

THE RESTRUCTURING OF BRITISH COLUMBIA'S COASTAL FOREST SECTOR: *Flexibility Perspectives*¹

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THE 1980S AND EARLY 1990S represented a sea change of sorts for British Columbia's forest product sector, as the industry moved from a regime of mass production or Fordist style manufacturing to a regime emphasizing some form of economic flexibility. Within a decade and a half production technology, markets, supply conditions, employment practices, and corporate organization all significantly altered as the "Golden Age of Fordism" was nudged, and sometimes shoved, aside by the brave new world of flexible production (for local details see Hayter 1987; Barnes and Hayter 1992; Barnes, Edgington, McGee, and Denike 1992; Hayter and Barnes 1993; Drushka, Nixon, and Travers 1993; and, for the broader picture, see Harvey 1989).

These changes occurring in BC are part of a more general global economic transformation. But while the trend is global, its precise form is finely variegated, varying by nation and subregion, by industrial sector, and by market type and segment. Equally diverse are the consequences of economic flexibility. One is the burgeoning of high-paid, highly skilled flexible jobs in, for example, the high-tech enclave of Richmond (Klopfer 1995). Another, though, is the replacement of well-paid, semi-skilled occupations by lower-paid, so-called numerically flexible ones in, for example, some of the non-unionized wood remanufacturing plants recently opened in the lower Fraser Valley (Rees 1993). Yet another consequence of economic flexibility is that employment of all types is lost when firms move

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elsewhere, as when the Vancouver manufacturer of Jantzen's clothing moved to the US Sunbelt in 1996 (for a general discussion, see Rauch 1996). Economic flexibility, then, is not uniform but, rather, diverse and heterogeneous. It is found as much in the East Vancouver houses of homeworkers assembling swimming goggles for off-shore firms (Ocran 1995) as it is in the Burnaby offices of Ballard Power Systems, where electrical engineers peer day and night at their computer monitors.

The purpose of this article is to map the peculiar local form of economic flexibility found in the forest sector of coastal BC. We concentrate on the Coast because the trend towards flexibility is more evident there than it is in the Interior, a result of older and more costly coastal mills in greater need of investment as firms modernize and attempt to reduce costs. Specifically, we describe three main forms taken by economic flexibility in the coastal forest industry: (1) that around production technology, especially involving the use of computer-assisted machinery and associated work practices; (2) that around a new type of labour market organization based upon the degree of a worker's flexibility; and (3) that around local economic strategies of single-industry forest communities as they cope with a late manifestation of the age-old tension within capitalism between the fluidity of the market and the rootedness of place (Zukin 1991).

In developing our argument two qualifiers are necessary. First, although we stress flexibility only within the forestry sector, we are aware that the shift to flexibility is associated with a broad spectrum of political, social, and cultural issues not considered here (e.g., those turning on the changing role of the state [Johnson et al. 1994]). Flexibility is not a limited economic shift in production but, rather, a phenomenon that signals far-reaching political-economic effects. Second, although we do not examine recent major policy discussions about the future of BC's forest economy (such as the Peel Report and the CORE process), we think that this article has implications for them. Policy imperatives, such as a stronger commitment to environmental and community sustainability, non-wood values, more diversified tenure arrangements, and the need to assign higher values to the forest resource than has been done in the past, cannot be divorced from the changing production context. In fact, we argue in our conclusion that to meet these kinds of commitments it is necessary for the wood products sector to adopt a form of production flexibility that the economists Marshall and Tucker (1992) refer to as high-performance as opposed to market-based. The transition from

Fordism to flexible production cannot be taken for granted, therefore, and questions related to the organization and technology of production must be addressed alongside policy debates about forest renewal, ownership, and value.

This article is divided into two main parts. First, we review the two general systems of industrial organization found within the coastal forest sector since the end of the Second World War: Fordism and flexible production. Concomitant with each, we argue, are not only distinct methods of production and labour organization, but also quite different modes of community development. Second, we interpret the recent changes in BC's coastal forest sector in terms of the transition between these two systems. After briefly outlining the postwar history of Fordism in the coastal forest sector of BC, along with its embodiment in the single-industry towns that dot the Coast, we provide a detailed examination of three forms of flexible production.

FORDISM AND FLEXIBLE PRODUCTION

It is difficult to pinpoint the exact birth of Fordism, but Henry Ford's production of the Model-T at his Rouge River complex in Dearborn, Michigan, is undoubtedly the most well-known manifestation of it. That plant embodied the two defining features of the Fordist system that came to dominate many different North American manufacturing sectors after the Second World War: the assembly line and Taylorist labour relations.

Assembly-line mass-production techniques were based on the realization of internal economies of scale, which, in turn, were garnered because of the production of a homogeneous product ("you can have any colour of car as long as it is black") and the use of dedicated machinery, the specifications of which never changed. In addition, the large capital requirements of Fordist production cultivated a particular kind of industrial organization — one dominated by oligopolistic competition in which large firms were vertically integrated and often in arm's-length contractual relationships with suppliers.

Hand-in-glove with the assembly line went Taylorism, a particular management style and labour market organization that (at its most basic) involved the separation, in the workplace, of conception from execution. Managers and engineers using time and motion studies

broke down work operations into simpler tasks: “Each worker would then be assigned one task to be repeated with machine-like efficiency countless times during the day” (Marshall and Tucker 1992, 5). In this way, Taylorism attempted both to reduce workers’ control over their own labour and to impose a disciplinary power that was applied and monitored by a managerial bureaucracy. In turn, this management style gave rise to a bifurcated segmented labour market — at least within large firms. On the one hand, management (and research and development professionals) formed the white-collar, non-unionized, primary independent segment and were guaranteed both employment stability and relatively high wages and benefits. On the other hand, production workers formed the blue-collar, often unionized, primary subordinate segment. They also enjoyed relatively good employment stability (although vulnerable to periodic business cycle fluctuations) and, in spite of limited if any formal credentials, were paid relatively high wages based upon principles of seniority and job demarcation.

During the heyday of Fordism (i.e., the long boom from the Second World War to the early 1970s), the development of assembly-line techniques and Taylorism was orchestrated in North America by the three economic institutional pillars of big business, organized labour, and the state. Business and organized labour forged a mutually agreeable wage-bargain, in which management organized work practices on the factory floor in accordance with Taylorist principles in return for steadily increasing wages and improvements in working conditions for workers. Such a deal worked because of the improving productivity that stemmed precisely from those Taylorist practices. In this arrangement the role of the state was to underpin this wage bargain through specific legislative sanction and, more generally, through Keynesian macro-economic management policies that ensured basic levels of demand for Fordist products. The state controlled aggregate demand sometimes through monetary policies but more often through fiscal policies, including the provision of an unemployment insurance and welfare system along with expenditures on infrastructure.

Fordism also had a distinct geography (Scott 1988). On both national and international scales, the large corporations that were the very stuff of Fordism produced a geographical core and periphery. Professional segments undertaking control and decisions (such as the upper echelons of management) were located in metropolitan regions, while blue-collar segments were more likely to be found in peripheral areas (Massey 1984; Malecki 1986). Inevitably, the manner

in which corporations distributed functions affected the nature of local development. In the case of the blue-collar periphery, the Fordist wage bargain struck in the “company town,” “mill town,” or “union town” came to define the nature of the community itself and, in many cases, was the basis for prosperity. This last point is important because being part of the periphery means a lack of control, not necessarily a lack of wealth. As Marshall and Tucker (1992, 8) write: “Workers with no more than an eighth grade education and little in the way of technical skills could end up drawing paychecks that enabled them to have two cars, a vacation cottage as well as principal residence and maybe a boat for fishing and water-skiing. The system worked for everyone.”

While Marshall and Tucker’s comments are primarily directed towards the us experience, they apply equally well to the many Fordist forest-based mill towns found in British Columbia. There, high wages and employment opportunities were frequently complemented by desirable lifestyles organized around outdoor recreation. Certainly, there were recessions during which employees were laid off, but layoffs were temporary and were accomplished through well-defined seniority rules worked out between unions and management.

Not all parts of BC, or of Canada, experienced the material benefits of Fordism. In some places regional development policies were applied by the state, typically as “top-down” intercessions in the form of grants, infrastructure investments, and tax incentives (Savoie 1986). In effect, such initiatives were attempts to induce Fordism into new areas.

The places that participated in the Fordist experiment, including the forest-based communities of coastal BC, enjoyed a considerable degree of stability — at least during the long boom. The mill offered secure well-paid jobs, and even those who left the community found part-time and seasonal employment in the mill when they returned. The seeming invulnerability of Fordist resource communities was epitomized by Lucas (1971) in his now classic model of the evolution of Canadian mill towns, a model published just prior to the end of the long boom. There are four phases in Lucas’s model. While the first three — construction, recruitment, and transition — could be hesitant and wavering, the fourth — maturity — was characterized by stable population levels, work and social relations, and linkages with the outside world. In Lucas’s model, development terminates at the mature stage. While possibly describing the sociology of successful mill towns under Fordism, this model did not anticipate

the implications of the global economic change that began sometime during the early 1970s and signalled both the end of Fordism and the end of the applicability of Lucas's relentlessly progressive typology (Grass 1990).

That end was heralded during the 1970s and 1980s by rapidly escalating rates of technological change, market differentiation, and global competition. Increasingly, the former mutually beneficial relationship among management, organized labour, and the state was in disarray, fractured by economic changes and by a neoconservative political ideology that distrusted state economic intervention and emphasized the benefits of a competitive-cost environment. In this new economic environment the sources of Fordism's former stability — dedicated production technology, highly structured labour agreements enshrined in law, and dependent single-industry communities — became the sources of its current rigidities. A change to more flexible production methods, labour markets, and community development was necessary. The Fordist model of mass production was painfully transformed into a model of flexible production. As a system, though, flexible production was always double-edged, with the potential to offer both economic improvement and hardship. To make this clearer, we will now elaborate on three main forms of economic flexibility.

Changes in production are at the centre of the transition from Fordism to flexibility. Two main forms of change are identifiable. First, in some of the old centres of Fordism the use of new computerized technology allows the manufacture of a wider range of more specialized high-value products. Literally by pressing a button at a computer terminal production is reconfigured, and a variety of different markets is served. Production remains capital intensive and large scale, but product differentiation is greater and the products more valuable. We term this arrangement flexible mass production. Second, market dynamism and differentiation have created all kinds of production niches where smaller firms may engage in a very fine degree of specialization, sometimes using new computerized technology and sometimes using old technology. We term this arrangement flexible specialization. Under flexible specialization small specialized firms are typically closely integrated with other firms and manifest either as a spatial cluster of highly interlinked autonomous firms subcontracting with one another to produce a final good or as a group of specialized firms congealed around a much larger producer and undertaking specialized tasks for it (and often

in a close relationship with it). In both cases, a distinct industrial district or territorial complex is created.

Both flexible mass production and flexible specialization are usually presented as desirable. Using Streeck's (1989) vocabulary, they are learning-based forms of flexible production bound up with high value-added production and employing "core" full-time workers who are already highly trained and who increase their skills on the job. But there is a flip side: the so-called market-based flexibility that rests on producing low value-added goods and minimizing labour costs by drawing upon unskilled or deskilled part-time or temporary workers. This is the world of the homemaker or of non-unionized factory labourers working for minimum wages. The French economist Alain Lipietz (1996) recently argued that there is nothing predestined about the process by which a given country or region ends up with either a learning-based or a market-based form of flexible production. It is a consequence of contextual factors, which in the case of Canada, Lipietz argues, are tending towards market-based flexibility. The point here is not Lipietz's specific analysis of the Canadian economy, but his recognition that flexible production has a dark underbelly.

Changes in the labour market stem, in many ways, from those in production. One of the reasons Fordism failed, some have argued, is precisely because Taylorist management methods separated conception from execution. The remedy is to involve workers more directly in the work process, which means having them (1) participate in continuous training and skill-widening; (2) exercise polyvalent skills within teams and systems of job rotation; (3) be part of quality circles; and (4) be explicitly incorporated within such activities as supervision, monitoring, and design. As a result, the role of management is redefined. A participatory management is required: fewer managers involved in supervision, a greater focus on quality, stronger communication skills, and more commitment to providing leadership in learning about new market and product possibilities ("benchmarking"). In this way, the old line between management and workers becomes blurred: the two are now part of a common core group for which there are beneficial returns to education and training. In the vocabulary of the flexibility literature, the core is now defined by a set of functionally flexible workers possessing a large range of skills and applying imagination, creativity, and initiative to problems as and when they emerge. This is quite different from the Fordist world of punitive disciplinary managers and automaton workers mindlessly repeating single, sharply demarcated tasks.

But, as before, there is another far less hopeful side to flexible labour markets. This is the world of numerically flexible workers who are part-time, temporary, or contract workers denied the wage levels and benefits of the core. Instead, their fate is to be permanently on call, to be brought in to fill often routinized tasks eschewed by employees in the core. The labour market of flexible production can be as bifurcated as that of Fordism. Yet that division has been redrawn: it is no longer management versus workers but core versus periphery.

The transformation of production and employment towards principles of flexibility has reconfigured the geography of Fordism. In communities characterized by mass production and specialization, such as Canada's resource towns, the shift to flexibility has produced substantial job loss and a sustained period of instability and flux. Certainly, any sense that resource towns have reached the final stage of maturity (as predicted by Lucas) is absent; many communities simply scramble for survival. Moreover, senior levels of government are both less inclined and less able to buttress ailing communities. Prompted both by increasing fiscal constraints and by a growing neoconservatism that emphasizes the market and individual initiative, there has been a move from top-down strategies to bottom-up strategies. The primary agent of change is no longer the central government but local business coalitions that are often in league with other collective associations, including organized labour and special interest groups.

Single-industry communities were often less ready to deal with the implications of flexibility than were other types of communities because of their dependence on a single activity, the historically paternalistic relationship between management and workers, and their often isolated locations (Barnes and Hayter 1994). Their responses, as each attempts to cope in its own way, have been diverse; Lucas's prediction of every place reaching the same end of maturity could not have been more wrong. Specifically, the variability of response among single-industry communities is occurring for three reasons. First, flexible production is leading to increased specialization among the towns themselves; second, the search for flexibility is often a contentious process involving local bargaining between labour and management, and this varies from one place to another depending upon regional history and culture (for local examples, see Barnes 1996); and third, the kinds of coalitions that form at particular places in order to direct community development vary considerably, as do

their strategies and degrees of success. The result, to use Sjöholt's (1987) term, is that community development has become "unruly."

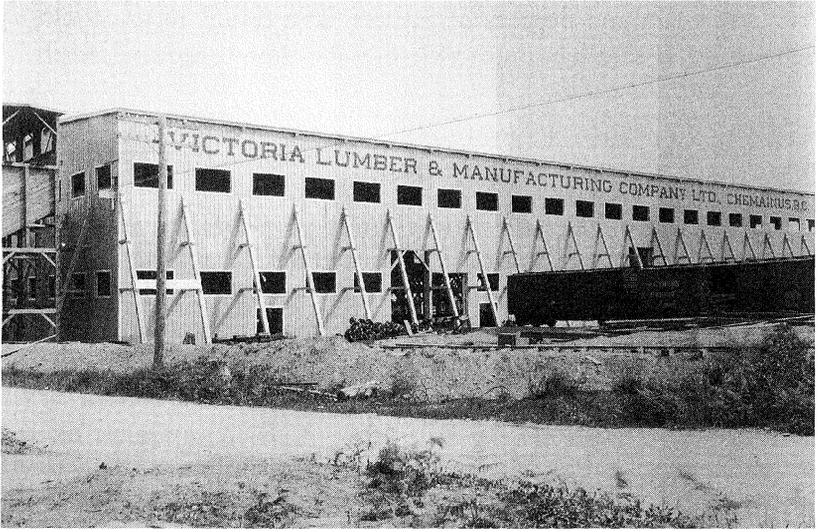
TOWARDS FLEXIBILITY IN BC'S COASTAL FOREST COMMUNITIES

The evolution of the BC postwar forest economy provides a clear example of the transition from Fordism to flexible production. From the 1940s through to the mid-to-late 1970s Fordism ruled supreme. A few homogeneous products were mass produced for export; namely, construction grade lumber, kraft pulp, and newsprint — all of which was manufactured by large capital-intensive operations often controlled by multinational corporations. In many ways BC was geographically right for Fordism. Its seemingly unlimited old-growth forests combined with an insatiable demand for standardized wood products and readily available investment capital, especially from the us, virtually guaranteed Fordism's success here.

Other Fordist industrial features included labour relations that were along Taylorist lines, with strong unions and collective bargaining firmly in place by the early 1950s. Again, in part, Fordist collective bargaining was so successful — unionized workers in BC were paid, on average, 5 per cent more than were their counterparts in the rest of the country (Copithorne 1979) — due to geographical considerations: the value of the coastal wood stock was extremely high. In addition, labour was segmented, with production-line workers in the primary subordinate class and managerial staff in the primary independent class. This bifurcation in the labour market was also matched by a dual spatial division of labour. Much of the decision-making occurred in Vancouver, while the production function was dispersed among the many single-industry communities throughout the hinterland.

In all kinds of ways the local state aided and abetted this form of resource-based Fordism. The Social Credit government, which was in power during much of this period, facilitated Fordist production by instituting a forest tenure arrangement that favoured large companies; by constructing economic overhead capital, particularly roads and dams; and by underwriting new single-industry communities (e.g., the Instant Towns Act, 1965).

During this period of the long boom, community development also proceeded according to plan. Because of the extraordinary growth



The old Chemainus mill. Special Collections, UBC Library, MacMillan Bloedel Limited Photograph Collection.

of the BC forestry sector, communities such as Port Alberni, Chemainus, and Powell River recorded steady employment and population growth as well as increasing affluence (Hay 1993; Stanton 1989; and Hayter and Holmes 1994). Port Alberni, for example, consistently ranked among the top ten communities across Canada in per capita income. For a period, Lucas's model seemed to be working — at least for BC's coastal forest communities.

From the mid-1970s onwards, evidence began to mount that the structure of BC's forest industry was vulnerable to changing global technical, market, and wood supply conditions and that its fibre base was deteriorating. That evidence became starkly clear with the recession in the early 1980s (the most severe since the 1930s) and, later, with trade and environmental conflicts. In response to these difficult conditions the BC forest industry increasingly promoted flexibility.

PRODUCTION FLEXIBILITIES

Production flexibilities in BC's forest economy, as elsewhere, are of two main kinds: flexible mass production and flexible specialization. Existing large- and medium-size corporations dominate the shift towards flexible mass production, which is distinguished from traditional Fordism not by the scale of operation, but by the

computerized manufacture of a wide range of differentiated products in which higher quality is achieved by more precise specifications and/or superior performance. Even though manufactured in large volumes, the output from flexible mass production is more finely tuned to special market needs and specific customers, and products are packaged in relatively small consignments in order both to provide protection during transportation and to emphasize product differentiation.

Among established major forest product corporations, MacMillan Bloedel (MB) is at the forefront of introducing flexible mass production in both paper and wood processing industries. In pulp and paper, for example, MB has substantially reduced its tonnage of commodity newsprint at both its Powell River and Port Alberni mills. At the latter, it has discontinued market pulp (1993) and paperboard production (1982) altogether. At the same time, the Port Alberni and Powell River mills have progressively shifted towards the production of specialty papers. In 1993 almost half of Port Alberni's production was in forty different grades of specialty papers, including extremely lightweight papers and telephone directory papers. By 1993 Powell River (which, during the 1950s and 1960s, concentrated almost exclusively on newsprint for the US market) was producing fifty different grades of paper, with about 30 per cent of its production in the form of "hi-brite" papers for use in newspapers, weekend supplements, advertising flyers, and unbound catalogues. The world's largest newsprint producer in the 1950s, the Powell River mill now has just three newspaper manufacturing machines and, with the recent decision to convert one of those, will become predominantly a specialty paper mill.

The same shift towards flexible mass production is evident among MB's wood processing facilities — a shift that began with the modernization of its sawmill division at Port Alberni in 1980 (Alberni Pacific Division). Until 1980, MB's numerous sawmills and plywood mills were large-volume producers of commodities and were becoming increasingly unprofitable. Since 1980, MB has divested its plywood operations and redefined itself as a value-added and large-volume manufacturer of lumber products rather than of commodities. All of its surviving sawmills have been either modernized or entirely rebuilt to manufacture a wider range of higher quality and higher priced products for more specific market segments, while new mills have been established to produce new products (such as parallel and other engineered woods). Moreover, MB has increasingly

specialized its production by location. On Vancouver Island, MB's three "white wood" mills at Port Alberni, Chemainus, and Nanaimo complement each other in terms of log species, quality and species utilized, and products manufactured. While recent corporate strategy in the industry has had individual mills competing against one another as cost centres, here the mills have formed a "white-wood" team primarily to co-operate in marketing their products — especially to Japan. Indeed, over the past ten years MB has been committed to penetrating the difficult, quality-conscious but high-priced Japanese market. By the early 1990s MB accounted for almost one-quarter of provincial lumber exports to Japan, with coastal mills exporting about half of their output to that country.

As with other major forest product corporations, MB's new strategy towards flexible mass production was crisis driven and began with the recession of the early 1980s. But while economic crisis was the context for MB's rethinking, it should be recognized that the firm's pioneering strategies of flexible mass production were also facilitated by substantial in-house research and development (R&D) (Forgacs 1993; see also Hayter 1987). Many of the specialty papers manufactured at Port Alberni and Powell River — including the hi-brite class of papers, telephone directory, and related lightweight papers — were researched and developed in MB's Vancouver (now Burnaby) laboratories, while parallel is a new wood product developed by the corporation following a twenty-year, \$50 million investment.

Complementing the shift towards flexible mass production are strategies of flexible specialization. Emerging over the last decade, flexible specialization is frequently associated with uncertain markets in which small- and medium-size firms are low-volume niche manufacturers within production systems that are highly integrated as a result of subcontracting linkages, information sharing, and the use of common services. In the coastal BC forest economy, flexible specialization is primarily represented by the emergence and strengthening of secondary value-added wood processing activities; notably, remanufacturing engineered building components, millwork, and other wood-produce industries (Rees 1993). The largest of these industries focuses upon remanufacturing that utilizes lumber from the primary wood mill to make a variety of such specialty products as door and window components, interior and exterior panelling, decking, and lumber of various dimensions. Remanufacturers are typically small specialized firms that produce small batches of

products under conditions of limited timber supply as well as market uncertainty. In contrast to the large forest product corporations, the competitive advantages of small remanufacturers are based on "substantially greater production flexibility, together with a more entrepreneurial approach and a lower overhead/labour cost structure" (Woodbridge and Reed Associates 1984, ii). This flexibility is achieved by specialization and reliance on subcontracting for particular products (of both low and high value) as well as for particular services such as sawing, dry kilning, and planing of varying degrees of sophistication (Rees 1993).

In contrast to flexible mass production, flexible specialization encourages geographic concentration or clustering of entrepreneurial firms in order to facilitate personal contact, subcontracting, market access, appropriate labour pools, and access to common services. The main concentration of remanufacturing firms, for example, is in the Vancouver metropolitan area, but a secondary concentration has emerged in the Okanagan region (Rees 1993). Another smaller-scale but more localized example of the clustering of flexibly specialized firms is provided by Chemainus, which, since the early 1980s, has attracted a number of specialized functions, including wood component and furniture manufacturers, planers, resawers, and dry kiln operations. Chemainus, in fact, is now cited as the dry kiln capital of BC, and, while some of its dry kiln facilities are integrated with large-scale sawmill operations, others subcontract to major sawmillers throughout Vancouver Island and occasionally in the Vancouver area (in which case lumber is transported on the Nanaimo ferry for dry kilning and then shipped back).

Clearly, the strategies of flexible mass production and flexible specialization are related. Among the population of small- and medium-size firms that comprise the remanufacturing industry of the Vancouver area, for example, there is at least one specialty product branch plant owned and controlled by an established corporation — Canfor — while Interfor organizes the manufacture of specialty products entirely through subcontracting. There are also subcontracting linkages between mass producers and small specialized suppliers. At Chemainus, at least, a couple of the latter were established by former managers of mass producers, including Paulcan, whose owner was a former manager of MB's old Chemainus sawmill.

EMPLOYMENT FLEXIBILITIES

The strong shift from traditional Fordist mass production towards flexible production occurring in BC's coastal forest economy is matched by a trend towards various kinds of employment flexibilities. But there is a lot of geographical variation. Within small- and medium-size firms pursuing strategies of flexible specialization, employment of non-unionized labour is predominant; and wages, non-wage benefits, and working practices take on different forms according to market roles and managerial preferences (Rees 1993; Rees and Hayter, 1996). However, the change towards flexibility among unionized labour is especially important. In BC's forest economy there are more unionized than non-unionized employees, union contracts establish yardsticks for the non-union sector, unions have the capacity and clout to represent workers effectively, and BC's forest unions are part of a Canadian tradition of unions that recognizes broader social obligations than, say, does US-based business unionism. As a result, employment flexibilities depend not only on the appropriate actions of government and business, but also on the actions of unionized labour.

Unionized labour, however, is not homogeneous, and differences among local branches of the same union create distinct geographical outcomes that can also be buttressed by the physical advantages of particular places. An illustration is provided by the experiences of two large export-oriented sawmills in Chemainus and Youbou, both in the Cowichan area of Vancouver Island (Hayter, Grass, and Barnes 1994). In 1980 both mills employed 600 to 700 workers in mills that were obsolete. Since then, they have introduced new technology, diversified their markets outside North America, rationalized, downsized their workforces, and sought more flexible labour practices (see Table 1).

At Youbou technical change and rationalization occurred as a parallel ad hoc process due to strong resistance to change by the local branch of the main union, the IWA. As of 1993 flexibility concessions were limited to a "double decking" agreement, by which employees agreed to run either mill A or mill B, whereas previously the mills had been run by completely different crews. Even so, the Youbou sawmill, already a marginal operation by virtue of its inland location, has not been profitable, and its limited employment flexibility practices have perhaps both reflected and reinforced this marginality.

TABLE 1
*Chemainus and Youbou Sawmills:
 Employment and Production, 1950-1995*

	CHEMAINUS		YOUBOU	
	EMPLOYMENT	PRODUCTION (MFBM)	EMPLOYMENT	PRODUCTION (MFBM)
1980	650	167	655	128
1981	550	135	615	113
1982	450	36	466	133
1983	0	0	413	150
1984	0	0	413	155
1985	125	69	360	154
1986	125	69	350	96
1987	130	102	350	159
1988	135	105	350	144
1989	140	101	176	140
1995	150	101	224	52

Note: Employment figures are year-end totals; MFBM refers to million foot board measure. Source: Hayter, Grass, and Barnes 1994, 31.

In contrast, at Chemainus the old sawmill was torn down and replaced two years later with a new mill that was fully computerized and able to cut lumber precisely to a wide variety of dimensions, particularly for the Japanese market. From its start up in 1985 the new mill was fully committed to the principles of functional flexibility, with its emphasis on team work, the development of multiple skills, pay-for-knowledge schemes, ongoing training, and close management-worker interaction. In addition the apprenticeship program was reintroduced for trades occupations (although eliminated at Youbou in 1987), and profit-sharing was recently introduced. With its tidewater location and access to high-quality logs, the Chemainus sawmill, since reopening, has been consistently profitable and has operated without lay-offs — even during the recession of 1991. In the terms we used earlier, the Chemainus sawmill successfully shifted from Taylorized Fordist mass production principles to flexible production, including a move towards a core group of functionally flexible workers (for more details, see Barnes and Hayter 1992). The union accepted the comprehensive introduction of functional flexibility principles, and the Chemainus local operates according to a subagreement within the province-wide master contract. Admittedly, management had the upper hand in

negotiations in so far as the old mill was closed, the workers laid off, and a clause in the master contract tied the firm to seniority only until two years following closure; that is, the firm had discretion to hire whomever it wanted when it opened the new mill. Nevertheless, the Chemainus example demonstrates that functional flexibility is possible within a unionized environment. That said, there may be accompanying forms of internal conflict and trauma (nearly 500 workers were permanently laid off at Chemainus), and as a model it need not be accepted everywhere even by the same union (as Youboun demonstrates).

Let us elaborate further on the conflicts and traumas of introducing flexible employment practices, for, as noted earlier, they go to the "dark underbelly" of flexibility. MB's Powell River paper mill provides a particularly good case study (Hayter and Holmes 1994; Hayter, forthcoming).

In December 1973 the mill employed 2,600 people, with all the hourly staff belonging to one of two union locals. Following more than two decades of intermittent recession and restructuring, employment at the mill by early 1994 was only 1,275 (including 235 on relief) (see Figure 1). In spite of the 60 per cent drop in employment, production capacity remains at 80 per cent of its former level and is of a higher dollar value.

To a significant degree this job loss is explained by the effects of technological change and rationalization, including the introduction in 1990 of new flexible work arrangements. Specifically, the shift to labour flexibility at Powell River involved modifying job demarcation lines among the trades and between trades and production line workers, speeding up maintenance work completion times, flattening out the organizational structure of the mill in order to increase managerial efficiency, facilitating labour-management interaction (notably by assigning more responsibility to labour), making entry requirements more rigorous in order to ensure that new recruits are able and willing to be functionally flexible, and contracting out. Job rotation and further reductions in job demarcation continue to be discussed.

There are a number of important issues here. First, in a union workplace such as Powell River, flexibility, regardless of the model driving it, is bound to be contentious not only because it demands concessions from workers regarding previously "hard-fought" gains, but also because it strikes at two central principles of modern unions: job demarcation and seniority. For unions, such principles serve to

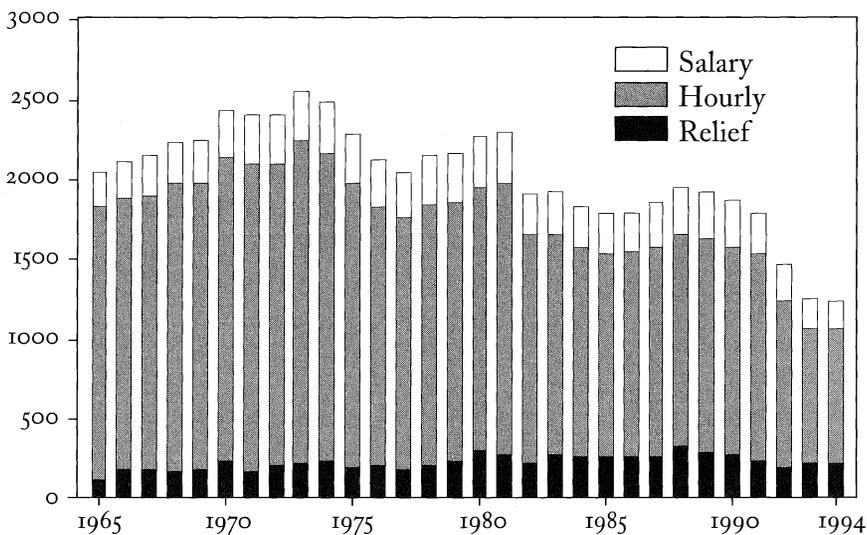


Figure 1: Powell River Paper Mill: Employment Levels, 1965-1994. Power River Mill Records.²

eliminate wage competition among workers, constrain managerial autonomy, provide security and discipline among workers, and prevent arbitrary job intensification. Contracting out is also a potential threat to these values as well as to employment standards. Even forms of functional flexibility that stress acquiring skills and job satisfaction raise legitimate concerns, and any shift to flexibility demands trade-offs that are difficult for unions to make.

Second, flexibility concessions in unionized workplaces require formal negotiations between management and unions, whether these concern individual jobs and workers or are made across the board. At Powell River, for example, workplace flexibility has so far been negotiated in two agreements (in 1991 and 1992, respectively) involving specific quid pro quos. Following a wildcat strike in 1988 over contracting out, a court action required the union to pay MB over \$4 million. Instead, in 1991 the union agreed to flexibility concessions in lieu of the fine. In 1992, the union then agreed to a further set of flexibility concessions in return for an early retirement package. Since then management has been unable to offer workers another acceptable quid pro quo in return for more flexibility.

Third, the negative effects of downsizing on worker morale and trust (and potentially on productivity) can be compounded by

² The data pertain to the situation on 31 December, except in 1994, when the data were for 31 January.

flexibility discussions, especially if protracted. In the case of Powell River, the fact that agreement to be more flexible has not provided job security for the surviving workforce became a problem shortly after the 1992 flexibility concessions, when another round of lay-offs occurred and the jobs the unions thought were saved disappeared. For management, job flexibility was traded for early retirement with no implications for job security; for the unions, agreement to an early retirement package and increased job flexibility was traded for job security.

Fourth, in an established Taylorized workplace, many managers and workers may not have the appropriate attitudes and skills (let alone formal qualifications) for a more flexible operating culture. At Powell River, for example, there is some evidence that new, more flexible managers are not highly regarded for their knowledge about the mill, and there are problems in implementing a flatter organizational structure. Managerial inexperience with regard to employees and machinery is likely an obstacle in the difficult process of implementing flexible work practices.

Finally, there is the issue of training. Cultivating a core workforce of stable and well-paid workers possessing polyvalent skills requires an ongoing commitment to education and training. Yet, in an old downsizing mill such as Powell River "skill formation" is problematical. The apprenticeship program was a victim of downsizing. The team concept in the wood room experienced problems because of difficulties in training everybody to the level necessary to practise job rotation and because extensive job bumping disrupted traditional on-the-job training. The lack of articulation between the new managers and the workforce also poses problems for effective interactive learning. For the workforce, commitment to ongoing training and education raises the spectre of "testing." For senior management, training and education take people away from their jobs and are expensive, selective, and a potential source of discontent among those not chosen.

Training is not a magic wand that can be waved to move the mill from Fordism to flexible production. Rather, training itself involves significant costs, uncertainties, and negotiation. At the same time, there is some common ground between management and labour. Both, for example, recognize the importance of entry-level qualifications and of ensuring that new entrants have general skills (numeracy, literacy, computer use, inter-personal relations, and so on) that can be built upon as needs arise. Both management and

labour also suggest that there should be less reliance on on-the-job training and a correspondingly greater commitment to more formal training involving seminars, workshops, study sessions, and experience. In spite of different perceptions about current levels of training, it is striking that management and labour are both enthusiastic about training or, as Streeck (1989) would term it, about the firm as a "learning institution." The problem is to find a mutually acceptable process leading to that common end.

In sum, although all the examples are taken from just the one mill at Powell River, they make the point that the move to employment flexibility, even of the "good" kind, is fraught with problems. Inevitably there are large lay-offs, and the very process of implementation has the potential to undermine significant social gains won by labour during decades of struggle. Whatever the end result, the transition will be drawn out and contested. Furthermore, it will take on a definite geography — a result of historical relationships between unions and management, availability of and accessibility to resource supplies, the costs of replacing sunk capital, and specific corporate location strategy. The consequence will be a wide variation in resource community development.

FLEXIBLE COMMUNITIES

Under Fordism the geographical character of resource communities was fundamentally shaped by their dependence on one or two dominant employers and by their relative isolation from major centres of population (Randall and Ironside 1996). Admittedly the degrees of community dependence and remoteness were not uniform, and there were also marked variations in the employment relation (for measurements and comparisons of single-industry town isolation and dependence, see Randall and Ironside 1996). The transition from Taylorized mass production to more flexible production and labour strategies within the forest industry has, if anything, increased the variability among communities. Apart from the differential effects of employment downsizing in dominant mills, flexible mass production also brought locally distinct product market specialties and working conditions. These have recently been reinforced in the pulp and paper industry with the replacement of industry-wide collective bargaining (the norm for over forty years) with mill-by-mill bargaining.

The rearticulation occurring between mills and their associated communities in BC's coastal forest economy takes on various dimensions. Most obviously, the transition to flexible production has meant that once-dominant companies provide communities with less income from taxes, fewer permanent jobs, fewer spin-offs for local businesses, fewer goodwill contributions, and practically no casual (weekend and summer) employment for high-school and university students. In contrast to the situation in the 1970s, when dominant mills provided high-income jobs for high-school dropouts, new jobs in these mills have virtually disappeared (Behrish 1995). For example, at Powell River the paper mill has a large pool of laid-off workers with recall rights, and recent liberal early-retirement packages mean that the current workforce contains few workers close to retirement age.

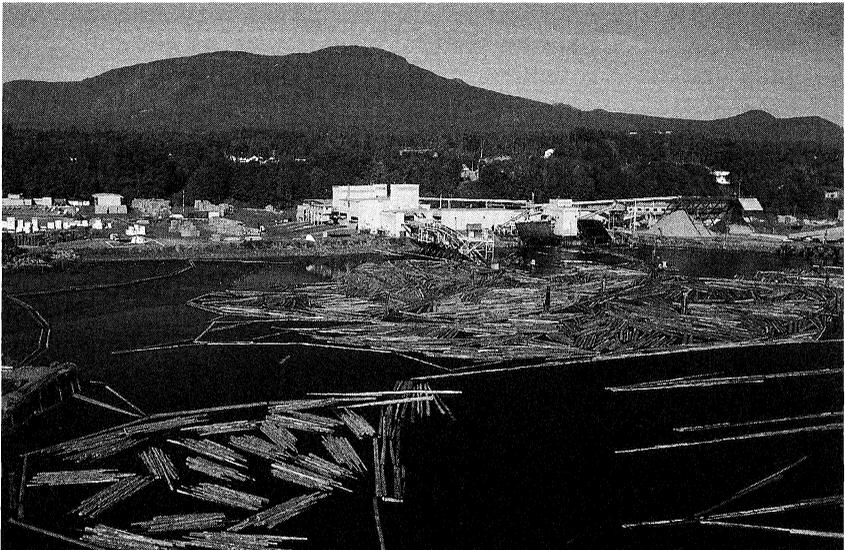
As dominant mills decline and company paternalism becomes less important, forestry communities are necessarily more actively involved in planning local economic development and diversification. The results are very diverse (Barnes and Hayter 1994). There are entrepreneurial initiatives of one kind or another along with various forms of co-operation among federal, provincial, and community public-sector agencies (as well as between these agencies and private-sector agencies and unions). In some places nothing much has happened; in other places there has been considerable transformation (e.g., compare Youbou and Chemainus, respectively; see Hayter, Grass, and Barnes 1995). The effects of these trends also vary, as do the economic sectors mobilized in pursuit of local economic development: tourism, education, health, transportation, housing, and secondary manufacturing. In addition, many coastal forest communities are attractive to retirees and city commuters, and, despite substantial industry downsizing, places like Port Alberni and Powell River have retained their populations. Some such communities are even rapidly growing (e.g., Chemainus has grown from 2,069 in 1981 to 3,900 in 1991).

A number of factors explain this variation in community development. Members of each community have different abilities to become proactive in local development. Communities such as Chemainus, Powell River, and Port Alberni have had to learn to promote themselves, identify priorities, co-ordinate community expertise, deal with other levels of government, and implement plans. In Chemainus, for example, a strong business coalition linked to the

mayor and city council was able, with provincial financial assistance, to push through the Festival of Murals, which, according to some at least, became the basis of the town's "renaissance" (Barnes and Hayter 1992). In other communities, such as Youbou and Port Alberni, the coalition was much weaker and the outcome less favourable (see, respectively, Grass 1990; Hay 1993).

A second factor turns on the vagaries of changing markets. Communities are competing for finances and new entrepreneurs, while the shift to flexibility within the forest industry increasingly invokes comparisons of productivity among mills within the region and beyond. MB, for example, debated for some time whether Nexgen should be in Powell River or Port Alberni and even contemplated establishing a newsprint mill in northern California.

While competitive market-driven forces divide communities, there are forces tending towards co-operation. Within the forest industry, resource rights, the locally specialized nature of investment, the size of sunk capital investments, and the presence of unions all help to regulate competition between places so that community development is not necessarily a zero-sum game. In fact, important complementarities are occurring among communities, especially with regard to tourism (e.g., the Cowichan and Pacific Rim "trails" that tie together Chemainus, Youbou, and Port Alberni). Community development



The new Chemainus sawmill. By permission of MacMillan Bloedel.

at any given place, then, depends as much upon the possibilities of co-operation as it does upon the duress of competition.

Yet another factor is the capacity of the community to provide training and education now that once-dominant mills no longer provide entry-level jobs. In Powell River, for example, there has been considerable adjustment in the high-school system and among students themselves (Behrish 1995), while other communities have grappled with adult education and retraining for those who have been permanently laid off from the forest sector (Hay 1993). But fundamental questions remain: Education for what? What will newly trained workers do?

Geography runs through all these factors. Community development is highly sensitive to where a place is located (its situation) and the resources found there (its site). With respect to situation, the degree of geographical isolation can be key. Communities that are most isolated, such as Gold River and Port Alice on northern Vancouver Island, have fared less well in the face of restructuring than have communities on the southern island or those on the mainland close to Vancouver. For example, Chemainus benefits from its location between Victoria and Nanaimo; Youbou, with its proximity to Victoria, is now a bedroom community for the capital; and Squamish, because of its favourable situation between Vancouver and Whistler, is able to benefit from the resulting tourist traffic (Reed and Gill, forthcoming). Distance of single-industry towns from the province's major metropolises makes a difference; a variant of the old core-periphery model still applies.

Many important site characteristics have been mentioned already. Industrial location characteristics can favour a company reinvesting in a mill rather than scrapping it (e.g., the tidewater location of Chemainus), as can the size of existing sunk capital and the presence of an experienced and skilled workforce. And the historic, scenic, or recreational characteristics of a place can encourage tourist development. In addition, especially important recently is the potential within communities for commercial and residential redevelopment — a critical condition for attracting retirees and commuters (the issue of relative location overlaps here). In-migrants have helped to stabilize the populations of communities such as Powell River and Port Alberni. While it may be anticipated that new residents will occasionally “clash” (Blahna 1990) with old ones, newcomers bring vitality, income, and ideas. These new population

dynamics are varied and, of course, contribute to the diversity of the community experience.

In sum, just as production methods and working practices underwent the jolt of change with the coming of flexible production, so too did the communities in which that production and work occurred. Flexible methods and workers produce an increasingly diverse set of manufactured goods in an increasingly diverse set of single-industry communities. The paradox is that, while flexible production lies behind the most recent round of globalization and the integration of international markets (Harvey 1989), it also lies behind the growing dissimilation of places such as now found in coastal BC. Geography matters at every scale.

CONCLUSION: LEARNING AS A RESPONSE TO FLEXIBILITY

The shift to flexibility is a juggernaut that will not be stopped. There can be no return to past Golden Ages, Fordist or otherwise. What we might hope for, however, is a socially acceptable form of flexibility that is fair and mutually beneficial for management, unions, and local communities. A useful distinction here is that between market and high performance flexibility (Marshall and Tucker 1992; Streeck 1989). While market flexibility is about immediate cost reduction through applying an extreme form of flexibility primarily to workers, high performance flexibility involves manufacturing high-value quality products through employing high-wage high-skilled labour. This form of employment thrives on education and training, integrated research and development, and forms of work experience that emphasize individual initiative, creativity, and imagination.

The important regional implication is that only those places dominated by high performance flexibility will prosper. In a globally competitive world, high wages will be sustained by skill, innovation, and productivity. As may be seen from the examples already cited, elements of high performance flexibility are already emerging in BC's coastal forestry sector. Equally though, market flexibility is reflected, for example, in increasing contracting out and in the often virulent labour disputes associated with it. The problem is to devise strategies that steer the BC forest sector in the high performance direction, where investments in research and development and in skill and training consistently seek innovative change. This strategy will not

be easy to achieve. The three main institutional actors — management, organized labour, and the state — each face conflicting motivations, and it is by no means certain that they will make the right choices (see Table 2).

TABLE 2
High Performance Strategies: Conflicting Impulses

	ADVANTAGES	PROBLEMS
Firms	Innovation, productivity, adaptability	Cost of programs, loss of apprentices, uncertainty (e.g., raiding of skilled workers)
Unions	Job satisfaction, adaptability, security, high wages, public support	Trainability of members, testing, fear of multi-tasking, competition among workers
Government	Acceptability of supply-side policies; logic of promoting higher, more equitable incomes	Conflicting impulses hard to reconcile; potential loss of union support

Note: High Performance Strategy implies firms organized as innovative learning systems, emphasizing in-house R&D, continuous training, functional flexibility, and flat decision-making structures. It also implies consistent government policies that support science and technology, education and training.

For firms, core groups of functionally flexible, well-educated, and highly skilled workers are sources of innovation, productivity, and adaptability. Such a workforce, however, has various costs. As already illustrated, there is a problem of recruitment as well as of persuading existing workers (especially if they are unionized) to accept the new regime; there are difficulties regarding ongoing training; and, partly because of risk and partly because of international forces of competition, there is always the inexorable pressure on employers to lower costs of production by hiring numerically as opposed to functionally flexible labour. For individual firms, the exigencies of recessions and the ability to poach skilled employees as needed also provide a rationale for underinvestment in skill (Streeck 1989).

For unions, training and skill potentially provide for greater job satisfaction, adaptability to change, employment security, and high wages. Yet there is no doubt that unions face all kinds of problems regarding their commitment to the requisite training for functional flexibility. The selective nature of training policies, the trainability

of existing members, and multi-skilling (a euphemism for multi-tasking?) are all problematic, while work systems based on skill and qualifications potentially undermine the principles of seniority and job demarcation that unions have deemed essential to removing competition from the workplace. Yet at a time of falling membership and of declining public support for traditional union concerns over distributional issues such as wages and benefits, training provides a potentially significant and socially desirable "supply-side" role for unions. Streeck (1992, 264-66) suggests that unions should demand high wages; encourage relatively flat wage structures with limited job demarcation and pay scales that reward knowledge rather than activities performed; demand obligatory standardized workplace training curricula and establish proper enforcement mechanisms to ensure that they are followed and that training is not absorbed in production; fight for job security; pursue anti-Taylorist policies; and negotiate for training and retraining plans that meet broadly based (firm, industry, and community) needs as well as specific requirements in programs that are ongoing rather than mere responses to particular emergencies.

Finally, there is the state — both municipal and provincial. The provincial New Democratic Party (NDP) government has been keen to promote the high performance variant of flexibility by increasing funding for skill training and job upgrading. Similarly, local resource communities have taken various kinds of initiatives to enrich locally available educational and training opportunities, not only temporarily to deal with specific problems of adjustment following large-scale lay-offs, but also permanently within the school and post-secondary system. Such initiatives are to be applauded and herald a potentially significant change in attitude within resource communities, especially when taken together with signs of parallel shifts within firms and unions. That said, making single-industry communities into places of learning so that they can also be places of production is difficult. First, there is the cost, especially given considerations regarding the deficit and increased public expenditures. Second, there is the risk for the NDP government that it could upset its traditional union allies. Third, any investment in this context is risky, for it cannot be clear either exactly what form training should take or what jobs (if any) will be available when it is completed.

Nevertheless, in principle, government, unions, and business should share a strong common interest in education, skill formation, and training; and this mutual interest should be the basis for a partnership

that is in society's collective interests. As Streeck (1989) advises, firms need to shift from organizations of production to organizations of learning. Similarly, communities need to become places of learning in which families, businesses, the local public sector, and various voluntary alliances (as well as schools and formal institutions of higher education) form reinforcing networks that encourage a culture of learning. Old attitudes that education is solely a function of schools or, worse, that schools simply provide expensive day care should be discarded. Undoubtedly the ability and willingness of communities (and firms) to transform themselves into centres of learning will vary.

Flexibility is becoming a new way of life; whether it is good or bad is yet to be seen. There are no certainties, but, whatever the outcome, it will be a largely made-in-BC solution — a consequence of a particular constellation of institutions and policies and of a set of compelling geographical relationships.

REFERENCES

- Barnes, T.J. 1996. "External Shocks: Regional Implications of an Open Regional Economy." In *Canada and the Global Economy: The Geography of Structural and Technological Change*, edited by J.N.H. Britton, 48-68. Montreal and Kingston: McGill-Queen's University Press.
- Barnes, T., Edgington, D., McGee, T., Denike, K. 1992. "Vancouver, the Province and the Pacific Rim." In *Vancouver and its Region*, edited by G. Wynn and T. Oke, 181-200. Vancouver: UBC Press.
- Barnes, T. J., and Hayter, R. 1992. "The Little Town that Did': Flexible Accumulation and Community Response in Chemainus, British Columbia." *Regional Studies* 26:647-63.
- . 1993. "British Columbia's Private Sector in Recession 1981-86: Employment Flexibility without Trade Diversification?" *BC Studies* 98:20-42.
- . 1994. "Economic Restructuring Local Development and Resource Towns: Forest Communities in Coastal British Columbia." *Canadian Journal of Regional Science* 17:289-310.
- Barnes, T.J., Hayter, R., and Grass, E. M. 1990. "Corporate Restructuring and Employment Change: A Case Study of MacMillan Bloedel." In *The Geography of Enterprise*, edited by M. de Smidt and E. Wever, 145-65. London: Routledge.
- Behrish, T. 1995. "Preparing for Work: A Case Study of Secondary School Students in Powell River, BC." Master's thesis, Department of Geography, Simon Fraser University.
- Blahna, D.J. 1990. "Social Bases for Resource Conflicts in Areas of Reverse Migration." In *Community and Forestry*, edited by R.G. Lee, D.R. Field, and W.R. Burch, 159-78. Boulder, CO: Westview.

- Copithorne, L. 1979. "Natural Resources and Regional Disparities: A Skeptical View." *Canadian Public Policy* 2:181-94.
- Drushka, K., Nixon, R., Travers, R. 1993. *Touch Wood: BC Forests at the Crossroads*. Madeira Park: Harbour.
- Forgacs, O. 1993 "MacMillan Bloedel Uses Product Development to Adapt to a Changing World." *UBC Business Review Journal* 28:25-28.
- Grass, E.M. 1990. "Employment and Production: The Mature Stage in the Lifecycle of a Sawmill." PhD diss., Department of Geography, Simon Fraser University.
- Harvey, D. 1989. *The Condition of Postmodernity: An Inquiry into the Nature of Cultural Change*. Oxford: Blackwell.
- Hay, E.M. 1993. "Recession and Restructuring in Port Alberni: Corporate, Household and Community Strategies." Master's thesis, Department of Geography, Simon Fraser University.
- Hayter, R. 1987. "Technology and Jobs: Innovation Policy in British Columbia and the Forest Product Sector." In *Technical Change Unemployment and Spatial Policy*, edited by K. Chapman and G. Humphry, 215-32. Oxford: Blackwell.
- . Forthcoming. "High performance Organizations and Employment Flexibility: A Case Study of in situ Change at the Powell River Paper Mill, 1980-94." *Canadian Geographer*.
- Hayter, R., and Barnes, T. 1993. "Labour Market Segmentation, Labour Flexibility, and Recession: A British Columbian Case Study." *Environment and Planning C: Government and Policy* 10:333-53.
- Hayter, R., Grass, E.M., Barnes, T.J. 1994. "Labour Flexibility: A Tale of Two Mills." *Tijdschrift voor Economische en Sociale Geografie* 85:25-38.
- Hayter, R., and Holmes, J. 1994. "Recession and Restructuring at Powell River 1980-94: Employment and Employment Relations in Transition." Discussion Paper No. 28, Department of Geography, Simon Fraser University.
- Holmes, J., and Hayter, R. 1993. "Recent Restructuring in the Canadian Pulp and Paper Industry." Discussion Paper No. 26., Department of Geography, Simon Fraser University.
- Johnson, Á., McBride, S., Smith, P. eds. 1994. *Continuities and Discontinuities: The Political Economy of Social Welfare and Labour Market Policy in Canada*. Toronto: University of Toronto Press.
- Klopfert, A. 1995. "High Technology Industries in BC: The Agenda for Growth." Discussion paper, Victoria Science Council of British Columbia, Victoria.
- Lipietz, A. 1996. "The Post-Fordist World." Paper presented at the Centre for Human Settlements, University of British Columbia, 13 July.
- Lucas, R.A. 1971. *Minetown, Milltown, Railtown: Life in Canadian Communities of Single Industry*. Toronto: University of Toronto Press.
- Malecki, E.J. 1986. "Technological Imperatives and Corporate Strategy." In *Production, Work, Territory*, edited by A.J. Scott and M. Storper, 67-89. London: Allen and Unwin.
- Massey, D. 1984. *Spatial Divisions of Labour*. London: MacMillan.
- Marshall, R., and Tucker, M. 1992. *Thinking for a Living: Work Skills and the Future of the American Economy*. New York: Basic.

- Ocran, A.C. 1995. "Industrial Homeworking and Employment Standards: A Community Approach." Unpublished paper, Department of Geography, University of British Columbia.
- Rauch, U. 1996. "The Social Construction of Skills: Working Knowledge of Garment Workers in a Vancouver Clothing Factory." PhD diss., Department of Anthropology and Sociology, University of British Columbia.
- Randall, J.E., and Ironside, R.G. 1996. "Communities on the Edge: An Economic Geography of Resource-Dependent Communities in Canada." *Canadian Geographer* 40:17-35.
- Reed, M.G., and Gill, A. Forthcoming. "Community Economic Development in a Rapid Growth Setting: A Case Study of Squamish, BC." In *Troubles in the Rainforest*, edited by T.J. Barnes and R. Hayter. Victoria: Western Geographical Series.
- Rees, K.G. 1993. "Flexible Specialization and the Case of the Remanufacturing Industry in the Lower Mainland of British Columbia." Master's thesis, Department of Geography, Simon Fraser University.
- Rees, K. G., and Hayter, R. 1996. "Flexible Specialization, Uncertainty and the Firm: Enterprise Strategies in the Wood Remanufacturing Industry of the Vancouver Metropolitan Area, British Columbia." *Canadian Geographer* 40:203-218.
- Savoie, D. 1986. *Regional Economic Development: Canada's Search for Solutions*. Toronto: University of Toronto Press.
- Scott, A.J. 1988. "Flexible Production Systems in Regional Development: The Rise of New Industrial Spaces in North America and Western Europe." *International Journal of Regional and Urban Research* 15:130-54.
- Sjoholt, S. 1987. "New Trends in Promoting Regional Development in Local Communities in Norway." In *International Economic Restructuring and the Regional Community*, edited by H. Muegge and W. Stohr, 277-93. Aldershot: Avebury.
- Stanton, M. 1989. "Social and Economic Restructuring in the Forest Products Sector: A Case Study of Chemainus, BC." Master's thesis, Department of Geography, University of British Columbia.
- Streck, W. 1989. "Skills and the Limits of Neo-Liberalism: The Enterprise of the Future as a Place of Learning." *Work, Employment and Society* 3:89-104.
- . 1992. "Training in the New Industrial Relations: A Strategic Role for Unions?" In *The Future of Labour Movements*, edited by M. Regini. London: Sage.
- Woodbridge, Reed Associates. 1984. *Secondary Manufactured Wood Products in BC*. Victoria: Ministry of Forests.
- Zukin, S. 1991. *Landscapes of Power: From Detroit to Disney World*. Berkeley: University of California Press.