

Planning the Great Acceleration: Contributions of planning theory, ideology, and implementation to planetary transformation and social-ecological decline

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Abstract

In the years and decades following WWII, global energy and resource consumption were unleashed on a hitherto unseen scale. The fields of earth system science, history, and planetary health continue to grapple with the causes and consequences of this 'Great Acceleration' – a proposed entry point into the Anthropocene. This paper takes its cue from recent trends in research that are 'globalizing' perspectives on the processes of suburbanization and the distinct suburbanisms these processes produce. We explore spatial and temporal scale as necessary, conjoint lenses for articulating key contributions of planning to the Great Acceleration. Taking Prince George, British Columbia, Canada as an illustrative case, we draw on archival sources and spatial analysis of historical subdivision data. These streams of analysis allow us to track and explicate how dominant planning theories were deployed between 1946 and 1981 to both rationalize and accommodate urban expansion within British Columbia's northern capital.

Keywords: Planning; Garden City; Neighbourhood Unit; Great Acceleration; Urban Development

Introduction

Across North America, the mass adoption of the suburban spatial order in the mid-twentieth century emerged in the shadow of the industrial city. While suburban settlement existed alongside the earliest cities for the wealthy and their households, urban planners at the turn of the twentieth century began to focus on the working classes as a group that should also benefit from new notions of health and order (Mumford 1961). Concepts of order, health and separation drew their power from the unprecedented mobility of labour, dispossession, tenements, and disease that had characterized the industrial cities of the late 19th Century. Ideas shaping suburban place-making emphasized orderliness, familiarity, cleanliness, health and prosperity. The separation of uses – notably domestic from industrial – and the intentional development of distinct neighbourhoods as social units became fundamental to the developing profession of planning (Aalen 1992; Grant 1997; March 2004; Talen 2017; Ulmer 2018).

Across North America, auto-centric suburbs grew in the decades after the Second World War through the promulgation of a development model Fillion (2015) describes as *dispersed suburbanism*. Economic growth, population growth, and household consumptivity interacted to create the culture of suburbia; planners rationalized it, cities marketed it. In Prince George, British Columbia, Canada, most of the city was developed during this period. The impacts of the growth ideology that was forged in this period are still visible in the city's present struggles to advance sustainable development around goals like decarbonization and protection of urban biodiversity. This same growth ideology is also visible in the role the City and the Province played in post WWII planning, land development, and land acquisition, as well as the resource consumptive spatial structure these processes contributed to.

Taking Prince George as an illustrative case, this article charts a historical context elucidating at a local level how dispersed suburbanism became North American cities' primary contribution to what environmental historians John McNeil and Peter Engelke have called the Great Acceleration. In the decades following 1945, accelerating energy and resource consumption became the most powerful influence on global ecology, and the entry into what is increasingly accepted as the human-induced epoch of the Anthropocene (McNeil and Engelke 2014; Steffen et al. 2015). Our goal in this paper is to examine the use of physical planning concepts that entrenched dispersed suburbanism in the structure of Prince George during a period (1946-1981) of rapid post-war growth¹. By doing so we strengthen an empirical evidence base illustrating how the planning profession helped condition present day global challenges during the peak of the Great Acceleration.

In the post-1945 period, models of neighbourhood design in Prince George (and hundreds of other cities) borrowed from Clarence Perry's neighbourhood unit and Howard's garden city concepts. These concepts had been developed a half century before as ideal forms for work, family, and leisure (March 2004; Patricios 2002).

¹ Between 1951 and 1966, the population of Prince George, British Columbia quintupled from 4,703 to 24,471 and then almost tripled by 1981 to a population of 67,559 (BC Stats 2012)

In Prince George and elsewhere, they were translated into the auto-centric spatial patterns of growth and consumption that continue to structure the city and its consequent socio-ecological impacts. In the case of the colonial settlement of Prince George, a future city began as a small number of places competing for centrality. Beyond the scope of this paper, Curry and Llewellyn (1999) review how, in the early decades of the 20th Century, the Grand Trunk Pacific Railway inserted itself and its City Beautiful inspired plan into a struggle between two existing settlement areas (Central Fort George and South Fort George) to attract development. Vogt and Gamble (2010) further problematize this struggle, illustrating a host of coercive tactics the railway deployed to secure the acquisition of property to accommodate their plan on lands wrested from the Lheildi T'enneh First Nation's Indian reserve allotment.

As the Province and resource industries sought to capitalize on the natural resources of the region, aspirations of growth following the Second World War drove the City to secure its place as the regional service centre for resource development. In British Columbia (BC), as elsewhere, there was a massive expansion of highway infrastructure and rapid investment in automobiles (Bradley 2017). Using archival sources and historical land development data, we highlight the role planners and planning thought played in shaping land consumption, growth, and automobile dependence in Prince George. Before doing so, we review two norms of spatial order that were used to rationalize auto-centric growth and design in Prince George and elsewhere. We then present first steps that entrenched a post WWII growth ideology in Prince George's planning regime before exploring the 'big picture' of boundary expansion by the City over the period. We end by examining how the spatial norms of the neighbourhood unit and garden city were deployed to extend and accommodate (both spatially and temporally) this growth ideology.

The suburban spatial order as designed and as built

Two norms of suburban spatial order were formative in realizing the spatial structure of Prince George today. Perry's neighbourhood unit shaped new neighbourhoods built between 1954 and 1981, and Howard's garden city helped to both shape and rationalize a multi-centric sprawling layout underlying planning strategies from the 1970's onward. Both concepts share many of the assumptions/certainties/ideologies of suburbia, although they operate at different scales. In the Prince George context, they were also applied at different periods through the work of different planners, as we discuss later.

The garden city concept was first presented by Ebenezer Howard in his 1898 book *To-morrow: A Peaceful Path to Real Reform*. The impact of the garden city concept on planning and urban development is well recognized, although it is worth noting that its implementation has strayed considerably from the original vision (Aalen 1992; Clark 2003; Hardy 1992; Lewis 2015; March 2004; Ulmer 2018). Influenced by reformist thinking, Howard was primarily concerned with social ideals; the spatial organization of the garden city being somewhat secondary (March 2004; Ward 1992). These social ideals included *inter alia* the collective ownership of land, reinvestment of profits from land conversion to support robust public services, and promotion of a healthy relationship between residents and their natural surroundings (Hardy 1992; Lewis 2015; Ulmer 2018).

Due in part to the growing involvement of a business class less interested in social reforms, the physical features of the garden city concept began to take priority as early as the planning for the first garden city at Letchworth (Ward 1992). Howard was a director for Letchworth but was marginalized early in the project over conflicts with other directors. As Clark (2003) describes, Howard's vision of a city created for its potential residents clashed with obligations others held toward project shareholders. Famously, the physical aspects of the first garden city were also not left for Howard to decide and were instead vested with the architects Barry Parker and Raymond Unwin (Lewis 2015; Livesey 2016; March 2004). Tensions between social goals and environmental design and quality persisted, and Aalen (1992, 28) provides a concise, if not biting, summary of the extent to which spatial planning prevailed: "[I]t is the practical dimensions of [Howard's] work that have been emphasized, while the vital socio-political ideals were barely understood, much less put into effect".

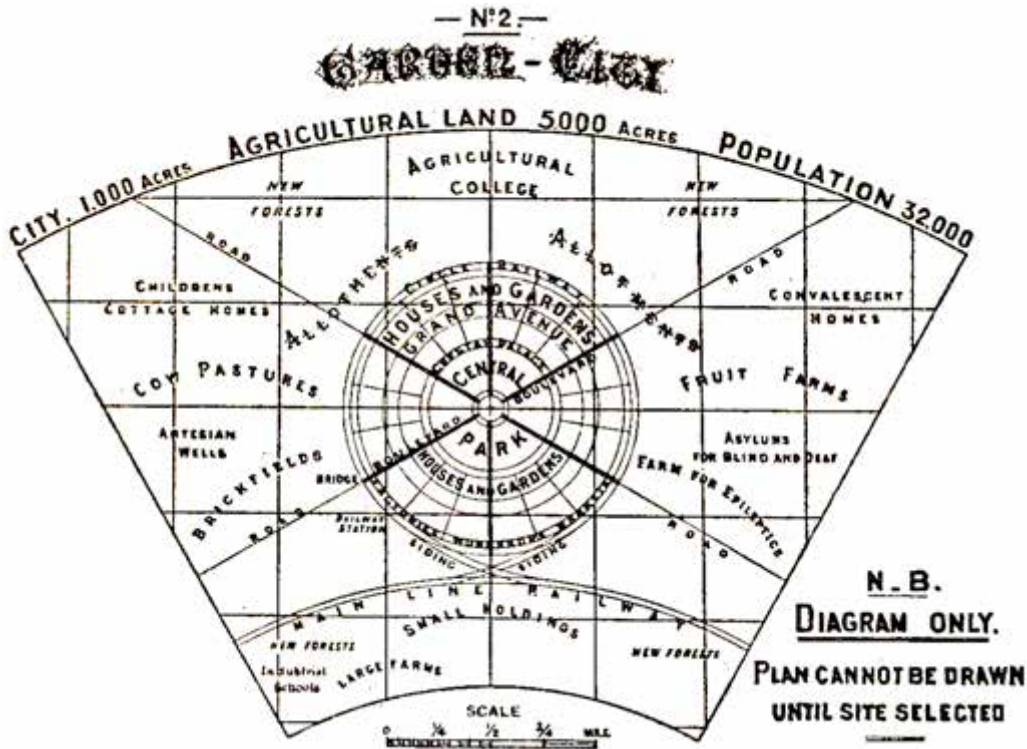


Figure 1: Garden city diagram (Source: Public Domain Wikimedia Commons).

As the garden city diagram in Figure 1 illustrates, the design of the garden city sought to connect the population to healthier natural surroundings while repopulating rural areas to ease the burden of London's population growth (Rockey 1983; March 2004). Fully realized, a 'social city' was to be a network of small scale, decentralized garden cities, each with a central settlement node housing up to twice the population of surrounding nodes. Each garden city in this network was to hold 30,000 residents in its core and 2,000 more in surrounding agricultural estates (Hardy 1992; Ward 1992). The rural agricultural landscape accommodating the network of settlements was to contribute to the livelihoods of garden city residents, a revitalized rural economy, and the sustenance needs of a growing region. Along with tree-lined streets and the provision of public gardens and parks within the settlement boundary, at the edge of the city an agricultural belt provided a space for recreation and a fixed boundary to contain outward growth of the urban area (Aalen 1992; Clark 2003).

Ogilvy (1968) discusses the implementation of the garden city concept as an aspiration to create self-contained communities. Self-containment in Ogilvy's view referred to the provision of a full suite of urban functions (e.g., employment, affordable housing, commerce, etc.) within a defined area, but also the ability for residents to pursue all aspects of a fulfilled life within the community boundary. Accordingly, land use across the wards that were defined in Howard's graphic of a circular city with six intersecting boulevards was to be carefully balanced through zoning. Public services and opportunities for commerce were afforded in a core area, surrounded by concentric belts of residential land that culminated in an outer ring of industrial use connected by a rail corridor (Aalens 1992). The relatively small scale of the garden city meant that residents would have access to the rural landscape and the clean air, pastoral views, and moral healthfulness and simplicity it was understood to provide (Ogilvy 1968).

The second norm of spatial order relevant to understanding post-WWII growth in Prince George is Clarence Perry's neighbourhood unit. The neighbourhood unit concept is typically attributed to Clarence Perry, with its most recognized form emerging in 1929 as part of New York City's regional planning process (Patricios, 2002). Although affixed within the planning cannon, both Talen (2017) and Johnson (2002) challenge the veracity of this story, recounting evidence that formulations substantially akin to Perry's concept were submitted to a design competition hosted by the City Club of Chicago in 1912.

Indeed, Johnson (2002) discusses in detail architect William E. Drummond's entry to this competition, labelled *Neighbourhood Unit*, and goes on to argue that Perry's formulation over a decade later was an appropriation of this original work.

Despite the more varied origins of the neighbourhood unit concept than are sometimes recognized, there is little doubt that Perry popularized contemporary ideas about neighbourhood planning in use by scholars and practitioners at the time (Talen 2017). As Mumford (1954, 262) notes, Perry's work "had a dramatic value in crystallizing many diffuse efforts". These efforts were influenced by social reformers like John Dewey and Robert Park and included a push to plan cities on a neighbourhood scale to address crowding, sanitation, and corruption in the industrial city. Neighbourliness, community, and safety became pillars in the foundation of new physical formulations of neighbourhood structure and function, while principles of scientific management became a counterpoint to a perceived ineffectiveness and immorality within the waning city beautiful movement (Banerjee & Baer 1984; Grant 1997).

The neighbourhood unit would become a ubiquitous model for realizing planned residential environments en masse, seeking to reinforce in physical form sociological theories of neighbourhood and community connection and identity. This included work from Roderick McKenzie identifying two *essential ingredients* of a neighbourhood: geographic proximity to a defining object and the intimate association of people living in proximity to one another. More centrally, Perry's formulation drew on Charles H. Cooley's description of a *primary group*. The primary group was a network of face-to-face interactions and exchanges among family, children, and close relations that served as a heart of a community and informed most directly one's social world and ideals (Banerjee & Baer 1984).

As a model for spatial planning, Perry's neighbourhood unit was designed to fulfill the functional needs of education, commerce, security, and identity for a population of 1000 families, or 5000 people (Grant 1997; Talen 2017). In addition to a *size* that would be defined by a population large enough to support a school, arterial roads formed *boundaries* that would direct vehicular traffic around (rather than through) the neighbourhood. An interior *open space* network served the need for recreational park space, and *institutional sites* like a school anchored the centre of the neighbourhood unit. Finally, *local shops* provided opportunities for commerce on the periphery at major transportation intersections; intentionally sited away from an *internal street system* designed to further dissuade through traffic (Banerjee & Baer 1984).

In addition to following clearly defined spatial prescriptions, neighbourhood units were to be linked together in a cellular design to plan for large areas with relative ease and efficiency (Johnson 2002). Although often understood through the motivation to provide self-containment, each neighbourhood unit can also be viewed as part of the broader function of a designed urban system that resists a centralization of urban services that might hollow out recreation, shopping, and educational opportunities at a neighbourhood level. As Mumford (1954) notes, the function of neighbourhood planning was met with a mix of welcome acceptance, and open critique regarding the potential reproduction of racial, cultural, and economic segregation. Indeed, as Erickson and Highsmith (2018, 12) document, Perry acknowledged that the use of his neighbourhood formula would likely reproduce homogenous grouping processes, "speaking more favourably than critically of separation" and the role of homogeneity as a foundations for shared community consciousness.

As Table 1 below summarizes, the garden city and neighbourhood unit are fundamental spatial concepts whose norms were translated into automobile-oriented neighbourhoods across North America. This includes a tremendous influence in accommodating growth and consumptivity in Prince George during the period of the Great Acceleration, as we now explore.

Table 1: Norms of spatial order.

Spatial Norms as Designed		
	<i>Garden City</i>	<i>Neighbourhood Unit</i>
Origin	1898	1929
Tradition	Social reform	Scientific rationality
Scale	Metropolitan / organism	Neighbourhood / cell
Role of neighbourhoods	Social/educational/arts	Domestic community around a school
Pedestrian walkability	Walkable city proximate to rural landscape	Access to services within neighbourhood walking catchment
Spatial relationships	residents and nature/residents and work/services and education	residents and school/neighbourhood services
Spatial Norms as Built		
	<i>Garden City</i>	<i>Neighbourhood Unit</i>
Concept + automobility	Residential-use suburbs with some services connected by highways to work and to city	Residential-use neighbourhoods without throughways and schools at the centre
Rationale	Multicentric growth and development	Scientific rationality and development
Scale	Metropolitan and suburb	Neighbourhood
Role of neighbourhoods	Residential with services	Physical community around a school
Pedestrian walkability	Access to nature	Walking routes to schools

First steps toward a post WWII growth ideology in Prince George

In Prince George, municipal policy relating urban form to growth came into place immediately following the close of the Second World War. By June of 1946, City Council approved a plan and associated zoning policy prepared by J.H. Doughty-Davies, a civil engineer with the Regional Planning Division of the Bureau of Post-war Rehabilitation and Reconstruction (Prince George Citizen, 1946). The vision of the plan was “[t]o provide healthful, safe and satisfying living environments for all individuals and families” (Doughty-Davies, 1946, 1). In this vision, Doughty-Davies reflected at a local level contemporary discourse surrounding the spatial norms of the garden city and neighbourhood unit. At a broader scale, with a population² of less than 5,000 at the time, his newly produced vision and supporting ideas about zoning also meshed well with a desire on the part of Provincial leaders and resource companies to capitalize on the opportunities to expand resource development and extraction in the northern half of the Province (Markey et al. 2008).

As part of the Provincial support for land privatization, the Province undertook surveys and had defined a grid of lots and road allowances in Prince George. The spatial pattern proposed was consistent with both the land layouts done by surveyors and the Crown in the period from 1875-1946, as well as the use of the grid to expedite land development in rail communities across Western Canada (Gilpin 1992; Leonard 1984). Originally, most of the lands that came to make up Prince George had been converted from Provincial to private title for agricultural development in large blocks, but some of these lands the Province had already subdivided in parcel grid. Significant areas west of the original Central Fort George settlement area would ultimately be built out according to prescriptions of the neighbourhood unit (instead of the Province’s grid), but the aspirations for urban expansion were clear.

The Province’s role in planning Prince George was part of a clear growth ideology evolving around the vision for the city in the postwar period. Prince George’s 1946 community plan and its zoning policies were justified on ² Rutherford (1994) reports population data for Prince George from the 1961 Census. In 1941, the population was 2,027, and in 1951 the population was 4,703.

what Doughty-Davies (1946) described as two *important considerations*. The first was accommodating growth to a minimum population of 8,000 people. The second was accommodating, through the design of the city, the expectation that Prince George would become a freight and service hub for northern BC. This vision for a northern hub placed Prince George at the centre of not only an east-west train corridor connecting Prince Rupert to Winnipeg and Chicago, but also on a north-south axis that relied increasingly on a nascent highway network (Bradley, 2017). Reflecting on experiences from the United States, Doughty-Davies (1946, 1) described the need to allow for “[w]hat would have been regarded as monstrous vehicles and loads a few years ago”.

Prince George’s function as a freight and service hub for the north was rationalized in the 1946 community plan in numerous ways. A street plan called for designs that would minimize the use of right angle turns, as well as the strategic acquisition of lots along the east side of a main artery (Vancouver Street) to accommodate a widening of the street to 100’. Along with a zoning plan (see Figure 3) that established six land use designations, the community plan leveraged the rhetoric of community safety and the logic of separation to create the discursive and ultimately physical space for growth in freight and service functions. Notably, the Doughty-Davies discussed the importance of open space to afford children’s play, relating preferred sites to the provision of safe family areas located away from high volume traffic corridors. While Doughty-Davies policies and vision spoke to the preferred structure and function of a future city, the most important role of his plan was to reinforce a growth ideology that would become a throughline for planning in Prince George for decades.

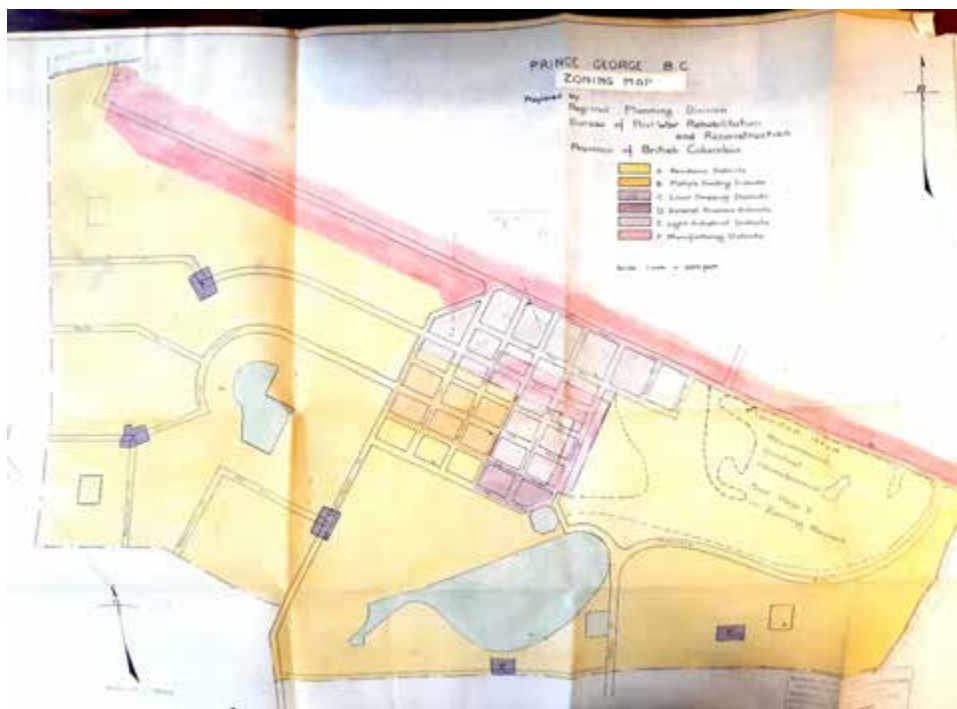


Figure 2: 1946 zoning map for the City of Prince George (Source: Northern BC Archives).

An era of boundary expansions in British Columbia’s northern capital

Bolstered by the growth of a regional resource economy and its increasing function as a service hub for northern BC, a vision for post WWII urban expansion in Prince George would be largely realized by end of the 1970s. During this time, the City was an active partner with the Province in expanding its settlement boundaries. The Provincial postwar land policy for urban growth emphasized expanding the boundaries of municipal jurisdiction, and the City of Prince George seized this opportunity to grow the land area under its control.

The map shown as Figure 4 below identifies boundary expansions beginning in 1953 and ending in 1979, illustrating the extent and pattern of annexation of land into the city. The area shown in the 1946 zoning plan (see Figure 3 above) falls within central grey area depicted in Figure 4 below. Through the 1950's two boundary expansions added 1508.2 ha of land and water extending west and southwest from the area discussed by Doughty-Davies only a few years earlier in 1946.

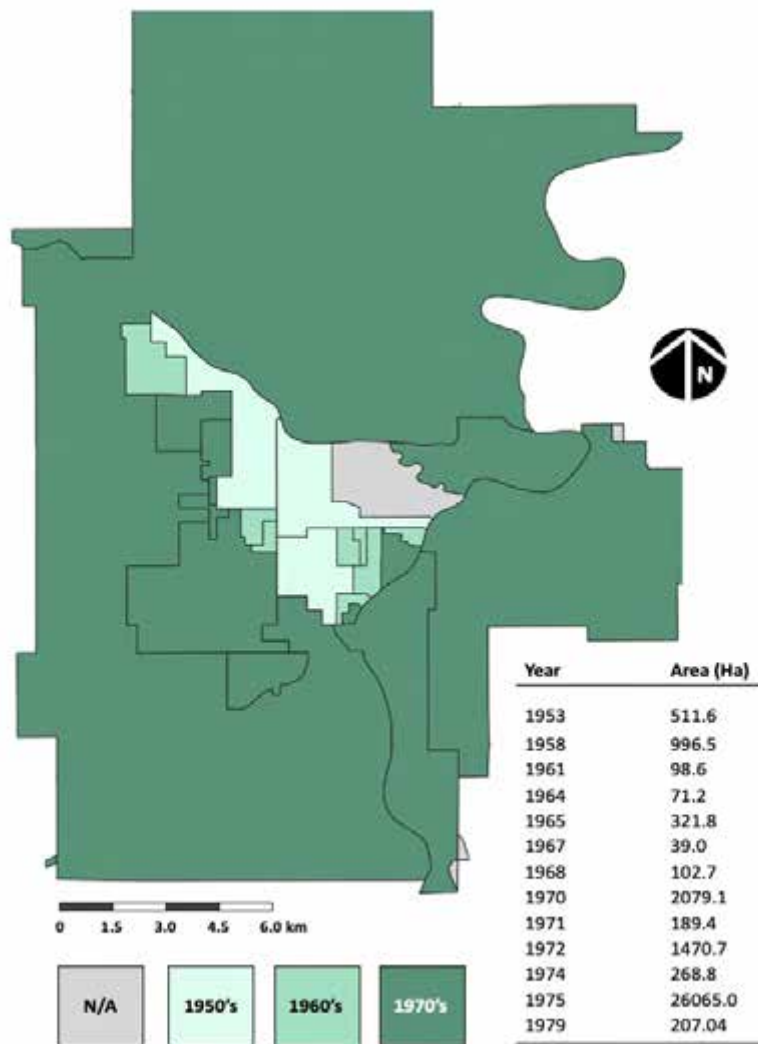


Figure 3: Boundary expansions between 1946 and 1981 in the City of Prince George (Source: City of Prince George OpenData Portal – created by lead author).

In the first boundary expansion in 1953, the City acquired responsibility for the financing and provision of utility services in the new area, placing a direct financial constraint on potential future development. Before the second boundary expansion, the City had negotiated with the Province an ownership transfer of 25% of the remaining Crown land in the expanded area (Trick 1988). While this transfer did not take place until the land met the conditions of use under Land Act regulation (BC Department of Lands, Forests, and Water 1974, 18), through this negotiation the City accessed important new tools to finance the infrastructure required to support ongoing expansion. Ultimately the City became a land developer and regulator. Each boundary expansion from 1958 onward resulted in the potential for the City to develop and sell parcels. Over the next decade an additional eleven boundary expansions would bring 26,698.3 ha of land into their jurisdiction.

As Meligrana (2003) discusses, land annexations in BC during the post-WWII period placed greater importance on the social contract with local communities than concerns for a coordinated planning vision for the spatial or governance arrangements of the province's growing regions. Up until the mid-1970s, annexation required support from a majority of landowners in the area to be annexed, but by the mid 1970s this shifted to a majority support of residents in the incorporated and unincorporated areas.

Building out Prince George's neighbourhood units

With land and financial inputs for the expansion of Prince George supported through annexation and novel financing pathways, a growing city required a spatial norm to plan for, attract, and accommodate settlers in an expanding regional resource economy. In Prince George, the neighbourhood unit served this need. Prescriptions associated with the neighbourhood unit were present in the local policy discourse as early as Doughty-Davies' 1946 community plan. While not in full or by name, Doughty-Davies drew on rhetoric familiar to the neighbourhood unit. He discussed safety at some length to support proposed siting for children's play areas within their neighbourhoods such that "no child has to go more than one quarter of a mile nor cross a main traffic street to reach it" (Doughty-Davies 1946, 3). Consistent with the scientific rationality of the neighbourhood unit, he also singled out standards for the appropriate provision of school services. Allowing for an average ratio of adults to children appropriate to the period and an expected population of 8,000 people, each child was to be afforded 100 square feet of play space proximate to their school.

Early nods to the neighbourhood unit notwithstanding, full implementation of this spatial norm would lag the sequence of boundary expansions that began in 1953. By applying the planning elements³ summarized by Banerjee and Baer (1984) to openGIS data for Prince George's street network and zoning data (and cross referencing these against land use plans from 1969 and 1978), we identify twelve neighbourhoods that were substantially or fully built out according to the neighbourhood unit (see supplementary material). A review of all registered plans of subdivision and strata plans within these areas of the city shows the implementation of neighbourhood units through land development began between 1956 and 1960 and persisted through 1981 (BC LTSA, 2022).

The implementation of the neighbourhood unit accommodated the growth of Prince George's built-up area as the city expanded in all directions, often with new developments leapfrogging into recently incorporated areas of the city. From 1956 to 1981, over 5000 new residential parcels were established within areas that would be built out according to neighbourhood unit principles. The pace of subdivision into these residential areas peaked from 1971-1975, ultimately comprising 16.2% of the City's total parcel fabric (see Table 2).

While we were interested in the possible role the City played in processes of place branding that are increasingly scrutinized within the field of placemaking (see for instance Masuda & Bookman 2018), available archival sources revealed little evidence of this function. One caveat to this is a promotional brochure produced by the City in 1970 (City of Prince George 1970). The document features the city's high rate of growth and its industries, projecting this state into the future. For each of the main resource industries including forestry, forest products, and mining and minerals, the document paints a bright future. The emphasis is almost completely on economic prosperity and business growth, with almost no mention of the city as a place to live, with one notable exception. Affordable serviced lots available in "planned neighbourhood units".

Illustrative of the aspirations for further growth and development, the footprint of Prince George as built according to the neighbourhood unit ultimately could have been much larger if not for the fact that population growth and land subdivision began to subside by the early 1980s. As dispersed as Prince George's built-up area became, a 1978 land use plan includes a far more extensive network of arterial and collector roads expanding into the urban-rural interface (Schaber 1978). Reflective of Perry's concept, outlying areas in Prince George were to comprise neighbourhoods identified on the land use plan by a proposed set of intersecting arterial roads and a symbol representing a school at the centre of each newly bounded area.

³ Banerjee and Baer (1984) identify a combination of the following elements as characteristic of the implementation of the neighbourhood unit: *size, boundaries, open space, institutional sites, local shops, internal street networks*.

Table 2: Land subdivision within Prince George's completed neighbourhood units.

Date Range	Parcels Created	*Proportion of Parcels Created	*Area Subdivided (Ha)
1956 - 1960	312	1.0%	41.77
1961 - 1965	607	1.9%	79.88
1966 - 1970	1231	3.8%	150.60
1971 - 1975	2161	6.6%	219.46
1976 - 1981	963	2.9%	124.72

* Proportions based on total number of active parcels in City of Prince George open GIS parcel fabric layer as of June 2022. Total land and water area calculated from City of Prince George open GIS boundary layer.

Rationalizing continued growth through a garden city master plan

The post WWII growth ideology that was built in part through Doughty-Davies 1946 community plan and subsequent land transactions between the City and Province intersected with the neighbourhood unit concept as early as the 1950s. It would be two decades later that garden city planning would play a similar role. Led by Chander Suri, then Director of Planning for the Regional District of Fraser Fort George, a Proposed Master Plan from 1971 documents a planning concept for accommodating future growth across the landscape increasing within the City's jurisdiction (see Figure 4). Reflective of Howard's vision of town and country harmony, Suri drew on surveys of the local population to support a vision that "will take advantage of the natural character of the area by combining both rural and urban elements to create urban units within rural settings" (Suri 1971, 3). To actualize this vision, the concept identified the city as a *centre of urbanity* housing a population of 175,000 to 200,000, and a network of three *satellite towns* ranging in size in size from 50,000 to 90,000 people.

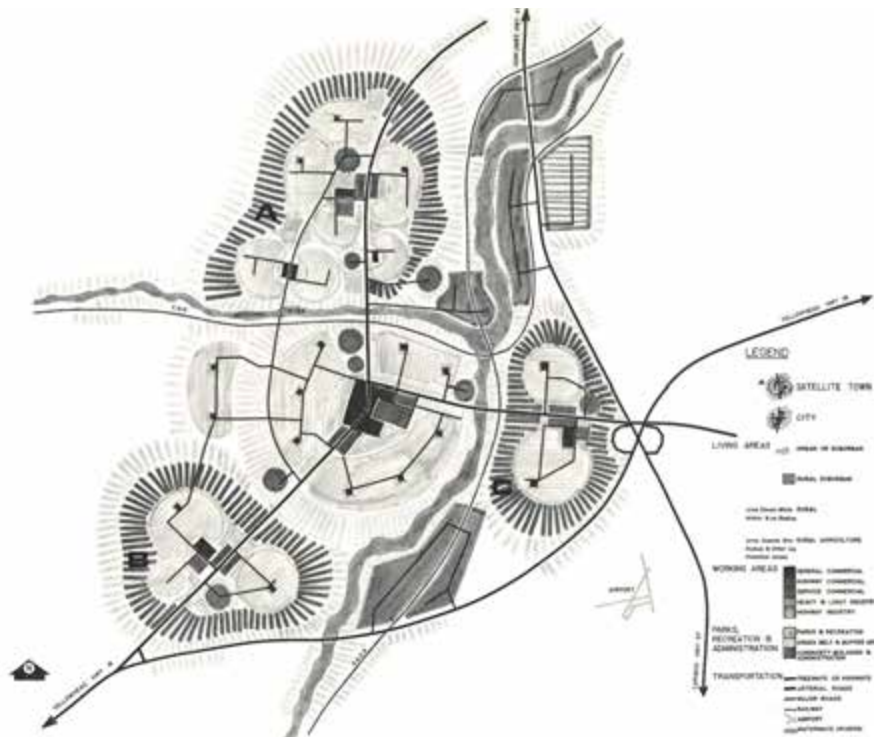


Figure 4: Greater Prince George Planning Concept from 1971 Proposed Master Plan (Source: Regional District of Fraser Fort George – Reproduced with permission)

The pace of population growth present in the two decades following the close of the Second World War would falter and ultimately stagnate by the early 1980s, but continued expectations and aspirations for growth are evident throughout the Suri plan. While focused on a detailed set of objectives and policies for building out satellite town A north of the city's original urban core, Suri articulated a broader vision for the Greater Prince George area. This vision drew directly on many of the garden city's spatial prescriptions. *The city and each satellite town were to be surrounded by a green belt, with additional separation provided by the Nechako and Fraser Rivers in the case of satellite town A and C.*

Within Suri's vision Greenways were to play a role as *containment areas*, while simultaneously supporting values like intensive recreation and engagement of citizens in forest reserve management. Although falling short of the collective ownership Howard envisioned (Hardy 1992; Lewis 2014; Ulmer 2018), the goal to create forest reserves managed with direct input from local citizenry sought to capture aspirations to secure an enduring public good through spatial planning and land management. The plan articulates this as the need to foster "a spirit of participation and appreciation by the local people toward preservation and management of the forest resources in the region" (Suri 1975, 25).

In addition to the function of the greenway system, an open space hierarchy was developed in response to trends in mobility, income, population, and leisure time. The sequence of open spaces would afford connection to nature, including pedestrian access from homes to private green spaces, playgrounds, local parks, and town parks. Access to regional parks was to require a vehicle. Like Doughty-Davies standards for youth play areas, planning standards for green space provision left questions of environmental quality and human health and well-being unexamined, focusing instead on quantitative relationships between population and land provision.⁴

Set within the context of two decades of economic and population growth and an era where planning thought was increasingly permissive toward growth (Chapin 2012; Filion 2009), it is perhaps not surprising that Suri would contribute to an ongoing growth ideology. Although the Proposed Master Plan and supporting summary do not address the use of common practices to address uncertainty, like building multiple scenarios with varying assumptions, Prince George's garden city concept was informed by a population projection signaling continuous, vigorous growth. Within the boundaries of the contemporary City, projections estimated population growth from 32,629 in 1971 to 150,460 in 2001. Within each of the surrounding electoral areas, population growth ranging from 21,509 to 118,670 was projected over the same period. Based on this expected growth, the planning concept for Greater Prince George depicted in Figure 4 was developed to "accommodate a population of over ½ million people (580,000)" (Suri 1975 29).

To create a plan for meeting the demand for services and consumption of such a rapidly growing population, Suri again turned to garden city principles to develop a networked hierarchy of commercial urban functions. A *downtown or central core* was to meet the specialized shopping needs of 100,000 to 250,000 people, with direct transportation connections to three outlying satellite towns. In turn, each satellite town would be serviced by three connected commercial districts: a *town centre* with at least 225,000 ft² of commercial space; a *town sub-centre* providing 95,000 ft² of space for *convenience goods and services*; and a *neighbourhood centre* of 32,000 ft² of space meeting *day to day* shopping needs and minor personal services (Suri 1971).

Conclusion

On May 20th, 1975, Prince George City Council was presented with a range of options for future growth. Of the four options presented, "Council approved the option of **growth in all directions**" (Suri 1975, 1 - **emphasis added**). Far from unique, this decision was one of myriad made during the decades following the Second World War that contributed to the transformation of cities across North America.

⁴ The open space standards in the Proposed Master Plan were related to population. Regional Parks – 2.5 to 13 acres per 1000 people; Town Parks – 2.5 to 4.5 acres per 1000 people; Community Parks – 1.5 to 2.5 acres per 1000 people; Golf Courses – 18 holes per 40,000 people; Neighbourhood Parks – 2 acres per 1000 people.

Driven by similar growth ideologies and growing affluence sparked by a massive rise in consumer goods ranging from household appliances to automobiles, cities sprawled outwards to accommodate booming populations (Belisle 2011; Bradley 2017; Filion et al., 2016; Owram 1997). Described by Filion (2015) as *dispersed suburbanism*, the postwar development pattern that accommodated this growth committed North American cities to an urban form and function dominated by low-density development, functional land-use specialization, separation of activities, and auto-dominated forms of mobility.

The negative human health (e.g., sedentary lifestyles) and environmental (e.g., greenhouse gas production) consequences that were embedded in North America's post WWII urban landscape are now well established (Chapin 2012; Girardet 2020; Rees 2018), but are often understood within a limited historical context, especially in Canada's urban north. Under the banners of resilience, sustainable development, and new urbanism (among many others), the planning profession continues to mobilize a response to address its contribution to growing global environmental issues like climate change and biodiversity loss. To succeed in this endeavour, the profession must not only advance new spatial norms for sustainable urban development. It must also take stock of the historical forces that coalesced during the period of the Great Acceleration that continue to shape present social-ecological crises (Castree 2017; O'Brien & Lousley 2017).

This research contributes to this necessary stock take by examining how planning thought, planning practitioners, development processes, and financial mechanisms coalesced from 1946 to 1981 to realize the resource consumptive urban expansion of Prince George, BC. Like a growing number of scholars (see de Baro 2022 for a recent example), we sought to situate the local and regional processes of urban planning and land development in closer proximity to global scale discourses about the Anthropocene and Great Acceleration. We did so by examining how the spatial norms of the garden city and neighbourhood unit were converted between 1946 and 1981 to facilitate growth and automobility.

Like other cities in western Canada, most of the growth in the city of Prince George took place while the spatial norms of the garden city and neighbourhood unit were dominant. The influence of other norms, namely the application city beautiful and the urban grid, have been placed within a historical context in northern cities like Prince George (Leonard 1984; Sedgwick 2010). Much of this scholarship examines the establishment of early settlements near the turn of the century, and our focus on post WWII urban planning in BC's northern capital offers new insights into the multiple waves of planning thought that were deployed to build the urban north.

Although nascent, the pattern of land annexation and the roles of the City and Province in these processes represents potential evidence of the type of urban growth coalition dynamics heavily scrutinized in metropolitan contexts, but understudied in the urban north. Further study is required to better understand these dynamics, but the present examination of Prince George helps us to understand the extent to which planning thought could lend itself to – or was mobilized in support of – a growth ideology. In this case, planners helped to promote growth, to rationalize growth, and to invest in growth. At the height of the Great Acceleration, City Council adopted a policy of unconstrained expansion within its available boundary and an urban structure designed to support a population that has yet to arrive over 50 years later.

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