

From Kitimat to Tumbler Ridge: A Crucial Lesson Not Learned in Resource-Town Planning

Greg Halseth

Geography Program, University of Northern British Columbia
Prince George, British Columbia V2N 4Z9
E-mail: halseth@unbc.ca

Lana Sullivan

BC Centre of Excellence for Women's Health
Vancouver, British Columbia V6H 3N1
E-mail: lsullivan@cw.bc.ca

Resource dependent towns have been a part of the western Canadian urban landscape for more than a century. From Hussar to Hudsons Hope, and from Peace River to Gold River, in many cases these towns were developed by a single firm or industry to provide a focal point for local extraction and processing operations, as well as to house the needed workforce. But why do so many post-World War II resource towns share such similar townsite plans? And, why have they almost always faced similar forms of economic devastation? Despite considerable attention to "best practices" in town planning and development, even the newest of these towns face familiar concerns over booms and busts and ongoing economic vulnerability. This paper draws especially upon the case of Kitimat, BC and compares it to such later resource towns as Mackenzie and Tumbler Ridge. The purpose is to identify which of the early planning lessons have been forgotten and whether this may have some explanatory value in why "crisis" remains the watchword of so many such towns.

Introduction

“Single-industry communities,” “company towns,” “resource-based towns,” and “instant towns” are a common part of the Canadian landscape (Lucas, 1971; Berry, *et al.*, 1975; Department of Regional Economic Expansion, 1979; Bowles, 1982; Marchuk, 1983; Clemenson, 1992; Randall and Ironside, 1996). These towns generally share an economic orientation on a single-industry and their economies are overwhelmingly natural resource-dependent, with the result that they suffer with the fluctuating global demands and prices for their resource commodity (Friedman, 1970; Bradbury, 1988). In many cases, these places were developed by a single firm or industry to provide a focal point for local extraction, supply, or processing operations, as well as to house the needed workforce. But why do so many post-World War II resource towns share such similar townsite plans? And, why have they almost always faced similar forms of economic devastation? To explore these questions, this paper examines the planning foundations of Kitimat, BC and compares them to the later resource towns of Mackenzie and Tumbler Ridge. The purpose is to identify which of the early planning lessons may have been forgotten, why such a narrow economic orientation often persists, and whether these may have some explanatory value in why ‘crisis’ remains the watchword of so many such towns.

Following an introduction to resource town planning, and the inherent instability of single resource dependence, the paper introduces Clarence Stein’s vision for Kitimat, British Columbia. The design and planning principles for the more recent “instant towns” of Mackenzie and Tumbler Ridge are then reviewed against key aspects of Stein’s Kitimat plan. Together, the examples suggest that the foundations of current economic development crises were clearly grounded in the original implementation of planning designs for both Mackenzie and Tumbler Ridge, and that the imperatives driving a staples economy continue to hamper attempts at local diversification.

Planning Resource Towns

There are many different types of resource-based settlements. These range from transient work camps for labourers to fully developed permanent towns of up to 30,000 people. As Pribble (1984) argues, the quality and form the settlement takes will depend upon its expected lifespan; where a short term develop-

ment will simply provide the basic requirements, a long term settlement must have available a higher quality of housing, facilities, and amenities to attract permanent residents and workers (Robinson, 1962; Himelfarb, 1977; Robinson and Fletcher, 1977).

McCann (1978) has argued that early resource boom towns were not planned. Stories from Cobalt, Ontario (Angus and Griffin, 1996) to Rossland, BC (Mouat, 1995) all attest to the chaos, and mud, of these boom towns. Hart (1998, p. 42) has captured some sense of this chaos from mining towns in the United States, where:

workers flock in to seek their fortunes, and a sea of tents or shacks or trailers spring up almost overnight. The local people, if indeed there are any, are outnumbered and overwhelmed by the rough-and-ready newcomers, mostly husky, boisterous, single young men with few inhibitions. There are few jobs for women.

Such towns were simply thrown together out of the need for workers to be accommodated during the various phases of industrial development. Yet, the need to retain a stable workforce after the excitement of "boom times" meant that this chaotic situation could not persist and Canadian resource towns slowly became more orderly.

The planning of isolated resource-dependent towns in Canada has changed considerably since the start of the twentieth century. One suggested historic sequence or evolution of resource towns has included sleep camps, planned communities, designed communities, fly-in/fly-out worksites, and temporary communities (Parker, 1963; Detomasi, 1997; Ennals and Holdsworth, 1998). In this evolution, employers were driven by a need to create a liveable environment for the workers and their families, while at the same time, keeping all non-production costs for the company as low as possible.

Building upon the idea of an historic sequence of settlement types, Bowles (1992) has provided a useful characterization of changing strategies in Canadian resource town planning. He suggests that the development and management of purpose built resource towns has moved through three general eras or stages. In the first stage, common into the 1920s, a process which he describes as "additive planning" was in place. Simply put, additive planning meant that the construction and operation of the company town was simply added to the routine duties of the mill or mine manager. In company towns such as Anyox, BC, the mine supplied not just the work but also owned the houses, ran the water and sewer systems, paid for the school, hired the teachers, and ran the grocery

and hardware stores (Loudon, 1992). Much of this was, of course, done with attention to keeping company costs at a minimum. Such company towns were a common feature of early development along the Canadian resource frontier.

In company towns, however, the mine or mill managers were often ill-equipped to manage the townsites (Bedics and Doelker, 1992). Their duties demanded that they focus on the industrial complex which, after all, was the very reason that the town existed. In addition, residents and workers began to resist the idea that the company should play such a dominating role in all aspects of their lives. Unions also provided a mechanism to fight for worker rights (Bradbury, 1993). Partly as a result of these pressures, a movement away from additive planning began. Between the two World Wars, Bowles (1992) suggests that a more "holistic" approach to resource town planning developed. The idea was to create self-contained towns with more attention to site planning. It quickly became, as Hodge (1991, p. 59) describes, an imperative for resource companies "in Canadian frontier areas to build liveable communities to attract and hold their labour force".

The holistic approach drew heavily upon basic land use planning principles such as a separation of residential from industrial areas, and townsites designed to fit local topography. As Porteous (1987, p. 384) suggests, "pre-war bunkhouse 'sleep camps', occupied largely by single males, were replaced by larger villages with a less ill-balanced population". Housing located immediately adjacent to smelters or mine pits was replaced with residential areas more removed from the pollution and noise of industry. The benefits of simple site planning ideas could create a much more attractive and pleasant place for workers' families to live (Anderson, 1982; Bates, 1983).

Whether the holistic planning stage was in fact a distinct stage, or simply a transitional period, is open to debate. The greater attention paid to community design and the benefits it brought to both company and worker did, however, lead to what Bowles (1992) would later call the "comprehensive" stage of resource town planning. The goal of comprehensive planning is grounded in efforts to incorporate a broader range of social and economic considerations into town development. Community health, quality of life, and social well-being were now to be part of the design criteria. Comprehensively planned towns were "designed largely to remove companies from town control, to stimulate popular local government organization, and thus the provision of urban services,

and to foster an atmosphere of permanence" (Porteous, 1970, p. 318).

A recent study by Halseth (1999) reported that people are attracted to these towns "for the work". Yet, it is also clear that not all of these people stay (Halseth, 1999; Hayter, 1979), and that the structure of resource industry work is changing (Barnes and Hayter, 1997; Mackenzie and Norcliffe, 1997). A further trend has been the decoupling of home and work (Miron, 1988). Bone (1992) examines how these trends have intersected specific reference to "fly-in/fly-out" mining operations in northern Saskatchewan (see also Gagnon, 1992; Keyes, 1992; McTiernan, 1999). Similarly, Storey and Shrimpton (1989) look at the process of "long distance labour commuting" in the Canadian mining industry. This includes not just "fly-in/fly-out" options, but a range of other commuting mechanisms as well. Long distance labour commuting has been represented as an attractive alternative for some companies as it relieves them of the substantial costs of building and operating resource towns which might have only a limited life span.

As noted by McRae (1970), the concept of the comprehensively planned community was an ideal substitute for traditional company towns as, by the early 1950s, expectations of workers had changed due to the need for skilled workers to operate increasingly advanced technology. While Mackenzie and Tumbler Ridge were developed with these broad comprehensive planning ideas in mind, one of the earliest and most prominent examples of this approach is Kitimat, BC.

Kitimat

The townsite of Kitimat (Figure 1) was created in the early 1950s for the Aluminum Company of Canada's (ALCAN) new smelter facility (Robinson, 1962; Hodge, 1991). The principles behind the design of Kitimat were threefold (Figure 2). The first of these concerned the use of site planning principles to separate land uses. This meant grouping uses such as residential and commercial, and separating uses such as industrial from residential. The second concerned the use of neighbourhood design ideas to create functional housing areas. This meant designing for the target population of young families with small children. It also included providing elementary schools, ample parks and playgrounds, and neighbourhood walkways separated from roads. The third concerned the use of economic principles to ensure a greater degree of local diversity. This meant adding other industries or economic sec-

tors so as to avoid the pitfalls of single-industry dependence. These three planning tenets were to support an instant town through its transition into a stable industrial town (Halseth, 1999).

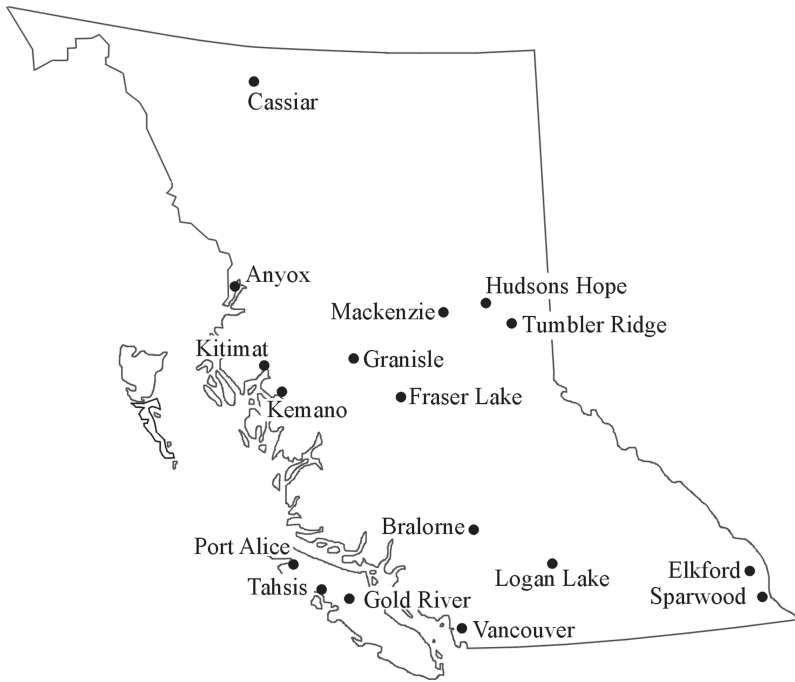


Figure 1 Selected BC Towns

The Kitimat townsite was designed by eminent United States land use planner Clarence Stein. Stein was the founding president of the American Planning Association and world famous for his urban and residential design ideas (Hall, 1988). Stein was experimenting with British “new town” models which included ample green space and drew its inspiration from the “garden city” movement (Clawson and Hall, 1973). He was trying to transport these garden city and new town ideas across the Atlantic Ocean at the same time that North Americans were just beginning their love affair with the automobile (Jackson, 1985). But a remote resource-dependent town would be a very different setting from the British trials at decongesting the urban chaos of the Victorian city.

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- To use site planning principles to separate land uses.
 - To use neighbourhood design ideas to create functional housing areas.
 - To use economic principles to ensure build-in diversity.
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Adapted from Stein, 1952.

Figure 2 Kitimat Design Tenets

Stein's vision for the new townsite blended the economic needs of Alcan to have a stable labour force with the social needs of the families and workers to feel part of a permanent and welcoming community. As Stein (1952, p. 3) argued in the opening of his Kitimat Master Plan:

the purpose of Kitimat is the industrial success of the plant. That success will depend on the degree that workers are content, that they like living in Kitimat. Unless the town can attract and hold industrial workers, there will be continuous turnover and difficulty The workers must find Kitimat more than temporarily acceptable. They must be enthusiastic about it as a particularly fine place in which to live and bring up their families. It must become the place they want as homeland, the town they are going to make their own.

The needs of the company were clearly of prime importance, but they were also keenly intertwined with the needs of the residents.

Stein designed Kitimat so as to accommodate an eventual population of over 50,000 people and an expanded industrial base. While Kitimat has not achieved a population of more than 15,000, it does, however, have a diversified economic base which now includes a pulp and paper mill, a methane-ammonia plant, and a range of service and support industries, in addition to Alcan's expanded facilities.

Stein had become famous for his "Radburn" style residential plan. Named after an affluent suburban neighbourhood he designed, the Radburn concept meant separating people from traffic. His "neighbourhood units" (Hodge, 1991) emphasized the pedestrian, an intricate system of walkways link residential areas with schools and with the central shopping area and recreation

complex. As described by McCann (1978), Kitimat neighbourhoods were designed to be self-contained in terms of service provision, with residential areas focussed upon the school. Streets were laid out so that children could walk safely to school every day. While most of the neighbourhood area eschewed the automobile, the roadways that did exist were set up in a hierarchy of local and collector roads so traffic would be further isolated (Hall, 1988). It was on the new Kitimat townsite that Stein's Radburn neighbourhood ideas could be writ large. The Kitimat plan:

is designed to meet the needs of young and growing families. Its basic principles have been tried out for many years in the Green Towns, plan for children's safety and for peaceful home life. These communities such as Radburn, Greenbelt, Greenhills, ... are all characterized by their open greens - which are public parks and form the central green cores around which flow the life of the neighbourhood community (Stein, 1952, p. 4).

The theme of "young families with children" that pervades Stein's vision was in part an outcome of the post-World War II growth of married households, and the resultant baby boom, and the desire by these households for their own single detached house (Miron, 1988).

While the goals of comprehensive planning centre upon achieving stability, for the industry and the families of workers, their practice has had a rather uncertain result (Blanc, 1990). For example, in a cross-Canada study, Gray (1975) found no clear pattern of residential or worker stability across resource industry sectors and community types. Hayter (1979) examined the critical issue of labour recruitment and turnover during the start-up phase for a number of new pulp mill facilities across north-central British Columbia during the early 1970s. Two of the three places examined were Kitimat and Mackenzie where, despite their post-World War II planning origins, Hayter found significant labour turnover. Within 18 months of startup, the Kitimat mill had lost 55% of employees while the Mackenzie mill had lost approximately 31% (Hayter, 1979). More recently, Gill's (1990, p. 179) work in Tumbler Ridge also highlights how "there are a number of persistent problems which plague resource towns, many related to the high levels of population transience ... which create a high social and economic burden for both the community and the company".

A legacy of Stein's Kitimat plan is that it became a template for new resource town development across Canada. The examples of towns built during the late 1950s through to the 1980s are numer-

ous. They include Elliot Lake, Leaf Rapids, Thompson, Fermont, and in British Columbia alone a host of others that include Gold River, Logan Lake, Elkford, Sparwood, Fraser Lake, Granisle, Tahsis, and more. Yet, in all of these cases, historic cycles of resource boom and bust and encounters with resource exhaustion or substitution have clearly shown that some of the lessons from Kitimat were not learned.

Mackenzie and Tumbler Ridge

During the 1950s and 1960s, British Columbia embarked on an ambitious resource development strategy. While the strategy was multi-faceted, it drew upon the example of the new industrial complex of Kitimat. Massive hydroelectric projects, changes to forest policies which brought in extensive resource tenures, and a massive transportation construction boom were all part of "province building" (Williston and Keller, 1997). In addition to the sweeping policies needed to carry out such large developments, the provincial government also sought a tool to allow quick construction of new towns in remote resource sites. Amendments to the provincial Municipal Act created a mechanism for the creation of "instant towns" by Cabinet Order-In-Council and the issuing of Letters Patent.

The towns of Mackenzie and Tumbler Ridge are both classic "instant towns". While they were created virtually overnight as resource development opportunities opened up, they did not come about in the chaotic fashion of historic gold rush towns. Instead, they are the latest example of a planning legacy. From early "company towns", the planning and development of these instant settlements has changed to the point where considerable effort is now made to create an attractive and diverse community (Robinson, 1962). This is generally thought to be a good idea by both government service providers who hope to minimize the social costs of isolated living, and by the resource companies who anticipate the benefits of a relatively stable workforce. The goal is to develop a strong sense of community which can function between government and industry. The challenge is to achieve this stable civil society within a context of continued vulnerability to global markets.

Mackenzie

The town of Mackenzie is located 200 km north of Prince George. Founded in 1966 in conjunction with a massive hydro-electric project, the Mackenzie townsite was developed to be the processing centre for a new regional forest industry. At present, two large sawmills, a pulp mill facility, and a pulp and paper plant provide nearly all basic sector employment. With a local population of approximately 6,000 people, a small support service and local administration economy has also developed.

Mackenzie was planned and developed by the British Columbia Forest Products (BCFP) company. In early 1964, BCFP announced that it would be spending over \$60 million dollars on a new forest industry complex in northern BC. Newspapers at the time speculated that if the various tree farm licenses were approved, "it will mean the formation of a new townsite in a region which is now bush. This will be somewhere to the north and west of Hudson's Hope" (*Peace River Block News*, 5 February 1964, p. 1). In only three years, that "somewhere" became Mackenzie.

The town was planned and developed using new town principles. Mackenzie, building on lessons from places such as Kitimat, was created to support a transition from instant town to viable community. As summarized by Veemes (1985, p. 35), "although Mackenzie was founded by BCFP it was not intended to be a company town". The houses were meant to be privately owned by the work force, and both the town and the houses were to be of a standard that would attract a skilled workforce to come and to stay. Long driveways, low density housing, and large distances between homes and stores or services, however, proved less than well suited to the heavy snowfalls experienced in Mackenzie. The design problems of transplanting a suburban, southern Canadian, residential landscape into a northern location is dramatically shown in the National Film Board's (1979) "No Life for a Woman". Locally, this is a controversial film as many long-time residents suggest that the film-maker just talked with women who supported her preconceived notions.

The Mackenzie townsite shares two of the basic tenets of Stein's Kitimat plan. First, the industrial base is located well removed from the townsite (Figure 3). The main sawmill and pulp mill facilities are located along the Williston Lake Reservoir shoreline. They are well serviced by road and rail lines, and are surrounded by both light and heavy industrial parks where support

industries have developed. The townsite, in contrast, is located on higher ground adjacent to Morfee Lake.

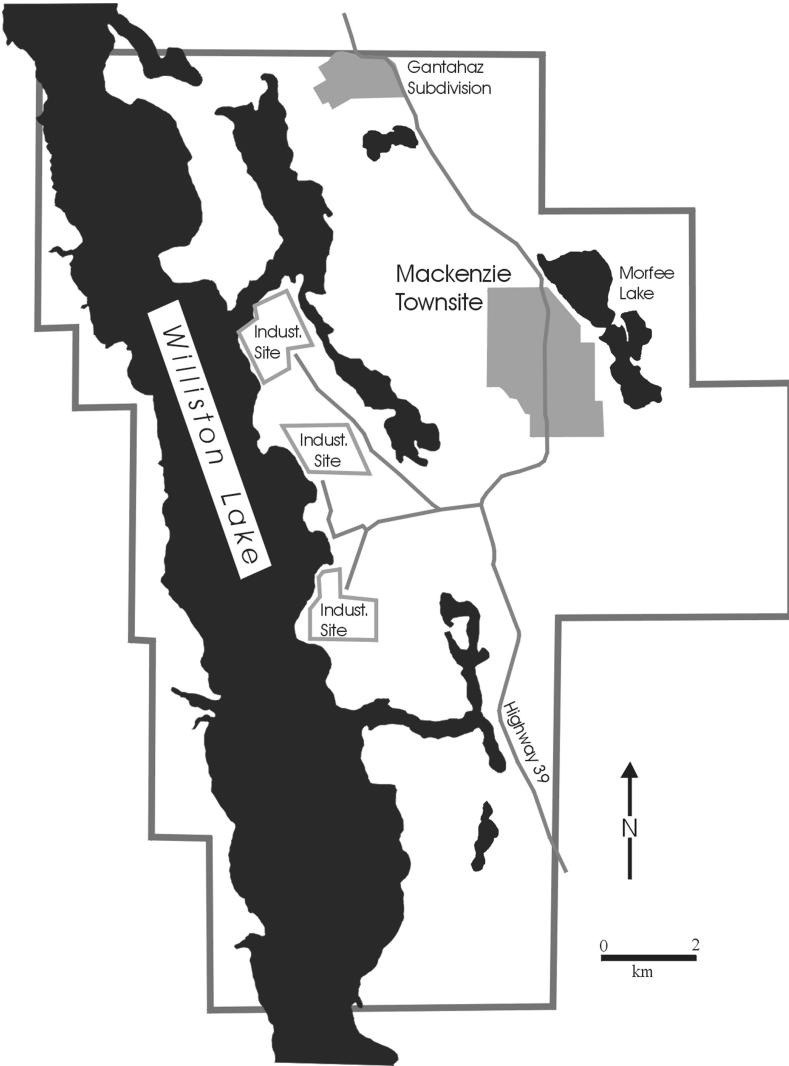


Figure 3 District of Mackenzie

Second, the neighbourhood design principle of coherent units is largely maintained. Distinctive residential neighbourhoods

include clusters of mobile home sites and three-story apartments interspersed across landscapes dominated by suburban style detached housing. Each of the three large neighbourhoods has an elementary school and a number of small playgrounds and green spaces. There are also pathways running through the neighbourhoods and connecting these residential areas with the commercial core. The downtown core is centrally located but is a modification on the Kitimat plan. While Stein's downtown core eschewed the automobile, the 1960s influence on Mackenzie is clear as the central business district is comprised of a set of small strip malls, bisected by the town's principal traffic artery.

Tumbler Ridge

The town of Tumbler Ridge is British Columbia's newest town, founded in association with the provinces' last resource development "mega-project" (Gill, 2002; Halseth and Sullivan, 2002). Located in northeastern British Columbia, Tumbler Ridge is on the eastern slope foothills of the Rocky Mountains. Knowledge of regional coal resources was well known but, in the mid-1970s, world prices prompted a flurry of activity. More than 15 coal claims by a variety of national and multi-national firms were staked in the region surrounding present day Tumbler Ridge (BP Exploration Canada, 1979; Cinnabar Peak Mines, 1981; Denison Mines Limited, 1982; Pacific 66, 1978; Petro-Canada Coal Division, nd; Teck Corporation, 1981; Utah Mines, 1976). Out of this resource scramble, two mines, "Bullmoose" (operated by Teck Corporation) and "Quintette" (operated by Denison Mines), proceeded.

In Tumbler Ridge, planning for a new townsite to house the coal mining workforce and their families was initiated in 1976. The development was based on a 15-year agreement to sell 100 million tons of coal to a consortium of Japanese steel mills for \$7.5US billion (Gill, 1994; Halseth and Sullivan, 2002). In less than eight years the town was functioning and residents were moving in. Extensive efforts were put into the design, layout, and servicing of the townsite (Rabnett, et al., 1977; Veit and Associates, 1978; Shera and Gill, 1990; Gill, 1991, 1994). For the most part, the provincial government took a fairly traditional role in regional economic development by assuming the enormous infrastructure costs of road and rail access to a previously undeveloped area. For example, the crown corporation BC Hydro was commissioned to bring power into the region. Unlike Mackenzie, however, the provincial government went beyond this traditional role by actively participating in the plan-

ning and managing of development in the Tumbler Ridge townsite itself.

When Tumbler Ridge opened, the provincial government sought to have a fully functional town already in place for the new residents. This meant a huge early investment in facilities. In 2000, the town council completed arrangements to pay off the long-term debt generated by this infrastructure investment. By coordinating town planning and development, the government became the focal point for not only the physical design but also the social planning of the new townsite. The goal of this government involvement was to achieve "as soon as possible, a politically functioning, financially viable, well planned community with a high level of services" (Paget and Rabnett, 1983, p. 156). In an effort to avoid the situation of town closures experienced throughout the 1970s in the Quebec-Labrador region of Canada, the provincial planners sought to create a resilient community that would be adaptable to changing conditions. A critical aspect to this resiliency was the creation of community networks and bonds. These in turn depended upon resident stability.

Tumbler Ridge also has structural similarities to the first two of Stein's planning tenets for Kitimat. A focus on the family environment and the separation of industry from urban areas are clear. Both the mines and the associated heavy industrial park are located well outside of the townsite (Figure 4). Residential neighbourhoods, focussed upon elementary schools, are the basic design element of the townsite. Again, these are connected by extensive greenways, pocket parks, and pedestrian pathways linking people with places and separating them from traffic. The central business district is something of a hybrid between Kitimat and Mackenzie. The difference is that Tumbler Ridge's town centre is very much concentrated and amenable to pedestrian access with parking relegated to exterior zones and limited vehicle access routes. Tumbler Ridge was built with a full range of services and facilities. The town centre includes basic government offices, a range of shopping stores, a hotel complex, automobile service stations, medical centre, and an impressive recreation complex. Tumbler Ridge's compact urban centre brings together all commercial, service, and recreational facilities in close proximity. It does seem to owe more to Stein than to General Motors. Immediately adjacent to the town centre are a number of three storey apartments. Around these are large tracts of suburban style single-family detached housing neighbourhoods.

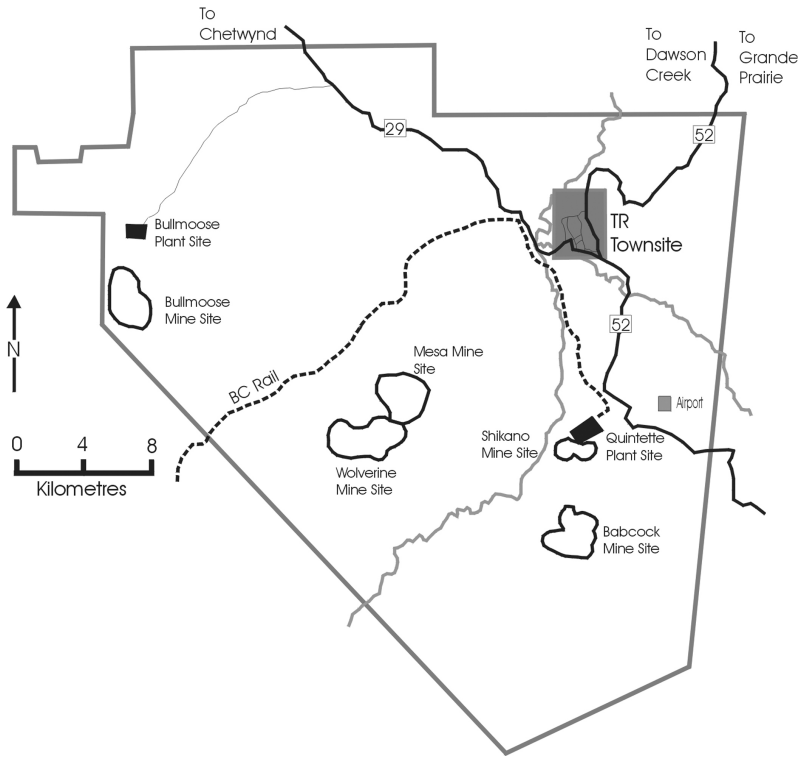


Figure 4 District of Tumbler Ridge

Evaluating Planning Frameworks

In both Tumbler Ridge and Mackenzie, the separation of land uses and the neighbourhood design tenets have been deployed. Yet in both towns, there has been no economic diversification. In Mackenzie, additional forest products' firms have been established and, while the local economy now tracks according to the pulp, paper, and lumber markets, this is still a single-industry economy. In Tumbler Ridge, there was no economic diversification. The August 2000 closure of the Quintette mine has left the town scrambling in an effort to secure a viable future. So, what about the tenet of economic diversification that Stein built into the Kitimat plan? Where does this third crucial element figure in the planning of Mackenzie and Tumbler Ridge?

Mackenzie Community Plan

The first official community plan (Plan) for the District of Mackenzie was attached to the letters patent issued by the provincial government which founded the townsite (British Columbia, 1966). The Plan was comprised of a set of text sections together with a map. In a general, and rather more condensed, fashion this Plan resembles most contemporary community plan documents in BC. The overall intent was clearly to implement lessons from Kitimat, and elsewhere, in creating a livable town in support of the new forest industry.

The basic concepts section of the Plan introduces a set of general issues thought to be important for the new town (Figure 5). First is the desire to establish the industrial plants together with all the supporting residential and service facilities in one integrated community. The industrial plants were to utilize resources from the Finlay Sustained Yield Unit, the tenure allocation used in forests' policy of the day. Wise and more complete use of harvested trees was a cornerstone of forest policy changes in the 1950s and 1960s (Williston and Keller, 1997).

The desire to create a single integrated town setting also built on the idea of managed resource development. It was enhanced by the second issue of preventing chaotic or haphazard development along the new reservoir. Careful planning could avoid the high costs that came with speculative "free-for-alls". For the provincial government, a single municipality was easier, and cheaper, to fund and assist than was a collection of many smaller villages cast all along the lake's very long shoreline.

The plan also recognized that development should be guided by the very real needs of the people living in the area and those who will move into the area. "Accommodation" would need to be made for those required to relocate as a result of reservoir flooding. This in turn meant that a variety of different land uses would need to be allowed within the townsite. This diversity fit well with the goal of creating an "efficient, convenient, and pleasant community" for residents (British Columbia, 1966, p.2). The mix of land uses could also be a foundation for meeting the diverse economic and social needs of residents.

Plan is based on desire to:

- establish the industrial processing plants and supporting residential and service facilities in one integrated community,
- prevent haphazard or satellite development along the new reservoir,
- create quality accommodation for persons and facilities required to be relocated due to flooding,
- incorporate a variety of different land uses,
- provide an “efficient, convenient, and pleasant community for the optimum economic and social benefit of its inhabitants”.

To achieve these objectives, land uses shall:

- maintain most areas as non-urban,
 - separate industrial areas from the residential, service, and commercial areas,
 - create an “attractive townsite which will be compact and oriented to a strong central core area containing retail and service commercial facilities, and recreational, social, and educational facilities serving the municipality as a whole”,
 - recognize the need “for a degree of flexibility so that the social and economic needs of the community can be met ...”.
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Source: Letters Patent, District of Mackenzie, 1966, parts 4 and 5.

Figure 5 Mackenzie—Official Community Plan, 1966
Basic Concepts

These basic concepts were to be developed through four design principles (Figure 5). The first two of these were that most of the land base for the new town should be maintained as non-urban green space and wilderness, and that there should be a separation of industrial areas from residential, service, and commercial areas. In keeping with this need to separate industrial sites, the mainte-

nance of forests would make great buffer zones. As well, planning in Kitimat had highlighted how people who stayed were attracted by the wilderness landscape and that this would be an attractive feature in Mackenzie. Ample separation of industrial uses, together with green belts in between, would also provide a natural area for future expansion of the town and its industrial base.

A third design principle was to create an attractive townsite. The Plan specified that the town would be “compact and oriented to a strong central core area” (British Columbia, 1966, p.2). That commercial core would be well serviced with retail, commercial, recreational, social, and educational facilities. It would also contain local government services and offices.

Finally, the design principles included a recognition that not all local needs could be anticipated at this most early stage. Therefore, the Plan allowed that “a degree of flexibility” would be needed in most aspects of the town’s development (British Columbia, 1966, p.2). The idea was that, as the social and economic needs of residents became more clear, they could participate with the municipal government in meeting those needs. In Mackenzie, this was most clearly manifested with the development of the Gantahaz rural neighbourhood north of the townsite. Unfortunately, this was as far as recognition of economic diversification got. Over the past 30 years, efforts have come and gone to develop or enhance a local tourism industry or to attract alternative resource industries such as mining. Many of these initiatives were started by the local Chamber of Commerce or by a group of local individuals but, even with support from local government, they have not yet transformed the level of local economic dependence.

Tumbler Ridge Social Planning Principles

The need to create a sense of community within an instant town led the Tumbler Ridge planning team to work with a set of social planning principles. In general, the objective was to “create a socially cohesive, financially viable, self-governing community conducive to attracting and retaining a stable workforce” (Shera and Gill, 1990, p. 7). In other words, they sought to quickly create a functioning economic, civic, and civil society.

To achieve a stable and self-sustaining community, ten social planning principles were set out (Figure 6). Most of these planning principles focussed on the creation of a sense of community through involvement and participation by local residents. As in Mackenzie, there were mechanisms to support and encourage resi-

dents to work with, and through, the local government to meet local needs. The final design principle, however, was that of “flexibility”. As it has turned out in Tumbler Ridge, this may be one of the most important principles. The design of the town had to be flexible enough to allow for unexpected changes or needs of residents. This was a similar concern to that expressed in the Mackenzie Plan. In Tumbler Ridge, there is the option of residential areas not yet developed, there is a business park near the town’s centre, as well as a heavy industrial park located near the airport and the Quintette mine site. Unfortunately, like in Mackenzie, proactive economic diversification efforts were initiated but did not come to fruition. Instead, as the community now works collectively on emergency diversification plans, it is the design flexibility of the townsite that will likely allow some new proposals to be accommodated at relatively little cost.

Choice
 Commitment
 Challenge
 Self reliance
 Participation
 Integration
 Equity
 Fiscal Responsibility
 Environmental Sensitivity
 Flexibility

Source: Adapted from Gill and Shera, nd; Gill, 1990; British Columbia, 1978.

Figure 6 Selected Social Principles and Design Elements

A comprehensively planned community should provide as many of the services and amenities which households and families will need in order to feel “at home”. In studies of other resource towns, both Porteous (1970) and Bowles (1992) suggest that it is critical to provide a mix of high quality urban facilities. Tumbler Ridge has a services infrastructure that includes education, recre-

ation, protective, government, and health facilities. It was hoped that these services and the layout of the town would support the creation of a sense of community. Despite the elaborate planning exercise by the provincial government which sought to move the town quickly towards a stable community, Tumbler Ridge quickly confronted the very real limitations that global markets have on the viability of resource towns. Almost immediately after start up, the Japanese Steel Consortium sought to renegotiate the price of coal to a substantially lower level. This renegotiation created a crisis of profitability and concern about the future of both the mines and the town. While the supply of coal is not in question, it is the cost of production and demands of the market that leave Tumbler Ridge vulnerable.

Discussion

Stein's plan for Kitimat was based on three tenets, each of which proved to be mutually reinforcing. To survive, the company must obtain a successful mill, the workers a satisfied community, and the community must achieve some diversity as protection against economic boom and bust cycles, and the often cloaked but ever pervasive threats of town closure. When subsequent resource towns were developed across Canada, they took up the Kitimat style of comprehensive planning. They only enacted, however, two of the three tenets. In both Mackenzie and Tumbler Ridge, the need to build in economic diversity was never entirely forgotten. It was present in the official planning documents for both townsites in the form of a recognized need for flexibility. Rather, it just seemed to be the last and least valued among the planning principles and never became part of the ongoing creation and re-creation of the towns. In other words, economic diversification was not successful.

If town planning long ago identified economic diversification as a cornerstone to community development, why has it not been aggressively followed as a policy for new resource towns? Part of the answer lies in the structure of resource industries in Canada (Walter, 1997). Another part of the answer lies with the current period of change or restructuring in these same resource industries. In both cases, the implications have had serious impacts on local economic diversification and on the development and maintenance of a local civil society (Massam, 1996). But, such forces may also be pointing towards possible future economic and social development policies for these towns.

Like all resource-dependent towns, Mackenzie and Tumbler Ridge are situated in a global economic context. There will be positive and negative swings in general economic cycles, and there will be fluctuations in both the demands and prices for their respective commodities (Freudenburg, 1992; Freudenburg and Frickel, 1994). The bust side of a resource boom-and-bust cycle can be devastating within even the most comprehensively planned towns. The realities of a resource bust cycle can have significant consequences for such key local characteristics as population levels, employment stability, and home ownership—which, in turn, can have impacts upon the viability of the local retail sector, voluntary organizations, and general community development. Many Canadian resource towns continue to suffer the effects of major boom-and-bust cycles as a result of our continuing economic dependence on minimally processed resource commodities or “staples” that are traded in a global marketplace (Barnes, 1996).

Through the 1950s, Innis sketched out the problems inherent in a staples-based economy. The first of these was “dependence” as much of the Canadian economy was heavily dependent upon the manufacturing economies of the United States, Europe and, later, Japan (Hayter, 1993). Innis (1950) argued that this was simply the latest in a series of development eras in which Canada served as a resource hinterland for more economically and technologically advanced countries. This dependency upon the demands of external markets meant a commensurate level of “vulnerability” to the needs of those markets. As Barnes (1996, p. 216) notes, “most staples regions tend to be vulnerable to demand shifts in markets that are both highly competitive and price-elastic”. Such dependency and vulnerability continues as fluctuating world demand for various basic resource commodities drives such Canadian economic indicators, as mineral exploration and investment in new forest products mills.

In BC, where the resource sectors and a dependence upon a staples-based economy have been used as an engine for province building, this has led to a third problem known as “truncated development” (Innis, 1950). Large scale resource developments require significant capital investment and, in BC, incentives have long been used to attract large industrial capital into the province (Williston and Keller, 1997). As Hayter (1982, p. 277) argues, “that foreign investment replaces or preempts economically viable indigenous development”. In addition, the argument may be extended to include the implication that such foreign ownership also “relates to a loss of autonomy over strategic investments and

technology decisions" (Hayter, 1982, p. 281). Without a driving need for diversification, foreign-controlled firms are often content to continue exporting basic resource commodities that are needed in their home economies or for other components of their multinational holdings. The resource hinterland remains just that, a resource hinterland with little additional economic diversification.

As a result of dependency, vulnerability, and truncated development, Mackenzie and Tumbler Ridge were first created, and then continued, as single-industry towns. There was little initiative from either industry or public policy to move away from that single-industry dependence. Grass-roots efforts at local diversification were not supported by decision-makers and failed. In fact, public policy often depends precisely upon sustaining resource sector royalties and tax revenues in order to finance health, education, and social programs (see Young, 2001, for a discussion of the paradoxical role of the state). The recent flurry of corporate takeovers of forest products mills in Mackenzie, for example, involving companies headquartered in New Zealand, Norway, and then the United States, is continuing a tradition of foreign investment in Canadian resource industries that both flow from and, in turn, help to perpetuate, the forces of dependence/vulnerability and result in further truncated development.

Yet, there have been considerable changes afoot of late in the organization of the resource industries such as those in Mackenzie and Tumbler Ridge. These changes stem from a fundamental restructuring of resource industries both in Canada and internationally (Hayter, 2000). Much of the post-World War II industrial era has been associated with a pattern of production and employment associated with "Fordism", or mass production (Cater and Jones, 1989). Such a production pattern was a perfect fit for resource industries where one type of commodity was made in large volumes with little change in that product from year to year.

But, since the 1980s, the Fordist "regime" of production has been under pressure to change. This pressure has created what some observers call a "crisis" for these industries (Hayter, 2000); a crisis spurred on by increasing consumer demands for more specialized products, continuing demands for low cost products, increasing relative labour costs, and increasing competition from low cost production locations (Barnes and Hayter, 1994; Hayter, 1997). As seen in Mackenzie and Tumbler Ridge, this has often meant layoffs as technology is introduced, strikes and lock-outs as negotiations struggle with corporate demands for more flexible contracts, and a sense of increased vulnerability to not only global

export markets but also the demands of stock market investors for good quarterly profit results.

As a result of the pressures just described, firms and industries are restructuring towards a more “flexible” style of production. This flexible production regime makes greater use of technology. For example, technology is used in the production process to allow for efficiencies in making small batch and specialized products, and it is also used in the marketing process to directly connect buyers with sellers and production plants with retail outlets. But all of this requires capital investment, and many of the current changes are occurring against the backdrop of increasingly large firms taking control of resource production. This, in turn, can lead to a perpetuation of the problems Innis long ago identified, only now their effects may be accelerated by the increasingly fast pace of global markets.

If dependence upon staples production, and the changes wrought by the restructuring of that production to more flexible forms, have affected resource-dependent towns such as Mackenzie and Tumbler Ridge, then, perhaps, alternatives for such towns in the future will include embracing this ethos of “flexibility”. A traditional emphasis upon extractive industries can now be broadened to include the unique types of possibilities that each town and each location offer. It is one of the paradoxes of restructuring that while space is becoming less important (that is, large industrial capital can locate its facilities anywhere in the world), place is becoming more important. Mackenzie and Tumbler Ridge are now engaged in developing some of the alternative futures made possible by the unique circumstances of their place and location (Helm, 2000, 2001). Perhaps the industrial movement towards flexible production has some lessons for community development. While Mackenzie and Tumbler Ridge may have been created as single-industry instant towns, their futures may depend upon the flexible adoption of opportunities—opportunities that take advantage of the unique characteristics of each place. This can provide a framework for exploring the opportunities embodied in a “flexible community development future”.

Conclusion

The town of Kitimat was the first major industrial and town planning exercise in post-World War II British Columbia. While the lessons for resource town planning embedded in Kitimat are clear, only some of these have been vigorously copied and applied in

other places. While site planning and neighbourhood design ideas have proved highly portable, recognition of the necessity to build in economic diversity has not proved so portable. This is clearly a disjuncture.

As a result, when relatively new resource towns such as Tumbler Ridge have faced crises, they have done so with a narrow and vulnerable economic base. As Gold River, Elliot Lake, and a host of others have found, economic diversification efforts under extreme crisis is both very difficult and very stressful. In fact, Tumbler Ridge is going through this stressful process now. As in other places, the costs of undervaluing economic diversification are proving significant indeed.

Geographic research into community planning, community economic development and resource industry restructuring, and a whole host of place-based studies will find many avenues for study in this disjuncture between recognizing a need for economic diversity but failing to act upon it. The role of spatial factors, community power factors, public policy, and others need to be investigated in efforts to disentangle the story behind the founding and functioning of these urban places on the resource frontier. Research simply cannot be a cheerleader for improved new town planning ideas. Instead it must critically examine why the application of "best practices" did little to buffer these new towns from old dilemmas.

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