
L. J. Evendon
remain unanswered, such as what factors trigger the changes from conversion to apartments and what range of conditions is necessary to create a demand for conversion and redevelopment. Because these and other questions remain unanswered, the study holds little immediate utility for policy makers. Policy makers are politicians who want to know how their constituents are involved in these residential processes and what implications changes will have on their welfare. Simple awareness of spatial and temporal dimensions is not going to convince them to make significant changes in housing and zoning policies.

McCann's inquiry provides useful insights into the neighbourhood transition process, particularly its temporal sequencing and spatial occurrences, but much work remains to be done on this complex behavioural process before studies like this one have major theoretical and practical import.

T.L. Gibson
Department of Geography
University of Victoria

* * *


While the 'site and situation' approach in urban geographical study generally has been considered for some years to be passé, the upsurge of interest in environmental quality is having its effect in forcing a new look at the old problem of site. The physical geography of the city has become trendy. But part of the new look and new trend is to unite the questions of physical site conditions and processes with those of social origin, and in this a strong focus on their interaction, the traditional point of entry for geographical enquiry, is apparent. Thus the title of this book is self compounding in its meaning, for the volume is not only a study of Victoria's 'physical environment' and of Victoria's
'development', seen separately, but it is literally a study of Victoria's 'socio-physical' development. The contribution of the book lies in its presentation of material related to eight separate approaches to this subject, in its establishment of certain processes which have operated dynamically, but as constants, throughout the history of the city, and in suggesting points which would appear to require attention in today's legislative and management thinking in order to ensure a future high quality urban environment.

Everyone knows the collective image of Victoria as a city of mild climate and manners, an ideal destination for retirement, and a place reminiscent of England. Perhaps not so many realize that these several images have their apparent origins in the earliest writings of Victoria and Vancouver Island, as brought out in C. N. Forward's introductory chapter on the physical geography as 'perceived' in the 1860's; and perhaps few are aware that the reality of today's city includes a considerable problem of sewage disposal into those beautiful coastal waters and bays, a theme treated by D. V. Ellis in the last chapter entitled "Sewage Disposal to the Sea". There is a tangible physical development suggested for the intervening century, amounting to almost 200,000 persons in the metropolitan area in 1971 (although nowhere in the book are we told this basic fact), and there is also an implicit judgement of the city's (and province's) institutions symbolized in the arrangement of chapters, starting with the descriptions and first impressions of a wholesome site, and ending with a litany of outfall locations and coliform counts. But that judgement, that European man has been the agent of environmental degradation, followed by the hope that if we could only 'get back to' some form of empathetic unity with the land, all would be well, is far too simplistic. For the city's character in part is its site, and the contribution that site has made to the form and appearance of the city is dramatic, as demonstrated in M.C.R. Edgell's study of the 'urban forest'; further, the site itself has become transformed as the result of social action, from accelerating coastal erosion to selecting sanitary landfill sites. There is no turning back now. Whatever was a
'little bit of England' in a remote and pristine (but occupied) forest, has now become an every day place with every day problems, and the totems which Emily Carr painted lie rotted on the beaches or half restored in the museums.

The concerns of the chapters may be characterized briefly. C. N. Forward relates the early knowledge of most of the principal themes which underlie a regional physical geography, that is "general character, climate, geology, topography, soils, and vegetation". The treatment of climate was of especial interest to this reader, for in early writings the climate was often compared favourably with that of England. This meant that the winters were a little milder and the summers were more comfortable than those of London. In fact, if one uses the original Köppen classification system of climates, Victoria can be seen to have a cool Mediterranean type climate, the only place in Canada so favoured. What is more important, however, is that the annual total rainfall is not great (less than 30 inches with a summer dry period) and the continued growth of the city will certainly have an impact on the available water supply on the island. Nevertheless the response of the natural vegetation indicates adequate moisture for the growth of Douglas fir, garry oak and arbutus, the last growing in abundance on dry sites while at the same time approaching its northerly limit. There is much local variation in the soil and water availability conditions, from bare rock to swamp.

Edgell presents a case (lavishly illustrated with photographs) for the study of the 'urban forest', that is the forest land "...utilized and influenced by urban populations". (p. 49). Citing the examples of other places, mainly older and larger European cities, he suggests there is a need for much more extensive use of forests by urban dwellers, and therefore a need for much more extensive management of these environments. This is a welcome suggestions, certainly as far as those forests within or close to the city are concerned, for they perhaps could be more generally utilized for a change of pace from the city itself. Whether he would find others so agreeably disposed to his
concept of extending urban gathering facilities as attractions to the more remote forest remains a question. What sort of reaction is produced by the following statement? "Forest-placed urban facilities such as hotels, race-tracks, game parks and dance halls, would act as attractions and perhaps also as stepping-stones to more general forest-based recreation". (p. 79). To be fair, the author is attempting to suggest wider uses than have been made of the forests in the past when they have been regarded largely as resources of timber, and this is a necessary debate. As a start, a basic system of forest communities is described and mapped and a series of premises, underlying a planning orientation to the forests, is set out.

S. E. Tuller and R. Chilton contribute a chapter on "Topoclimatic Patterns of Nocturnal Temperature on the Saanich Peninsula". While the area studied lies to the north of Victoria, it is a region of urban sprawl and one in which city supporting agriculture is important. Thus the recently designated agricultural land reserve has an important effect in the area, both in limiting the directions of urban development and in ensuring continued attention to agricultural produce. The aim of the chapter was to contribute to a baseline knowledge of mesoscale climatic conditions at night, to relate these to local ground conditions, and then to show the relevance of this information to the needs of agriculture in terms of critical spring temperatures for tree fruits, air drainage pockets, ground fog formation and the like. The chapter is a useful start although it would have benefitted from a relative relief map, drawn to a scale consistent with that underlying the temperature observations (one-tenth of a mile intervals), to complement the absolute relief map, and there is the irritant to the reader that the distinction between °C (absolute scale) and °C (relative scale) is not observed.

The editor, H. D. Foster, contributes a chapter on coastal erosion on the Saanich peninsula. He sets out an "Anthro-hydro-geodynamic coastal model" in diagrammatic form, and perhaps as the model is further refined there will be fuller explanations of it in
future publications. Its importance lies in the attempt to integrate man and his activities as one (only one?) of the "active factors" contributing to coastal erosion. The major contribution of this chapter is to present a classification of coastal erosion by rates (rapid—more than 12 inches per year, through moderate and small to negligible—less than 3 inches per year), to show the distribution of zones corresponding to each of these categories, and to discuss the conditions affecting each zone.

Two chapters, one by V. Wuorinen and the other by H. D. Foster and R. F. Carey, investigate seismic patterns and earthquake damage probabilities for the city. In the past Victoria has suffered a number of major earthquakes, and records show that over one hundred earthquakes have occurred since the first was recorded in 1841. This topic may appear exotic for a Canadian city, but Victoria does lie within one of the two most active seismic zones in the country, the other being the lower St. Lawrence. The relationships established by Wuorinen essentially are that the areas where bedrock lies at, or approaches the surface closely, have suffered the least damage in the past, the more intense effects of tremors having been felt in areas of unstable surface material, including reclaimed sites such as that which underlies the Empress Hotel. A map, the "Earthquake microzonation of Victoria" encapsulates the findings. Foster and Carey extend this study by attempting to simulate the distributions of intensities of earthquake damage, the object being to enable them to predict the spatial characteristics of intensity probabilities. Obviously such information will be of interest in deciding building locations and standards, and thus represents a contribution to determining both the emerging physical city and the operation of such institutional arrangements as insurance.

The last two chapters are devoted to problems of the disposal of refuse, one being an analysis of the geomorphic aspects of sanitary landfill sites, by T. Fenge, and the other being an enquiry into sewage
disposal into the sea. As already noted for the latter study, the problem of disposal involves the 'filling up of space' with undesirable matter, and the major contribution by Fenge is the mapping of the 'renovation capacity' of the Saanich peninsula. Both articles stress the importance of the correct design of facilities to cope with the problem of waste disposal without, however, inappropriately claiming that correct design alone will solve what is a major social problem. A series of 'case histories' of outfalls and discharge points highlight the problems of sewage disposal, and a discussion of public involvement, attitudes and procedures for the future lead to the conclusion that while more attention is likely to be paid to these problems in the near future, little immediate change in methods of sewage disposal are to be expected.

As a whole, this volume is a solid contribution to a subject of increasing interest. Few texts today deal extensively with the physical geography of the city, although J. N. Jackson devotes a chapter to it in The Canadian City: Space, Form, Quality (Toronto, 1973). Assuming that studies of the physical geography of other cities are to be undertaken, other problems, unique to other cities, will undoubtedly be highlighted and thus there may not only be contributions to practical problems, but also analyses which will point to the diversity of urban environments.

L. J. Evendon
Department of Geography
Simon Fraser University

*   *   *