

Introduction

The Peri-Urban Zone: The Structure and Dynamics of a Strategic Component of Metropolitan Regions

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Introduction*

The rural-urban fringe, increasingly replaced in the research terminology by peri-urban fringes, zones or areas, has been a major arena for geographic research, and to a lesser extent, research in the planning field, for over 50 years. From the 1970s in particular, considerable research was undertaken on this zone, focusing on the patterns of change in the context of the then dominant conceptual framework, that of the central city and built-up area, the rural-urban fringe, the outer fringe and the urban shadow. Such research became very popular in Canada, for instance, during and after the 1970s when it was recognized that this zone was a central part of the structure and functioning of urban and metropolitan regional systems. These zones represented and still represent important extensions of the living space of major urban and metropolitan systems – as living environments, as environments in which employment opportunities were developed and resources exploited (e.g. agricultural resources), as environments in which important recreational and leisure activities could be pursued and provided for, and as environments destined to receive many important infrastructural developments (e.g. transportation infrastructure).

The regional metropolitan system comprises: the urban area (central parts plus the suburbs); the peri-urban zone, with its mixture of settlements, countryside and natural spaces; and the rural hinterland. In one form or another, this simple zone-like structure has been used to describe the structure of regional urban and metropolitan systems for over 50 years. Increasingly, however, while the zone-like structure is still used as a point of departure and still represents a way of conceptualizing the results of the operation of meso scale urbanization forces on land use

* We reference only those papers that are included in this special issue. We have not therefore included additional bibliographic references in this introduction. Interested readers can utilize the many references included in the articles as a key to entry into the rich literature that has developed on peri-urban areas over the last 50 years.

activities and development generally around major cities, the last 15 years have seen more and more attention paid to other aspects of the patterns and dynamics around cities, including radial patterns and, more generally, the development of a mosaic of structures and dynamics.

Whatever the specific spatial form of the regional metropolitan system, all of the geographic spaces within it are tied together into a functioning social and economic system. Sometimes, these regional metropolitan systems are recognized through some form of administrative structure and the geographic limits of the regional administrative structure defines the arena of more or less concerted public intervention in terms of the planning and management of change. Frequently, however, the real social and functioning regional metropolitan system extends beyond these geographic limits, creating various tensions and stresses. The French Île-de-France region based on Paris provides an excellent example of this, as do the structures that are based on Montreal, Vancouver and Toronto in Canada.

Structures and Dynamics Beyond the Suburbs: The Special Issue

The focus in this special issue of the *Canadian Journal of Regional Science* is on the peri-urban spaces of several Canadian and French metropolitan areas, as well as drawing upon research from the Paris team on the Tokyo area. The articles thus deal with various aspects of the structure and dynamics of those parts of the regional metropolitan system beyond the central agglomeration (the urban area proper). However, as is clear in several of the papers, and as we emphasize, it is imperative that the overall regional structure and system perspective be maintained, both in terms of the interrelationships between the dynamics of the different areas (e.g. the property market in the peri-urban fringe is linked to processes affecting the property market in the central agglomeration) and in terms of governance and planning of the different component geographic parts. The intent is not to cover all of the different types of research that are being conducted on the peri-urban zone, but to illustrate the structures and dynamics in this zone that are the subject of research in the two sponsoring research units, to which has been added analyses from colleagues in other universities in the two countries, Canada and France.

The first five articles deal primarily with changes and patterns at the meso scale, in terms of demography and employment (Bourne et al.; Laurens; Berger; Halseth; Coffey and Trépannier). They all represent different aspects of the spatial structure and dynamics of metropolitan regions that are significantly related to the overall process of metropolisation, but their focus is on the spatial patterns and dynamics within metropolitan regions. What emerges from these articles is the continued transformation of peri-urban areas, whether or not their importance relative to the rest of the metropolitan region is being maintained, is increasing or is decreasing. The extent of the peri-urban area is expanding, particularly when, as Halseth and Bourne et al. do, we take into account the relatively newer functions of many peripheral peri-urban areas such as recreation and leisure activities

and as a place to retire to while still maintaining ties with the urban agglomeration. The form and function of the peri-urban area are changing, e.g. its composition in terms of socio-professional structure (Berger), employment development (Coffey and Trépannier), and as a place in which to pursue recreational and leisure activities and as a place to retire to (Bourne et al.; Laurens; Halseth). With these changing functions, various challenges have appeared at the municipal level (Laurens; Halseth; Bourne et al.), including the conservation of natural environments and cultural heritage, the protection of farmland, the provision of adequate services to the population and so forth.

The next four articles deal with different aspects of agricultural structure and dynamics, including planning for agricultural development (Dumoulin and Marois; Charvet; Rouget; Desbois). The geographic contexts are wide-ranging – Montreal, Paris, Lens and Tokyo – as are the administrative and cultural contexts. However, two major points emerge. First, in relation to the long standing issue of the protection of farmland from urban development, Dumoulin and Marois stress the importance of the development of municipal strategies in encouraging agricultural development in the peri-urban zone and how these must be seen as complementary to the broader scale farmland protection program in place in Quebec. This converges with Charvet's reasoning that farmland protection can be partly assured through land use planning mechanisms, but that these are in themselves insufficient; farmers still need to earn a satisfactory living, and without this, no amount of formal protection through land use planning mechanisms can achieve this condition of sustainability. Rouget also demonstrates how municipal action can be important in reinforcing and supporting the agricultural community. Second, farmers as well as municipal councils play an important role in the construction of their local territories or localities in the peri-urban zone. For instance, farmers make important choices in their decisions to capitalize (or not) on the opportunities for direct selling of their produce (e.g. Rouget). In the case of Tokyo's peri-urban areas, farmers also took on the unusual role of land developer and thus contributed directly to the phenomenon of urban sprawl (Desbois). Municipal councils can support and frame local initiatives that go far beyond the traditional reach of land use planning (Dumoulin and Marois).

The next three articles deal with different aspects of the multi-functionality of open or 'undeveloped' land in metropolitan regions (Granjon; Doyon and Frej; Poulot and Rouyrès). One of the most important features of open or 'undeveloped' peri-urban land, also echoed in the texts by Bourne et al., Halseth and Laurens, is its multi-functionality (Granjon). Granjon provides a general framework for understanding multi-functionality, particularly in the context of agrotourism in peri-urban areas. Doyon and Frej also deal with recreotourism, by focusing on its interrelationship with the natural environment particularly in the context of different types of 'protected areas' in the peri-urban zone. The article by Poulot and Rouyrès tackles the evolution of planning measures dealing with open space in the Île-de-France region's peri-urban zone. The planning challenge is one of being able to deal with multiple functions, including those with a collective value, as Granjon also argues. However, they stress the need to go beyond the traditional planning tools, arguing that in the Île-de-France region, forty years had to go by

before the planning system finally developed tools that would contribute to the sustainability of agricultural spaces – however, these came too late for most of the agricultural spaces in the immediate peri-urban zones!

Finally, a last article deals with the critical question of governance and controlling urban development in peri-urban areas, using as an example the French Regional Natural Parks (Allie and Bryant). The question that is posed is whether these types of organizational structure can be harnessed more generally to provide for more effective governance and control. While there is considerable potential, one of the most significant obstacles is the ability of the leaders of such initiatives to effectively rally the various 'partners' of the parks behind the cause.

Summary Highlights, Meso Scale Forces and Recurrent Themes

By way of concluding this introduction, we wish first, to make a number of summary highlights, second, to offer some comments on a number of meso scale processes operating in the peri-urban area, and third, to present a number of recurrent themes in the special issue. Reference is made where appropriate to the various articles included in the issue.

Summary Highlights

1. *The peri-urban area is not only an integral part of the regional metropolitan system; it is also essential to the 'health' of the regional metropolitan system, at least in the context of the forms of metropolitan regions that have developed in industrialized countries. The functions that peri-urban areas fulfill for the city are numerous, e.g. the location of much of the demographic increase in metropolitan regions, notwithstanding efforts to increase density in existing urban environments in many countries, a space for the integration of new populations, agricultural production, leisure and recreational activity, commercial or industrial employment nodes, infrastructure (transportation, waste management, water supplies, . . .) (Granjon).*

2. *The peri-urban area can be conceived of as a territory (or rather a series of territories) with which people develop a sense of identity or belonging, despite their attachment to the employment, goods and services offered by the central city. This is of great significance to local level planning and management. It is also increasingly considered as essential by planners in achieving success in the 'territorial' or locality projects that several have been trying to develop in different regions. Different techniques can be used to develop this identity in these areas characterized by hypermobility of their populations. The development of quality agricultural production, linked to local territories or local knowledge, can be part of this (Rouget).*

3. *One of the important current questions common to all western societies and that is still relatively unexplored is the aging of some peri-urban populations. This phenomenon can be related to the arrival of retirees or simply to the aging of resident populations (Halseth; Laurens). How do the different localities involved deal with this situation when earlier they had to deal with the opposite phenomenon, i.e. the arrival of younger families. What sorts of services are required? How many of the older inhabitants will eventually return to the city? These and other questions require more attention by researchers, especially as they are likely to vary substantially from one locality to another.*

4. *The development and transformation of peri-urban areas takes places in a management system characterized by a variety of scales. The result is a complex set of spatial structures, that are often hierarchically organized in some way but which can also be overlapping. This poses the question of how to best manage the different scales of territorial planning in the peri-urban area. The situation is rendered more complex given the evolution of the structures of intervention, particularly when earlier structures are often not replaced but simply have other structures superimposed on them. The difficulties are reflected in the slowness with which planning and management of peri-urban change occurred in the Île-de-France region (Poulot and Rouyrès), a phenomenon that appears frequently in peri-urban areas. Furthermore, when the human factor is entered into the equation, individual (e.g. farmers) or collective actors (e.g. municipal councils) can make the difference in the particular trajectory that a given locality follows (Dumoulin and Marois; Granjon), and frequently the actions or initiatives involved stretch the limits to say the least of the traditional approach to land use planning.*

5. *Notwithstanding different statistical definitions that have been used over time, the essential meaning of the rural-urban fringe or the peri-urban zone is still focused on an area in which there is an integration and juxtaposition of rural and urban, and in which the dynamic continues to change. What changes however is the nature of the composition of the different urban and rural activities and functions, and the extent of the peri-urban zone (Bourne et al.; Halseth; Doyon and Frej; Granjon). Furthermore, the geographic components (rural countryside, small and medium-sized urban nodes, urban areas) vary in relative importance from one region to another and over time (Coffey and Trépannier). These differences can be a function of a variety of factors, such as different planning and management mechanisms, differences in transportation infrastructure developments, different local cultures regarding how to deal with change, and so on.*

Meso Scale Forces

A number of meso scale or regional scale processes are at work that are shaping the peri-urban zone. All are referenced in one or more articles in this special issue. The main ones are here:

1. Real estate markets and property structures

Analysis of the land market is fundamental to understanding the dynamic of peri-urban areas. Land is simultaneously a production factor (e.g. agricultural land for food production), a family asset to be passed from one generation to another, a support of landscapes that can sometimes acquire a cultural heritage value, and a support for other activities. This underscores the complexity of the forces that act in synergy or in conflict on peri-urban land markets. The purchase of real estate therefore reflects a complex set of actor values that play themselves out in different ways in different peri-urban localities. It is also clear that categorizing actors on the basis of their socio-economic characteristics is not a guarantee of understanding their values, e.g. farmers can also become developers (Desbois).

2. Industry and employment patterns

Industrial and tertiary sector change

Peri-urban zones around many metropolitan centres have developed as a space characterized by innovation. Technopoles and 'edge cities' as well as the development of vast complexes of leisure and recreation activities (e.g. theme parks) all demonstrate the new forms of space that are developing in peri-urban areas. In Île-de-France, for instance, the research and high technology complex that has developed south of Paris on the Plateau of Saclay is but one example, as is the Disney-world complex in Marne-la-Vallée to the east of Paris. But the patterns of change in employment are complex, and do not play out in the same way in each metropolitan region. In some cases, for instance, new employment in the peri-urban area is as much, if not more, scattered amongst many smaller locations as it is amongst the more important pre-existing employment nodes (e.g. Coffey and Trépannier).

Recreation and regional tourism

Peri-urban space has taken on an increasingly important role and function in terms of providing for recreational activities and 'regional tourism' activities for the nearby urban populations. Apart from the important complexes that have developed in some regions (e.g. Disneyworld in Île-de-France, Wonderland north of Toronto, the downhill skiing complexes north of Montreal in the Laurentians at Saint Sauveur and Mont Tremblant), other recreational and leisure opportunities are provided for on a relatively small scale throughout many peri-urban zones. This is the case of agrotourism activity, which nonetheless has become a defining

characteristic of several peri-urban areas (Granjon) as well as forming activities integrated into various types of protected areas (Doyon and Frej).

Agriculture and agricultural change

In the context of the industrialized countries from which the examples in this special issue have been drawn, agricultural change has been dramatic over the last 50 years, and peri-urban areas are no exception to this. Peri-urban agriculture has however experienced more complex patterns of change than agriculture generally. On the one hand, some agricultural systems have been able to develop based on serving the nearby urban or metropolitan market (thereby maintaining and occasionally increasing their labour requirements), while others have declined in the face of urban development pressures (thereby contributing to the general decline in agricultural labour requirements). On the other hand, other systems, such as large scale arable production on the plateaux in the Île-de-France region (Charvet; Poulot and Rouyrès) and in parts of the former northern mining areas in France (Rouget) have continued to experience reorganization, consolidation and specialization and a continued decline in farm employment requirements.

3. Settlement formation patterns

The overall forms and processes of peri-urbanization are partly linked to transportation infrastructures. The differences between North American and European metropolitan regions have often been highlighted in this regard. In Western Europe, and in Japan (Desbois), the construction of rail roads to serve outlying areas has contributed to the emergence throughout the 20th Century of settlement nodes some of which became engulfed in the general process of suburbanization, and some of which still remain as more distant satellite centres. These settlement nodes generally attracted tertiary employment to offer basic services to the developing populations, and sometimes became more general employment poles.

4. Social and cultural patterns

A complex set of social and cultural development processes have also shaped and are continuing to shape the demographic and socio-economic composition of peri-urban areas. Furthermore, these processes are dynamic in both time and space. Early on, one of the main attractions for seeking a residential location in a peri-urban area related to the cheaper housing and land prices there. Subsequently, other attractions to residential development also became significant, such as a place in which children could be raised in a safe and peaceful environment and being close to nature. Today, all these factors are still important. To them have been added the desire to pursue outdoor recreation and leisure activities, the desire to be close to one's place of work (especially as employment opportunities have developed in outlying nodes and even in more rural locations in some regions) (Coffey and Trépannier), and the desire to retire to a small town or even rural location (Laurens; Bourne et al.; Halseth). All of these processes are intimately

linked to processes at work in the urban agglomeration itself, such as property market dynamics, residential mobility of different segments of the population (Berger) and economic development dynamics, as well as to factors related to peri-urban locations, such as the roles played by local municipal councils and local populations in planning for and managing change.

5. Political structures

In terms of the planning and management of change, quite apart from the issues involved, many of which are dealt with in the contributions to this special issue, difficult questions are raised in relation to the roles of the state, regional and local government. Because of the complexities involved, especially in some regions such as Île-de-France, each layer of government becomes yet another actor or set of actors (even the central state can be seen as a set of actors operating through its various ministries, and not always along convergent lines!). Poulot and Rouyrès underscore the point that the central state has not always shared the vision for peri-urban areas that the regional or departmental governments have had. Dumoulin and Marois emphasize how central state action (Quebec's farmland protection legislation) does not always support local municipal initiatives at conserving and developing farmland in novel ways.

Hierarchically organized jurisdictions are also no guarantee of coherence in planning instruments, and the dynamic nature of the spatial extent of the peri-urban zone is almost bound to ensure that the whole regional metropolitan system is not covered by a single set of local and regional government authorities. This is apparent in several of the articles, notably in the Île-de-France, Toronto, Vancouver and Montreal regions.

The peri-urban area has often been identified as an area in which innovation occurs. This could be argued in relation to the various tools for planning and management that have evolved in different jurisdictions. However, as more and more initiatives are taken by local municipalities and other local organizations in the development of innovative tools (e.g. specific management approaches that are not necessarily framed by any broader legislative framework), it becomes more and more difficult to generalize about 'progress' at the level of the metropolitan region because so much more depends upon local dynamics. The result is a true mosaic of localities, each with their own structures and dynamics. A fruitful avenue for future research lies in attempting to bring some order into this by creating a typology of situations, and then trying to reveal any common patterns within a given category of situations.

Recurrent Themes

Finally, we note the following recurring themes in many of the contributions to this special issue:

1. The interconnectedness between the geographic components of the regional metropolitan system.
2. The multi-functionality of peri-urban space in a complex regional system (in relation to population needs, demands, resources, potential uses and functions)
3. The heterogeneity of peri-urban space with its multiple dimensions – social, economic, cultural, environmental – giving rise to many different combinations that make up the mosaic of spaces, a heterogeneity that is accentuated by local processes of construction of space.
4. Significant challenges to the planning and management of change in peri-urban areas because of the strategic roles that peri-urban areas take on in the lives of the residents and the activities present in metropolitan regions. To the extent that metropolisation continues to favour a limited number of regions, these strategic roles are even more critical for they affect an increasing proportion of a country's population (both the urban and suburban population, and the peri-urban population).

How to effectively integrate the planning and management of change in urban, suburban and peri-urban areas remains an open question, despite the decades of efforts that have gone into it. Can any actor or set of actors effectively control urban sprawl – after all, even a great deal of the 'planned' development has often been included in the term 'urban sprawl'? Is the accent on individual and local action destined forever to regenerate a mosaic of spaces and dynamics? And if so, is this the most appropriate direction to take in any case?