

Power, Political Economy, and Supply Chains: Staples as Media of Power

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Introduction: Power Riding a Supply Chain

One day in 1860, accompanied by well-dressed attendants and local notables, Edward, Prince of Wales, descended Ottawa's timber slides on a "crib", the basic building block of that era's massive timber rafts (Radforth, 294-5). The ride was part of the prince's official tour of the US and the then-Province of Canada. (See Plate 1.)¹ The Prince's crib was decked out with ornamental conifers and topped with a royal ensign. But in other respects, it must have seemed quite ordinary, at least to local people. Such cribs were the standard mode for moving squared timber down the Ottawa, to be sold at Québec or Montréal, primarily for the British market.² This ride was a day's diversion for the Prince, but clearly also a symbol of local accomplishment: Edward was visiting near the historic peak of white pine square timber production leaving the St. Lawrence basin for England (Lower Great Britain's Woodyard: British America and the Timber Trade, 1763-1867, 258).

Looking back from that day, the timber slides had been at the centre of Ottawa Valley logging since the late 1830s. That had been when the first slides, technology learned from Scandinavia, had overcome a critical barrier to log transport, the Chaudière Falls at the twin towns of Bytown and Hull (now Ottawa and Hull). The breakthrough occurred amidst the interethnic and class turmoil of the Ottawa Valley "Shiners' Wars" (Shiners = *chêneurs* = oak-cutters). This disorder in the Bytown-Hull area arose in turn from the mass introduction of largely Irish unemployed to a largely French-Canadian labour market there, immediately after the completion of the Rideau Canal (Brown; Gaffield; Reid).

Before these transformations in the 1830s, most logging in the Valley had been conducted below the Chaudière Falls, through a myriad of temporary small-scale arrangements. Commonly, local retail merchants would advance equipment and credit to local farmhands and farmers, but in other cases, farmers banded together with one another, looking for extra winter cash and assistance in clearing their own land. Timber in that earlier period had been cheap and labour, dear. By the end of the 1830s, however, leading timber operations had come to operate on a specifically capitalist basis.

Large capitalist operations would continue to dominate the regional economy above the Chaudière Falls during the subsequent period of explosive logging growth (Reid; Kennedy). By the 1890s and 1900s, the Upper Ottawa supply of merchantable timber would be in crisis, and the firms that had operated there were either folding or relocating. In desperation, forest reserves like the Timagami Forest Reserve and parks like Algonquin Park would be established, often with political support from the industry (Lawson, 354-409).

A British heir to the throne, literally transported by Canada's leading export: why recall this little lark of long ago? For present purposes, the answer lies in the striking symbolism of the image. However briefly, this staple – understood in the Canadian sense as a raw-material export – became in this image more than a problematic object of governance. Painted at the very peak of the self-destructive expansion of the Ottawa Valley timber staple, this picture evokes the possibility of a staple as a medium of power (cf. Sasser).

Over the past fifteen years, international environmental organizations and foundations have sunk significant resources into making this possibility a reality, most

notably with a view to regulating the mode and pace of resource extraction. Consumer boycotts, certification schemes, and terms-of-production labelling have all been deployed to affect agricultural, fish, and forest staple chains in this way, especially to limit their social and environmental impacts (e.g., Cashore, Auld and Newsom; Elliott). More than green consumerism, because it considered more points on the supply chain than consumers alone, this strategic trend has broadly sought to transform resource extraction or cultivation through *pressures applied elsewhere on the supply chain*.

Leading critical research emerged in the twentieth century to examine such raw-material export structures: this paper considers North American staples theory, international commodity chain theory, and the French tradition of filière studies. One important common theme that arose from these studies in the late twentieth century was the idea that transboundary production and trading structures, variously conceived, were to be studied primarily as problematic objects of, or impediments to, national governance. Leading authors in the staples and commodity-chain traditions particularly stressed the role of transboundary economic structures in creating dependency relationships in peripheral or hinterland regions and nation-states (Wallerstein "Rise and Future Demise"; Wallerstein "Introduction"; M. Watkins "The Staple Theory Revisited").

In more recent years, however, resource and environmental policy has been set in the increasingly comprehensive context of a neo-liberal turn, both in international elite discourse and in international economic agreements. Neo-liberal norms have restrained the size of the state and the prestige of state-based policy instruments, both nationally and internationally (Osborne and Gaebler; Bernstein and Cashore). The declining prestige of the state as an instrument of governance within this discourse, whether on the right or on

the left, undergirds the resort to (and hence the increased scrutiny of) market-based strategies and civil societal action. And as a consequence, staples and other commodity chains are increasingly discussed as mechanisms of governance in their own right, rather than simply as inherent policy problems to be addressed through the nation-state.

Today, this more recent period of experimentation needs to be scrutinized with the greatest care. As at the time of Edward's visit, a possible peak in a vital staple, oil, is hotly and publicly debated (Kunstler; Heintzman and Solomon), and other staples continue to experience waves of intense politicization. Canadian environmental activists are struggling to respond effectively to the environmental problems that they perceive in the scale (and the very fact) of Alberta oil sands production and Atlantic off-shore oil, as well as in the possibility of drilling in Alaska's ANWR reserve and off Canada's western coast.

The Contemporary Agenda: "Can you hear me now?"³

Consumer boycotts, terms-of-production product labelling (such as organic foods, fair-trade products, union labels, etc.), and chain-of-custody certification schemes are thus all originally attempts to fill a perceived governance vacuum.

Consider a few examples of situations where staple chains might be discussed today in relation to problems of governance:

1) A logger works for an outsourced operation, far from the mill that his small logging company supplies. The sites he works change daily in kind and location. How can mill management (or the provincial ministry of labour) ensure that the logger conforms to rules while logging, whether these are company occupational health and

safety regulations, product specifications, or environmental best practices (Norcliffe and Bates; Shrimpton, Storey and Husberg)?

2) Under pressure from international environmental organizations, German magazine publishers agreed to boycott paper products that use wood from BC rain forests (Cashore, Auld and Newsom)(Magnusson and Shaw). This campaign contributed both to an immediate backlash against environmentalism in BC resource-based communities, and to Isaak, an innovative, multi-stakeholder project dedicated to sustainable logging and conservation.

3) Does “third-party certified”, organic, fair-trade coffee meaningfully mobilize transnational private consumer choices, leveraging economic change for coffee-growing communities (Waridel)? Or are these more expensive labels primarily Veblenian positional goods, designed to make the caffeinated middle classes feel distinctive because of a mere act of consumption (Veblen; Heath and Potter)?

4) Fish stocks are declining and in crisis in many parts of the world. Yet the data needed to manage those stocks sustainably depends heavily on fishing expeditions undertaken in remote, hard-pressed, resource-based communities. In the face of considerable evidence of by-catch dumping and underreporting, can data quality be improved, such that stocks could be managed effectively on such a centralized basis (Ommer)?

5) China is developing interests in Canadian energy resources: the implications surfaced in public debate in 2004-5 (Child and Tse; Johnson; Sepulchre; York). Some have welcomed Chinese investment, suspicious of US dominance of Canadian resources. Others have warned against such investments, suspicious of “importing” Chinese

authoritarian rule. Beyond the immediate motivations of these debates, for the first time, a prospective new demand centre for Canada is neither Western nor liberal-democratic. In China, a markedly different history of metropolitan supply has been embedded in a different mode of institutionalized resource exploitation (e.g., Lieberthal and Oksenberg). Will new staple linkages with China also import these differences? Does this constitute a problem, whether for business or for key Canadian political values (Sepulchre)? This leads to a broader question: Could any measures be taken along a staple chain, to “filter out” unwanted exercises of metropolitan power?

As institutional constructs, staple institutions normally arise to serve mundane purposes of metropolitan supply. Unquestionably, the projection of socio-economic power along the length of these institutions is already involved in achieving these purposes. This fact aids us, in think rigorously about when, whether, and how the instrumentalization of the same structures of staple chains will “work” for other purposes. When can staples in effect become “extensions” of *political* humanity (cf. McLuhan): that is, when can they aid in the implementation of the deliberately adopted goals of self-consciously political actors? When will such efforts instead be like pushing string? This is a practical line of questioning, in some ways equivalent to the concerns of an electrical engineer. What makes for a staple “super-conductor”? What makes for a “bad line”? There are also wider questions. For instance, how do such tactics themselves bias wider environmental or social-justice strategies?

To begin to pursue this question, this article turns now to the distinctive Canadian tradition of political economy, followed by two other influential frameworks for analyzing trans-boundary material flows. One is global commodity chain analysis, in both

radical (Hopkins et al.; Wallerstein "Introduction"; Hopkins and Wallerstein) and reformist (Gereffi "Global Sourcing"; Gereffi and Korzeniewicz) guise. Another is the cluster of analytical work in France and the francophonie built around filière, convention, and régulation analysis (Allaire and Boyer; Padilla and Bencharif).⁴ The article concludes by considering material institutional conditions under which staples can assume this role. It begins with a review of some key features of the Canadian tradition.

a) Raw Material Commodity Chains as “Staples”

The critical or “Innisian” tradition of staples analysis in Canada has its immediate roots in wider intellectual debates of central Canada and the US Midwest in the first three decades of the 20th century. A significant line of political-economic inquiry in both countries considered the production of raw materials and semi-processed goods for export, considered specifically as a platform for economic development and industrialization. Disillusioned with empire after the First World War, Canada achieved effective autonomy within the British Empire in 1931, only to find itself mired in an economic depression, and in the ecological collapse of its prairie provinces.

Harold Adams Innis’s first phase of work was marked by detailed economic histories that owed much to contemporary conditions, and to the institutional economics of the US Midwest (Neill A New Theory of Value: The Canadian Economics of H.A. Innis; Neill History; Callender). But Innis’s breakthrough works took a distinctive turn in the 1930s, in part because they identified what Innis considered structural problems and consequences inherent to staples production. His methodology was that of an economic historian; his causal framework placed great stress on the co-determining role of

institutions, physical geography, and technology in social, political, and economic change (Parker; Comor).

It was a strongly structural approach, one that some have since read as an inadequate account of agency and the possibility of transformation from below. But Innis's structuralism was also dynamic and multi-dimensional. The Innisian view was also not "metropolitan" (cf. Careless), in the sense of tracing power back to urban and imperial demand centres alone. Instead, the account of power between margin and centre was relational, and to a degree, reciprocal. His pioneering study of the "centralizing" Canadian fur trade, for example, is notably preoccupied with the influence of peripheral developments on the centre, rather than the converse (Innis Fur Trade). Innis's later studies of the "decentralizing" cod fisheries, as well as of mining and pulp and paper production, enhanced and extended this analysis (Innis "Part II: Settlement and the Mining Frontier"; Innis Cod Fisheries; Innis Essays in Canadian Economic History).

b) Media "Bias" in Compressing Time and Space

In a move that later influenced Marshall McLuhan, Innis subsequently shifted his attention to the study of transportation, communication, and media (Innis The Idea File of Harold Adams Innis; Innis The Bias of Communication)(add empire and communication). Once again, media were presented as structured technological, physical, and institutional complexes. His most famous theme from this period concerned the wider societal impact of how each medium contributed to what David Harvey later called "space-time compression" (Harvey The Condition of Postmodernity). He argued the material features of a civilization's dominant media technologies, including oral traditions, tended to privilege the extension of communications in either space or time.

“Time-biased” media convey content easily and with little distortion over time, while others, “space-biased”, convey content easily across space (Innis The Bias of Communication).

In Innis’s view, the consequences of this “bias” are momentous. When particular media have dominated whole civilizations in world history, “monopolies of knowledge” and hence distinctive material and cultural traits are the result. These are cumulative and ultimately dangerous inefficiencies in communication: they create systemic blind spots or vulnerabilities. But Innis argued that media of different types can be balanced against one another, offsetting monopolies of knowledge. For Innis, civilizations have succeeded most – have been most creative, dynamic, influential, and flexible -- when they have achieved this balance. Empires commonly claim to have overcome this problem, admitting as they do to neither sovereign boundaries nor mortality (Angus, 68-71). However, Innis’s own idea of balance often seems to avoid the one-sidedness of both “empire” (space-bias) and “religion” (time-bias).

This proposition founded a Canadian communications tradition that continued to emphasize “bias”, and the medium itself as the “message” (McLuhan, 1965 (1964)). Media, including recent electronic media, cannot be considered the transparent conduits of content (Innis The Bias of Communication; McLuhan; De Kerckhove). Marshall McLuhan adds to this critique of media by reframing the debate from the starting point of individual embodiment. For him, media were literally numbing “extensions of man”: the projection of individual human senses and capacities that simultaneously did violence to the human body. Consequently, the wheel was a medium -- the “extension of the foot” – just as telescopes were extensions of the eye, and so on (McLuhan; cf. Haraway). With

the electric media externalizing and socializing the entire human sensorium, McLuhan argued that humanity faced a hallucinatory challenge of unprecedented scale.

c) Filières

Filière research is theoretically eclectic, empirically rich, strongly oriented to policy, and broadly resistant to general theory-building. Innis would be unlikely to find these tendencies particularly disturbing (cf. Raikes, Jensen and Ponte, 405; Padilla and Bencharif), and indeed an interesting study could be written on parallels and points of divergence with the staples tradition.

Like Innis's research (Drache "Introduction -- Celebrating Innis: The Man, the Legacy, and Our Future", xiv-xvii), filière research focuses on the practical and the concrete, and its ambitions are both holistic and empirical. On issues such as price-formation, both traditions rank as institutional economics. Both demonstrate a concern for the physicality of commodities, for instance in the tendency to trace physical flow volumes and physical constraints on transportation. Both traditions (Canadian staples, 1920s-1930s, and filière, 1960s-1970s) flowered during periods of Imperial economic decline, during which restructuring was a high-priority policy question in the periphery and semi-periphery. In recent decades, both traditions have been mobilized against neo-liberal restructuring.

But the Canadian tradition, like commodity chain analysis, might save the filière approach from the criticism that it lacks historical and geographic depth (Raikes, Jensen and Ponte, 405). Perhaps because commodity flows across both colonial and post-colonial borders were policed by monopoly trading companies in much of the Francophonie, filière research focused on the relatively short-term and on the domestic,

until about the 1990s. Because it arose first to address increased complexity in agri-foods restructuring, it is deliberately agnostic to the distinction between raw, semi-processed, and finished goods, much like the commodity chain tradition, but unlike the Canadian one.

Filière research has developed several distinct sub-traditions, including an empirical grouping, quantitative institutional economics, and an anthropological variant. The latter emphasizes interactions between civilizations and between modes of production, as well as competition between local and long-distance markets (compare Trigger; Braudel). Finally, some filière work has been influenced by the Paris Régulation approach and convention theory.

In short, the tradition as a whole offers sophisticated, multidisciplinary treatments to analyze filière structure, both in transformation and in stability, but it often lacks historical depth and geographic breadth. Conversely, filière analysis has also been credited with an acute policy orientation, such that filières are considered strategic terrains of power and contestation (Padilla and Bencharif).

Padilla and Bencharif (Padilla and Bencharif, 261-2, 266) argue from within this tradition that the Anglo-American economic tradition suffers from emphasizing “industry” and “sector” rather than filière. For instance, assessed within a wood-products “filière”, activities variously construed as primary, secondary, or tertiary “sectors” respectively might be shown to be tightly interconnected, but in a sectoral analysis, they would be assessed separately. Storper and Walker’s work on the “industry-region” is therefore visibly dependent – albeit in an innovative manner -- on such limiting concepts.

The Canadian debate also depends on some of these suppositions: staples are typically placed in the “primary sector”, despite the various manufacturing and services activities intimately associated with it. For instance, researchers such as Hutton, Davis, and Howlett are able to demonstrate the tertiary sector’s eclipse of the primary and secondary sectors in every province of modern Canada, and they suggest that we have entered a post-staples period (Howlett). Yet this has apparently occurred amidst a period of accelerated outsourcing. A filière approach might alter our picture of this transition by attending more explicitly to functional linkages amongst specific activities in any major sector.

d) Global Commodity Chains

Global Commodity Chain research is one of the more robust theorizations of such linear spaces, initially as a corollary of Immanuel Wallerstein’s world-systems theory. Resolutely conceived at a trans-boundary scale, global commodity chains are presented extending and contracting, their institutional coherence ebbing and flowing in time with the A and B phases of Kondratieff waves. The distinctions amongst core, periphery, and semi-periphery shed light into the internal organization of work processes within commodity chains, and into where and why power becomes concentrated within and along the chains. Wallerstein and his colleagues continue to trace early modern commodity chains, such as flour and shipbuilding (Wallerstein et al. in Gereffi and Korzeniewicz; Wallerstein "Introduction"). Unlike the Canadian staples emphasis on unprocessed and semi-processed goods, commodity chain approaches permit the comparison of staples in the Canadian sense with manufactured goods like ships. This

helps to avoid some of the blind-spots in Canadian historical research towards early secondary processing, based on the implications of the staples trap (cf. Rice).

Wallerstein's world-systems theory influences the patterns of linear space imagined in commodity chains in ways that have been famously criticized in Marxist circles (Brenner; Aronowitz; Laclau). Here, I will take up Aronowitz's argument rather than Brenner's or Laclau's. First, Wallerstein was accused of reducing the various labour processes along a commodity chain to self-contained input-output boxes, or "nodes"; and second, of imagining their primary articulations purely in terms of exchange relations. The contradictory, exploitative, and hence disruptive and transformative core of Marxist analysis, namely the contradictory unity of forces and relations of production, is conceptually insulated from the central workings of the capitalist world-system. The latter therefore appears structural-functionalist, even homeostatic – a kind of Latourian black box for accumulation.

These critical interventions highlighted the complexity and importance of the role of production in relation to staples chains. First, the treatment of transportation and communication may be considered industrial/productive activity rather than commercial/mercantile activity: the "product" itself is therefore not the raw material in itself, but rather the raw material delivered on time at the location required. Second, as Ernesto Laclau has emphasized, capitalist forces and relations of production constitute an inherently contradictory unity at the centre of global capitalist accumulation, though the world capitalist formation does not operate through this kind of forces and relations of production (Laclau). At all points, given production forces and relations contribute to generating a staple chain, commodity chain, or *filière*. But their contradictory character

also threatens to destabilize and segment such a chain. Institutional counter-forces must constantly be brought to bear on these contradictions in order to stabilize a staple chain as a “black-box” intermediary (Latour) – or a “medium” of limited bias (Innis, McLuhan): Laclau and Jessop both lead to the suggestion that this constitutive process of hegemonic articulation is inherently political.

Gereffi and his colleagues at Duke University have taken commodity chain analysis in a more reformist and policy-oriented direction. Like Hopkins and Wallerstein, Gereffi et al. break a global commodity chain down into a series of production “nodes”, at each of which a distinct labour regime operates (Raikes, Jensen and Ponte, 401; cf. Aronowitz). The serial arrangement of nodes of productive activity also arises primarily from a “Smithian” division of labour.

Since 1994 (Gereffi and Korzeniewicz), they have contributed to anti-sweat shop and fair-trade initiatives that affect a variety of semi-processed and processed products. Gereffi and his colleagues were initially preoccupied by market-power concentration at the opposing extremes of a given commodity chain, and presented a grand distinction between “buyer-” and “producer-dominated” commodity chains (such as apparel and car manufacturing respectively), depending on where high entry barriers and Schumpeterian rents are concentrated (Raikes, Jensen and Ponte, 396-7). They have since moved away from such simple understandings of power concentrations along a commodity chain, to a discussion of the capacity of actors at various points in a commodity chain to dominate its entirety (Gereffi "Shifting Governance Structures"). These differences are linked specifically to economic power differentials, drawing on market-power literature as well as an extended conception of core, semi-periphery, and periphery (for example, Gereffi

"Global Sourcing"). Central to the actual exercise of power is therefore the capacity of the most powerful corporate centres to outsource low value-added activities, and to include or exclude potential suppliers from the chain entirely by the strategic use of contracting out.

Because commodity chain approaches do not restrict themselves to raw-material commodity chains, and define the chains in terms of final products, they are less preoccupied with the distinctive interface between non-human nature and the work process at the earliest “production” stages of raw-material commodity chains. This analysis does not ignore the initial stages of production – it is with respect to them precisely that it is intended to “whiten” the black-boxes that final products and their prices represent to the consumer, the very opposite of commodity fetishism. However, commodity chain analysis seems less attuned to the interface between society and the environment.

The Wallerstein and Gereffi projects may both err in imagining a linear series of activities integrated by definition by exchange, instead of a dynamic, dialectical unity rooted in production. But the commodity chain as conceived may stand up rather well, at least as what one might call a capitalist project of *régulation* (Jessop), deploying a set of tactics of displacement or deferral towards the various contradictions of capital (Harvey *The Limits to Capital*). Institutional forms might well be successfully articulated, at least for a time, around the project of stabilizing, containing, and isolating contradictory labour relations at specific worksites, while linking these primarily by means of exchange relations that capitalist interests dominate. The point would be to study concretely how such “black-box” effects were achieved, against the long-term backdrop of capitalist

contradictions. How were production relations contained, geographically and functionally, as “black-box” work processes? Can a commodity chain structure also become a “black-box” for unrelated reformist initiatives, only if it is first constituted in this particular way?

The Canadian Experience: The Quest for National Territoriality

Beginning in the early 20th century, then, Canadian political economy exhibited an expanded spatial imaginary, carried over from its extended experience of marginalization within an empire. To a greater degree than many advanced industrialized states of the twentieth century, analysis centred on transnational spaces of economy, governance, and power, of which the most notable example was the staple. These were spaces that differed in kind as well as in scale from national territorial space, and yet it was the latter rather than the former that served as the normative frame for the reception of this tradition in the later twentieth century. This is of considerable importance in the present context: the whole approach to the analysis of staples institutions, and of the power relations they mediated, considers their impacts at the level of particular jurisdictions in the light of their operation at a higher transnational or imperial scale.

But it remains that a subsequent Canadian tradition, particularly since the late 1960s, has tended to treat staples normatively as a threatening “Other” with regard to the nation state. Working within different disciplinary frames, Kari Levitt’s critique of high levels of foreign ownership in *Silent Surrender* (Levitt), and George Grant’s critical analysis of Canada’s irrevocable integration into an American Empire in *Lament for a Nation* and *Technology and Empire* were emblematic touchstones of the period (Grant Technology and Empire: Perspectives on North America; Grant Lament for a Nation).

Bounded jurisdictions (federal or provincial) were the presumptive spatial reference point in normative terms, one that fought against the economic realities that imposed a transnational or imperial scale of analysis.

To some extent, this national normative frame had already been true of the previous generation, most clearly for those (like WA Mackintosh) who viewed staples as a potentially transitional development tool for an industrializing but modern national political economy (Mackintosh). Even Harold Innis, whose concept of the staple was consistently transnational and who increasingly emphasized the analytical logic of transnational empire over the course of his career, provided key tools and sensibilities for a later generation of “neo-Innisian” economic nationalists.

One of these tools was Innis’s argument that “centralizing staples” of fur, lumber, and wheat (Innis Cod Fisheries) provided an organic or socio-economic basis for Canadian unity (Innis Fur Trade, 383-402). Another was the observation that that staples orientation of the Canadian economy had been cumulative rather than transitional, and that staples had tended to become determinative of political, ideological, and economic macro-structures in Canada as a whole (“staples dominance”):

Energy has been directed toward the exploitation of staple products and the tendency has been cumulative....Agriculture, industry, transportation, trade, finance, and governmental activities tend to become subordinate to the production of the staple for a more highly specialized manufacturing community (Innis Fur Trade, 385).

A third tool that Innis’s work provided to nationalists of a later generation was his critical emphasis on negative implications of staples dominance for peripheral regions, most notably in his discussion of “cyclonics” (Innis "Part II: Settlement and the Mining Frontier"; cf. Neill A New Theory of Value: The Canadian Economics of H.A. Innis).

This was a concern that did challenge dogmatically centralist nationalisms within Canada, and it carried over into the later critique of empire and of “monopolies of knowledge” more generally (Innis The Bias of Communication). But it also informed Innis in criticizing the constitutional nationalism of others in mid-century Canada (most famously his colleague, ARM Lower). Canada’s evolving constitutional autonomy and its increasingly nationalist ideological attachments in relation to Britain would not long allow Canada to escape its overall economic status as a colony of great powers. Above all, Innis’s work could be read as a critique of raw-material exports as manifestations of empire.

Mel Watkin’s “staples trap” was perhaps the most obvious example of how Innis’s normative and analytical legacies were adapted into a critical left-nationalism in the late 1960s and early 1970s. Cumulative staples dominance and the economic rigidities that such an economy implied stood as barriers to “normal” national capitalist development, with negative social and political consequences (M. Watkins "Canadian Capitalism in Transition"; cf. Drache "The Crisis of Canadian Political Economy: Dependency Theory Versus the New Orthodoxy"; Drache "Canadian Capitalism: Sticking with Staples"; Bradford and Williams). Like Innis, Watkins explicitly left room both for the critique of metropolitan power as it affected Canada, and metropolitan and Canadian national power as it affected peripheral regions. In Watkins’ case, this meant a militant economic nationalism over against American metropolitan power, *and* support for militant indigenous nationalisms emerging within the peripheral regions of Canada itself (M. Watkins Dene Nation: The Colony Within). For some of his contemporaries, like Daniel Drache, this opened up the possibility of English-Canadian and Québec

nationalisms genuinely allied against an English-speaking North-American corporate elite.

Analytically, Watkins' interventions are suggestive for the comparative purposes of the present paper, as his early work drew on and extended Hirschman's thesis of forward and backward linkages in relation to staples analysis, with the addition of a new category of final-demand linkages (M. H. Watkins). But this predates his adoption of Marxist class analysis and his turn toward more critical readings of staples structures and their implications for national economies.

Left-nationalist political economists within this camp, including self-identifying Marxists, argued that they could usefully draw on home-grown conceptual frameworks like Innis's, alongside class and capital analysis, in order to address the specificities of the "new countries" like Canada, a category of settler states that Innis himself had coined. (Drache "The Crisis of Canadian Political Economy: Dependency Theory Versus the New Orthodoxy"; M. Watkins "The Staple Theory Revisited"; Parker)

By the late 1970s and early 1980s, a major countertendency was developing in Canadian political economy. Implicitly and sometimes explicitly, this debate between "neo-Innisians" and their critics drew heavily on the international debate within Marxism at the time regarding world-systems and dependency theories (Wallerstein "Rise and Future Demise"; Brenner). A rich related discussion about dominant class-fractions within a Canadian hegemonic bloc was also strongly influenced by international arguments concerning the class basis for the relative autonomy of the nation-state (Panitch; Clement; Laxer).

In the work of these critics, however, a normative orientation towards the nation-state was also evident, albeit often in subtler ways. For example, in identifying sources of economic exploitation, the transnational trade-dependency that the neo-Innisian staple approach emphasized was sometimes presented by Marxist critics as a distraction from “domestic” exploitation, which was held to be accessible only through class- and capital-analysis (e.g., McNally). Should “neo-Smithian” analyses of (largely external) exchange relations, or instead, more “orthodox” Marxian accounts of (largely internal) production processes, class conflict, and the circuit of capital be given general explanatory primacy? Forces and relations of production were central to the analysis of contradictory development, and were expressly immanent all advanced capitalist nation-states (see similar observations in Drache "The Formation and Fragmentation of the Canadian Working Class: 1820-1920"; cf. Poulantzas).

Other scholars in economic history and contemporary policy circles also attempted to test the “staples trap” and “staples dominance” theses as empirical propositions. Much of the evidence from this research seemed to challenge these twin theses. Some of the debate can be explained by methodologies that differed from the historical-institutional methods employed by the original proponents. Economic historians particularly emphasized statistical evidence, which had typically been collected and analyzed in terms of whole national and subnational jurisdictions. This is evident in historical debates in the 1980s and 1990s about staples research in Ontario and Québec (e.g., McCalla Planting the Province: The Economic History of Upper Canada; McCalla "The Ontario Economy in the Long Run"; cf. McCallum). But it is also more recently evident from within a cluster of hitherto explicitly Innisian economic geographers in

British Columbia, who have closely tracked and theorized an emerging “post-staples” condition in that province (Hutton).

To sum up, late-twentieth century Canadian political economy that emphasized staples research also depended normatively on a presumptively national, statist space, even as it assessed the radically different space that the staple constituted. This orientation now seems increasingly outmoded, with successive Canadian governments opting to accelerate continental economic integration and policy harmonization under the successive Canada-US and North American Free Trade Agreements (1988 and 1994). In combination with the Marxist class critique of staples approaches, the work of mainstream economists and others contributed to the marginalization of staples research in contemporary political economy.

The contemporary political-economic context differs substantially from those in which the above debates of the “new Canadian political economy” occurred, and this is increasingly recognized in the Canadian political economic community. The signal transformation of largely national or domestic-based production processes into production at a continental or global scale has meant that this problem exists as much for class and capital analyses as it does for Innisian approaches. In response to the normative vacuum that this transformation presents for the cause of left-nationalism within this debate, some have favoured a turn from both staples and states to local, bioregional spaces, chiefly on democratic and ecological grounds (M'Gonigle; cf. Albo). Others turn to larger bounded, territorial political spaces, adequate to a democratic continental economy (Clarkson; cf. G. Williams). Still others continue to argue that state sovereign space remain normatively pivotal (cf. Drache Borders Matter), even if Canada is

peculiarly disadvantaged by the relative scale of its staples activities, foreign-ownership, and branch-plant manufacturing.

Amidst the quandary that this economic transformation presented in the aftermath of the continental free trade agreements of 1988 and 1994 in North America, the Paris *régulation* approach emerged as an important inspiration for continued reflection. Analytically, its proponents on both sides of the Atlantic continued long thereafter to privilege the level of the nation-state (e.g., Boyer "State and Market: A New Engagement for the Twenty-First Century?"). In a striking parallel with Innis's debt to non-Marxist institutional economics, this emphasis in the *régulation* school arose out of its emphasis on both state and non-state "institutional forms" (Aglietta; Boyer "State and Market: A New Engagement for the Twenty-First Century?"; Lipietz). On the basis that capitalism's underlying contradictions are inherently numerous and destabilizing, early "*régulation*" approaches took their name from their characteristic focus on historical patterns of economic stabilization and normalization. In this approach, these periods of stable growth are achieved only contingently, within specific spatial and temporal bounds, by the institutional displacement or deferral of key contradictions of capitalism (cf. Harvey *The Limits to Capital*; Wilkinson, 306, 308-11). Its analyses of post-war Fordism exemplify its tendency to imagine national institutional forms mediating the technocratic management of capitalism (Boyer *The Regulation School: A Critical Introduction*).

Perhaps unsurprisingly, *régulation* was taken up in the 1990s by key Canadian political economists that had been working out of normatively nationalist frames (Boismenu and Drache; Jenson; Boyer "State and Market: A New Engagement for the

Twenty-First Century?"; Brodie). Canada's experience emerged as distinctively "permeable" and problematic, but much of it still fit recognizably within the régulation school's view of economic history as "punctuated equilibrium" in essentially national economic governance (cf. Gould).

Spaces beyond the State

Given the critiques levelled as staples approaches from both class-based and mainstream analyses, a return to an Innisian framework might appear odd. Do staples approaches really provide a fruitful account of a significant contemporary reality? I would answer in the affirmative, but I would make my answer conditional on the need to rethink the problems of the staples trap and of staples dominance.

To begin this rethinking, recall first the socio-economic space of staples originally conceptualized in Innis' staples theory, in relation to the challenge they pose to the more recent normative and analytical stress on spaces of the nation-state. The challenge has very commonly been posed in terms of globalization, and therefore as a problem of shifting, democratizing, or multiplying different scales of governance (e.g., Clarkson; Ommer, 7-8). Essentially linear, this space of "horizontal flow" poses a problem, but not because it differs in scale from the "vertical authority" of bounded, polygonal state spaces, or from the "territoriality" of dispersed local democracies (M'Gonigle; cf. Magnusson). Instead, it differs in kind.

Internationally, research into the sites or spaces of new, or newly appreciated, modes of governance and of political contestation has recently burgeoned, amidst the broad-based "decentring" of the state (Magnusson and Walker). Local and transnational civil-societal politics has generated a large literature (Magnusson; Meidinger), as have

market, “private”, (Klein; Cutler) or “non-state market-driven” institutions (Cashore, Auld and Newsom). Some régulation research has looked into institutional forms at the level of industrial sectors (Boyer Les Problématiques De La Régulation) or regions (Tickell and Peck; Storper and Walker). Other research stresses the role of conventions in the production and valorization of product qualities; and above all, the research links these points to specific institutional origins of different conventions that serve to structure specific product markets -- domestic, civic institutions, market pricing, and industry or sector (Allaire and Boyer; qtd. in Raikes, Jensen and Ponte; cf. Wilkinson, 318-21). The spatial or geographic dimensions of some of these institutional housings for governance are clearly implied. But only some, perhaps most notably the study of production regions (Wolfe and Lucas; Storper and Walker), explicitly bring the production of alternative spaces and places to the fore (Magnusson; cf. Lefebvre; Smith).

The present paper argues that we have generally been working with an unnecessarily restricted view of the *kind* of spaces produced under capitalism in Canada. We therefore also have a limited view of the spaces through which the deferral and displacement of capitalist contradictions can occur (or indeed through which capital could be challenged immanently and directly). This is true of the manner in which many commentators have endorsed or criticized the “staples trap” and the question of “staples dominance”. Quite commonly, these questions are considered primarily in relation to an entire national or sub-national jurisdiction.

With respect to the staples trap, the “post-staples” thesis advanced by Thomas Hutton and his colleagues about the Canadian province of British Columbia (BC) seems

instructive. This thesis uses Innis's own concepts in a kind of immanent critique of the concepts' continued applicability there.

Briefly, Hutton presents evidence from a variety of sources to show that since the 1980s, British Columbia is no longer recognizable as a single, staple-dominated economic unit, dominated by the timber staple. Yet crucially it once was, and for much longer than most other Canadian provinces. In the first place, the timber staple is now manifestly in a state of crisis in the rural economy. But secondly, the much larger urban economies of Vancouver and Victoria have largely detached themselves from this rural economy. Their prior functions in managing the staples of the rural hinterland have increasingly been assumed by secondary centres within the province. Interestingly, this departure is not said to have occurred primarily because of a gradual reallocation of staples-based capital into new industries, as mainstream staples approaches have often predicted. Instead, it has occurred precisely because of the institutional rigidities and resource depletion that Innis associates with staples economies.

The first question here lies not in the accuracy of Hutton's observations or those of his colleagues, which are generally done persuasively and with considerable skill. It lies instead in the move to declare that the result is a departure from a staples trap, in the sense that a "post-staples" condition has been the result and that Innis' staples analysis is increasingly irrelevant to contemporary provincial economics. This seems a step too far. This is, after all, hardly the first time that a staples industry has experienced crisis and collapse, nor is this the first time that staples industries have become decoupled from particular semi-metropolitan centres or entrepôts like Vancouver. Innis's notion of a staples trap turns precisely on the exploitation of a succession of staples, rather than on

the survival of any one staple or constellation of staples. With mountain pine beetle providing a frantic interim period of salvage logging for interior communities, and the questions of fish farming, of potential oil and gas drilling opening up off the west coast, and of potential petro-chemical pipelines between the coast and Alberta, ringing the death knell of staples analysis, *specifically with regard to the BC interior and northern coast*, seems premature. Understanding present and future staples is a valid concern; what remains is to consider what Innis's legacy can contribute.

Consider now the equally thorny matter of staples dominance. I consider it noteworthy that this proposition is so often tested by looking at raw statistical patterns, and that this data is commonly collected specifically at the level of whole jurisdictions. Do staples (and the conceptual tools to analyze them) matter only if staples industries constitute the plurality of economic activity or value-added in whole jurisdictions?

A brief diversion into the flurry of literature in the late 20th century on regional industrial clusters is instructive in this regard. For example, Storper and Walker (Storper and Walker) offer a notion of industrial-regional space that rests on non-market institutional structures building up around a lead industry, forming a particular industry-region. In a substantial theoretical challenge to conventional location theory, as well as to the relatively statist orientation of the Parisian régulation school (Boyer The Regulation School: A Critical Introduction; Boyer "State and Market: A New Engagement for the Twenty-First Century?"), Storper and Walker are broadly concerned to show how key features of régulation (or institutional stabilization of economic behaviour) arise, both in and as non-state spaces. An "industry's" emergence and its location/relocation are a

single process in this rich account of the constitution, operation, and potential exhaustion or displacement of industrial clusters in space.

Some interesting parallels may be drawn with the Canadian literature on staples dominance. Using the terminology of Storper and Walker, staples have perhaps been perverse “lead industries” of key Canadian “industry-regions”, such as the Ottawa Valley. The histories of these “industry-regions” do conform closely to the dynamic alternation of fluidity and permanence in space that Storper and Walker go far to explain for industrial clustering.

That much said, other problems limit the value of this concept for the purposes of analyzing staples: First, the spaces of Storper and Walker’s industry-regions are still polygonal, in the sense that they are two-dimensional with clearly defined interiors and exteriors. As Storper and Walker theorize them, lead industries generate quasi-Schumpeterian rents, which are characteristically captured, retained, and multiplied within the region. By contrast, staples as Innis and others theorize them turn more explicitly on raw-material and capital flows in and out of their source-regions.

Second, because of the emphasis in the very conception of staples on what Hirschman and later Watkins have called forward and backward linkages, the term “industry” can be misleading for the purposes of statistical research. That is, pulp and paper production is typically treated as a different industry from logging in national statistics, primarily because of the root distinction between primary and secondary sectors. Consequently, the question of continuity in a staples economy is not necessarily resolved by evidence of direct extraction and cultivation work giving way to manufacturing and service employment (Howlett), unless there is more clear-cut evidence

that the latter are not the results of outsourcing and technological change within the forest products commodity chains.

Third, “lead industries” in Storper and Walker’s account do not behave in the same manner as staples industries. Ground rent plays a more prominent role than Schumpeterian rents in these “lead industries” or staples based specifically on resource extraction or cultivation. For all these reasons, the adjective “perverse” may rightly be added to “lead industries” of this special kind, especially given the role of rent and its capacity to generate and maintain dynamic growth. In the broad, everyday sense of the terms, Innis’s colleague, ARM Lower, rightly characterized key staples as operating in an “exploitative” (i.e., extractive, exporting) fashion, rather than as encouraging “settlement” (Lower From Colony to Nation).

But above all, Storper and Walker’s industry-regions are significant because they have no necessary relationship to jurisdictional bounds. Lead industries “dominate” a spatial housing for régulation that is explicitly regional rather than state-based. Instead of state-policed borders, the bounds of these industry-regions reflect the geographic limits of the operation of non-market institutional forms. Within these bounds, these institutional forms act as a kind of medium, in that they reduce transaction costs between economic actors; at the limit of those bounds, economic interactions instead take the form of near-free market trade.

A second borrowing from outside the Canadian debate also addresses the relation of national space to “staples dominance”. First, when one considers Innis’s writings with care, some certainly suggest that staples dominance describes economic “tendencies” in an economy rather than accomplished facts (Innis Fur Trade, 385). One conceptual

advance in international social theory provides a particularly instructive parallel. In the debate about older conceptions of “class domination”, Bob Jessop elaborates on several social theories arising out of the Gramscian concepts of hegemony and historical bloc, including theories of régulation. He generalizes the constitutive role of “the political”, and abstracts it from the specific housing of state jurisdictions (cf. Bob Jessop, qtd. in Bertramsen, Thomsen and Torfing). But he also theorizes configurations of strategic social blocs (such as a Gramscian historical bloc, or a “staples bloc” (cf. Clement)), which achieve a degree of economic, societal, and state integration or internal coherence, without any assumption that they dominate the wider social formation or exhaust the available social terrain. Jessop’s adaptation of the concept of “societalization” or *Vergesellschaftung* and of related concepts addresses the processes by which this integration occurs as a matter of strategy (Jessop; Bertramsen, Thomsen and Torfing). The result is the tendential and strategic integration of societal, economic, and state projects in a manner that comprehends all three domains, but that falls short of the totalizing implications of the Canadian meaning of “domination”.

Through a constructive disagreement with Hutton and others about what constitutes a “post-staples” condition, we have argued for separating the value of staples analysis from the question of whether staples dominate whole jurisdictions. By engaging with the “industry-regions” of Storper and Walker, we have gained inspiration to think about staples as the (perverse) lead economic activities of rural regions, without any need to expect that the pattern of pan-Canadian centralizing staples of wheat, lumber, and fur will be replicated. From Bob Jessop, we have gained a suggestion about how the Canadian tradition of staples dominance could explain staples tendentially shaping

societal and political structures around them, without any need to assume that this effect will be totalizing. It remains to present some initial elements in the re-conceptualization of such configurations, which are specifically linear rather than polygonal. “Staples,” “commodity chains,” and “filières,” though not at all identical, are all concepts identifying and explaining such spaces.

Staples: Elements of a Linear Configuration of Space

1. By their nature, these chains or filières cut across the geographic bounds of jurisdictions and industry-regions, specifically for the purposes of metropolitan supply.
2. They are more or less narrow corridors along which a variety of flows are channelled through space. Among these flows are raw materials and semi-processed goods; money capital as both investments and payments; capital equipment as means of extraction, cultivation, and production; workers as embodied labour-power; and managerial, regulatory, and promotional communications.
3. These trans-border spaces are generated out of the inherently unstable interplay of different institutional complexes, each of which is unstable. In the first place, the instability arises from the staple spaces being riven by internal tensions over the organization and location of production processes. In the second place, these linear spaces are segmented at multiple transfer points, such as borders, where different institutional complexes transfer claims or capacities to influence.
4. These complexes stand in a structuring and regularizing relationship with the flows mentioned above, and also with the different processes that transform the raw

material at fixed production points. Both the flow processes and the stationary transformations constitute production processes.

5. The earliest activities in a staples chain – broadly extraction or cultivation (“eco-regulation”) (Benton) -- have exposed especially stark tensions between environmental economists’ attention to non-human generative processes, and Marxist interpretations of both the labour process and the labour theory of value.
6. The extraction and cultivation labour that distinguishes virtually all staples institutions have been particularly popular targets of market-based environmental campaigns. On several fronts, these activities stand out in the wider economy as distinctive kinds of work. One analyst has even argued that they are distinct at the level of theory, precisely because of their direct interface with ecological processes and “conditions of production” (Benton). Whether or not this particular assessment holds up in theoretical terms, the direct interface certainly inspires environmental concern.
7. Extraction and cultivation work are distinctive in other ways. It is also typically done at sites that are low in population density, remote from metropolitan and secondary centres, and highly dispersed from one another. Consequently, they are difficult and expensive to regulate, at least by using conventional surveillance, data-collection, and accountability mechanisms (e.g., Shrimpton, Storey and Husberg).
8. Staple extraction and cultivation depend to a unique degree on communications and transportation infrastructure to overcome these regulatory problems. But the effects of any given infrastructure are uneven in compressing space-time (Harvey) and thus in facilitating the several requisite flows of raw material, capital, and managerial and

regulatory communications. These problems have consequences that extend well beyond those that green activists experience in transforming extraction and cultivation practices: there are close parallels in state and corporate attempts to regulate the worksites where cultivation or extraction take place.

9. Ground rent, embodied in both land and its products, stands near the centre of staple analysis precisely because of this distinctive interface or “material exchange” with non-human processes that staple complexes incorporate.

Crucially, these linear spaces are marked by differentiation and diversity in the operation of relevant institutions in space. This is a matter of diversity in both scale and kind. We have seen that jurisdictional or regional institutions transfer their authority over staple flows at defined boundaries. But transfers of various other kinds are also inherent to a staple, and their spatiality must be considered both for analytical distinctiveness, and for their interrelations with other transfers. For example, economic institutions transfer their rights over the same flows through markets, which may (or may not) occur at particular locations or times, and which may (or may not) correspond to jurisdictional transfer points. The degree of vertical integration of single firms along the length of the staple chain affects the total number and location of markets along that chain. But the integration of interventions by many other institutions, including jurisdictions, has a similar impact on the total number of the relevant transfer points.⁵ Finally, because transfer points are privileged points for the interruption or diversion of flows from the staple, they are also privileged points for institutions that counter the risks associated with interruption or diversion. Insurance is one such institution; stockpiling at borders and at

marketplaces, though a problematic limit to the circuit of capital (Harvey The Limits to Capital), is another: in many ways, stockpiling is a defining characteristic of staples.⁶

Just how capitalist relations of production and exchange are organized into such serial activities and linear spaces by overlapping institutional influences, and what patterns result, may be analyzed in substantially different ways (compare Lower Great Britain's Woodyard: British America and the Timber Trade, 1763-1867; Hammond; Chew; Glon).

Staples as Biased Media of Power

Relatively autonomous institutions of various kinds may establish, abolish, or intervene in various nodes and transfer points, and thereby contribute to making the latter part of a staple chain. Many institutions may intervene purposively in several of these nodes or transfer points simultaneously. In the process, they may establish transportation and communications links or transform existing ones, in order to channel various flows through them. Once established for specific purposes of a given institution, these links and the resulting flows are potentially available for the exercise of various kinds of power by other intervening actors.

An exercise of power of the latter sort may occur directly at the production nodes and/or exchange transfer points they intended to affect. Of greater interest here are the exercises of power that begin at one point, with the idea of affecting a different object of intervention along the chain. The intervention effectively passes, either through institutional structures or through the channelled flows themselves, past the various nodes and transfer points that constitute the linear space of the staple.

Examples of such indirect exercises of power may be seen clearly during the course of outsourcing (e.g., Norcliffe and Bates). Management instructions may be communicated directly to employees at a given point in a staples chain. But the same interventions may be communicated at one point, and then communicated elsewhere.

Keck and Sikkink's "boomerang effect" (Keck and Sikkink) provides an Erika Sasser with an important starting point in theorizing such processes as an expansion in the "repertoires of contention" (Tarrow) for global social movements. Briefly, the boomerang effect describes a strategy of local opposition movements confronting closed local policy networks, whereby the movements circumvent local barriers to access to the policy process through appeals to international actors with greater access or influence. This scenario has figured in environmentalist strategies in the face of closed natural-resource politics in Canada (e.g., Wilson).

Erika Sasser (Sasser) has proposed a less remarked-upon "ricochet effect" that applies Keck and Sikkink's concept to Gereffi's reception of global commodity chains. As with the "boomerang effect", outside actors are recruited to the cause of a local opposition, but respond by intervening at a sensitive point in a relevant commodity chain. Their intervention will be tailored to maximize impacts at the point in the chain that local policy networks monopolize and the local opposition wishes to alter. These acts of power – such as final-product boycotts and eco-labelling programmes -- are driven up the commodity chain to the target point.

In a nuanced discussion that cannot be fully captured here, Sasser further identifies several key indicators for identifying effective modes of intervention through various certification schemes. She identifies three core variables: 1) patterns of firm

integration along the supply chain, 2) market concentration at any given point in the chain, and 3) whether responsibility for the controversial activity at a targeted point in the chain is attributed to individual firms or to whole industries by potential interveners.

This approach is sophisticated in many ways, but two of the three factors considered are specific to economic institutions: market concentration and firm integration. The present article draws on this analysis, but seeks to incorporate the effects of a wider range of institutions than the market, and a wider conception of markets themselves (compare Boyer "State and Market: A New Engagement for the Twenty-First Century?", 95-99). Some of the more obvious potential intervenors would be states, firms, business associations, unions, civil-societal and professional organizations, and (increasingly) non-state, market-driven authorities such as certification programmes. Second, some basic distinctions can be usefully made in relation to the actual and intended effects of power on its own instruments or media – in this case, the staples chain. On one hand, a variety of forces or interventions may have constitutive, destructive, or neutral effects on a medium of power like the staples chain. In the other hand, projects may be integral to the existing operations of a staples chain; intentionally transformative of that staples chain; or directed primarily towards the extreme ends of the staples chain – towards buyers or primary producers rather than towards elements of the staples chain itself. Third, projects imply agency. While collective agents pursuing projects may correspond closely to existing institutional forms, they may also emerge within, between, or beyond particular institutions. The internal structure and coherence of agents may therefore vary widely.

Mechanisms of Power and Conditions for the Ease of "Power-Transmission"

Building on the foregoing discussion, it appears that power may be deliberately exercised through staples or raw-material commodity chains in a number of ways, such that a purposive intervention at one node or transfer point generates the intended effect at another point in a staple chain. Further empirical and conceptual research is needed to confirm, refute, or refine these propositions:

1) Augmentation or Diminution of Flows:

A staple chain is constructed around multiple horizontal flows, such as the staple products; of liquid capital (investments and payments); and of communications flows. Augmentation or diminution of these flows, whether singly or in combination, therefore constitutes a distinct “immanent” mode of exercising power along the staple chain. This mechanism depends 1) the existence of reserves of the raw material, capital, or communications – such as stockpiles – to manipulate within the staple complex itself; and/or 2) on the production, extraction, or cultivation processes that produce raw material, and thereby enhance capital accumulation within the chain.

2) Supplementation or Diversion of Flows:

Supplementation or diversion of these same flows, singly or in combination, resemble the augmentation or diminution of them, but arise out of interventions from beyond the chain. These interventions include, but are not limited to, diversions of raw materials for domestic use, and the endless problems of investment and repayment. They may be “positive” or “negative” in the short-term; they may also include tortuous complexities, such as those posed by “rent capture” (Richards and Pratt; Kierans), shifts in a socially necessary turn-over period, and case-specific re-investment strategies. Captured rents and other payments can a) be re-deployed by institutions in new

investments up and down the supply chain, b) be invested in the institutions' various intervention capacities themselves, or c) simply be drawn away from the staple structure entirely for re-investment or consumption elsewhere in the economy. But ultimately money investments and payments flow through the staple chain in a wider capitalist context where investments must ultimately be met with repayment at a competitive rate of return.

3) Decoupling or Recoupling:

Commodity chains may not be generated and coordinated wholly from a single centre of control at a single node in the chain. Previously independent segments may be linked together in processes of mutual articulation and integration. In the process, the various segments in question may be conditioned to one another, whether by mutually agreed reasons amongst affected interests, but as expressions of unilateral power. Once a staple chain is established, segments may be severed from one another, or linked to new segments. A classic example is the forced reorientation of British timber merchants from Baltic supply zones to British North American ones during the Napoleonic Blockades (Chew). In the future, the reorientation of Canadian staples to Asian consumer markets may be another.

Several other mechanisms of exercising power through a staple depend on operations that multiply, or conversely integrate or coordinate, the various elements of the staple institutional complex itself. These elements include the productive processes, the various transfer points, or the other interventions at or between nodes or transfer points. These mechanisms for realizing a given project have a separate bearing on the possibility of other projects instrumentalizing the length of the staple chain.

- a) Building on Sasser's work on degrees of market concentration at particular points in a commodity chain, a high quantity and/or diversity of autonomous interventions at given nodes or transfer points should increase resistance to transmission.
- b) Building on the distorting effect Sasser identifies in the quantity and diversity of uncoordinated interventions between two or more nodes in the chain, vertical integration of intervention points, particularly in relation to the total span of the chain, is a countervailing tactic that many types of institution can deploy, that should enhance transmission as a by-product.
- c) By analogy to electrical transmission, "signal distortion" or "resistance" should also increase the greater the distance along which a "signal" has to pass. More specifically, it should increase the greater the number of intervening production nodes and transfer points.
- d) Both vertical integration and concentration speak to the degree to which given interventions are integrated or coordinated within wider projects. The interventions of different institutions, and above all different kinds of institution, are not necessarily coordinated with one another, even if they are each separately integrating a variety of interventions along the same span of a staples chain. The variety, compatibility, and sheer quantity of such projects constitute a further consideration in effective instrumentalization. High variety and low compatibility of projects intervening in a staple chain should tend to increase distortion of any single signal passing along it.

- e) A feature counteracting the considerations in factor d), is the degree to which multiple integrating institutions along the same stretch of the chain serve to stabilize it. Multiple overlapping and coordinated projects of coordination along the length of the staple chain should have a reinforcing, integrating effect, particularly if they exhibited minimal incompatibilities. Second-order interventions are relevant here, stabilizing and regularizing the various first-order interventions, harmonizing them rather than eliminating them. These “coordinating” interventions (such as multi-stakeholder negotiating forums over timber harvesting norms or wildlife management boards for mining projects)⁷ could be directed either at a single node, or at projects operating over several different ones.
- f) The degree of spatial overlap in the “span” of various projects of coordination should also be considered, particularly with regard to decouplings and recouplings along the staple chain. “Transfer points” – where institutions of similar types abandon or transfer their claims and rights to the flows of the staple – may be viewed as the points where these individual institutions’ projects end for the staple. More profound segmentation and greater potential for decoupling and recoupling should occur i) where there are few integrative institutional projects and little variety in their type; ii) where there are multiple projects whose spans are small relative to the entire chain; or iii) where multiple projects have spans that coincide over the same range of the staple chain, terminating at the same or similar point.

g) Less formalized quality norms or *conventions* may also emerge amongst stakeholders and shape their routinized practices, cutting through and across distinct institutional types, and operating potentially along the length of the chain. The force of such conventions pertains especially to the material flows of a raw-material chain, mobilizing not the quantity of the flows, but the quality.

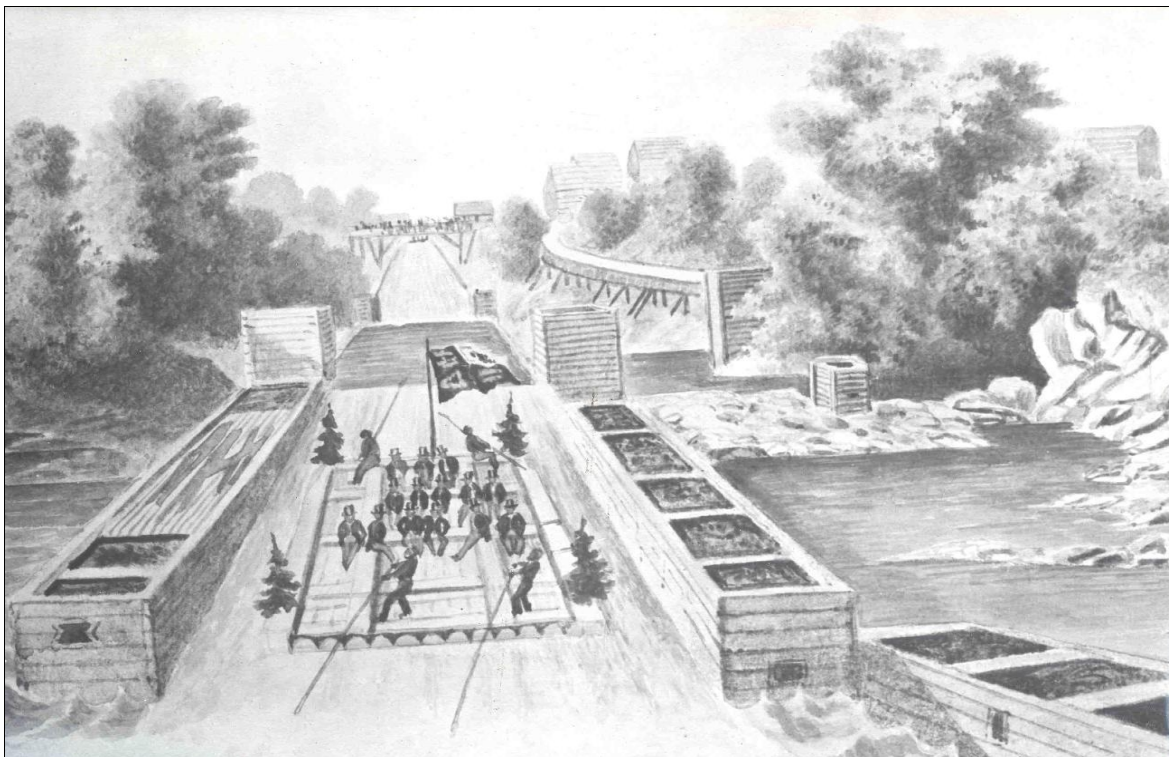


Plate 1: (C. Williams) National Archives of Canada. Accession Number NAC-005086

Bibliography

¹ In time, Ottawa's timber slide became a standard amusement for visiting dignitaries.

² Timber for the American market was also important, increasingly so as the 19th century wore on. But this material was typically processed in the region and was exported in "deals" of finished lumber Lorne F. Hammond, "Capital, Labour and Lumber in A.R.M. Lower's Woodyard: James Maclaren and the Changing Forest Economy, 1850-1906," Ph.D., University of Ottawa, 1993..

³ This slogan led a major advertising campaign for Verizon Wireless. Teresa Howard, 'Can You Hear Me Now?' a Hit, February 22 2004, Available: http://www.usatoday.com/money/advertising/adtrack/2004-02-22-track-verizon_x.htm, May 15 2005.

⁴ In this, it is influenced by Raikes et al. and Wilkinson Philip Raikes, Michael Friis Jensen and Stefano Ponte, "Global Commodity Chain Analysis and the French *Filière* Approach: Comparison and Critique," Economy and Society 29.3 (2000), J. Wilkinson, "A New Paradigm for Economic Analysis?," Economy and Society 26.3 (1997)..

⁵ As Harvey has pointed out, length of turnover time (and hence the degree of vertical integration, inversely related to the number of transfer points on a staple chain) has a bearing on the rate of profit (Harvey 1982).

⁶ Medieval staple institutions had their origins in stockpiling, ensuring urban supplies of basic essentials; the German word, "Stappel," means heap or pile. The theoretical implications of just-in-time measures for the operation of staples complexes deserve more attention Glen Norcliffe and Judy Bates, "Implementing Lean Production in an Old Industrial Space: Restructuring at Corner Brook, Newfoundland, 1984-1994," Canadian Geographer 41.1 (1997)..

⁷ See the concept of "linkage institution" in Gunther Teubner, ed., Global Law without a State (Aldershot: Dartmouth, 1997).