figure 2: Woodward's Map of DTES, (2006). Rennie Marketing.

Nodes and Circuits

How Local, Regional and Global Processes have Shaped the Technology Industry in San Jose and Seattle

Daniel D. Hodgins

The technology centers of the United States represent a fascinating microcosm of industrial activity. One can easily visualize centres such as the Silicon Valley as nodal entities of international circuits of capital, information, and people that constitute the global technology industry. Thanks to advanced communications and transportation technologies, information whizzes across circuits in fractions of a second, and decision-makers are whisked across oceans in tens of hours. This has facilitated complex connections that have spanned the globe. However, micro-level analysis of structures such as corporate organizational charts can also provide important clues about the processes that have shaped industrial structures in urban and suburban technology hot belts such as San Jose and Seattle. Let us start with a broad scale analysis of American employment between 1987 and 2000.

Detailed examination of US national employment statistics from 1987 to 2000 reveals a fundamental shift in industrial structure. Total non-farm employment increased by 22.6%, but manufacturing employment decreased by 2.3%, and service sector employment grew by 36.3 percent (US Department of Commerce, 2006). The loss of manufacturing jobs can be attributed partly to the post-Fordist shift of low-value-added activity to lower cost centers such as China. An example of this phenomenon in the high-tech sector is provided by the outsourcing of certain production functions to Bangalore, India.

At a broader level the loss of manufacturing jobs can be attributed to the forces of globalization. One group of scholars describes globalization as the "Institutional developments that allow international transfers of information, people, goods, and services to be carried out rapidly and at low cost" (Bardhan, Jaffee & Kroll, 2003). These trans-national flows of information (expertise, proprietary computer coding), people (employees of parent company as well as outsourcing firm and/or subsidiary), goods (computer hardware) and services (call centers) are a few examples of globalization in the high-tech sector made possible by advances in communication technologies.

An anecdotal example of globalization is provided by my Ipod, which reads: 'Designed in California, assembled in China'. Apple clearly delegates the manufacturing cycle to China, but keeps the high-value-added industrial design activities in America. The merits of outsourcing are clear in Apple's case, but outsourcing debates will continue because neither the proponents nor the opponents have much empirical evidence to justify their position (Greene, 2006).

One significant occurrence that affected national employment figures during the thirteen year period between 1987 and 2000 was the tech boom of the late nineties. During this period, massive amounts of capital were invested in the technology sector, and individual, institutional, and venture-capital investors expected massive returns from darling internet stocks and companies. One author notes that manufacturing employment decreased by 150,000 jobs as investment shifted to the technology sector, but high-tech service sector employment increased by 1.5 million jobs (Greene, 2006). This shift in investment is likely one factor that affected national employment figures. However, a caveat is in order because non-technology activities such as cleaning and landscaping services are included in the service data, thereby skewing the numbers. I have attempted to control for this by delving deeper in the service sector numbers and analyzing more specifically the evolution of employment numbers in specific technology sectors. This discussion will follow later. Let us now perform a higher-fidelity analysis by examining employment data for the metropolitan areas of San Jose and Seattle.

San Jose provides an interesting case study of a richly diversified industrial region. However, San Jose underperformed in the finance, insurance, and real estate sector, posting growth figures that trailed the national average by 3.9 percent for a loss of 15,000 jobs (US Department of Commerce, 2006). Although this underperformance is not exceedingly significant, the notion that San Jose is a technology hub and other larger centres such as New York are more finance-oriented is interesting to ponder in the context of connections to global networks of capital. More importantly, San Jose was able to outperform national employment growth in the service sector by 6.8% (US Department of Commerce, 2006). This can likely be attributed to the economic orientation of the region toward service-based high-tech activities such as research and development.

Unique hierarchical structures, corporate cultures, and spill-over effects are hallmarks of San Jose firms, and they are collectively labelled the 'Silicon Valley, Effect' by one scholar (Greene, 2006). This is a fascinating explanation for San Jose's stellar growth that goes beyond the realm of economic geography to link urban industrial processes to other disciplines such as industrial psychology and sociology. The outsourcing of certain industrial functions is blamed by some for a

decrease in manufacturing activity, but San Jose was largely able to maintain its industrial base, posting a loss of only 1000, or 0.4%, of manufacturing jobs between 1987-2000 (US Department of Commerce, 2006). Again, this can be attributed to the base of high-tech manufacturing as opposed to lower value-added activities reminiscent of decaying urban areas such as Detroit. Seattle is another urban area that shares certain characteristics with San Jose, but the transformations to their industrial structure were somewhat different.

The commonalities between Seattle and San Jose extend well beyond their geography and proximity to ports. Each region significantly outperformed national employment averages, but Seattle created 18,322 more positions in manufacturing and 22,000 more jobs in finance, insurance, and real estate than San Jose (US Department of Commerce, 2006). The growth in those sectors is in addition to healthy growth in the service sector. In essence, Seattle gained the jobs that San Jose lost in the manufacturing and financial sector. Why did this happen?

Underlying infrastructure and geography are perhaps the most compelling explanations for Seattle's success in job creation. Duryee notes that job growth in Seattle and Washington can be attributed to single employers such as Microsoft (Duryee, 2006). As well, top-notch post-secondary education facilities attract top students and faculty from around the world. The higher population of Seattle provides a larger base of skilled workers from which to draw. Seattle and San Jose share both similarities and

differences in how their economies were transformed by underlying structural changes between 1987 and 2000. Let us now turn to another form of analysis which will provide additional insight into the forces shaping industry in San Jose and Seattle.

The fundamental shift away from manufacturing to the more specialized information economy is evident when one performs a shift-share analysis of San Jose. Mix effect analysis shows that San Jose manufacturing activity substantially underperformed all activities nationally, but the San Jose service sector outperformed all activities at the national level. This confirms earlier findings as well as Knox and McCarthy's theory that key centres such as the Silicon Valley are attempting to attract and retain key high-tech administrative and scientific functions in order to maintain a competitive advantage (Knox & McCarthy, 2005). Performing analysis of the local growth effect paints a similar picture, although on a different axis. San Jose manufacturing suffered similar but less substantial losses compared to the national average, but the San Jose service sector enjoyed significantly higher growth than the national average. Some of the underlying factors that might account for this are: the presence of research activity at the university and federal level, cultural and recreational infrastructure, a high quality of life, as well as the physical infrastructure necessary to attract service sector growth (Knox & McCarthy, 2006).

In addition, the unique corporate culture in Silicon Valley mentioned earlier in this paper must have also

played a role in San Jose's fortunes (Greene, 2006). Despite the outsourcing of certain functions, some authors note that high-tech service sector jobs such as: hardware design (eg. Ipods), software programming, online services, and data processing outnumbered high-tech manufacturing jobs by three to one in 2002, providing further evidence for San Jose's success in attracting high-growth activity (Bardhan et. al, 2003). Also of note is the fact that across the specific technological spectrum of computer, network, and database engineers, analysts, and administrators, in 2005 San Jose possessed an equal number of jobs compared to Seattle despite having nearly half the population. Another nugget worth pondering is the fact that 14% of Siliconers employed in the computer sector work for companies with 1000 or more employees, while the national average is 38% (Greene, 2006). Clearly, the industrial structures in San Jose are overlaid on smaller rather than larger foundations, and more of them in comparison to Seattle. Although similar in some respects, Seattle's industrial structures and growth patterns reveal a few key differences.

Seattle's population is nearly double that of San Jose's, and consequently, the structural changes have differed between industries. For example, shift-share analysis reveals that Seattle manufacturing underperformed the national average for all activities, but the service sector managed to outperform all activities nationally. Thus, the mix effect in Seattle has been beneficial because the region has managed to attract significant employers such as Microsoft that have located in suburban regions

and created innovation parks. This is consistent with earlier findings as well as the work of other scholars who assert that 'innovative milieu' develop near some of the larger research universities in flexible, knowledge economy cities such as Seattle (Knox & McCarthy, 2006). Although Seattle does not dominate high-tech like the Silicon Valley does, the industry has played a major role in shifting Seattle's fortunes away from primary resource processing and manufacturing industries to higher-value-added service sector activities.

Although Seattle and San Jose differ in some respects, their employment growth figures largely mirror national averages at the aggregate level. The shift from manufacturing to service employment is evident across the United States, suggesting broad changes to the industrial structures of America. However, these processes surely play out differently within and between regions, and technology hotbeds such as Seattle and San Jose likely enjoy a disproportionate amount of service sector growth compared to decaying metropoli such as Detroit. Regardless, the process of globalization has permeated the American economy, and the outsourcing of certain key functions is one micro level example of how communications and transportation technologies have compressed space-time and facilitated the internationalization of economic activity.

In the future, technology nodes such as Seattle and San Jose will continue to attract the best talent and retain only high-value-added service activities, thereby maximizing

shareholder returns. However, history has shown that volatility is an inherent characteristic of the stock market, and although lessons have been learned from the tech debacle of 2001, even tech strongholds such as San Jose will face economic uncertainties.

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Queering the City

Urban Space and Sexual Identity Politics

Emma Ellison

As central sites where difference is encountered, cities represent an important space in which the boundaries of inclusion and exclusion are defined. Through the continual conceptualization and production of space, identities are made visible and invisible in the urban landscape. With the emergence of gay villages in the 1970s and early 1980s in a number of major western cities, claims to spatial inclusion and visibility came to the fore of the gay and lesbian political project (Casey, 2004). Through the active appropriation of space, the queer community continues to interrogate the presumed heterosexual nature of space and seeks to render its identity visible. However, to understand the full complexity of the influences that restructure cities, spaces, and identities, we must carefully contextualize the territorialization of identity (Bell & Binnie, 2004). By examining the relationships between urban sexual citizenship and the "new urban order" and by examining the production of "the new

homonormativity", I will ultimately argue that in their contemporary form, gay villages engender the desexualization of queer space and the marginalization of queer politics. Lastly, to demonstrate this argument, I will examine the experiences of lesbians living in the city of Vancouver, British Columbia.

This argument needs to be prefaced, however, with an acknowledgement of the benefits of increased spatial and cultural representations of queer identities and issues.

"Cultural visibility can prepare the ground for gay civil rights protection; affirmative images of lesbians and gays in the mainstream media, can be empowering for those … who have lived most of [their] lives with no validation at all from the dominant culture." (Hennessey, 1994, p. 31)

Further, the increase of queer spaces has allowed those who access them to come out and express their sexual

identity in a safe environment and within a community of people not unlike themselves. However, critical examination of representations of the queer community in the urban environment is still required in light of changing forms of urban governance.

While gay villages have historically developed "organically" without deliberate marketing or investment, we have recently seen the promotion of queer space as part of a neoliberal ideological framework (Bell & Binnie, 2004). Globalization has led to a change in the role of the state whereby the (local) state no longer acts as an agent of redistribution but instead as the promoter of enterprise (Bell & Binnie, 2004). For cities to be competitive in this new urban order they must be desirable places for consumers to live. As such, the role of the urban government is now to foster spaces for, and of consumption (Florida, 2002). With the density and variety of identities occurring in the city environment, encounters with difference are central to the urban experience. Such encounters, however, are increasingly romanticized and commodified within urban entrepreneurial agendas, producing particular kinds of sexual spaces. In order to maintain a competitive edge, cities develop themed gay spaces and events as part of their broader entrepreneurial agendas. For instance, in 1999 the Newcastle upon Tyne City Council was the first City Council in the United Kingdom to announce that it was actively seeking to develop a gay village (Casey, p. 450).

"This can be read in two ways: any aspiring city must have a themed gay space and the only type of gay space that an aspiring competitive city can have is a themed one." (Bell & Binnie, p. 1814)

In response to the first reading, I argue that gay villages have become sites of and for queer consumption, where the queer citizen is now constructed either as the consumer citizen or as the consumed "other". In response to the second reading, Marxist writers concerned with the post-modern city have argued that urban spectacles are inauthentic cultural expressions (Bell & Binnie). Due to the neoliberal framework in which gay villages are now situated, the queer community has decreased control over its own representation. Urban entrepreneurialism threatens to de-authenticate queer space as contemporary gay villages are increasingly appropriated, commodified, and marketed by urban governments. As a result of its appropriation by mainstream capitalist heterosexual society, queer space is desexualized. Mainstream urban governments accept the queer community both as a niche market and as a commodity catering to another niche market. The gay village produces desexualized consumption space where an asexual and non-subversive identity is encouraged (Bell & Binnie). "Visibility in commodity culture is in this sense a limited victory for gays who are welcome to be visible as consumer subjects but not as social subjects" (Hennessey, p. 32). Empowerment of the queer community requires more than the right to access mainstream commodity culture.

The question now becomes, if commodity culture welcomes the queer citizen as a consumer subject/object,

what of those who do not fit within this culture? Within the new urban order, those who cannot consume or who are deemed undesirable to commodify are denied equal citizenship and visibility. As such, inclusion in gay villages is contingent. Boundaries are drawn around gay villages to include consumers, even those who do not identify as queer, and to exclude individuals that do not fit into mainstream gay consumer culture. While representations of gay culture may be more prominent in contemporary urban settings, only certain images and performances of sexual identity are considered appropriate and accepted by the dominant heterosexual public. Queer theorist Lisa Duggan terms this exclusion "the new homonormativity" (Duggan, 2002). According to Duggan, "the new homonormativity" works to exclude the queer-unwanted from gay public space. An example of this is the "recloseting" of the butch lesbian. Historically, butch lesbians have typically been working-class women (Lo, 2006). The visible exclusion of butch lesbians from contemporary gay villages reflects a societal discomfort with atypical gender-expression and working-class backgrounds. Certain queer identities have become pathologized within the queer spaces where sexual identities are performed (Phelan, 2001). By ignoring and, in effect, rendering invisible certain class, sexual, and gender identities, contemporary gay villages bring about the mainstreaming and marginalization of queer politics. As access to these spaces become contingent, gay villages cease to be

the safe, welcoming communities they were perhaps intended to be. Queer public space is reduced to gentrified spaces of consumption. To demonstrate these arguments, let us turn to the experiences of lesbians living in the city of Vancouver, British Columbia.

The city of Vancouver offers an interesting case study in that Vancouver's queer landscape is also gendered and classed. Vancouver has two overtly identified gay and lesbian areas: the West-end, primarily perceived to be associated with gay men, and the East-end, mostly identified with lesbians (Lo & Healy, 2000). The West-end location is centered around Davie Street and the East-end location around Commercial Drive. In Jenny Lo and Theresa Healy's research on Vancouver's queer communities, which involved a sample survey of thirty-five respondents between the East-end and West-end lesbian communities, they observed that the West-end was generally associated "with an image of 'boys' (gay men), 'yuppies', wealth, clubs, materialism, trendy 'gay' fashion, singleness, carefree attitudes and a lack of 'family/household' responsibilities" (Lo & Healy, p. 34). Conversely, the East-end, generally identified as a lesbian "ghetto", was perceived as "a neighbourhood with lower economic status, co-operative housing, 'family-oriented' space, cultural diversity, less materialistic and greater socio-political awareness and activism, and a subaltern population" (Lo & Healy, p. 34). Further, Lo & Healy observed that while West-end lesbians tended to blend into the landscape of the male-

defined West-end neighbourhood, East-end lesbians made greater public claims to their sexual identity (Lo & Healy, 200). Lo & Healy argue that within the "flamboyant materialism [of the West-end], the West-end lesbian is much less successful at proclaiming visibility to herself and other lesbians" (Lo & Healy, 2000, p. 39).

The class and gender differences between the West-end and East-end queer communities of Vancouver result in different representations of queer identity. Whereas lesbians living in the East-end have used their bodies to inscribe their presence in the urban landscape and make claims to spatial inclusion, West-end lesbians have been less successful in making their sexual identity visible within the broader community. The association of the West-end with materialism and wealth demonstrates the convergence of queer space with mainstream consumer culture. The perception of a gendered and classed queer space in the West-end renders invisible the lived experiences of lesbians and/or those of lower economic status residing there. This demonstrates "the new homonormativity" articulated by Lisa Duggan and discussed earlier in this

essay. Having engaged with a lesbian feminist perspective to understand the ways in which space is sexualized, gendered, and classed, there remains room for critical examination of the ways in which categories such as race, age, and ability impact upon the construction of urban space.

While the formation of gay villages was important for establishing physical security and a territorial political base for the queer community, the incorporation of queer urban space into broader agendas of urban entrepreneurialism raises a number of questions about the nature of representation and identity. Located within a "new urban order" and within "the new homonormative" setting, contemporary gay villages are ultimately desexualized and queer politics are marginalized within the mainstream public discourse. For the gay and lesbian political project to advance, its claims to spatial inclusion and visibility must not be contingent and must take into account systems of exclusion beyond those structured along lines of sexual identity. Claims to spatial inclusion based solely on sexual identity fail to represent the multiplicity of identities within the queer community.

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The Emerging Role of Property Developers in the Shaping of Cities in the World Urban System

Steve Chou

There exists a body of literature that suggests that cities around the world are bounded together into a hierarchical network often referred to as the world urban system. Within this system, different cities perform different economic functions and often it is the performance and function of a city that determines its position within this hierarchical network. Those cities that serve as command centres are located at the apex of the system and those cities that are relegated to performing tasks, like storing wastes, are located near the bottom. Notably, the position that a city holds also has implications for its residents as cities atop the ladder are more able to provide higher-quality services than those near the bottom. Moreover, this hierarchy is not static; lower positioned cities struggle to climb up the ladder while the positions of cities higher-up are being undermined by various processes such as deindustrialization. As a result, one area of inquiry relates to what sorts of factors affect the shape and standing of cities within the world urban system. In this paper, I would like to suggest that property developers are becoming an important factor to consider when thinking about the shaping of cities in this world hierarchy of cities.

In the last few decades, processes like deindustrialization and the decentralization of office space have adversely affected many urban areas and have led to a period of decline for many cities. This in turn caught the attention of city planners and government officials who sought to address this issue by attempting to revitalize their respective cities through the creation and implementation of various redevelopment plans. As a result, much attention has been placed on this group of actors for their role in shaping the development of cities. Consequently, Igal Charney suggests that a widely accepted view has emerged in which the role of city planners and government officials are seen as important players in explaining the development of cities and thus,

these agents are also seen as important players in affecting the standing of cities within the dynamic world urban system (Charney, 2005).

However, Igal Charney argues that this common view has overlooked another group of actors who he says have become significant players in the shaping of urban areas in Canada. This group that Charney points to are property developers who are broadly defined by Charles Jaret as those who "control the space or physical structures needed in all aspects of capitalist production" (Jaret, 1983, p. 515) and in turn seek to "make their space attractive for investment so they can profit from its rental or sale" (Jaret, p. 515). Encompassed in this group are a wide range of different companies that include banks, insurance companies, and real estate companies. Thus, I would like to suggest that there are two main reasons why property developers should be considered important contributors to the shaping of cities: they have a vast interest in the performance of cities because they seek to make their investments attractive and they also have the ability to exert great influence on the development of cities.

In his study of the role of property developers in major Canadian cities, Charney argues that many large-scale companies and financial institutions such as banks are increasingly considering property to be an integral part of their investment portfolios. As a result, he notes that many have become significant holders and controllers of property in major urban areas. For example, CDP, a large Canadian pension fund, owns about 43 percent of high-quality office space in downtown Montreal (Charney, 2005). Thus, as pointed out by Jaret, in order for developers to profit on their investments, the area in which their assets sit must be also be prosperous. As a result, Charney argues that developers have a great deal of interest in not only the performance of cities but also in influencing the shape of cities themselves to better increase the value of their investments.

Moreover, coupled with this vast interest in shaping the performance and function of cities, developers also have the ability to accomplish their objective of trying to improve the standing of the cities in which they hold their assets. This is outlined by Charney who shows that developers have a variety of practices that they can employ in order to exert their influence on the development path of different cities. One example is called tenant reshuffling. This basically involves constructing new buildings and then moving tenants from an older building to the new building. This leaves the old building vacant which allows for its redevelopment and this has the effect of allowing developers to continuously renew the areas of their holdings, prevent the decay of cities, and make the city more attractive and vibrant.

The ability of developers to shape cities can further be exemplified by their power to influence government decision-making. As mentioned above, city planners and government officials are usually regarded as being influential and powerful players in shaping the performance of their cities; however, despite this, property developers have the ability to undermine and alter government decisions. This ability is attributed by Charney to that fact that developers hold a lot of capital investment and are able to operate nationally and abroad. As a result, this gives property developers a large bargaining capacity to deal with governments. An example of this occurring is the construction of the Bank of Montreal's regional headquarters in Edmonton. There, the Bank had chosen to tear down a protected building and had decided not to adhere to the city's design controls for their new building. The municipality argued against these plans but when the Bank suggested that they would consider moving to Calgary instead, the City had to give in and as result, the building was constructed. This is one example of how much power property owners can have in shaping a city and even in undermining governments. Therefore, as a result of property developers' interest and influence in cities, Charney argues that property developers indeed play an important role "in the functioning and the development of Canadian downtowns" (Charney, 2005, p. 302).

Applying this to a more global context, we can see that the desire of property developers to be involved in activities that help to shape cities, as exemplified in major Canadian cities, is starting to play out in various cities around the world. Many property developers are increasingly engaging in redevelopment plans in many urban areas in an attempt to not only take advantage of government subsidies but also to help build up their investment portfolios and attempt to create a more attractive environment to boast the value of their assets. As such, Neil Smith observes that a new wave of gentrification is taking place on a more global level (Smith, 2002). While government bodies remain an active agent of change, Smith argues that private property developers are increasingly being engaged in the process of developing urban areas as private capital is increasingly being spurred into large 'mega-development' plans in many urban areas because many cities are starting to embrace "gentrification as a competitive urban strategy in the global market" (Smith, 2002, p. 441).

Therefore, to conclude, we can see that property developers indeed have a great interest in influencing the shape and function of cities within the urban hierarchy. Moreover, they have a vast ability to accomplish their objectives to the point that they can influence government decision-making. Subsequently, property developers are increasingly becoming an important agent of change in shaping urban areas especially as redevelopment schemes start to pick up around the world and as developers begin to exert their influence in those redevelopment plans; this will undoubtedly have consequences on the performance and function of cities which will in turn affect the positioning of cities in the world urban system. Whether or not developers' decisions will cause certain cities to rise up or fall down the hierarchy of cities is another story but regardless, I believe the role of property developers will continue to become more prominent

and as a result, I think more attention needs to be paid to this group of actors and to how their actions are going to influence the development of cities around the world because their actions will certainly have implications for the standing of cities in the world urban system and for the way of life of residents in those cities.

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Freeway Expansion

A Looming Threat to Vancouver

Caroline Cho

Urban planners, tourists, and many other individuals around the world recognize Vancouver as a unique city. Not only does it possess an enticing view of a breathtaking coastline, stunning mountains, as well as vibrant green spaces, Vancouver also has an exceptionally special feature that not many other cities have. It is the only major North American city without an urban freeway system within its municipal boundaries. This aspect of Vancouver is a defining characteristic to its urban structure. Hence, it is not surprising that the Greater Vancouver Regional District (GVRD) has an established growth management plan, the Livable Region Strategic Plan (LRSP), which is in the process of guiding the management of Vancouver's growth to uphold Vancouver as a compact, sustainable, and livable city. It is important to note, however, that Vancouver's achievement of maintaining a freeway-free landscape has not been an easy feat.

In the 1960s, widespread protest fortunately defeated a major freeway proposal. Despite this success, Vancouver's unique achievement may be vulnerable to recent plans for twinning the Port Mann Bridge and expanding the Trans-Canada Highway (Highway 1) to at least eight lanes between Langley and Vancouver. The effort is being led by B.C. Transportation Minister Kevin Falcon's and is a proposed solution to the problems of traffic congestion and air pollution in the GVRD. Protest groups, such as the Livable Region Coalition, have formed in response to this threat and have created heated arguments against his plans. This paper will capture and address current debates against the establishment of freeways in Vancouver and the historical background of past anti-freeway protests of the 1960s.

During the early 1960s, Vancouver and the rest of British Columbia experienced an economic downturn (North & Hardwick, 1992,

p. 208). Vancouver City Council was alarmed and afraid of the possibility of the downtown core losing its vitality. As a result, American planners and business consultants were hired to strategize and create a new plan in hopes to revitalize the economy of the downtown core. They established their plan according to the trends and patterns of American cities; in fact, they viewed Vancouver as if it were any other American city. Thus, according to American trends, in order to save Vancouver's central business core, they promoted the idea of establishing an urban freeway system to maintain the city's dominance within the region and to improve truck access to the central port (Berelowitz, 2005). The proposed freeway, if built, would run through the Strathcona and Gastown area, effectively demolishing historic sites. At the same time, City Council commanded its Engineering Department to replace the aging Georgia Viaduct (Berelowitz, 2005). A City engineer consultant also proposed to connect the new viaduct to the proposed freeway system and then to the Trans-Canada Highway. This connector was planned to be built along Carrall Street and would consequently sever historic Chinatown in two. City Council decided to move forward with this plan, but was faced with widespread opposition from an extensive coalition of various interest groups.

In 1968, City Council ignored such opposition and continued on with the plans to build the Georgia and Dunsmuir viaducts, which are structures that many local citizens still resent today (Berelowitz, 2005). Nonetheless, City Council did not completely brush off

protest against its plans to establish an extensive freeway system. It decided to abandon the plans to build the Carrall Street connector, which essentially meant withdrawing all plans to establish an urban freeway system. Fortunately, in the end, people's voices were heard, and their intense efforts in protesting successfully defeated the threat of creating an American-style freeway system within Vancouver.

This freeway debate sparked the development of two new civic parties in 1968: TEAM (The Electors' Action Movement) and COPE (The Confederation of Progressive Electors) (Punter, 2003). Although both parties had different stances in certain respects, they both promoted anti-development ideals. TEAM, for example, encouraged the idea of specially created plans to fit Vancouver's needs instead of adhering to American-inspired plans (North & Hardwick, 1992). TEAM members strongly advocated "embracing neighbourhood planning, affordable housing, heritage protection, transit provision, and [the] enhancement of the built environment."(Punter, 2003, p. 27). In essence, rather than primarily promoting the development of freeways and the use of automobiles, which would immensely degrade the quality of Vancouver's environment, TEAM encouraged ideas such as public transit, and protecting community and neighbourhood areas as well as heritage sites. It aimed to effectively manage Vancouver's rapid growth so as to maintain it as a well-managed, freeway-free, sustainable city, and to improve problems regarding social welfare by providing more affordable

housing (Ley, Hiebert & Pratt, 1992). TEAM held a majority on City Council between 1972 and 1978, and it brought about much positive change within Vancouver during that time.

TEAM's positive legacy to steer Vancouver away from American-styled freeway development has not diminished. In fact, the GVRD's efforts to preserve the Greater Vancouver region as a sustainable and livable environment has only strengthened this legacy with the creation and the implementation of the Livable Region Strategic Plan (LRSP), a growth strategy, created in 1996, for all of the municipalities within the Greater Vancouver region (Greater Vancouver Regional District, 2005). Since 1996, the GVRD has attempted to "maintain regional livability and [to] protect the environment in the face of anticipated growth" with a long-term strategy (Greater Vancouver Regional District, 2005). This growth management plan is underpinned by four principal strategies: protect the green zone, build complete communities, achieve a compact metropolitan region, and increase transportation choice. Each of these four main strategies is interdependent with one another, and so all four parts are vital and need to be met. That is to say, in order to successfully protect the green zone, for example, growth must be concentrated within the available urban area so that suburban sprawl does not occur at a rapid rate and destroy existing green spaces (Greater Vancouver Regional District, 2005). However, in order for growth to be concentrated in a compact metropolitan region, communities must be complete, containing housing, jobs,

and needed amenities, so that people do not need to commute to distant places for these things. Yet, without a compact higher population density, it would be difficult to support expanded transit service. Thus, the GVRD has, and is still working hard to achieve all four pillars of this long-term strategy in hopes that this intricately-tied growth plan will be able to meet its goals and to function effectively.

Unfortunately, B.C. Transportation Minister Kevin Falcon has his own corporate-driven, pro-development agenda of freeway expansion in mind and is keeping a hard stance. Falcon claims that his freeway expansion projects are the only possible solution to resolving problems regarding traffic congestion and air pollution (The Livable Region Coalition, 2004), which is false and misleading. His plans will effectively erode all of the past efforts of the GVRD, TEAM, and other anti-freeway individuals and groups to keep Vancouver free of freeways. Regardless of local government and public opinions against his proposal, he still plans on implementing his plans of twinning the Port Mann Bridge and expanding the Trans-Canada Highway (Highway 1) to eight lanes between Langley and Vancouver (The Livable Region Coalition, 2004). Not only is he going against public opinion, he is releasing very little information about the project to the public. He is, in other words, keeping the public in the dark about the progress of his plans, and making the decision-making process lack transparency (The Livable Region Coalition, 2004). This severely reduces the ability of protestors to act against Minister Falcon's plans because they have no knowledge of what

action is being taken, and accordingly, no say in what is being decided.

In response to his unaccommodating behaviour to the general public, protest groups like the Livable Region Coalition have developed to oppose and argue against Falcon's poorly conceived freeway expansion plans and their associated land developments. Members of the Livable Region Coalition are in favour of GVRD's LRSP and would like to preserve the long-standing history of minimizing investments in freeway development, and instead, encourage other transportation options and compact land use planning (The Livable Region Coalition, 2006). They have also created an extremely informative online website filled with information about Kevin Falcon's plans: its weaknesses, related media releases, and new findings on alternative solutions to freeway expansion, among other things (The Livable Region Coalition, 2006). Such a website acts as a strong vehicle to voice truths to the general public, some of which have been concealed as a result of Falcon's aims to keep the decision-making process away from the public. The website is highly informative, and it allows individuals to make a more informed choice of whether to support freeway expansion or not.

According to the Livable Region Coalition, the proposed plan of freeway expansion is flawed in four key ways. First of all, twinning the Port Mann Bridge and widening Highway 1 will not solve traffic congestion and air pollution problems because road building is only a short-term solution (The Livable Region Coalition, 2006). The newly-built available road space will inevitably be filled up once again as people who

used to use alternative routes and/or other means of transportation are attracted to the newly widened freeway. Road expansion will only stimulate more traffic and intensify automobile dependency in the long-term. The freeway will inescapably become congested once again, but with an even higher number of motor vehicles on it compared to the number of motor vehicles prior to freeway expansion. Therefore, expanding freeways is not a viable solution to managing traffic congestion and air pollution.

Secondly, widening the freeway will have negative effects on our livable region, and will erode past efforts to maintain the Greater Vancouver region as a livable and sustainable place (The Livable Region Coalition, 2006). It will make certain parts of the GVRD, especially the Fraser Valley, more accessible, and will intensify pressures on the Agricultural Land Reserve and on remaining green spaces. Congestion would also develop on municipal streets that are planned to be adjoined to the freeway system, negatively impacting nearby local neighbourhoods. Additionally, local taxpayers will be burdened financially, as their money will be used to counter the damaging effects of freeway expansion on local neighbourhoods.

Thirdly, as mentioned previously, the decision-making process lacks transparency (The Livable Region Coalition, 2006). Very little information is accessible regarding the project, keeping people in the dark over the decisions being made. Falcon, for example, fails to mention that his proposal is solely based on the

assumption of the continued dominance of motor vehicles. It is also imperative to note that Falcon tends to dismiss and ignore regional concerns against his project.

Lastly, more affordable and effective alternatives to freeway expansion are in existence (The Livable Region Coalition, 2006). Public transit, for example, could potentially be a more affordable, effective, and attractive alternative over freeway expansion if the TransLink system is improved with increased investments in its bus fleet and in skytrains (Doherty, 2006). Upgrading to a larger number of buses and skytrains would help to reduce overcrowding and make public transit more attractive and efficient in time. More priority should also be given to buses in heavily congested road areas, especially during peak hours, to make buses more reliable, attractive, and efficient (Doherty, 2006). Bus services should be enhanced as well to decrease the present number of transfers that people have to take to reach their final destination. The idea of transferring buses typically deters people from public transit as an alternative from driving their own spacious cars and trucks. It is, therefore, crucial for TransLink to increase the frequency of service to about eight minutes or less (Doherty, 2006). Increased frequency of public transit service will help captivate auto-dependent drivers into choosing a more sustainable mode of transportation. In addition, TransLink should especially focus on improving transit services for the Surrey and Coquitlam areas as they are among the fastest growing municipalities, and yet they have among the most inadequate frequent service coverage within the Greater Vancouver region (Doherty, 2006).

Interestingly, the estimated cost that is required to enhance public transit as a viable alternative is actually lower than the estimated cost needed to expand the freeway: 300 to 500 million dollars worth of transit investment versus 1.5 to 2.5 billion dollars worth of freeway investment (Doherty, 2006). Thus, in actual fact, not only would ameliorated public transit services be a more sustainable mode of transportation, but it also requires less of local taxpayers' money to enhance public transit services when compared to the high investment costs of freeway expansion.

Ultimately, having now introduced many of the weaknesses within Minister Falcon's plans, it is clear that his plan of freeway expansion is not the "only solution" to rectifying problems of traffic congestion and air pollution. In fact, it is not even an effective long-term solution. Freeway expansion would eventually lead to a more magnified state of traffic congestion on the newly-built available road space, and would, in turn, continue to pollute the environment. GVRD's goal of maintaining Vancouver and the rest of the Greater Vancouver region as a sustainable and livable place will become extremely difficult to achieve if his plans of freeway expansion are implemented. One of Vancouver's most unique features will be abandoned, and it is up to us, the general public, to create a strong enough voice to defeat Minister Falcon's ineffective freeway expansion plans and to preserve Vancouver as a livable city.

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All Roads Lead to Grand Forks

A Global City in its Own Right

Rory Babin

Far from the bustle of BC's lower mainland, tucked away between the Kootenay and Okanagan regions, and occupying the peripheral milieu of Crowsnest Highway 3, lies the sparsely populated Boundary Country. In the heart of this fabled land is the Corporation of the City of Grand Forks, the capital and "Jewel of the Boundary", population 4,113 (Chamber of Commerce of the City of Grand Forks, 2005). To cartographers and politicians alike, the community is barely an insignificant blip on the political map. To the townspeople and members of surrounding communities however, Grand Forks symbolizes a hub, a retailing magnet, and an overall centre of cultural, social and economic activity. Saskia Sassen lists the characteristics of a global city as 1) a highly concentrated command point, 2) a key location for financial and specialized services firms, 3) a site of production, including innovation, and 4) a market for said products and innovations (Sassen, 1991, pp. 3-4).

Grand Forks is represented in each one of these points, making it the economic, social, political, and cultural capital of the Boundary and ultimately a control node on the global map. In spite of its small population base and its lack of multinational corporate headquarters, Grand Forks stands as a transterritorial marketplace (Sassen, 1991) of such importance that it is, in every sense of the term, a global city.

Poised at the confluence of the two key waterways in the Boundary, Grand Forks' central, prominent location has played a decisive role in its history. The vast array of untapped natural resources beckoned an innovative, young population whose energetic spirit remains evident in the city today. From the very beginning, Grand Forks has been hailed as "The Gateway City" (Carre, 1902, p. 2) for its diversity of industry, transportation links and status as a distribution centre. As an interior BC hub, Grand Forks has long been a transportation centre. Originally utilizing the two rivers as "ribbons of commerce" (Glanville & Glanville, 1997, p. 7), the community also became a stop on the Dewdney Trail, the precursor to the trans-provincial highway. Eventually, the city boasted three major rail lines and has since been a destination on Crowsnest Highway 3, with adjoining highways just outside the city limits. 1929 saw the construction of the first airport in BC's Interior, and third in BC after Vancouver and Victoria, cementing Grand Forks' prominence as an influential and destination city (Glanville & Glanville, 1987). The central and strategic location of Grand Forks has been so entrenched in its history, that from 1898 the local paper proclaimed the city to be, "first in everything, second in nothing, the gateway to everywhere" (Glanville & Glanville, 1987, p. 9).

Grand Forks is host to an incredibly diverse economy. The abundant natural resource base allured miners, loggers, farmers and more. Sassen writes that the territorial dispersal of current economic activity creates a need for expanded central control, which for the Boundary has found its home in Grand Forks. The initial core industry was smelting, with the construction of the largest non-ferrous smelter in the British Empire (Glanville & Glanville, 1987). A key point to mention regarding the smelter, is its closure in 1919, allowed for a stronger diversification of economic activity in Grand Forks, and the necessary development of the agricultural, service and other industries (Glanville & Glanville, 1987). Grand Forks' ideal growing climate has made it a centre for orchard produce, root vegetables and cattle. At one point, Grand Forks produced one third of the apple crops in BC before further diversifying in the agricultural sector (Chamber of Commerce of the City of Grand Forks, 2005). Local vineyards have been displaying innovation by testing locally developed experimental vines for a potentially flourishing wine industry (A. Gordon, personal interview, November 20, 2005). The rich blanket of forests in the surrounding countryside has fostered an ever-expanding forestry industry. Two major plant operations, Pope and Talbot and CanPar, specializing in the processing of wood products, are the top two employers in the community. Bill Faminoff, a local business leader and industrialist, stated that the closing of one P&T mill in a neighbouring town and the expansion of operations Grand Forks was its higher degree of flexibility (B. Faminoff, personal interview, November 17, 2005). Grand Forks has been the corporate headquarters of P&T since 1969 (Chamber of Commerce of the City of Grand Forks, 2005).

Grand Forks is a centre of innovation. Slag piles, once believed to be an unwanted waste product leftover from copper smelting days, are recycled and processed into Rockwool insulation by Roxul Inc. and Pacific Abrasives. "The development of the use of slag has helped to increase Grand Forks' economic versatility, which is essential," says Faminoff, former President and CEO of Enertek Products International Inc., which sold its outfit to Roxul Inc. in the past five years. "Locating in Grand Forks was only natural," says Faminoff, "the

population base Grand Forks' position on the US/Canada border also opened up a North-South trading corridor that extends as far as Texas." (B. Faminoff, personal interview, November 17, 2005). Another economically attractive aspect is the availability of inexpensive hydroelectricity and proximity to the Burlington Northern & Santa Fe Line, a transportation link to Asia and North America, a quality that attracted the initial smelting industry one hundred years before (Glanville & Glanville, 1987). CanPar Industries is another innovator in the town, is recycling sawdust and wood scraps by fabricating them into particleboard door core, an industry in which it is the leading manufacturer in North America (Chamber of Commerce of the City of Grand Forks, 2005), and cements Grand Forks' status as an innovator in industry.

As a key location for financial and specialized services, Grand Forks is second to none in the Boundary. The existence of two banks, a mall, lawyers, insurance, a hospital and the grand total of three major grocery store chains make the city a thriving hub of commercial activity and a retailing magnet for the surrounding region. On the addition of the newest grocery store, Councillor Ann Gordon stated, "it has proved successful … a new selection and discounts have drawn in customers from the US and surrounding regions." (A. Gordon, personal interview, November 20, 2005). This concentration in commercial retailing encourages local consumers to shop locally, which in turn has caused the volume of trade in the region to increase. The Grand

Forks District Savings Credit Union, located in the heart of the financial district, serves as the dominant financial establishment not just locally, but beyond the city boundaries (Kootenay Business Magazine Online, 2005). It has the largest market share of any credit union in the Kootenay region and ranking as the 33rd largest company in the Kootenays (Kootenay Business Magazine Online, 2005). In addition to the commercial sector, Grand Forks is host to a wide variety of government department branches and services. The regional hospital, courthouse, Ministry of Transportation, regional district and school board offices, and Service BC have all "located in Grand Forks because of sheer population … making it a control node." (B. Faminoff, personal interview, November 17, 2005). The agglomeration of capital and economic and political decision making, the originally conceived determinants of a global city (Abrahamson, 2004), propels Grand Forks forward as an innovator in the service sector, and as a highly concentrated command point.

The key to an instantly recognizable global city is its cultural scene. Mark Abrahamson notes that second-tier global cities are purely economic or purely cultural control nodes, but that true global cities are both (Abrahamson, 2004). Grand Forks exhibits a vibrant local arts scene, with many theatre companies, a new art gallery, and many artists and musicians. "Artistically," says Councillor Chris Moslin, "Grand Forks can be very proud of its accomplishments." The city has a unique and rich Russian heritage that

displays itself in the form in an annual Festival of Freedom, and other local musicians are showcased at various other festivals. "The city shows a great deal of initiative and motivation when it comes to supporting the arts," says Moslin, "and owes much of its successes to the energy and spirit of its citizens and volunteers" (C. Moslin, personal interview, November 15, 2005). An extension to the local culture scene is the abundant media services available to the citizens of the Boundary, via Grand Forks. Sunshine Communications, with its own television channel, BK Radio and the Grand Forks Gazette keep citizens informed on current events and connected to the information highway.

For young and old, Grand Forks represents a lifestyle choice hat has attracted an eclectic mix of talent and tradition. Richard Florida has stated that a "hot" city is home to talented innovators and risk takers, ones that surge ahead in developing new ideas (Gertner, 2004). Chris Moslin, councillor and Rails-to-Trails president, has been an active local force in the conversion of former railbeds into the Trans-Canada Trail, for outdoor recreation. "Since its inception in 2000, this trail has brought travellers from all over the world through Grand Forks," (C. Moslin, personal interview, November 15, 2005), says Moslin, and the recent resurfacing of the Cascade Gorge Trestle by Royal Canadian Military Engineers in August 2002 has been a major tourism boost for the area. Councillor Ann Gordon has

remarked, "The lifestyle, climate and amenities are attracting a large number of retirees to the area. This increases demand for services which can develop into employment increases." Tourism has become an increasingly important industry, and "Grand Forks has been working to find its niche to really capture the global eye" (A. Gordon, personal interview, November 20, 2005). At the heart of tourism is the heart of the city itself. A downtown rejuvenation program in the early 80s has created an aesthetically pleasing, visitor-friendly central business district, resplendent with cafes, frondescence and broad sidewalks (Glanville & Glanville, 1987). The City's clairvoyant urban planning scheme and overall recreational-oriented lifestyle has produced a community renowned by all as BC's Little Paradise.

Sassen closes with the statement that the global city encompasses a new industrial complex, one that dominates economic growth and socio-political forms and centred in major cities (Sassen, 1991). For the global setting that is the Boundary Country, Grand Forks is so abundantly necessary, so fundamentally essential to its existence that it is indeed not only the gateway city of its respective region, but of much more importance on the global scene. While Saskia Sassen won't be including it in her trifecta of global cities, Grand Forks stands as the gateway city of the Boundary, and a global city in its own right.

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West Africa's Marine Resources

Who's Scooping Them Up?

Katy Fulton

The nations along the coast of West Africa are dependent upon local marine resources. Many people living in this region are poor, uneducated and landless. The fishery provides the main source of reliable employment and is their major source of protein. Since the 1980s global landings of fish have been declining. New technologies used by fishing fleets are so efficient that entire stocks can no longer regenerate. This has left northern nations looking for new areas to fish, and many are targeting the coast of West Africa. Europe has had the longest interaction with Mauritania, Sierra Leon, Guinea, Liberia, the Ivory Coast and Ghana. In this paper I will focus on the international relations regarding fishing rights of the European Union (EU) in the Exclusive Economic Zones (EEZ) of these nations. While there are differences between these nations regarding the amount of active fishing and the environmental and economic impacts, the commonalities are very strong and for the purposes of this paper I will refer to these countries as a region, not as specific nations.

Global Fisheries

Since the 1980s fisheries stocks have been declining globally. Freshly accessed stocks can no longer make up for the collapse of stocks that have been over fished. Only 10 percent of all large fish - both open ocean species including tuna, swordfish, marlin and the large groundfish such as cod, halibut skates and flounder - are left in the sea. (Pauly, Watson and Alder, 2005). It is no longer possible to dispute that global policies regarding fisheries need to be changed and enforced urgently. Fishing methods such as trawling are destroying marine habitat. Fleets of factory boats are so efficient that they can catch and process fish much more quickly than marine species regenerate. However, the problem of declining fisheries is not apparent in the developed world because when local stocks are depleted, these countries meet their demand for seafood by importing from and fishing in the waters of developing nations. Consumers in developing countries tend to believe that

fish are still plentiful, because of imports and fish farms, and are unaware that serious depletion of most fish species is occurring - this is known as the masking effect. A vast number of people have been "tricked into believing that practices such as fish farming will relieve the pressure on over-fished stocks" (Pauly, Watson and Alder, 2005, p. 9). Yet these farms are completely unsustainable because they require more fishmeal and fish oils for their production then they produce in the end. (Suzuki, 2007). There are also many studies that indicate that the diseases spread by fish farms may have the potential of further decimating wild fish stocks. The increased demand for fish and the lack of international governance are compounding this problem into a global disaster.

Why Foreign Nations are Targeting West Africa

The first steam trawlers, invented by the British, set out into the North Sea in the late 19th century. Today, trawlers drag nets behind them that can be up to a mile long. Bottom trawlers are the most common type, with large barrels and bars hooked onto the bottom of the net to bash along the ocean floor scaring fish into the nets. This method destroys fish habitat nets which may take hundreds to thousands of years to regenerate. Modern fleets have depleted fish stocks of the central North Sea and Iceland in less than a decade. After the Second World War there was a massive increase in fisheries in the North Atlantic and Pacific as well as Southeast Asia. By the late 1990's trawlers were redeployed into the last large virgin shelf

area in the southern seas. The sonar and location devices which are used today, a technology made for submarines, can show fisherman exactly where fish schools are; there is no longer a need for luck or skill. The technologies used by these modern fleets "threaten the marine habitats on which fisheries depend and thereby reduce the resilience of over fished stocks to recover". The intensive harvesting done by trawlers, as well as the severe damage they cause when operating close inshore has already decimated catches in Mauritania, Senegal and Ghana.

Both legal and illegal fishing fleets have now begun bombarding the oceans of the southern hemisphere with their highly advanced equipment and technology. The marine ecosystem in West Africa had previously been used in a sustainable way, though not due to any explicit policy but because of their inability to access all fish stocks with their fishing technology (Pauly, Watson and Alder, 2005). Fishing was done by small boats and local fishermen. It was labour intensive and employed most of the men in the coastal communities. Today the Japanese, Koreans, Russians, Chinese, and European nations use their large boats equipped with modern technology to fish in West Africa.

Currently the market demand for seafood in Europe and the capacity of their fishing fleets to take sea life from their EEZ is much higher than the reproductive capacity of the marine resources (Kaczynski, 2006). This is why they are fishing international waters so heavily. The European Union has the oldest and largest foreign fleet in this area and it has made agreements to fish in the EEZ's along the West African

coast since the 1980s. I turn now to the specific agreements which have allowed the EU to fish within the EEZ's of West African counties, keeping in mind that similar processes are occurring worldwide.

EU Subsidies and Access Agreements

The EU government subsidizes two thirds or more of license fees so that their fleets can supply seafood to the EU market at the lowest possible cost (Kaczynski, 2006). Other fisheries including African fisheries simply cannot compete. These subsidies distort the economy so that it is often cheaper for West Africa to buy fish back from EU fisherman. This subsidy keeps unprofitable fleets afloat and supports 40% more boats then are necessary to catch their quotas. This puts tremendous pressure on marine resources and now local fishers from these nations often can no longer generate income (BBC News). Some argue that the "European Union Access agreements do not benefit West Africans, either economically or socially. In Guinea Bissau, such agreements have been detrimental to the development of the county's fishing sector" (Plage, 2001, p. 48). The EU has had such a stronghold over fisheries in this region that the unfair edge has made it virtually impossible for foreign investors or local entrepreneurs to successfully invest in fish processing infrastructure in any of these coastal nations.

EU Access agreements in West Africa are different in each African country. Currently the EU is operating in 14 East and West African Exclusive Economic Zones. There are 800 vessels

in their fleet with 13,500 fishermen and 400, 000 jobs created in relation to the fishery. The deals are organized in terms of vessel size and the number of vessels which can operate simultaneously.

EU fleets have negotiated so much control with their large catch allowances that their rights for fish could in fact be higher than marine resources present in the EEZ's. The vessels are so advanced that they can freeze and pass fish from one ship to the next, resulting in flexibile harvest and processing procedures for lower costs. Most agreements do not even contain catch quotas (Kaczynski, 2006).

What Africa is Getting In Return

West African governments do not have the luxury of long term planning because their short term economic demands are so great. In many African nations there is a need to get hard currency to repay their debts and this is most easily done by selling their fishing rights. West African nations are in dire need of money, and the lump sums that they receive from the EU for fishing licenses make up a large percentage of the money used to run the government. Unfortunately there is very little left over to invest into other areas. This year the EU signed an agreement to have six years access to Mauritania's EEZ. The government of Mauritania received $600 million for the deal and will allow 200 EU vessels to fish.

What Africa is Losing

It is ironic that within the nations that can lay claim to some of the richest

shing grounds in the world, much of the population remains malnourished. The fishing in this region is still good compared to most areas of the world, yet the people who live in West Africa are severely deprived of both fish and money. As one author notes:

Inadequate trade policies, globalization of the fishing industry, dominance of Europe's distant water fleets, declaration of EEZ's by neighbouring West African nations, over fishing and a lack of good governance contributed to the decline of Ghana as a regional fishing nation, a position it had held until the 18th century." (Atta-Mills, Alder and Sumaila, 2004, p. 13)

Ghana has been a fishing nation since the 1700's. Ghanaian fisherman used to fish along the coast of West Africa, teaching people new fishing techniques. Along Ghana's coastline there are 191 fishing villages and 308 landing beaches. Over 40% of the population lives within 100 km's of the coast and fish is this nation's main source of protein. Today because of the compounding reasons making it difficult to survive as a fisherman, a way of life that has existed for hundreds of years is being abandoned. Many fishermen are uneducated and landless, making their search for new work extremely difficult. Young men are leaving their villages, and the young and the elderly without the support system that has traditionally been strong in fishing communities. The villages and their facilities are now deteriorating. It is hard for many to understand what is happening with the fishery, and in some cases local fisherman have been blamed for the decline in fish. Villages have even

been burned and fisherman beaten by an angry, misinformed population.

Traditionally small fish have been a cheap and important source of protein. Small fish, traditionally dried by women, have also been a large source of trade for inland villages. However, over the last couple of years, for the first time, international fleets have targeted even the small fish for export because they are used to feed farmed carnivorous fish. Using small pelagic fish for fish feed instead of for human consumption is a net loss of protein, as nutritive value is lost when passed through the systems of a carnivore.

There is a correlation between the decreasing amount of fish being sold in the market, and the increasing amount of bushmeat being consumed. Lions, apes, hippos and other creatures are now being eaten by a protein starved population.

Enforcement Problems

The concerns of sustainable fisheries are not considered a high priority in the political spheres of West Africa. In the 2004 New Partnership for African Development, which set out West Africa's priority initiatives and details plans for their realization, there were no plans made to address sustainable fisheries.

"In the absence of legal protection fish populations are subject to 'pulse fishing' by distant water fleets of various industrial countries which leads to the rapid depletion of their biomass without even the pretense of some form of sustainability." (Pauly and Palomares, 2005, p. 199)

Compliance with existing policies is a significant issue. The size of the fishing fleets, excessive by-catch, underpayment of tuna license fees, and denial of timely statistical information for the coastal state are the major ways in which the EU is breaking the law (Kaczynski, 2006). Unless major changes in fishing policies are made and enforced the overexploitation of marine resources will soon lead to a massive drop in license revenues.

The Maastricht Treaty commits the EU to ensuring that their relations with developing countries reduce poverty and promotes sustainable development. Yet the EU Department of Fisheries admits that their arrangements with the Third World are entirely commercial and that the objectives are not to enhance or reduce poverty. In the 2004 agreement between Guinea-Bissau and the French and Spanish fleets, the EU fleet legally agreed to supply statistical data on their catches, accept coastal country observers on ships, visit local ports for inspections, and accept local crew members. According to the government of Guinea Bissau they did not abide by any of these regulations.

It is important to note that it is not just the legal fishing fleets that are destroying the fish stocks and fish habitat of West Africa. There are also a large number of illegal fishing boats preying on West Africa's inability to effectively patrol their waters. In March of 2006, Greenpeace watched over the EEZ of Guinea and found 67 foreign vessels fishing in Guineas waters: 19 were completely unauthorized, 22 had been previously caught illegally fishing in the area, 9 were unidentifiable as they did not hang flags, and 8 were illegal and

within Guinea's 12 mile zone (this zone is always illegal to international boats because it is reserved for local artisan fisherman). Today, because of over-fishing and illegal trawlers, these artisan fishermen are forced out into the deep sea. Greenpeace has spotted them in their canoes over 100 km's from shore. Fisherman can recall how only a few years ago they could paddle half an hour from shore to fish, whereas today they must paddle for up to 8 hours to get to where the fish are. As a result, they are more vulnerable to the elements.

Future Outlooks for Africa

It is empowering to see that today some states now include harvest quotas, limits, accounts for by-catch, restrictions on destructive practices and seasonal and area limitations. It is true that many West African nations do not have any navy or aircraft to regulate foreign fleets but it seems they are beginning to work together. Fishing communities have mobilized in 25 West African countries. Together these countries have started over 40 community projects since 1999 including community patrols of fishing grounds to keep poachers at bay. The UN, UK Department of International Development, Food and Agriculture, and various non-government organizations have given over $40 million to fund these grass-roots projects.

Conclusion

In order to save the fisheries of West Africa, the European Union needs to encourage fleets to decrease their fishing capacities (which is currently four

imes too large) by reducing government subsidies. The EU knows "first hand the devastating effect ill-managed fisheries have had in its own waters" (Pauly, 2005, p. 10). This must now be translated into the political will to regulate their fleets in foreign waters.

West African states need to improve their investment climate so that foreign operators will integrate their activity into coastal economies. These nations need to set aside money gained from selling fishing rights towards the creation and maintenence of sustainable fisheries and the enforcement of current policy. Fisheries must be legislated to invest in the coastal states, by, for example, the use of indigenous labour or infrastructure. This helps establish jobs and alleviates poverty in the long term.

Local fishers should have predictable access to resources the EU has been fishing since the 1980s.

Global consumers should demand more eco-labeling; open net cage fish farms should be outlawed; various equipment restrictions need to be strictly enforced; and at least 10% of the ocean, both coastal and deep, needs to be set aside as global no-take zones. One assessment of these measures concludes:

"Such measures may not allow us to increase future landings, i.e. to continue to meet an ever-increasing human demand. Rather, these measures may allow us to sustain what we have, and which we are in the process of losing." (Pauly, Watson and Alder, 2005, p. 10)

The EU needs to recognize that the nations of West Africa are doing them a big favour. Fishing in the third world is not unethical, it just needs to be done the proper way.

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See Also

Sierra Club of Canada (BC Chapter), Canada's Seafood Guide, http://www.sierraclub.ca/bc/programs/marine/index.shtml

Vancouver Aquarium, Ocean Wise program, http://www.vanaqua.org/conservation/oceanwise/

Monterey Bay Aquarium, Seafood Watch, http://www.mbayaq.org/cr/seafoodwatch.asp You can download printable pocket-size guides from their website.

PBS films on marine fisheries, http://www.pbs.org/emptyoceans/

The Impacts of Large Woody Debris on Small and Intermediate Channels

Melissa Ewan

Large woody debris (LWD) and logjams in small and intermediate sized streams affect grain size distribution, morphology, channel width and habitat quality. This paper will look at how LWD affects these four categories in small and intermediate streams based on studies that have been conducted across North America. A short case history comparing data on forest type, wood volume and geomorphic function of LWD in the Boreal forest and the Pacific Northwest will be introduced in order to illustrate the problems associated with trying to determine a single model or formula across ecotones. A final section will discuss modeling techniques that have been developed and the gaps in knowledge surrounding large woody debris.

Physical Impacts of Large Woody Debris

Grain Size Distribution

LWD impacts grain size distribution in steams creating a complex pattern of channel units (Haschenburger et al., 2004; Curran et al., 2003). LWD increases the form friction (f_{form}) and spill friction (f_{spill}) in streams (Montgomery et al., 2003; Curran et al., 2003). This disperses energy, reducing the ability of water to entrain sediment, allowing for grain sizes to be deposited that would normally have been entrained (Montgomery et al., 2003; Curran et al., 2003).

Faustini et al. (2003) compared bed material in two reaches in the HJ Andrews Research Forest in the Cascade region in Oregon. One site was an old growth forest with a large volume of woody debris, the other was a site that had been clear-cut in the 1960's and had negligible wood. Over three years at both sites the grain size distribution was sampled using a modified Wolman method. The study concluded that the D_{84}[1] and the D_{50} of the old growth exhibited a greater variability in the bed grain size, which was attributed to the complex logjams and LWD.

1. D_{84} refers to the diameter of the grains that 84 percent of sample is finer than.

This is further supported by a study conducted on Carnation Creek by Haschenburger et al. (2004) on LWD jams in gravel bed rivers. This study noted that jams created complex grain size distributions because they trap sediment and retard grain flow. Additionally, because LWD jams are permeable and change overtime, they allow for grains to move in episodic events, creating further complexity (Haschenburger et al., 2004). At the channel unit scale, bars upstream of logjams showed a coarsening trend in D_{16}, D_{50} and D_{84}, while bars downstream of jams showed a fining trend. This was attributed to the logjams trapping the larger sediment while allowing the finer to move through with more ease. A significant idea from this study was that the grain size and sediment mobility responded quickly to changes in the logjams themselves, showing a direct link between woody debris and grain size distribution in streams.

Morphology

Large woody debris has a strong influence on morphology at a channel unit scale through creating complex pools and step-pool patterns when the debris is large or channel spanning (Bochiola et al., 2006; Fausitini et al., 2003). The importance of logs to morphology is inversely related to the width of the channel, making the effects of LWD in small and intermediate streams large where LWD can be channel spanning (Church, 1992; Hassan et al., 2005; Montgomery et al., 2003).

Curran et al. (2003) looked at 20 step-pool channels in Washington to explore the effects of LWD on flow resistance. They found that in these reaches LWD was the step forming material 29% of the time, showing the importance of large woody debris in creating step-pool structures (Curran et al., 2003). Large woody debris can create four types of pool scour: vertical, perched, horizontal and step (Montgomery et al., 2003). Vertical obstructions create eddy, scour or dammed pools (Montgomery et al., 2003). Pitched and horizontal LWD create eddy and underscour pools through complex flow that accelerate around the LWD (Montgomery et al., 2003). Wood steps create downstream jets that plunge and create scour pools downstream of the step (Montgomery el al., 2003; Chruch, 1992).

LWD not only increases the number of steps in a river, but also the size of the steps. Curran et al. (2003) found that in the 20 reaches studied in Washington, 50% of the highest steps were created by LWD. A study by Mossop et al. (2003) focused on rivers in the Yukon supports these findings because, log all log formed steps were larger then non-log formed steps. The median pieces of wood that formed pools in the Yukon Rivers however, had a much smaller volume ($0.19m^3$) then pool forming LWD on the Oregon Coast ($1.25m^3$) (Mossop et al., 2003; Faustini et al., 2003). These findings are also consistent with Faustini et al. (2003), who found that LWD steps in old growth forests were much larger then the boulder created steps.

Channel Width

Large Woody Debris can increase channel width by directing flow into banks and creating erosion (Montgomery et al., 2003). LWD can cause large variation in channel width over a short distance in streams as observed on the Tolt River in Washington (Montgomery et al., 2003). Faustini et al. (2003) support this by reporting that width of streams around debris jams in HJ Andrews research forest were 52% greater then the average channel width.

Habitat Issues

Large woody debris creates habitat diversity that may last for decades or centuries and that supports many vertebrates and invertebrates (Dolloff et al., 2003).

Fish

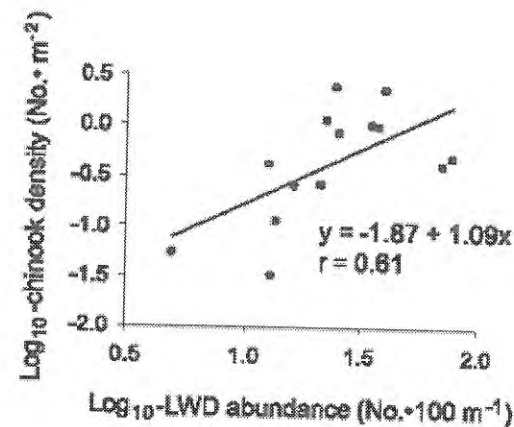Large woody debris increases the amount of pools and the variablity in

Fig. 1 Chinook Salmon Density and Large Woody Debris. The relation of Chinook salmon density and LWD for 14 Yukon stream reaches. Density was averaged over 3 years (Mossop et al., 2003)

the depth of pools, creating diversity in the physical habitat and increasing the ideal rearing areas for many fish (Dolloff et al., 2003). LWD also increases stream roughness, creating heterogeneous flows and 'hiding places' for fish from higher velocities (Dolloff et al., 2003). Mossop et al. (2003) found that juvenile Chinook salmon density increased with large woody debris density in streams in the Yukon (Fig. 1). The densities of the fish were highest in deeper pools created by large woody debris, showing that large woody debris may be an important predictor variable for the density of Chinook salmon in Yukon rivers (Mossop et al., 2003). This study further discusses how in the Pacific Northwest a similar pattern can be seen and that rearing Coho salmon can be linked with deep pools created by large woody debris (Mossop et al., 2003). A similar study conducted in Sweden found that the occurrence of brown trout increased, as did the average size of the trout as a result of the presence of large woody debris (Fig. 2) (Degerman et al., 2004). In the case from Sweden, the shelter that wood created from predators and high velocities was the reason cited as to why the LWD improved the habitat (Degerman et al., 2004).

Macroinvertabrates

Wood provides substrate for macroinvertabrates (Mossop et al., 2003). Although some macroinvertabrates are wood specialists, many more are simply wood users (Wondzell et al., 2003). As LWD creates a variety of habitats and microhabitats, the complexity of the stream and the variety of macroinvertabrates that can inhabit a stream are linked (Wondzell et al., 2003).
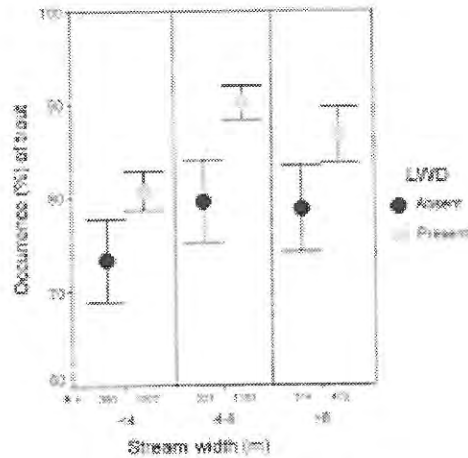
Fig. 2 Occurence of Trout and Stream Width.
The occurrence of brown trout increased, as did the average size of the trout as a result of the presence of large woody debris (Degerman et al., 2004).

LWD in the Pacific Northwest Compared to the Boreal Forest

The effects of large woody debris in the Pacific Northwest differ from the effects of LWD in the Boreal forest. They differ in terms of volume of wood and impact on morphology, both of which may be attributed to the life history of the forest type.

The Boreal forest is subject to frequent disturbances creating variety of stand ages, but all tend to be less then 100 years old and grow slowly due to climate conditions (Kreutzweuser et al., 2005; Mossop et al., 2003). This can be contrasted with the Pacific Northwest, where small-scale disturbances are normal, the average stand age is much greater then 100 years and the trees can increase in biomass rapidly (Faustini et al., 2003; Mossop et al., 2003; Hassan et al., 2005). Even though the number of

pieces of wood found in both forest types may be similar, the volume of wood in the Pacific Northwest is much higher and this may be directly related to the life history traits and disturbance regimes of the two forest types (Fig. 3). Kreutzweiser et al. (2003) found the mean diameter of LWD in Ontario Boreal forest streams to be 16.7cm. These findings were similar to Mossop et al. (2003) who found mean diameter of pieces ranged from 12.3cm-19cm in the Boreal forest in the Yukon. This can be compared with Curran et al. (2003) who found an average diameter of 25.65 cm in streams in the Pacific Northwest.

Kreutzweiser et al. (2003) found that most wood pieces in boreal streams were too small to form pools in Boreal forest streams in Ontario. This is contrary to Mossop et al. (2003) who found that large woody debris was an important step-pool forming mechanism in the Yukon, but the step-pools were smaller and it was less important then LWD is to steps in the Pacific Northwest. This highlights the variability in data even within the same forest type.

Mossop et al. (2003) suggests that the wood for boreal forest the small pool-forming LWD may also be older then in the Pacific Northwest. This is because in coastal forests the red alder take seven years and the Douglas fir take 15 years to grow to breast height, whereas the white spruce of the boreal forest needs at least 70 years to achieve the same height (Mossop et al., 2003). This long growth period implies that different management techniques are needed in the boreal forest to maintain the habitat and geomorphic featured created by the LWD then found on the Pacific Northwest.

Research Gaps

The important geomorphic implications and habitat issues surrounding large woody debris make it a topic that has been researched for many years.

The spatial coverage of research is highly biased towards the Pacific Northwest. This may cause problems in management strategies as streams in different ecosystems respond differently to inputs of large woody debris. The Boreal forest in Canada is especially under represented (Mossop et al., 2003; Krutzweiser et al., 2003). There are three accessible papers on large woody debris and the boreal forest in Canada: one based in Newfoundland, one in Ontario and one in the Yukon (Mossop et al., 2003; Krutzweiser et al., 2003). This is a very large area by comparison to the Pacific Northwest that is seriously under-represented in research.

Defining exactly what large woody debris is and how it should be sampled also appears to be an issue. Large woody debris is arbitrarily defined at 0.10m diameter and 1m in length for some studies, and 3m in length for other studies (Mossop et al., 2003; Hyatt et al., 2004; Hassan et al 2005). This arbitrary definition based on size does not account for fluctuation in channel width and the inverse importance and abundance of large woody debris as the channel width decreases (Fig. 4). Sampling strategy is also variable across research, making it difficult to compare different research papers or data with accuracy (Mossop et al., 2003).

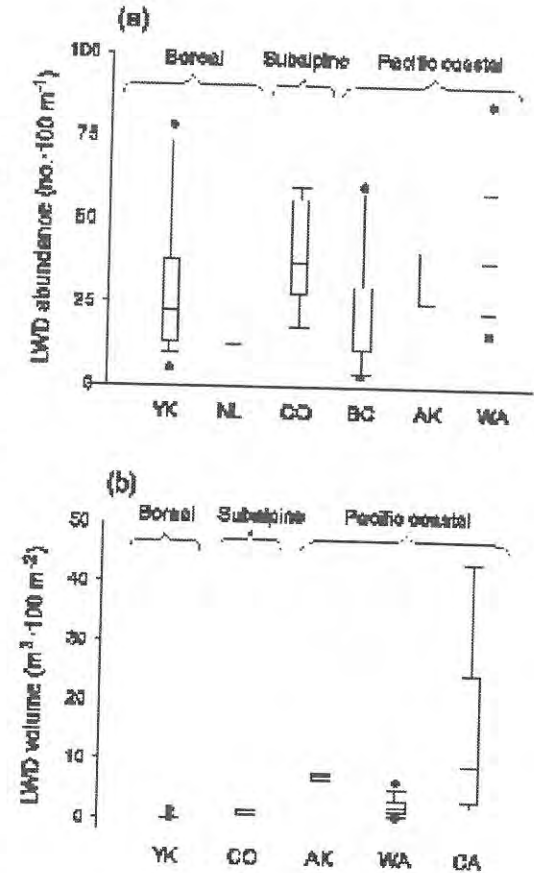A landscape perspective for large

Fig.3 Large Woody Debris and Forest Type. This figure illustrates that even though the abundance of wood may overlap, the volume of wood is much higher in the Pacific Northwest. It also illustrates the variability of wood within a Forest type.

YK: Yukon, NL: Newfoundland, CO: Colorado, BC: British Columbia, AK: Alaska, WA: Washington, CA: California (Mossop et al., 2003).

woody debris inputs and effects on the reach or basin scale over long periods of time create another gap in knowledge (Hassan et al., 2005). This becomes clear when looking at the research and literature, which is focused on a single stream or set of streams. Very few seem
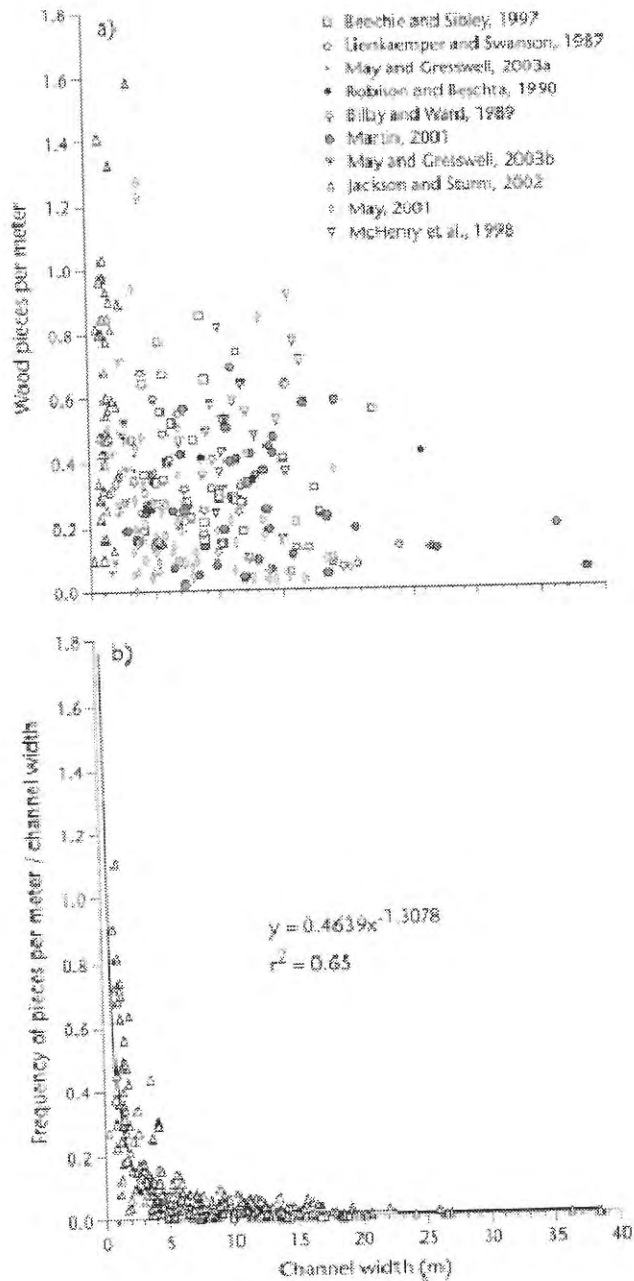
Fig. 4 A Compilation of Data on Wood Abundance from 262 Stream Reaches in the Pacific Northwest (modified from Jackson & Sturm, 2002): (a) Large Wood Abundance Per Unit of Channel Length, and (b) Large Wood (numbers per meter of channel length) Scaled by Bankfull Channel Width for the Data Presented in (a) (Hassan et al., 2005).

to link to the reach scale or the basin scale and most observe channel units and the effects of LWD on these over a short period of time. Faustini et al. (2003) may be an exception as it utilized stream gauge data for over 50 years and cross section data that had been collected for two decades. Haschenburger et al. (2004) is another example where the temporal coverage was around a decade for some of the data. Notably, both of these projects were based out of research forests and watersheds in the Pacific Northwest, and most papers do not cover such large time periods.

Conclusion

Large woody debris affect grain size distribution, morphology, channel width and habitat quality in small and intermediate streams. It creates a complex system which functions differently depending on the forest type and the geologic history of the riparian area. This means that research needs to be done for all forest types and models need to be created for specific forest type. Though there are similarities in the functions and affects of large wood debris on the morphology of streams in different forest types, the differences need to be understood in order to make the best management plans and fair comparisons across forest types. There are also serious issues with the basic concepts in large woody debris such as: how should it be defined, how can recruitment be modeled, and how can logjams be modeled, which still need to be explored in order to make the subject comparable universally.

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Images

Figure 1: Chinook Salmon Density and Large Woody Debris, (2003). Mossop et al.

Figure 2: Occurence of Trout and Stream Width, (2004). Degerman et al.

Figure 3: Large Woody Debris and Forest Type, (2003). Mossop et al.

Figure 4: A Compilation of Data on Wood Abundance from 262 Stream Reaches in the Pacific Northwest, (2005). Hassan et al.

The High Costs of an Appetizer

Emma Hume

In front of a wealthy New York couple sit "six firm but rich sake-steamed slices of grilled abalone in a soothing ganseki sauce" (Rubenstein, 2004). The price of this exquisite appetizer is a mere $100 US. The abalone has a rich flavour and a firm texture – it is pure bliss. Or is it? Who harvested it? Where did it come from? How did it get to New York? And what is going on in the kitchen behind the calm façade of the exotic restaurant? Similar questions arise from dishes of abalone served in countless restaurants around the world.

Thousands of kilometres west of New York a man emerges from the frigid waters of the Pacific Ocean with a net bag it tow. It is full of wild abalone. Abalones are sea snails with meat that resembles the creamy, smooth texture of a mushroom, protected by a beautiful shell – the inner side shimmers pink, green, yellow, and blue and is more beautiful that a pearl. This mollusc has an elliptical shell and a foot that clings to reefs and rocks. Abalone grow in the relatively shallow waters along B.C.'s coast – from Vancouver Island to Haida Gwaii – Australia, Japan, South America, and South Africa (Pynn, 2004). British Columbian First Nations people used to harvest abalone for food and also used the shells as a trade currency (Lee, 2005). However, harvesting was limited to the intertidal zone as abalone were picked by hand during low tides or by using a two-pronged spear (Lee, 2005). Because of limited harvesting the molluscs once thrived all along the west coast of North America, but stocks have been in steady decline since the 1970s as improved technologies, primarily the advent of scuba gear, lead to a successful commercial abalone fishery.

A former fishing guide on the Queen Charlotte Islands recalls the year a commercial abalone boat came cruising along the coast and into the serene bay where his camp was located. A thirty foot boat anchored in the bay for a couple of days, "and after they departed with their harvest we never saw another abalone again" (M. Hume, personal interview, November 18, 2005). Previously the guide had harvested abalone, but without scuba gear he was limited to the reach of the lowest tide, and so was limited to a small catch. Now when divers, with scuba tanks, go along the coast they have the ability to take all the molluscs they can find. Plummeting population numbers in the 1980s resulted in the banning of all abalone harvesting in B.C. but harvesting continues, only now it is illegal (Hume, 2005).

The story is much the same around the world. Over-fishing, pollution, and disease have all contributed to the species' global decline. Withering syndrome, a disease that "causes the foot muscle to shrink away from the shell and prevents it from clamping onto rocks" has also had drastic effects on populations (Brown, 2005, p. A3). Because of declining stocks commercial fisheries have been limited around the world – either by the imposition of quotas, expensive fishing licences, or outright bans on commercial harvesting. These limitations on supply have resulted in skyrocketing global prices, illegal harvesting, and a thriving black market.

Prices on the black market are estimated to range from $10 (West, 2005) to $50 (Stites, 2002) a mollusc, the average price hovering around the $25 mark (Wilson, 2004). In 2003 an article in Newsweek claimed the price for dried abalone was "as high as $90 [US] a kilo [and that] the black-market trade may approach $100 million [US] per year" (Masland, 2003, p. 37). These high prices drive people to poach abalone, making it difficult for the species to recover. Because the creatures are only exposed at extremely low tides poachers are forced to dive into icy cold water and "using a sharp knife and a screwdriver, the diver [...] pops the gripping foot of the mollusc off the sea floor" (Masland, 2003, p. 37). According to a DFO investigator, "these guys [...] run their boats along the coast at high speed, with all their lights off, in the dead of night. They will dive alone in remote locations" (Hume, 2005) away from areas favoured by sports divers (West, 2005). These poachers are very efficient and willing to brave the elements and the rugged terrain of the West Coast. With experience comes efficiency and harvesters, outfitted with scuba gear, are able to "strip the sea floor of 50 kilograms of shucked abalone in an hour" (Masland, 2003, p. 37). A poacher recently arrested by the Department of Fisheries and Oceans was taking between 3,000 and 4,000 wild abalone a year (Hume, 2005). In the industry of abalone poaching demand drives supply (Stites, 2001).

Little is known about how poached abalones end up on upscale menus around the world. According to Clark Munro, owner and manager of Raincoast Sea Farms on Vancouver Island, local fishermen and poachers are in contact with a middleman, who works the phones moving seafood to customers around the world. Such brokers are in contact with all sorts of restaurants, supplying customers with a variety of seafood – both legal and illegal (C. Munro, personal interview, November 22, 2005). The case of a Vancouver restaurant may shed a little light on the scenario.

C restaurant was unknowingly buying illegally harvested Chilean sea

bass for their supplier (Lancaster, 2005). Once this was realized C stopped buying the bass, but this is unlikely to be an isolated case. It is quite possible that Esca, a fish restaurant in New York, has unknowingly fallen into a similar trap. In a recent article in The New Yorker the owner boasted of serving "abalone and black cod from British Columbia" (Singer, 2005, p. 80). Assuming the story is correct and given that B.C. does not farm abalone, the fresh mollusc served at Esca would have to have been poached.

A quick Google search suggests countless ways of eating abalone – deep fried in a shell of egg and bread crumbs, sautéed, stir fried with cucumber, made into chowder, served with avocado, or served with crushed almonds, and *olio verde* (Singer, 2005). Wealthy New Yorkers, craving a taste of wild British Columbia, are shelling out "the equivalent of a mortgage payment for a meal" (Singer, 2005, p. 78) that could consist of poached abalone. Perhaps the customers in this exotic Manhattan restaurant should engage in a little defetishizing and consider the ramifications of their extravagant purchase on the wild stocks of abalone and the criminal activity they encourage.

New York was once dominated by restaurants started by immigrants who specialized in ethnically based food – dim sum, falafels, pasta and pizza. But in the last decade a new market has emerged that is much more exotic and caters to a wealthy upper class (Singer, 2005). Esca, one such upscale Manhattan restaurant, specializes in seafood, prepared by a well-educated chef and his support team. The chef went to a culinary school in Rhode Island and then spent twenty years working in "French-themed New York restaurants, bistros, and brassieres" (Singer, 2005, p. 79) before becoming the head chef at Esca. He spends five or six days a week in the kitchen working 13-hour days before taking the train home to his place in Long Beach, where his one year old daughter and wife live. The two-level kitchen at Esca easily feeds 240 tables a night during the winter and as many as 440 tables during the summer (Singer, 2005). Within the kitchen there are twenty prep cooks, line cooks, runners, and dishwashers who work during peak hours (Singer, 2005). Then there are the servers who act as the middle man between the kitchen and customer. At Megu, a restaurant that also serves abalone, there are more than 100 dishes and a thirteen-page menu (Rubenstein, 2004). In such a restaurant, servers are key as they guide the customer through the daunting thirteen-page menu. At Megu servers spent "three months prior to the restaurant's opening studying the intricacies of each dish" (Rubenstein, 2004) in order to enhance the experience of customers, making it easy for them to choose a meal.

At the end of the night these wealthy customers head home with full stomachs. Perhaps they are discussing politics, stocks and bonds, or Iraq along the way. Chances are they do not think about the fisherman who illegally harvested their abalone appetizer, the seafood broker who sent the molluscs to New York, or the line cooks who hammered the abalone in order to soften the flesh. It is also likely that they do not know the abalone they ate was probably illegally harvested, and that by paying $100 US for six fresh B.C. abalone they are exacerbating the B.C., and global, struggle to repopulate the world's oceans with the incredible creature.

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About the Authors

Rory Babin

Rory Babin is a third year Geography and Economics student hailing from the backwoods of B.C.'s fabled heartland. With a passion for Urban Studies and Journalism, his plans for the future involve splicing these two interests. He brings fresh new ideas and opinions; unlike the Interior itself, he cannot be ignored.

Caroline Cho

Caroline Cho is a May 2007 candidate for Bachelor of Arts, major in Geography at the University of British Columbia. She plans to continue her education in the Faculty of Education for elementary school teaching in September 2007. Caroline aims to make use of her Environmental Geography background in teaching future classes to be more conscious of global climate change and encouraging them to live more sustainably. She also hopes to expand the typically neglected subject of Geography in the elementary school curriculum, and let children realize that Geography is not only about colouring and labelling maps, but Geography is an interdisciplinary subject integrating the natural sciences, the humanities, and the social sciences.

Steve Chou

Steve Chou is completing a degree in Urban Geography and Economics. He is hoping to enter the field of urban planning and is interested in land-use policy, urban design, and/or transportation planning. Some other interests of his include architecture, cartography, and photography.

Emma Ellison

Emma Ellison is a second year Geography student, interested in urban studies and feminist geography. She debates competitively with the UBC Debating Society and is involved with a number of women's groups on-campus. After her degree, she hopes to go on to graduate school to understand more about human geography and queer studies.

Melissa Ewan

Melissa Ewan is graduating this year with a BA focused in Environmental Geography. Next September she is starting her Masters of Sciences at UBC with a focus in fluvial geomorphology. She hopes to eventually work in an environmental consulting firm before completing a PhD.

Katy Fulton

Katy Fulton graduated from UBC with a BA in Geography this past December. She is very excited to be joining a team from UBC doing fieldwork in the mangroves on the Turneffe Atolls in Belize later this month. She plans to travel far and wide and has a passionate interest in environmental preservation.

Callista Haggis

Callista Haggis will graduate from Geography in May 2007. She has an active interest in the growth and maintenance of healthy communities.

Daniel Hodgins

Dan Hodgins is a third-and-a-half year geography major who likes to surf, play guitar, hang with friends, travel, and dream up business ideas. In his spare time Dan plays drums in a band and volunteers with the B.C. Crisis Centre doing suicide awareness presentations to high school students. He also attends classes at UBC. After his degree, Dan plans to become a product broker who sources unique products from Asia for the Canadian market.

Emma Hume

Emma Hume lives in a culture of consumption and illusion, making it easy to take things at face value and forget about deeper social and environmental issues. But studying geography has allowed her to de-fetishize everything from abalone, city spaces and the neoliberal security state. She is beginning to understand the consequences of society's actions on social and environmental processes. This knowledge has inspired her to ask questions and make positive change in this crazy world...