

## Werk

**Titel:** Managing and marketing of urban development and urban life

**Untertitel:** proceedings of the IGU-Commission on "Urban Development and Urban Life", Berlin, August 15 to 20, 1994

**Jahr:** 1994

**Kollektion:** fid.geo

**Signatur:** XX

**Digitalisiert:** Niedersächsische Staats- und Universitätsbibliothek Göttingen

**Werk Id:** PPN1030505985

**PURL:** <http://resolver.sub.uni-goettingen.de/purl?PPN1030505985>

**OPAC:** <http://opac.sub.uni-goettingen.de/DB=1/PPN?PPN=1030505985>

**LOG Id:** LOG\_0067

**LOG Titel:** Counter-urbanization in perspective: Images and reality in settlement system change

**LOG Typ:** article

## Übergeordnetes Werk

**Werk Id:** PPN1030494754

**PURL:** <http://resolver.sub.uni-goettingen.de/purl?PPN1030494754>

**OPAC:** <http://opac.sub.uni-goettingen.de/DB=1/PPN?PPN=1030494754>

## Terms and Conditions

The Goettingen State and University Library provides access to digitized documents strictly for noncommercial educational, research and private purposes and makes no warranty with regard to their use for other purposes. Some of our collections are protected by copyright. Publication and/or broadcast in any form (including electronic) requires prior written permission from the Goettingen State- and University Library.

Each copy of any part of this document must contain these Terms and Conditions. With the usage of the library's online system to access or download a digitized document you accept the Terms and Conditions.

Reproductions of material on the web site may not be made for or donated to other repositories, nor may be further reproduced without written permission from the Goettingen State- and University Library.

For reproduction requests and permissions, please contact us. If citing materials, please give proper attribution of the source.

## Contact

Niedersächsische Staats- und Universitätsbibliothek Göttingen  
Georg-August-Universität Göttingen  
Platz der Göttinger Sieben 1  
37073 Göttingen  
Germany  
Email: [gdz@sub.uni-goettingen.de](mailto:gdz@sub.uni-goettingen.de)

## **COUNTER-URBANIZATION IN PERSPECTIVE: IMAGES AND REALITY IN SETTLEMENT SYSTEM CHANGE**

**Wayne K.D. Davies**  
University of Calgary, Canada

It is shown that the population distribution in Canada has become more concentrated in a limited number of large urbanized regions over the past twenty years, although there has been decentralization within these areas. This led to the questioning of the counter-urbanization thesis and some of the other new concepts that are linked to the new technologies. It is concluded they may provide additional options that add to the complexity of settlement systems rather than completely transforming them.

### **Introduction**

The theme of this conference, set in the land that produced the Grimm Brothers - those famous authors of fairy tales - makes it appropriate to begin this review of our perception of urban system settlement change with the words they made famous.

ONCE UPON A TIME the study of urban system change seemed simple. For most of the last century the western world showed a pattern of urban, then metropolitan growth complemented by rural decay. These trends seemed inexorable; they were part of an inevitable urbanized future in which DOXIADIS's (1974) megalopoli seemed the ultimate destiny. In the last thirty years a series of societal changes has transformed many aspects of our society, especially our communication and employment systems, leading to an increase in urban complexity, although many of the forces for individualism and specialization cannot be attributed to the modern or post-modern world alone (DAVIES and HERBERT 1993). Much of the conventional wisdom of the past about urban systems has been overturned or at least challenged. We live in a new world in which information transactions, not goods production, represent the major economic growth force and in which the old locational imperatives - such as raw materials and power, trained workforce and transportation linkages - no longer seem so important. For those who like contemporary jargon our post-industrial service society is an era of global production systems based on post-fordist lines set in a post-modern ideology. The world can be brought to the nearest computer terminal. Information, image and amenity seem to be the new gods of location whose power seems to be able to lead to the creation of residences or employment in any space.

We cannot deny that the societal changes of the last quarter century have had a profound impact on our lives. In a settlement context we have witnessed the growth of multi-nuclear and decentralized urban regions, with affluent suburbs confronting impoverished or at least socially polarized and complex inner cities. But the specific

effects of the new communication technologies upon our urban systems - considered as settlements that have different character and interactions - are still not clear and the pundits may have exaggerated or even distorted the effect of these changes. Some of the trends that have affected our behaviour and settlements have been crystallized in a set of concepts that seem to provide signposts for the radical transformation of our urban systems. Prominent among these are: the non-place urban realm concept (WEBBER 1964) of the 1960s, counter-urbanization and the population turnaround in the 1970s (BEALE 1975, BERRY 1976), urban networks and their alternatives (DAVIES and THOMPSON 1980, DUNN 1980), edge cities (GARREAU 1988), telemarketing and telecommuting in the 1980s, to the information highway of the 1990s. These and other trends seem to have produced an implicit belief - especially in the popular press and when these ideas filter down to local planning literature - that the new communication devices will lead to a massive re-structuring of our settlement systems, which WEBBER (1968) anticipated as the post-city age. But it must be acknowledged that many authoritative reviewers of the field (HEPWORTH 1989, HALL 1990, DURLAK 1994, PRUD'HOMME 1993) are actually rather cautious in their predictions about the extent of real change in settlement systems. Similarly, CASTELLS (1989) in his book on the Informational City, as well as a recent O.E.C.D. (1992) report on Cities and New Technologies, have showed how cities may be affected differentially and provided many examples of how the new technologies were being used in cities. But combined with the reviews it is difficult not to be left with the view that the extent of urban system re-structuring by new technologies may have been exaggerated. After all, it is increasingly clear that the new technologies affect different activities and settlements differentially and computer systems can lead to centralization. The most obvious case is the way in which the electronic revolution in financial marketing that created the 24 hour trading system led to a concentration upon the major World Centres of Tokyo, New York and London. In the more specific context of telecommuting the following statement by a researcher on teleworkers (STEINLE et al. 1988: 8) was quoted with approval by one of the contributors to an authoritative set of essays on Cities and New Technologies (O.E.C.D., Paris 1992): there are more people doing research on telework than there are actual teleworkers (QVORTRUP 1992: 87). The extent of telecommuting may have changed in the last two years. But is QVORTRUP's comment closer to the truth than some futurist vision of a world populated by workers inhabiting electronic cottages? Similarly one may also cast some doubt upon the general importance of telemarketing. It has certainly grown substantially but it is well below other modes of retailing and the wages paid to the workers are often pitiful. Also, it may have hit a consumer resistance level since many people do not like to be solicited in the privacy of their homes. Interactive marketing may be another trend whose impact may be exaggerated ( see The Economist August 20, 1994).

Despite these cautionary examples most will agree that there remains an impression - given the theme of this conference, should it be called an image of our beliefs? - that the new technologies will produce, or has produced, a massive

change in the size and distribution of our settlement systems. It is the object of this discussion to review the relevance of some of these new trends from an urban system viewpoint. The first section of this discussion focuses specifically upon the population turnaround or counter-urbanization concepts and reviews their significance. The second section provides some empirical evidence for the extent of counter-urbanization or metropolitan concentration in the Canadian settlement system. The third section tries to place these trends in perspective by broadening the discussion to some of the other concepts that have been suggested as fundamentally altering our settlement system. It must be stressed that this discussion is written from the perspective of urban systems, so the issue of an internal re-organization within the urban centres or urbanized regions is only of secondary importance.

### Counter-urbanization

In the 1970s a new trend appeared that seemed to point to a completely new future for settlement systems. First recognized in the early 1970s in the United States and variously known as the *population turnaround* (BEALE 1975) and *counter-urbanization* (BERRY 1976), it stemmed from the fact that the average rate of rural growth - even in areas outside the immediate orbit of cities - was greater than in urban places for the first time in the twentieth century. This led BERRY to conclude that:

"counter-urbanization has replaced urbanization as the dominant force shaping the nation's settlement pattern ... Counter-urbanization is a process of deconcentration: it implies a movement from a state of more concentration to a state of less concentration" (BERRY 1976: 17).

Others, working in rural areas went further, with VINING and STRAUSS (1977) interpreting the trends as some clean break with decades of rural depopulation and small town decline. Similar findings in other parts of the western world led to an explosion of articles and books on the topic (CHAMPION 1989). Although the various terms used to describe the 1970s changes are related, it does seem worth distinguishing between two interpretations: first, the idea of a population deconcentration expressed in suburban and fringe growth; and second, that of a more general deconcentration due to growth beyond the immediate influence of the cities - which is surely what the word counter-urbanization implies to most people. This latter interpretation captured the imagination of many; it seemed to fit in with the idea of major changes that were altering western society, whether de-industrialization, or the service and global economy. The new terms quickly provided new images for our thoughts about settlement system change. Indeed the persuasiveness of the concepts were very much influenced by the fact there seemed to be a number of reasons to expect the trends to continue: these reasons that can be easily summarized in several categories.

- One was the *people-led* changes, from preferences for small towns to retirement centres.
- The second consisted of the *obsolescence and ethnic problems* in the inner areas of many large cities and the negative externalities, which encouraged dispersal.
- The third set were the *societal* changes of a lower birth rate, increased numbers of women in the workforce, and an aging population. All of which reduced growth.
- The fourth were the *technological* changes produced by cars, new roads and then computers and subsequently fax and video machines which allowed decentralization.
- The fifth consisted of the *employment-led* trends of employers seeking workplaces with lower cost locations, better amenities or in third world countries.
- The sixth was the lubricating effects of *direct and indirect government* action, from old age and unemployment benefits, which have helped people remain in small centres, to the provision of infra-structure and policies designed to stimulate small towns and rural employment.

Despite the persuasiveness of the six factors "posted" above for the counter-urbanization and population turnaround concepts, a closer review will reveal many flaws in the utility of the ideas - at least when interpreted as some radical transformation of settlement patterns, rather than a continuation, with increased speed and spread, of older decentralization trends in the area around the city. One of its weaknesses has been the *inability of investigators to differentiate between the effects of the various causal factors*, to allocate weights to each, so as to define their relative importance - either generally or in specific areas. But in common with the preference to exaggerate the significance of new trends over the old, it does seem that emphasis is often given to the new communication technologies in accounting for changes. Moreover there were a number of *technical or measurement problems* which cast doubt upon the scale of the change, issues that have been summarized elsewhere (DAVIES 1990). Also *evidence from detailed studies of settlement change* (CHAMPION 1989, DAVIES 1990) have also cast doubt upon both the longevity of the change and the fact that the regional and settlement size specific changes cannot be summarized by such a simple term as counter-urbanization, as there are often major differences in various countries and areas within them. So although there were changes in the settlement patterns in the 1970s and beyond it must be acknowledged that there are also several forces that militate against counter-urbanization - at least seen as a massive dispersal of population from city regions - and these need to be identified.

- *Land Use Controls*. There is little doubt that one of the major reasons why there have been major changes in the USA compared to Europe is because there are far few land use controls in rural areas, so dispersed habitations or new housing tracts can be built much more easily, whilst new jurisdictions separate from the old cities can emerge. In most parts of Europe there are stronger societal preferences against sprawl - whether on aesthetic or cost grounds - a stronger central city residence



ethic, pro-conservation views, land use laws that constrain sprawl as well as a planning climate that inhibits or reluctantly allows employment on the fringes of cities.

- *Energy*. Scattered settlements serviced by the car incur huge energy costs that are borne by the individual commuter. The 1970s oil price increase led to predictions of a crisis in future energy supply. The conventional wisdom of the last part of that decade was to reduce oil use and to devise alternative settlement scenarios. Will the issue of renewable resources re-emerge and cause problems for the future functioning of modern settlements?

- *Agglomeration Advantages*. Although surveys frequently tell us that residents of western societies prefer small towns there are many advantages for bigger places, ranging from job opportunity, amenities, socialization and entertainment facilities. Certainly many cities may have negative images but we must not discount the agglomeration economies of cities. In addition there are enough people who prefer urban life, with its complexity, opportunity and excitement - to isolation, fresh air, cows and poor quality services!

- *Dispersal Costs*. The desire of rural jurisdictions to increase their tax base to pay for services led many rural areas to seek industry and service employment. Employers have been pleased to decentralize to avoid high urban taxes and long commuting journeys to city centres compared to the lower costs, ease of parking and often higher amenity levels in the urban fringes. Increasingly, however, this trend is being counteracted by the recognition of the costs of dispersal. Roads that allow ease of travel to big centres were built with national or state taxes, so costs were not borne locally. Hence people that have dispersed may have been subsidized by society as a whole. But there are other public costs involved in supporting a private life-style in the country - such as the infra-structure of health care, fire services, schools, garbage disposal, even water supply etc. Such services are very costly to provide for a scattered population. Jurisdictions that have allowed sprawl, such as the province of New Brunswick in Canada, are increasingly uneasy about the costs involved, as a recent Royal Commission has shown (N.B.D.M. 1993).

- *Security* is the issue we often forget. It may soon be apparent to common thieves that our isolated teleworker on his rural plot would be a great target for robbery, given electronic equipment in abundance and few neighbours to depend on for rapid help. Most have seen the famous film Star Wars. Perhaps we should remember what happened to Luke Skywalker's parents in their isolated remote settlement on a distant planet! It was their death that led him to challenge the evil Empire. We do not have to look to a fictionalized future. There have been many historical precedents of the same thing. Just remember what happened to the Roman villa, once the Pax Romana broke down. If security disappears in the developed world will there be less attraction for the decentralized mode?

These factors "leads" (an acronym for the factors) one to suggest caution in the application of the counter-urbanization trend, at least in its sense as a clean break or some universal anti-urban or urbanized region trend for the future There are powerful forces working against counter-urbanization when it is seen as a process of

settlement change beyond the process of suburbanization or in what used to be called the urban field. Technology, even with the new forces for dispersal at the present, may not lead to the transformation of urban systems that has been predicted. Again *these words of caution do not deny the importance of the growth that has taken place in some areas* - especially those of high environmental amenity, in some rural areas that have attracted new industries, or a major growth in the middle order centres where centralization has taken place, as well as the suburbs, small settlements and traffic nodes around the big cities. Rather the point is that the recent dispersals may be better seen as only the latest manifestation of centuries-old trends that have expanded the influence of the big city, or rather the urbanized region. Is it so different from the urban field argument of other years? If there is a difference, it is that the decentralized businesses now have a mass that is often larger than the older central business area. Moreover to posit such a general process as counterurbanization does cause problems in our increasing complex world, when there may be a variety of different trends in different areas or at different levels in the settlement system as CHAMPION (1989) and DAVIES (1990) have shown. We do not have to be post-modernists to be suspicious of grand theory or the proposition of universal processes. Moreover, if the scale is switched to an urban or settlement system scale another question may be asked. Is it possible that the terms counterurbanization and population turnaround may have helped conceal the fact that *at an urban system scale there has been a concentration of people* in the new sprawling urban regions? This issue will be examined by reference to the Canadian case.

### **Settlement System Change in Canada**

Before looking at the case study of Canada there is a vital need to make two points. First, the discussion will *focus on the size and distribution of settlements and their region*, not upon the degree to which the population is more or less decentralized within these areas, between central city and suburb or urban field. Second, it is necessary to *differentiate between the aggregate and individual behaviour differences in urban systems* - between the size, distribution and interactions of places. We can accept there may be changes in the behaviour of people in the settlements, in the sense of increased non-place activities or telecommuting in a non-contiguous space. But this does not necessarily translate into major differences in the degree of scatter of settlements and the structure of urban systems?

#### *a) The National Scale*

In 1984 a Statistics Canada publication on urban growth described the decline in the proportion of population that was urban: from 76.1% to 75.7% from 1971 to 1981 (S.C. 1984). Noting the decline in the central areas of metropolitan areas and the fact that the rural population was increasing at a greater rate than the total population the report concluded:

"Urban Canada is losing ground, partly to exurbia. The counter-urbanization movement that began in the early 1970s appears to be continuing ... the growth in the rural proportion of the population over the past decade is a demographic milestone ..." (S.C. MAY 1984: Conclusion).

Although the report was careful to note that the rural growth was not a consequence of a farm population growth, the impression of some major change in the settlement pattern was firmly established. This conclusion needs to be re-evaluated in the light of recent changes. It is certainly possible to find areas in Canada that have dramatically increased their population. Some large urban areas show a decline in their population - the most significant of these is Saint John (N.B.), which has declined from 92,162 in 1971 to 90,457 in 1991, although King's County outside the city, has increased to 62,122 from 33,285 over the period and there are other increases in rural areas within commuting range. In general the major percentage growth lies in areas of high amenity in a recreational sense - environmental niches of growth - and around the major settlements. But apart from these examples a superficial view of the most recent population figures may lead some to conclude that the so-called counter-urbanization trend seems to have continued since the 1970s. After all, half of the Canadian ten provinces, including the two largest, had decreases in the proportion of their population that lived in urban places (the urban definition in Canada refers to those places that are essentially over 1,000 population) between 1971-91 (Table 1). Such trends in the Canadian settlement system may give those who believe in the new decentralized future grounds for delight. Indeed, when one reviews the distribution of the provinces, there is a broad east west-division in the changes in the proportion of people in urban places, perhaps tempting us to think in terms of some wave or cycle analogy, in which the older centres of the east are in some ruralization phase, the central provinces of Quebec and Ontario are poised to go this way, with the west, being younger, still urbanizing (Table 1). But such an idea does not stand the test of scientific acceptability, for other features need to be considered. These need to be enumerated.

**First**, the proportion of population that lives in urban places is high: 76% for Canada as a whole. Since the proportion is near saturation levels in the bigger provinces we should not exaggerate minor percentage changes.

**Second**, political boundaries have not always kept up with the trends of deconcentration of the population. But one cannot deny that there has been some decentralization to places that cannot be considered to be urban. Indeed, Table 1 shows that the rural non-farm proportion in Canada has increased substantially over the period, from 17.3% in 1971 to 20.5% in 1991, compared to 6.6% and 2.9% for the rural population - although this is measured as the farm population. In the case of Saint John (N.B.) the city has been economically depressed and the regional population increase that has taken place is a product of increased commuting to the city and to industries established in the area around. Moreover, it must be noted that



the province of New Brunswick has relatively lax planning controls, so scattered habitations have been easier to build in the past.

Table 1 Urban and Rural Population in Canada: 1991

Area	1991 Size in Thousands	1991 Percentage Urban * (1971)	1991 Rural Farm**	1991 Rural Non Farm
Newfoundland	568	53.56 D (57.2)	2.5	46.2
Prince Edward Island	130	39.93 I (38.3)	6.3	53.7
Nova Scotia	900	53.50 D (56.7)	1.3	45.2
New Brunswick	724	47.69 D (56.9)	1.4	50.9
Quebec	6,896	77.60 D (80.6)	1.7	20.7
Ontario	10,085	81.84 D (82.4)	2.1	16.1
Manitoba	1,092	72.09 I (69.5)	7.1	20.8
Saskatchewan	989	63.04 I (53.0)	14.9	22.0
Alberta	2,546	79.78 I (73.5)	6.7	13.5
British Columbia	3,282	80.44 I (75.7)	1.5	18.0
Yukon	28	58.75 D (61.0)	—	41.2
Northwest Territories	58	36.69 D (48.4)	—	63.2
CANADA	27,296.860	76.6% (76.1)	2.96	20.5

\* Urban places are settlements greater than 1,000 population with certain density levels.

\*\* Note that small fishing, mining communities are not classified as rural because of the restriction to the term to agricultural areas. Source: Statistics Canada.

**Third**, it is very dangerous to focus on percentage changes, especially when the provincial and urban areas are of very different sizes. Table 2 shows the absolute changes in the numbers of people in urban places over the 1971-91 period. It can be seen that 4.5 million of the Canadian increase of 5.7 million people were in urban places, well over three-quarters! More to the point the loss of 15 thousand residents from urban areas in New Brunswick is seen as insignificant when one considers that Ontario added 1.9 million urban residents over the period, with another 1.7 million added to urban places in Alberta and British Columbia. Little of the increase can be attributed to political or census unit boundary changes. Surely this shows the dangers of accepting the counter-urbanization argument.

**Fourth**, one of the latest in a series of valuable monitoring reports by BOURNE and SIMMONS (1989) have shown the slowdown in the rate of growth and the regional variations in Canada in the 1980s. Yet when one looks at where the majority of the population of Canada lives it can be seen that the country became urban in 1931, became metropolitan in 1971 and, it can be argued, became large or big-metropolitan in 1991. This term has been used to draw attention to the fact that half

Table 2 Percentage and Absolute Values of Urban, 1971-91

	1971-91 Absolute Population Increases	Changes in Urban:	
		Percentages	Absolute Values
Newfoundland	46,371	-4.4	+5,831
Prince Edward Island	18,124	+1.6	+9,046
Nova Scotia	110,980	-3.2	+34,127
New Brunswick	89,343	-9.2	-15,385
Quebec	868,201	-3.0	+492,891
Ontario	2,382,778	-0.6	+1,906,111
Manitoba	103,698	+2.6	+100,352
Saskatchewan	62,683	+10.0	+132,510
Alberta	917,676	+6.3	+834,353
British Columbia	1,097,429	+4.7	+986,331
Yukon	9,412	-2.3	+5,116
Northwest Territories	22,843	-11.7	+4,306
<b>CANADA</b>	<b>5.729m</b>		<b>4.496m</b>
(of increase 1971-91)	(100%)		(78.46%)

Source: Calculated from Statistics Canada, 1991 Census.

of the population live within 100 miles (160 kilometres) of the three largest census metropolitan areas that are over a million in population (DAVIES 1993). Updating the figures to the 1991 census indicates the dominance of the Toronto-centred area, with 19 centres over 10,000 people within 100 miles, accounting for 23.54% of the Canadian population. This is now well above the Montreal-centred region, with 18 places accounting for 18.12% of the total and Vancouver with 5 places over the threshold size, at 7.93%. Of course, other authorities have drawn attention to the trends of concentration in other ways, such as YEATES (1975), with his Main Street concept, encompassing the Quebec-Windsor corridor, or the Great Lakes megalopolis of DOXIADIS (1967), to which one can add the emerging idea of Cascadia, which puts the Greater Vancouver area into a larger region including the Seattle-Portland grouping in the Pacific North-West. What seems clear is that Canada has been characterized by an increased concentration of its population in a limited number of areas over the past twenty years. As a result, the continued use of the counter-urbanization concept will distort the reality of these changes. Again to avoid misunderstanding *the presence of increased concentration on a limited number of large places or urbanized regions in Canada, does not deny that there may be decentralization within these regions.* One of the important trends within these areas has been the emergence of new nodes within the large metropolitan areas, whether Mississauga, North York or Scarborough in the Greater Toronto area. The current debate on the need for increased density in the inner areas of the large centres may help reverse the older trends of decentralization. The large centres are

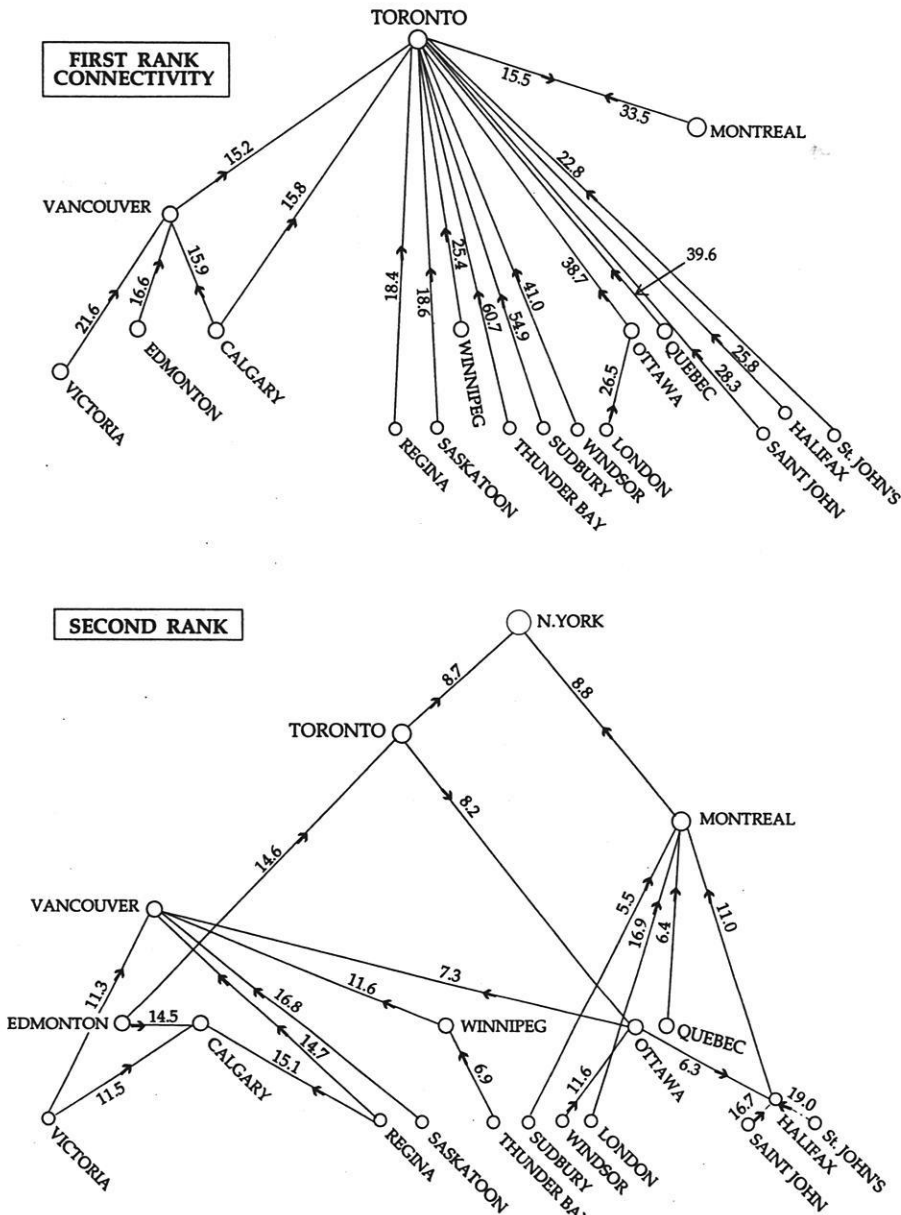
also becoming more ethnically diverse, the reverse of the economic changes over the past few decades, where convergence is more apparent (DAVIES and DONOGHUE 1993, DAVIES 1993), providing greater differentiation in the settlement system.

Identification of the increased importance of the large concentrations, yet decentralization within the urbanized regions, can be reinforced by studying the pattern of connectivities. It is increasingly difficult to measure information flows between places, given the increased size of the connections and number of different modes available. However a previous study of the structure of air line passenger movements between Canadian metropolitan areas including USA cities, revealed a simple structure (DAVIES 1993), with the dominance of Toronto confirmed (Figure 1). It is a dominance that has increased, as SIMMONS (1994), elsewhere in this volume, has shown, paralleling its demographic "victory" over Montreal. Figure 1 shows that regional hierarchies based on the peripheral metropolitan centres have been reduced in relative importance. The subordinate role of Montreal and the regional networks are clear: they are only present at the second order of flows. A big question is whether the increased American trade ties will decrease the dominance of Toronto in favour of re-alignment with US centres.

#### *b) The Prairie Settlement System*

If the scale of analysis is changed to that of the Prairies, further evidence of a concentration of population in the largest centres can be seen, together with centralization trends in the service centre system. A previous study criticized the use of the population turnaround idea with respect to the Prairie provinces over the 1971-86 period (DAVIES 1990). The results showed a series of divergent trends. Some were the familiar trends of mid century: metropolitan concentration, small town decline for the places below 250 population and in some areas - especially in the dry belt of the old short grass Prairie, the area often known as Palliser's Triangle. Yet there were also areas of small town growth, especially in the north, around cities and along the main highways. In addition there is little doubt that the secondary centres, or the regional nodes, also increased dramatically - as did the middle order of places. This study is being updated, helped by the fact that the national census produces data on unincorporated places - nodes that do not have any legal status - allowing a comprehensive view of the bottom end of the settlement hierarchy. Table 3 shows some preliminary results. It is clear that despite a decline in the growth rate - largely a product of the collapse of the resource-inspired boom in Alberta in the early 1980s and the continued decline in the population in agriculture - the metropolitan growth has continued. By 1991 57% of the population of the Prairies lived in the five census metropolitan areas and another 11.7% were in the administrative areas of centres over 10 thousand population. The growth of the bigger centres may be below the rates of previous decades, but the trend is obvious. This growth contrasts with the decline in the estimates of the dispersed population - those not living in agglomerated settlements - to just under 12% of the totals. If the counter-urbanization or perhaps the population turnaround process was relevant to this area one might expect that many of the smaller towns would have grown. In fact the graph

Figure 1 Airline Connectivity in Canada



Figured are the airline passenger flows from each centre, expressed as a percentage of total flows from that centre's airport. The values are put in rank order of importance (21.6 from Victoria), or are shown as shared flows if the difference is under 2%.

Table 3 Prairie Population by Settlement Category, 1961-1991

	1961	1971	1981	1991
Total Prairie population	3,178,811	3,542,363	4,232,278	4,626,423
Metropolitan*: % (number of places 1951 and 1991)	38.2	45.1	48.2	57.4 (5)
Regional (>10,000)**: %	6.3	8.5	11.9	11.7 (22)
Large (1000-9999): %	11.3	11.9	13.4	10.6 (189)
Small (150-999): %	7.9	7.3	6.4	5.2 (636)
Minor (1-149): %	0.8	1.6	2.1	1.5 (1153)
Estimated dispersed population†: %	35.5	25.6	18.0	11.9
TOTAL	1.128m	0.908m	0.763m	0.552m
Rural and unincorporated: %	38.1	29.9	23.9	21.6
TOTAL	1.210m	1.058m	1.015m	0.996m

\* C.M.A.'s of Winnipeg, Calgary, Edmonton, Regina, Saskatoon (prior to 1971 population sizes includes centres subsequently incorporated into City)

\*\* Regional centres are incorporated places of this size - not the census agglomerations

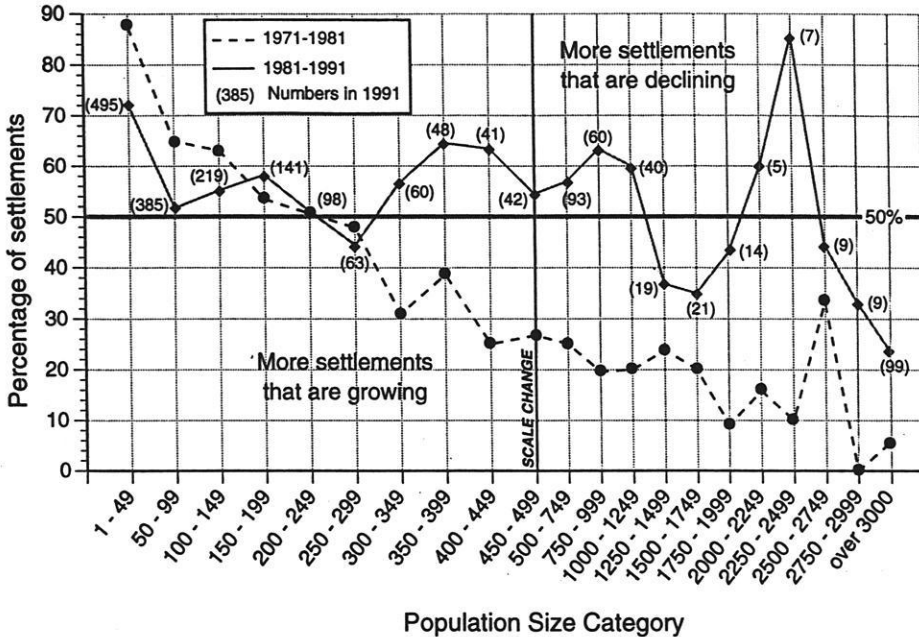
† Residential population after all settlement data extracted. Calculated as the residual population once the totals for all settlements had been extracted

of growing versus declining towns over the 1981-91 period in Figure 2 shows that the "threshold of growth" has increased substantially over the previous decade. The "threshold" is defined as the size category beyond which there are more increasing, than declining, places, and is at the 1250-1499 level for the 1980s - except for one reversion to decline, rather than growth, in the 2000-2500 categories. Perhaps one should not exaggerate this situation; in most of the size categories where decline is dominant the proportion of declining, as opposed to growing places is between 55-65%, showing there are some places that have grown. What does seem important is the fact that the situation is very different from the 1971-81 period, where the threshold of growth was in the 250 size category range. These results show that the situation for most of the smallest centres on the Prairies have deteriorated rather than improved in the 1980s. There are few grounds for believing that there can be any general rural renaissance in this region.

These examples show that the current trends in the Canadian settlement system are not helped by the use of concepts such as population turnaround or counter-urbanization. Such terms distort the reality of the system, which is continuing to show increasing concentration in a limited number of regions - whether in the areas around



Figure 2 Proportion of Prairie Settlements Showing Decreases



the three big millionaire centres, the metropolitan centres and the middle order places. This does not deny that there has been decentralization, in the sense of dispersal, within these areas and the development of multi-nuclear regions. But to focus upon such trends leads one to ignore the centralizing trends at a regional or settlement system level. In addition there are examples of small town or area growth that may be locally important - especially in areas of high environmental amenity - but they are not sufficient to substantially transform the settlement system. Moreover, many small centres, from the Atlantic fishing outports and many Native Indian reserves, owe a great deal of their marginal viability to government welfare payments. The situation may be one in which the smaller centres outside the daily orbit of the big nodes may again have to use the new technologies *to maintain what they have - not to substantially increase their importance*, leading to a stabilization, not growth in the settlement system. So it is worth reviewing some of the other concepts, linked to the new technologies, that have been touted as leading to massive urban system change.

## Related Trends: Will They Transform or Add to System Complexity?

It is not hard to understand why the new technological trends of the past thirty years have led to such radical interpretations about the future of urban systems. From a technical viewpoint we can communicate with the rest of the world from any place on the earth, so the initial impression may be that our residences and workplaces will be increasingly decentralized. But despite the persuasiveness of the view there are increasing doubts about whether there will really be a radical and certainly uni-directional transformation of the settlement system. There may be a high level of inertia in the system - at least in the urban regions rather than the old central cities - and these areas may possess more advantages than many futurists are willing to admit. Hence it can be argued that the trends should be seen as providing *additional features that add to the complexity of urban systems rather than completely transforming them*. Some examples may justify the opinion.

We all operate in what WEBBER (1964) described as a "*non-place urban realm*" via our E mail systems; some may spend more time connected to the world than with our colleagues in workplace. But with the exception of the technicians who service the systems, are these systems only a quicker and more accessible version of the older postal system, providing access to more information, and one that involves more people? More importantly, it seems clear that for all but the dedicated "computer hacker" the E mail represents an additional and optional part of our communication with others - not a complete replacement. Moreover, some of the connections we can make electronically may be made in other ways. It will pain those of us who like to visit new cities to note that from a technological viewpoint there has been little point in this meeting in Berlin. The money we have all spent on airfare and accommodation could have been used to set up a video-conference in which we could all have stayed at home and had more sleep because of our late night discussions after the meetings. How boring!! This one example will demonstrate that our E mail systems have increased the speed and frequency of our contacts, even the volume of information we can access, but does not necessarily decrease our desire for personal contacts or affect our residential locations. We may know examples of individuals working from remote Pacific Islands or mountain retreats. But surely the numbers are few and have limited impact upon the system as a whole.

A similar point may be made with respect to the new emphasis that has been placed upon *urban networks* of towns or of firm linkages. The new trends have certainly provided more complicated linkages than the simple hierarchies of the past, with cities linked through national systems. Empirical studies of these new linkages has demonstrated the complexity of the emerging networks (PUMAIN et al. 1994: 106), and there have been attempts to identify the theoretical alternatives in the past (DUNN 1980, DAVIES and THOMPSON 1980). But should we consider the new urban networks to be new? It may be salutary to note that there have been many examples of viable urban networks in the past, especially in such organizations as

the Hansa trading bloc in medieval Northern Europe. Perhaps our new networks should be seen as a reversal to older, more flexible systems that were replaced by hierarchical structures because of national power relationships and fixed transit linkages. Again, however, we should be cautious. The hierarchical, and national linkages may have been eroded but they have not disappeared completely.

*Telecommuting* is another trend that has received a great deal of publicity. But again it must be asked whether the trend has it been exaggerated as a force for major settlement system change? In the Canadian context some 1.1 million employed people are full-time home-workers, but this only amounts to 8% of the workforce. Also, since 26% of these are farmers, the true proportion for homeworkers - those in paid employment - is only around 6%. There are also some variations by metropolitan area: industrial towns such as Oshawa have only 3.6% in the home-worker category, compared to 6.0% for Calgary and 7.2% for the tourist and retirement centre of Victoria. These figures have doubled over the past decade - the figures for Calgary and Victoria were 2.8% and 4.2% respectively in 1981. Nevertheless they have still a long way to go to challenge the traditional conception of the workplace. Again it seems that the statistics show that the homemaker and telecommuter trends are better seen as producing alternative workplaces. QVORTRUP (1992: 103) suggested that telecommuters may grow steadily but their importance may lie in "more flexible work arrangements, networking and self-employment" and he was at pains to observe that he did not believe in the demise of the city. Moreover one must remember that entry into the instant world of telecommuting is not without costs and skills - many firms still need hard wiring to make communications safe - and there are disadvantages in work isolation. It may also be worth putting these trends in historical context. The use of the home to assemble many products of limited complexity is not new. It can be seen as a return to the "putting-out system" of the past in textile production. This was the first stage in the commercialization of production, whereby spinners and weavers worked at home for entrepreneurs who went around the settlements collecting up the finished or partially finished products. In the late eighteenth and nineteenth centuries the need for power and the productivity of the new machines obliterated the old production system and made concentration in large manufactories almost mandatory. So although there may be areas with high proportions of telecommuters and the numbers may increase, in total the numbers are still relatively small and have not produced major urban system changes to date.

Another trend that has received a lot of attention has been the massive growth of employment, commerce and leisure activity in the outer suburbs or edges of American cities, a growth that led GARREAU (1989) to coin the term "*edge city*" to define these new entities and to identify over 200 of these nodes. GARREAU's illuminating, yet often breathless, prose - well suited to reporting in motorized society - maintained the changes represented a third stage in American urban evolution: "first came the suburbs, then the malls and now edge cities". The slogan succinctly summarizes the successive growth of residential, commercial and now employment

and leisure activities outside the older cities - but only from World War II. Edge cities were seen as some new manifestation of the "frontier", a phenomena opposed to the often decaying or stagnant American downtowns.

One must accept that the size, speed of growth and dispersal of these edge cities - often in linear and scattered form - provides key differences to the old urban forms of the past. But the fact that these edge cities have sufficient concentration of activities to be identified as new entities - whether nodes or linear strips - should give us faith in the fact that agglomeration economies must still be present. GARREAU used photographs of Tyson's Corner outside Washington in the first few pages of his book to show the change from the sleepy country store in the 1950s, but the size and concentration that is revealed is more typical of older nodes of commercial and employment centres. Edge cities may be larger, more dispersed than in the past but surely the principle of such decentralization is nothing new? A decentralization of power from cities took place when European kings moved their courts to new centres, such as Versailles outside Paris and Potsdam outside Berlin in the seventeenth and eighteenth centuries. Even the name of Frederick's palace at Sans Soucis (Without a Care) outside Potsdam shows that government was not the only order of business in these centres - pleasure was an important part of life for the elite. The creation of industrial satellites in nineteenth century or the absorption of older towns in the new urbanized area were other examples of decentralization. Exurbs grew up on commuter railways and streetcars spawned the late nineteenth century suburbs. New business hubs frequently grew up in at major intersections in the new sprawling metropolis of nineteenth century, and later around the stations on the mass transit routes. The post-World War II planned new towns in many European countries, especially around London, Paris and Stockholm, provide examples of other hubs. Are the so called "edge cities" in America merely another manifestation of these outward trends? Again it is important to note that there are some differences. First, they have experienced rapid growth and are unplanned - but this is no different to the unplanned and explosive growth of many cores of old industrial cities? Second, one must note the size of these older "edge cities" relative to downtown; their suburban predecessors were always smaller than the downtown. Third, they are more scattered or diffuse due to connectivities based on the car and the absence of any overall planning. These three features may provide a rationale for the view that these areas are very different from the types of decentralized forms of the past, and as such deserve to be dignified with a new label. Others may see the "edge cities" as a particular American version of a historic decentralizing trend, rather than something radically new - a trend that has been influenced by the minimal land use controls and the security problems of the American inner city as much as by the car. Indeed, in the wider context of urban systems it is dubious whether our understanding of the emerging urban America is helped by GARREAU's observation that :

Eighty eight percent of all Americans live outside what has traditionally been defined as a big city - with half a million population (GARREAU 1989: 61).

Surely this gives quite a false impression of the distribution of population? Are suburbanites really non-urban? The result is to downplay the significance of the sprawling urban region in accounting for the majority of the American population. These large urbanized regions may be multi-centered, by regional malls, older centres that have been absorbed by growth, as well as the new "edge cities". But the fact that so many people are concentrated in such a limited, albeit it deconcentrated area, may be the most important feature in an urban system concept. Such a finding takes one back to the seemingly forgotten megalopolitan principles. Certainly we must acknowledge that there has been decentralization within these new sprawling regions - GARREAU observes that there is more office space in New Jersey than in mid-town Manhattan - but again this is an internal growth and re-organization issue, one that may not worry those who are adopting an urban system perspective. An unresolved question is whether these American trends will provide the same type of transformation of business activity in European cities. Perhaps it may be appropriate to end with a phrase from a Leonard Cohen's popular song: "First we take Manhattan then we take Berlin". If the "edge cities" have beaten or "taken" the core of New York, then will the same occur in the city of this conference?

## Conclusion

This essay has attempted to show that many of the trends that have been proposed as transforming our settlements - again the stress is upon settlement or urban systems, not on employment levels or new ways of production - may simply be *features that add to the complexity of our settlement systems, rather than completely transforming them*. These cautionary comments are designed to provoke discussion on these issues, given that this forum has urban experts from many countries. There can be no doubt that the new technologies have had tremendous effects on the organization and amount of production, of the way we transmit information and have access to it via computerized library and data systems. But are there similar revolutionary changes in our settlement systems? Can one now extend the context and question whether the computer and other communication devices will have the same drastic effect as railways and cars had on city systems? In the former case the commuter railroad led to the exurbs of the mid nineteenth century and allowed the daily influx of people that increased the importance of downtown; in the latter case they reduced the importance of downtown and led to suburbanization and the extended urban field of the post World War II era. *But have the new communication changes really have such similar radical effects upon the size and distribution of settlements?* It is possible that the new distance-decreasing technologies may act more like the telephone in an urban system context, improving our communication with each other by improving the speed, convenience and spread of contact rather than radically altering the structure of our settlement systems, yet creating decentralized and multi-centred regions. But *when all these examples are added up*



*have they been sufficient in scale to have really transformed our settlement system, in the sense of the size and distribution of centres or settlements areas? Certainly there may be science centres that are built around the new technologies. But how many of these places are there? Should they be considered in the same way as some of the old specialized or new wave cities of the past based on the new function or principle of the age, whether Potsdam, Saltaire or Letchworth Garden City? Their numbers are limited. Also, if we filter out the effect of inner city decline and deconcentration has there really been a counter-urbanization in the literal or common sense meaning of the term, some massive dispersal that means that the areas we can still define as urban regions, rather than the old central cities, have lost out to rural areas? The empirical evidence for the Canadian settlement system points to an opposite conclusion. This is why one can argue the case that the telephone analogy may be the more appropriate model than the car or railway when we look at the impact of the changes on urban systems - except for a few activities. It may be a consequence of the fact that the computer and the new electronic devices are not space intensive users like the car and railway, so the devices can be fitted into the existing fabric. This may allow the perpetuation of many of the existing structures, unless they are too expensive or inconvenient. In addition there may be costs or disadvantages, especially to the decentralization beyond city regions, that individual societies are not prepared to pay. This scepticism of the real effect of the new technologies upon urban systems - not on the way the businesses are carried out, the effect on workers or upon their location within the urban region - was the reason why the words so familiar to readers of fairy tales were used to begin this essay and can be used again to look at the changes of the last thirty years.*

*Once upon a time* there were people who thought that urban centres would always grow relative to rural areas. Then came the "shock" of the population turnaround, leading many to believe there would be massive changes in our settlement system due to the new technologies. Clearly there have been changes our behaviour and communications and decentralization within the urbanized regions. But can we believe in massive changes in settlement systems? It may be time to re-evaluate our images of the changes - or at least question and modify them. Perhaps it is time to remember the other famous fairy story, of the majority who were too awed to tell the emperor he had no clothes! It took the fresh and naive eyes of a child and his piping voice to slice through the accepted opinions. This may take the analogy too far. But the story should remind us of the need to question the conventional wisdoms: they often need modification when seen in different contexts.

---

#### BIBLIOGRAPHY

- BEALE, C.L. 1976. The Revival of Population Growth in Non-Metropolitan America. Washington, D.C.: US Dept. of Agriculture, ERS-605.
- BERRY, B.J.L. 1976. Urbanization and Counterurbanization. Beverly Hills: Sage.
- BOURNE, L. and SIMMONS, J.W. 1989. Urban Growth Trends in Canada: 1981-86. Centre for Urban and Community Studies, University of Toronto Major Report, No. 25.

- CASTELLS, M. 1989. The Informational City. Oxford: Blackwell.
- CHAMPION, A.G. 1989. Counter-Urbanization. London: Ed Arnold.
- DAVIES, W.K.D. 1984. Factorial Ecology. Aldershot: Gower Press.
- DAVIES, W.K.D. 1990. "What Population Turnaround? Some Canadian Prairie Settlement Perspectives, 1971-86", Geoforum, 21, 3: 303-320.
- DAVIES, W.K.D. 1993. "Metropolitan Dominance and Differentiation in Canada", in: W.K.D. DAVIES, ed. Canadian Transformations: Perspectives on a Changing Human Geography. History Dept. University of Wales: Canadian Studies in Wales Group.
- DAVIES, W.K.D. and DONOGHUE, D.P. 1993. "Economic Diversification and Group Stability in an Urban System: Canada, 1951-86", Urban Studies, 30, 7: 1165-1186.
- DAVIES, W.K.D. and HERBERT, D.T. 1993. Communities within Cities. New York, Halstead: Belhaven Press and Wiley.
- DAVIES, W.K.D. and THOMPSON, R. 1980. "The Structure of Inter-Urban Connectivity", Regional Studies, 14, 4: 297-312.
- DUNN, E.S. 1980. The Development of the U.S. Urban System. Baltimore: John Hopkins.
- DOXIADIS, C.A. 1967. Eucumenopolis. Athens Technical Institute.
- DURLAK, J. 1993. "The Effect of Information Technologies on Large Urban Regions", in F. FRISKEN, ed. The Changing Canadian Metropolis. Berkeley: University of California Press, pp. 75-104.
- GARREAU, J. 1989. Edge City: Life in the New Frontier. New York: Doubleday.
- HALL, P. 1990. Reinventing the City. Lecture Series. University of Toronto.
- HEPWORTH, M.E. 1989. The Geography of the Information Economy. London: Belhaven.
- NBDM 1993. New Brunswick Department of Environment. Commission on Land Use and the Rural Environment. Fredericton, N.B.
- PRUD'HOMME, R. 1989. "New Trends in the Cities of the World", in R.V. KNIGHT and G. GAPPERT, eds. Cities in A Global Society. Sage Urban Affairs, 35, 44-57.
- PUMAIN, D., CATTAN, N., ROSENBLAT, C. and SAINT JULIEN, T. 1994. Le System Des Villes Europeennes. Paris: Anthropos.
- QVORTRUP, L. 1992. "Telework", Cities and New Technologies. O.E.C.D., Paris 1992.
- Statistics Canada, 1984. Urban Growth in Canada. Ottawa.
- STEINLE, W.J., KORTE, W.B. et al. 1988. Telework. Amsterdam: North Holland.
- VINING, D.R. and STRAUSS, A.M. 1977. "A Demonstration that the Current Deconcentration of Population in the United States is a Clean Break with the Past", Environment and Planning A, 9, 751-758.
- WEBBER, M.M. 1964. "Urban Place and Non Place Urban Realms", in R. DYKMAN, M.M.WEBBER et al., eds. Explorations in Urban Structure. Philadelphia: University of Pennsylvania Press, pp. 79-153.
- WEBBER, M.M. 1968. "The Post City Age", Daedalus, 99, 4: 1093-1099.
- YEATES, M. 1975. Main Street: Windsor to Quebec City. Toronto: Macmillan of Canada.

