ADAPTATION OF URBAN INFILL HOUSING
TOWARDS MALAYSIAN CITY CENTRE REVITALISATION

LIEW TOH YEAN

A thesis submitted in fulfilment of the
requirements for the award of the degree of
Master of Science (Urban and Regional Planning)

Faculty of Built Environment
Universiti Teknologi Malaysia

JUNE 2006

ABSTRACT

Infill development, especially residential or mixed-use infill, is one of the central planning challenges in the decades ahead. Infill offers many benefits when compared with "greenfield" suburban development: it can reduce sprawl, preserve open space, revitalize downtowns and older neighbourhoods, create more walkable, transit-oriented communities, improve job, housing imbalances, reduce infrastructure expenses, and provide residents with a greater variety of housing options. Not surprisingly, infill figures prominently in Smart Growth, Sustainable Development, and New Urbanist agendas. This research is about making and maintaining pleasant places to live against the forces of sprawl. This research is timely and vital if we want to improve our urban living qualities. Currently in Malaysia, development tends to sprawl out into suburban areas with mega housing schemes. There are infill developments haphazardly developed in inner cities for high income residentials. Although there are some guidelines or regulations to monitor infill development, these are still superficial and not being rationalized. In searching for better ways to develop our city centres into a community living areas, the research learned from other countries experiences and adapting the best practices and as well exploring on appropriate innovative ideas for the Malaysian Context. A case study in Kuala Lumpur is taken to understand the strength and weaknesses in development mechanism. It is done through chronological document review. At the end of the research, some ideas to rectify the current weaknesses with good practices learned from American and British are presented.

ABSTRAK

Pembagunan *infill*, terutamanya perumahan dan pembangunan bercampur merupakan cabaran pembangunan masa kini dan akan datang. Pembangunan infill mempunyai banyak kelebihan berbanding dengan pembangunan kawasan hijau: ia boleh mengurangkan pembangunan terlimpah (Sprawl), memelihara kawasan hijau, menghidupkan semula kawasan pusat bandar dan kejiranan, mewujudkan komuniti yang mesra pejalan kaki, kejiranan berasaskan transit (Transit Oriented Development), meningkatkan keseimbangan antara pekerja dan perumahan, mengurangkan pembiayaan infrastruktur dan menyediakan lebih banyak pilihan perumahan. Pembangunan *infill* banyak disarankan dalam Smart Growth, Pembangunan Mampan dan New Urbanism. Penyelidikan ini adalah berkenaan dengan pemeliharaan dan peningkatan ketempatan setempat untuk kehidupan mampan. Penyelidikan ini adalah tepat masanya dan sangat penting jika kualiti bandar diutamakan. Kini, Malaysia mengalami pembangunan kawasan hijau di kawasan pinggir bandar secara besar-besaran. Walaupun terdapat pembangunan *infill*, ianya dijalankan tanpa perancangan yang sempurna serta hanya untuk golongan tertentu. Garis panduan dan piawaian yang sedia ada masih kurang berkesan. Penyelidikan ini mengorak langkah dengan mempelajari dari luar negara dan cuba menyesuaikan kaedah-kaedah tersebut dalam konteks Malaysia, disamping juga cuba mengemukakan idea-idea yang innovatif sewajarnya. Suatu project pembangunan di Kuala Lumpur diambil sebagai kajian kes untuk memahami kekuatan dan kelemahan mekanisma pembangunan tersebut. Ia dilakukan melalui pemeriksaan dokumen secara kronologi. Pada akhir kajian, pengkaji memaparkan beberapa idea untuk membetulkan mekanisma sediaada dengan amalan yang baik hasil pembelajaran dari pengalaman Amerika dan Britian.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

City centre is the heart of a city. It contains lives and livelihoods for generations. Today, the city centres are facing many challenges; one of them is urban sprawl Industries and housing begin to relocate themselves further and further away from the existing city centre. People choose or are forced to live further away from the city centres for cheaper house and better environment. This results in urban decline and city centre losing its vitality. Needless to say, the phenomenon also creates much unforeseen adverse effects and if persists, the outcome will most probably be detrimental. This research attempts to address the issues as well as to propose better ways of making the existing city centres more vital and sustainable.

1.1   Background of the Research

Malaysian urban centres were mostly initiated by the activities of immigrants and the expansion of the colonial economy (Lim, 1978). Traditional villages have developed organically and could be distinguished on the basis of their activities, such as fishing, rice, cash crops, and mixed crops cultivation. However, mining (based on tin) and plantation agriculture (palm oil and rubber) have led to new villages and

The phenomenon of decline is stated in Structure Plan Kuala Lumpur (CHKL, 2003) in section 12.2.3(b):

" *In parallel with the decline of the City Centre residential population, there has been a commensurate drop in residential land area from 523 hectares in 1980 to 288 hectares in 2000. The decline in residential land use in the City Centre is due to the redevelopment of some of the older housing areas into offices and other commercial uses. In addition to the areas of dilapidated housing in the City Centre, there are many older, low density housing areas occupying land which has a high potential commercial value. Pressures will remain on these remaining pockets of residential land to convert to more profitable land use, which, in turn, could lead to a further reduction in the inner city residential population.*"

Figure 1.1: Net Migration in Kuala Lumpur, 1975 to 1997
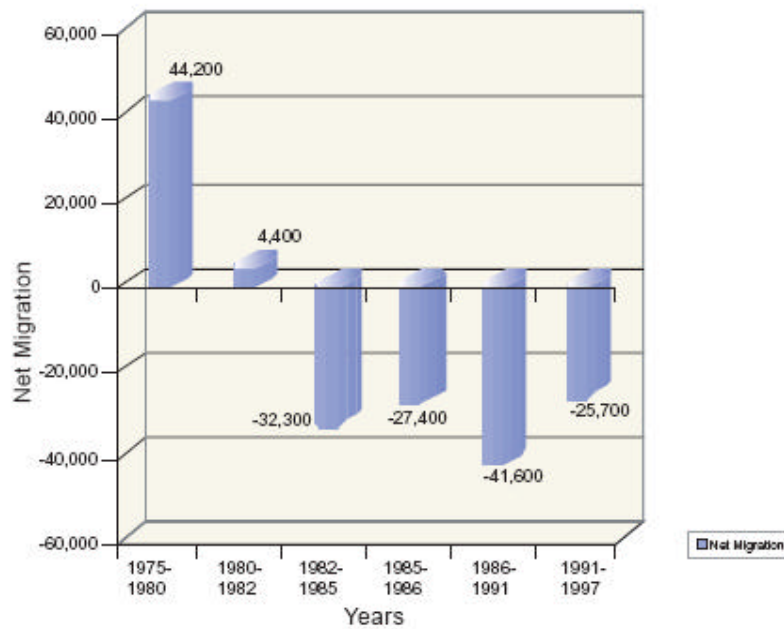
Source: CHKL, 2003

Issues of urban sprawl have been addressed critically in several urban studies. It is undeniable that there have been issues relating to activities causing harm to human environment such as clearing of forest to accommodate urbanisation. Though Malaysian urban centres are morphologically different, these urban centres except the new one are encountering the urban decline. Although there is yet any grave consequence of piecemeal development, the alarming signs are rising. Destructive trend in the foreseeable future is taking place. This is well supported by three main symptoms:

i) From time to time, Malaysians are adopting or adapting development models or concept from western nations. Problems faced by western nation (from where we adopt the concept) will likely be faced by Malaysians;

ii) Increase in occurrences of traffic congestion between major roads connecting city centres and suburban areas in big cities. This is the most obvious pitfalls from supporting sprawl policy. The side effect is air pollution; and

iii) Increment of urban problems such as urban crimes. This is partly caused by the decrement of living community in the city centre besides lack of public surveillance.

It is obvious that very little can be done by most countries to protect urban centres from global forces when industrialization takes on a global nature. Cities will have to find ways to fortify themselves against economic vulnerability (financial crisis), functional vulnerability (exceeding their functional capacity), and structural vulnerability (abandonment, neglect, or conscious damage to stock or real property. Cities such as Kuala Lumpur and Johor Bahru need to react fast to the global economic transformation, by making city centre more sustainable in all aspect to reduce the harm and thus benefited from this globalisation.

1.2   **Statement of Research Issues**

This research is timely and urgent in the sense that prevention is better than cure. Although the effects of urban decline is yet to be felt, Action should be taken to stop urban sprawl before getting worse. In Malaysia, these urban problems have been researched by many scholars but recommendations are towards urban revitalization. This research is initiated to address the above mentioned issues and attempts to explore the possibilities of infill development as an approach to help reduce these urban problems. With this in mind, the research intends to address three core issues:-

i)   Problems created by suburbanisation policy

Malaysia's capitalism and open market system let users of land bid for sites in accordance with what will maximize their profits and minimises their costs. In looking for wider living space, people tend to move further and further away from the city centre to avoid high rental and taxes. Those that remain in the city centre are lucrative commercial activities such as workplace and entertainment. As a result, the city centres are 'dead' after working hours. Suburbanisation policy creates accompanying problems as it increases commuting, car dependence and invasion on agriculture land. To Malaysians, as the living areas are far the work place, owning a car is a necessity. Traffic congestion becomes a common urban scene as people are forced to travel long distance daily from suburban to workplace in the city centre. Subsequently, energy consumption and air pollution escalate, followed by urban quality degradation, not to mention the plummeted living cost.

Road Transport Department reported that the ratio of registered cars and motorcycles in Kuala Lumpur was 985.7 per 1,000 populations in 2000 which is approximately one vehicle per person. With 1.42 million population living in Kuala Lumpur and a high proportion of workers, it can be expected that a very high volume of traffic is clogging the city road daily. With sprawl, it is conceivable that trunk road leading to the city centre will soon choke itself to death especially during peak hour.

ii)   City centre is foreseeing urban decline and decay effect

Under the current planning system, zoning system imitated is widely practice. Instead of tapping into the potential of proximity to existing facilities, new lands are urbanized to accommodate more buildings and cars. New towns are less sustainable physically and economically. Old city centre becomes mono-function which tends to be more commercial orientated. The city is losing its population to suburban. Lacking of living community may reduce the public surveillance, that according to Jacobs (1969) is part of the delicate system in reducing urban crimes. The city becomes economically unsustainable due to lack of living community as the core consumers to product and services.

iii)   Current practices post an obstacle to urban infill development.

Malaysian city centres are loosing population similar to what European and American cities are experiencing for the past 30 years ago. Although there are some infill developments being undertaken, these are haphazardly done and not well guided. The developers may not realise the obligation of developing a precious parcel of land within the city centre. The outcome could further aggravate the city centre if these developments are not being well planned and designed. Generally, this has been the norm of real estate industry, emphasizing on profit while promoting its property as one of the best in town.

Urban infill housing is a tool to revitalise the function of city centres as places to live, work and do business. There is no awareness of the importance of better urban infill guidelines. Most of the local authorities are using the existing typical development control as a guide for urban infill. The one-size-fits-all approach is simply not realistic because of the significant differences between developments. Although much efforts and money have been poured in to formulate guidelines and standard for urban infill development, it is not fully utilised by local authority. Some guidelines do address issues of infill compatibility, but these lack great detail on actual implementation. There should a specific guideline for infill development with

detail explaination on implementation if it is to be utilised by local authorities.

In some other local authorities, there are too much of guidelines for any urban development. Instead of facilitating, it turns out to be more of a constraint to infill developments. They are neither good guidelines nor comprehensive to accommodate more radical ideas. To retain and promote the expansion of existing businesses in these areas, the design standards should incorporate flexibility into the traditionally regulated areas of density, lot size, setbacks, building coverage and building orientation. Instead of facilitating infill and redevelopment in a manner that contributes to and upgrades the older, established character, the guidelines are perceived as an obstacle.

Indeed, many of the current guidelines are just that - they are rather vague and not well practised. This puts local government staff and reviewing bodies in an unenviable position of having to negotiate certain design aspects of each development from scratch. On the other hand, developers can never be sure exactly what is required of them until they are into the development process. Without guidelines and standards specific to such areas, the very character that makes these areas so unique will be threatened. It is essential therefore that infill and redevelopment respect and be sensitive to existing local urban character.

Abandoned projects start emerging due to unskilful risk management. Every abandoned site comes with problems. The procedure of revitalising such sites incurs high cost and long procedure. Infill development has become the least preferred project among the construction field. This may due to constrain and complication in developing an abandoned site. On the other hand, "lost spaces" in the city centre are potential for development (Trancik, 1986), these vacant land are usually converted easily into public realm and greenery voted by so-called enthusiastic environmentalists and green supporters.

1.3   Research Goal and Objectives

In searching for a better ways to urban design, this research underlined the research goal as: "To facilitate the adaptation in Urban Infill Housing towards re-creating a vibrant Malaysian city centre." This goal can be achieved by fulfilling these research objectives:

i)   To understand the approaches to urban infill housing,

ii)   To understand the challenges in urban infill housing industry;

iii)   To examine the current best practices of urban infill housing in selected countries; and

iv)   To explore and address the challenges of urban infill housing that are applicable for Malaysia.

1.4   Research Questions

Four fundamental enquiries or questions have been posed to facilitate the research process with Malaysian context in mind:-

i)   Why do we need urban infill particularly housing component in the city centre?

ii)   What are the aspects or factors that contribute to a successful infill housing development especially in repopulating the city centre? How should we go about to repopulate Malaysian city centres through infill development?

iii)   What are the factors that inhibit urban infill development? Can our current system absorb such urban infill method?

iv)   What is the appropriate design and image suitable for our city centre?

1.5   Research Purpose and Significance

Infill developments are taking place but somewhat haphazardly around major city centres in Malaysia. These are relatively new activities with many unforeseen challenges waiting along the way. The question is whether the current planning practice is able to accommodate for such a turn-around development trend? This research hopes to lay a foundation towards understanding the concept on urban infill development, especially infill housing by:

i)   Understanding of the economics, social, and political functions of inner cities, and thus develop concepts and approaches to design effective multi-sector and multi-agency urban centre revitalisation programmes that are suitable for the Malaysian city environment;

ii)   Learning from other countries' experience. Comparative study on foreign experience provides the background knowledge in formulating ideas for local urban and revitalization and repopulation process;

iii)   It serves as a reference not only to the local authorities but also for planners and developers to provide developers an overview of opportunities and challenges of developing infill housing; and

iv)   Increase projects' implementability and market value. Proven financing and marketing strategies learned may increase projects' feasibility and lower possibility of failure.

This research is expected towards assisting urban policy-makers, urban development authorities, as well as various other stakeholders to better understand and appreciate the realistic and comprehensive infill strategies, mechanisms, tools and instruments that needs to be adopted to improve and strengthen the capacity and effectiveness of managing the urban re-development process in the developing better living city centre.

1.6   Research Methodology

This research is meant to be an exploratory and explanatory in nature. The research methodology is designed to facilitate the process of adaptation in accordance to research goal and objectives. It is generally organised into three main stages:-

i)   Literature Review

This research begins with an extensive literature review on every possible related literature before deciding on the research framework. Later, an intensive literature review on selected materials perfectly related to the focus of study. Indeed literature reviews have been the back bone for the entire research process.

ii)   Comparative Study

The purpose is to study housing practice in the context of urban renewal in different countries, in which housing and urban regeneration initiatives and innovations in the selected countries will be compared with those in Malaysia. A series of longitudinal comparative case studies in different fields or sub-fields of infill development or redevelopment in the USA and Great Britain will be carried out. The principal mode of data collection will entirely base on exhaustive literature. The researcher will trace the significant differences of the field in each location, analyze

and compare these fields or sub-fields.

iii) Systematic Adaptation Process

Other than some universal principles, some practices of urban infill housing are context sensitive. To ensure urban infill in Malaysia will not result in mismatch due to incompatible solutions, some adaptation measures are necessary. The analysis and findings from the comparative study alone will provide the input for this adaptation process. A comparative study will be carried out to learn from other experience in terms of urban infill development. These solutions were then being modified to adapt in local city centre context. This is the core of this research. This process is to ensure a smoother process, more efficient financial mechanism and better integration with the existing development procedure.

1.7   Structure of Research

This research report is written in seven (7) chapters. The introductory chapter addresses the underlying research background and formulation of the methods of inquiry of the subject. The Chapter Two reviews the terminologies used in the research. Chapter Three revisits some major design concept of urban neighbourhood and housing perspectives and followed by Chapter Four on a review of some sustainable housing design applicable in Malaysian city centres. Chapter Five presents a comparative analysis on infill development strategies and practices in America and British. Chapter Six discusses the innovation on infill housing development and Chapter Seven comes up with some recommendations in the quest to infill housing as a means to revitalise urban Centres.
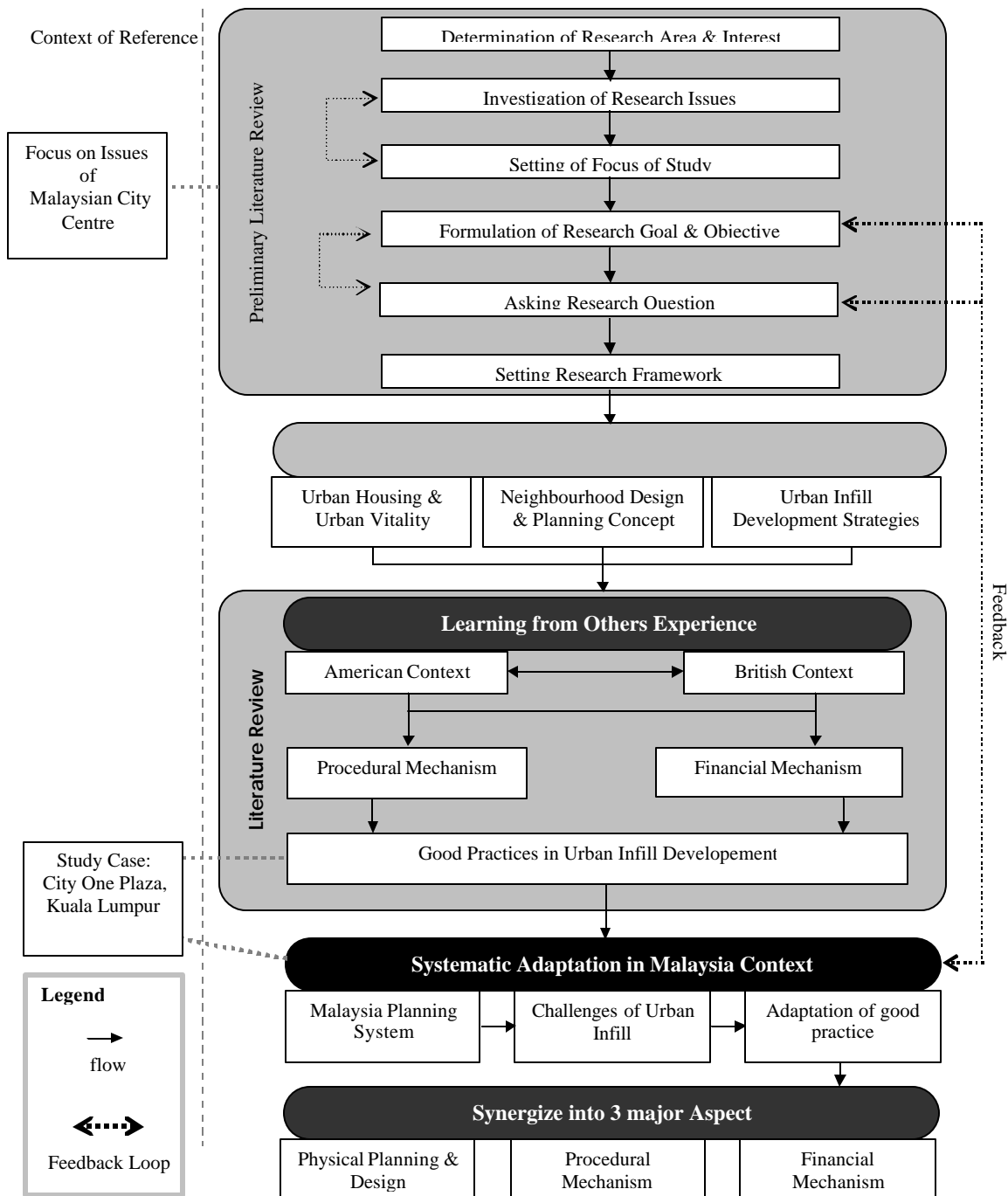
Figure 1.2: Research Methodology

References

Acioly, Jr. C. C. (1999). Institutional and Urban Management Instruments for Inner City Revitalisation: A Brief Review with Special Focus on Brazilian Experiences. *Proceedings of the Conference of Shelter and Revitalization of Old and Historic Urban Centres*. March 30-April 3. Havana.

Alexander, I. (1974). *The City Centre: Patterns and Problems.* Australia: University of Western Australia Press.

Alexander, I. (2000). The Post-war City. In: Hamnett, S. and Freestone, R. eds. *The Australian Metropolis: A Planning History.* London: E & FN Spon.

Alexender, N. (1990). *Squeezing Spread Cities: Improving the Energy Efficiency of Large Cities.* Oxford Politechnic: Master Thesis.

Architecture in Japan. (2001). *Journal of Architecture and Buiding Science Architecture Institute of Japan*. Japan: Architectural Institute of Japan.

Babbie, E. (1998). *The Practical of Social Research 8th Edition.* Belmont, CA: Wadsworth Publishing Company.

Barnett, J. (1995). *The Fractured Metropolis: Improving the New City, Restoring the Old City, Reshaping the Region*. New York: IconEditions.

Barton, H. (2000). *Sustainable Communities: The Potential for Eco-Neighbourhoods*. London: Earthscan Publication.

Bartsch, C. (2001). Brownfields Financing Basics: Making the Numbers Add Up. *Proceedings of the Brownfields Conferences.* September 24. Chicago: The Northeast-Midwest Institute.

Beatly, T. and Manning, K. (1997). *The Ecology of Place: Planning for Environment, Economy, and Community*. Washington D.C.: Island Press.

Bender, J. S. (2003). *An Examination of the Use of Urban Entertainment Centers as a Catalyst for Downtown Revitalization*. Virginia Polytechnic Institute and State University: Master of Urban and Regional Planning.

Bently, I., Alcock, A., Murrain, P., McGlynn, S. and Smith, G. (1985). *Responsive*

Environments: A Manual for Designers. Oxford: Butterworth Architecture.

Berry, J., McGreal, S. and Deddis, B. eds. (1993). *Urban Regeneration: Property Investment and Development.* London: E & FN SPON.

Betts, J. and Grove, D. (1979). Inner City Living – Planning Issues. *Proceedings of the Rebirth of the Inner City: A Seminar on Housing People in the Heart of Auckland City.* Auckland: Auckland Civic Trust.

Bird, J. (1977). *Centrality and Cities.* London: Routledge Direct Editions.

Black, T. R. (1993). *Evaluating Social Science Research: An Introduction.* London: Sage Publication.

Bono, D. E. (1992). *Sur/petition: Creating Value Monopolies when Everyone Else is Merely Competing.* New York: Harper Business.

Boon, J. (1997). Urban Regeneration in Moderate Size Cities: The Case for Minimal Government Intervention. *Proceedings of the Conference on Urban Restructuring in the Fast Growing Asia: It's Implementation to the Planning Profession and Education Vol.2.* September. Bandung, Indonesia: International Congress on Asian Planning Schools Association (APSA).

Bracken, I. (1981). *Urban Planning Methods: Research and Policy Analysis.* London and New York: Methuen.

Brebbia, C. A., Ferrante, A., Rodriguez, M. and Terra, B. eds. (2000). *The Sustainable City: Urban Regeneration and Sustainability.* Boston: WIT Press.

Breheny, M. J. (1993). *Alternative Development Patterns: New Settlements.* London: HMSO.

Bryce, H. J. ed. (1979). *Revitalising Cities.* Lexington, Massachusetts, Toronto: Lexington Books.

Burchell, R. (1998). *The Costs of Sprawl - Revisited.* Transportation Cooperative Research Program Report 39. Washington, DC: National Academy Press.

Bus, A. (1999). Ecological Renewal of Post War Neighborhoods: Problems and Solutions. In: Miller, D. and Roo, G. D. eds. *Intergrating City Plannnig and Environmental Improvement.* Aldershot, Burlington USA, Singapore, Sydney: Ashgate.

Calthorpe, P. (1993). *The Next American Metropolis: Ecology, Community, and the American Dream.* New York: Princeton Architectural Press.

Canada Mortgage and Housing Corporation. (2001). Disinvestment and the Decline of Urban Neighbourhoods. Canada Mortgage and Housing Corporation *Research Highlights*.

Carr, S., Francis, M., Rivlin, L. and Stone, A. (1992). *Public Space.* New York: Cambridge University Press.

Chapin, F. S. (1965). *Urban Land Use Planning (Second Edition).* Urbana, Chicago, London: University of Illinois Press.

Chau, L. W. (2000). *Designing Better City Centres: Toward Improving Sustainability and Livability*. Queensland University of Technology, Australia: Master Thesis.

Churchill, H. S. (1953). What Kind of Cities do We want? In: Woodbury, C. ed. *The Future of Cities and Urban Redevelopment* Chicago: University of Chicago Press.

Cicin-sain, B. (1980). The Costs and Benefits of Neighbourhood Revitalisation. In: Rosenthal, D. ed. *Urban Revitalisation.* London: SAGE Publication.

City Hall Kuala Lumpur. (2003). *Draft Structure Plan Kuala Lumpur: A World Class City.* Kuala Lumpur: City Hall Kuala Lumpur.

City of Adelaide. (1996). *City Living Program.* Adelaide: Brochure.

Clark, A. N. (1998). *The Penguin Dictionary of Geography.* London: Penguin Books.

Clay, P. L. (1979). *Neighborhood Renewal: Middle-Class Resettlement and Incumbent Upgrading in American Neighborhoods.* Lexington: Lexington Books.

Congress for the New Urbanism. (2000). *Charter of the New Urbanism.* New York: McGraw-Hill.

Coombes, M., Raybould, S. and Wong, C. (1992). *Developing Indicators to Assess the Potential for Urban Regeneration*. London: HMSO.

Correa, C. (1996). *Charles Correa*. London: Thames and Hudson.

Cowan, M. and Lindsay, C. (1993). City Centre Regeneration in a Regional Context: the Glasgow Experience in the 1980s. In: Berry, J., McGreal, S. and Deddis, B. eds. *Urban Regeneration: Property Investment and Development.* London: E & FN SPON. 174-192.

Couch, C. (2000). Urban Renewal and Grant. In: Allmendinger, P., Prior, A. and Raemaekers, J. eds. *Introduction to Planning Practice.* New York: John Wiley & Sons, LTD.

Coupland, A. ed. (1997). *Rebuilding the City: Mixed-use Development.* London: E & Fn Spon.

Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 2nd Edition.* London: Sage Publications.

Davidson, F. and Payne, G. K. eds. (1983). *Urban Projects Manual: A Guide to The Preparation of Projects for New Development and Upgrading Relevant to Low Income Groups, Based on the Approach Used for the Ismailia Demonstration Projects.* Liverpool: Liverpool University Press & Fairstead Press.

DeChiara, J., Panero, J., Zelnik, M. (1994). *Time-Saver Standards for Housing and Residential Development (Time-Saver Standards) (2nd Edition).* New York: McGraw-Hill

Djohar Arrifin Husin, Fashbir Noor Sidin, Mohd Razali Agus. (1997). Urban Restructuring and Public Participation: A Case Study of Medan, Indonesia in Urban Restructuring in the Fast Growing Asia: Its Implementation to the Planning Profession and Education Vol 2. *Proceedings of the Conference on Urban Restructuring in the Fast Growing Asia.* Indonesia: Bandung.

Duany, A. and Plater-Zyberk E. (1998). *The Lexicon of the New Urbanism.* Washington: Duany Plater-Zyberk & Company. unpublished

Edwards, B. and Turrent, D. eds. (2000). Sustainable Housing: Principles and Practice. An English Heritage/Historic Scotland Publication. London: E & FN Spon.

English Partnership & The Housing Corporation. (2000). *Urban Design Compendium.* London: Llewlyn-Davies.

Elazar, D. J. (1992). Urban Revitalization and the New Frontier. In: Elazar, D. J. ed. *Urban Revitalization: Israel's Project Renewal and Other Experiences.* London: University Press of America.

Farris, J. T. (2001). The Barriers to Using Urban Infill Development to Achieve Smart Growth. *Housing Policy Debate.* 12 (1): 1-30.

Fox-Przeworski, J., Goddard, J., and Jong, M. D. (1991). *Urban Regeneration in a Changing Economy: An International Perspective.* Oxford: Clarendon Press.

Frank, L. D., Engelke, P. O., and Thomas, L. S. (2003). *Health and Community Design: The Impact of the Built Environment on Physical Activity.* New York: Island Press.

Frieden, B. J. and Sagalyn, L. B. (1989). *Downtown Inc.: How America Rebuilds Cities.* Cambridge: The MIT Press.

Gehl, J. (1987). *Life between Buildings: Using Public Space*. England: Van Nostrand Reinhold.

Ghani, S. and Lee, L. M. (1997). *Low-cost Housing in Malaysia*. Kuala Lumpur : Utusan Publications & Distributors Sdn. Bhd.

Gist, J. R. (1980). Urban Development Action Grants: Design and Implementation. In: Rosenthal, D. B. ed. *Urban Revitalization. Urban Affairs Annual Reviews Vol. 18*. London: SAGE Publication.

Gosling, D. (1984). *Concepts of Urban Design*. London: Academy Edition.

Gratz, R. B. and Mintz, N. (1998). *Cities Back form the Edge: New Life for Downtown*. New York: John Wiley & Sons, Inc.

Greenberg, M. (1995). *The Poetics of Cities: Designing Neighborhoods that Work*. Columbus: Ohio State University Press.

Grogan, P.S and Proscio, T. (2000). *Comeback Cities: A Blueprint for Urban Neighborhood Revival*. Colorado: Westview Press.

Gruen, V. (1965). *The Hearth of Our Cities*. London: World Uni. Library.

Gyourko, J. and Rybczynski, W. (2000). Financing New Urbanism Projects: Obstacles and Solutions. *Housing Policy Debate.* 11(3): 733-50.

Hamnett, S. and Freestone, R. (2000). *The Australian Metropolis: A Planning History*. London: E & FN Spon.

Harms, H. (1982). Historical Perspectives on the Practice and Purpose of Self-help Housing. In: Ward, P. M. ed. *Self-Help Housing: A Critique*. Oxford: Mansell Publishing Limited, Alexandrine Press.

Hart, C. (1998). *Doing a Literature Review: Releasing the Social Science Research Imagination.* London: Sage Publications.

Harvey, J. (1992). *Urban Land Economics* (3rd Edition). London: MacMillan.

Home, R. K. (1982). *Inner City Regeneration*. London: E. & F. N. Spon.

HMSO. (1995). *Urban Regeneration*. London: HMSO Publication.

Holiday, J. ed. (1973). *City Centre Redevelopment: A Study of British City Centre Planning and Case Studies of Five English City Centers.* London: Charles knight & Co. Ltd.

Horwood, E. and Boyce, R. (1959). *Studies of the Central Business District and Urban Freeway Development.* Seattle: University of Washington Press.

Hudnut, W. (2001). Comment on J. Terrence Farris' "The Barriers to using Urban Infill Development to Achieve Smart Growth. *Housing Policy Debate.* 12(1): 31-40.

Huxley, M. (2000). Admistrative Coordination, Urban Management and Strategic Planning in the 1970s. In: Hamnett, S. and Freestone, R. eds. *The Australian Metropolis: A Planning History.* London: E & FN Spon.

Jabatan Perancangan Bandar & Desa. (undated). *JPBD secara Ringkas.* Kuala Lumpur: JPBD.

Jacobs, J. (1969). *The Death and Life of Great American Cities.* New York: The Modern Library.

Jackson, J. T. (1998). Centrality on the Fringe: A Reassessment of Planning Orthodoxy. *Urban Policy and Research.* 16(1): 7-20.

Jagatheesan, N. (1979). Housing Finance in Malaysia. In: Tan, S.H. and Hamzah, S. eds. *Public and Private Housing in Malaysia.* Kuala Lumpur: Heinemann Educational Books (Asia) LTD.

Johnson, L.C. (1994). *Suburban Dreaming: An Interdisciplinary Approach to Australian Cities.* Victoria: Deakin University Press.

Jordan, T. G. and Rowntree, L. (1986). *The Human Mosaic: A Thematic Introduction to Cultural Geography.* 4th edition. New York: Harper & Row Publishers.

Kallus, R. and Hubert, L. Y. (2000). What is a Neighbourhood? The Structure and Function of an Idea. *Environment and Planning: Planning & Design 2000.* 27(6): 815-826.

Karn, V. (1993). Remodelling a HAT: The Implementation of the Housing Action Trust Legislation 1987-92. In: Malpass, P. and Means, R. eds. *Implementing Housing Policy.* Milton Keynes: Open University Press.

Katz, P. (1994). *The New Urbanism: Towards and Architecture of Community.* New York: McGraw-Hill.

Keeble, L. (1969). *Principles and Practices of Town & Country Planning.* London: The Estates Gazette Limited.

Keith, M. and Rogers, A. (1991). *Hollow Promises: Rhetoric and Reality in the Inner City.* London: Mansell Publishing.

Knos, D. S. (1962). *Distribution of Land Values in Topeka, Kansas.* Kansas: University of Kansas.

Kumar, R. (1996). *Research Methodology: A Step-by-step Guide for Beginners.* London: Sage Publications.

Larsson, G. (1993). *Land Readjustment: A Modern Approach to Urbanization*. Aldershot, England: Avebury.

Lim, H. K. (1978). *The Evolution of the Urban System in Malaya*. Kuala Lumpur: University Malaya.

Lloyd, G. and Black, S. (1993). Property-led Urban Regeneration and Local Economic Development. In: Berry, J., McGreal, S. and Deddis, B. eds. *Urban Regeneration: Property Investment and Development.* London: E & FN SPON. 144-160.

Lloyd-Jones, T. and Carmona, S. (2002). Good Practice in Core Area Development: Combating Poverty through a Participatory Approach. In: Romaya, S. and Rakodi, C. eds. *Building Sustainable Urban Settlements: Approaches and Case Study in the Developed World.* Glasgow: ITDG Publishing. 190-208.

Lock, D. (1994). Towards Sustainable Developments: Implications For Land Use And New Housing Distribution. *Housing and Planning Review*. August/September.

Lynch, K. (1960). *The Image of the City*. Massachusetts: The M.I.T. press.

Maare, M. D. and Zinger, E. (1999). CiBoGa Site Groningen: A Breakthrough in Environmental Quality in the Densely-populated City. In: Miller, D. and Roo, G. D. eds. *Intergrating City Plannnig and Environmental Improvement.* Ashgate: Aldershot, Burlington USA, Singapore, Sydney.

MacGilvray, D. F. (1988). Raisin versus Vintage Wine: Calvert and Galveston, Texas. In: Woodcock, D. G., Steward, W. C. and Forrester, R. A. eds. *Adaptive Reuse: Issues and Case Studies in Building Preservation*. New York: Van Nostrand Reinhold Campany.

Mahesan, T. (1996). Planning Law, System & Procedures Related to Urban Land Development. *Proceeding of the National Housing & Property Conference 1996*. May 28-29. Kuala Lumpur: Balai Ikhtisas Malaysia.

Marshall, C. and Rossman, G. B. (1995). *Designing Qualitative Research 2nd Edition.* London: Sage Publications.

Mars, V. D. (1953). Townscape and the Architect: Some Problems of the Urban Scene. In: Woodbudy, C. (1953). ed. *The Future of Cities & Urban Redevelopment.* Chicago & London: The University of Chicago Press.

Martin, T. and Gamzon. (1978). The Economic Process. In: Martin, T. and Gamzon. eds. *Adaptive Use: Development Economics, Process, and Profiles.* Washington, D.C.: Urban Land Institute.

Mason, J. (1996). *Qualitative Researching.* London: Sage Publication.

McCamant, Kathryn, and Durrett, C. (1994). *Cohousing: A Contemporary Approach to Housing Ourselves.* Berkeley: Ten Speed Press.

Swedish Council for Building Research (1990). *Newsletter of Swedish Building Research.* Stockholm: Swedish Council for Building Research.

Miller, B., Pinney, N. and Sasiow, W. (1972). *Innovation in New Communities.* Cambridge: MIT Press.

Miller, D. and Roo, G. D. eds. (1999). *Integrating City Planning and Environmental Improvement.* Aldershot, Burlington USA, Singapore, Sydney: *Ashgate.*

Ministry of Housing and Local Government Malaysia. (1998). Buletin Perangkaan Perumahan 1998. Kuala Lumpur: Percetakan Nasional Berhad.

Ministry of Housing and Local Government, UK. (1963). *Town Centers: Cost and* Control of Development. London: HMSO.

Morris, E. S. (1997). *British Town Planning and Urban Design: Principles and Policies.* Singapore: Longman.

Moundon. A. V. (2001). The Supply and Development of Infill and Redevelopment Lands: A Parcel-Based Geographic Information System Perspective. In Land Monitoring. ed. Gerrit Knapp. Unpublished Paper. University of Washington.

Municipal Research & Service Centre (MRSC). (1997). *Infill Development: Strategies for Shaping Liveable Neighbourhood. (Report No.38).* Washington: MRSC.

Murphy, R. and Vance, J. (1954). Delimiting the CBD. *Economic Geography.* 30(3): 189-222.

National Governors Association. (2000). New Mission for Brownfields: Attacking Sprawl By Revitalizing Older Communities. *Proceedings of the Brownfields Conferences 2000.* October 11–13. Atlantic City, New Jersey: National Governors Association.

Newman, O. (1973) *Defensible Space.* New York: Macmillan.

Newman, P. and Kenworthy, J. (1999). Sustainability and Cities: Overcoming Automobile Dependence. Washington D.C.: Island Press.

New York State Council on the Arts. (1988). *Reweaving the Fabric: Approaches to Infill Housing.* New York: Princeton Architectural Press.

Nozzi, D. (2003). *Road to Ruin: An Introduction to Sprawl and How to Cure It.* New York: Praeger Publishers.

NRDC. (2003). *Solving Sprawl: Models of Smart Growth in Communities Across America*. Washington: Island Press.

Oosterveld, J. (2000). Sustainable Downtown Urban Renewal: Redefining Yonge Street. In: Miller, D. and Roo, G. D. eds. *Integrating City Planning and Environmental Improvement: Practicable Strategies for Sustainable Urban Development.* Aldershot, Burlington: Ashgate.

Park, R. E. and Burgess, E. W. (1984). *The City: Suggestions for Investigation of Human Behaviour in the Urban Environment.* Chicago: University Of Chicago Press.

Partners for Livable Communities. (2000). *The Liavable City: Revitalizing Urban Communities*. New York: McGraw-Hill, Inc.

Paumier, C. B., Diamond, C. C., Ditch, W. S. and Rich, D. (1988). *Design the Successful Downtown*. Columbia, Maryland: Urban Land Institute.

Perenyi, I. (1973). *Town Centre: Planning and Renewal.* Budapest: Akademiai Kiado.

Perkins, G. H. (1953). The Regional City. In: Woodbury, C. ed. *The Future of Cities & Urban Redevelopment.* Chicago and London: The University of Chicago Press.

Porter, M. E. (1995). The Competitive Advantage of the Inner City. *Harvard Business Review*. 73(3): 55-71.

Rannells, J. (1956). *The Core of the City: A Pilot Study of Changing Land Uses in Central Business Districts.* Westport, Connecticut: Greenwood Press Publishers.

Real Estate Research Corporation. (1982). *Infill Development Strategies.* Washington: Urban Land Institute.

Relph, E. C. (1976). *Place and Placelessness*. London: Pion.

Rick, C., Nancy, B., Judy, C., and Sharon, S. (1996). *Building Livable Communities New Strategies for Promoting Infill Development.* Washington: Urban Land Institute.

Rogers, L. (1999). *Towards an Urban Renaissance: Final Report of the Urban Task Force.* London: Spon Press.

Romaya, S. and Rakodi, C. (2002). *Building Sustainable Urban Settlements: Approaches and Case Studies in the Developing World*. London: ITDG Publishing.

Rose, A. J. (1967*). Patterns of Cities*. Australia: Thomas Nelson.

Rosenfeld, R. A. (1980). Who Benefits and Who Decides? The Use of Community Development Block Grants. In: Rosenthal, D. B. ed. *Urban Revitalization. Urban Affairs Annual Reviews Vol. 18*. London: SAGE Publication.

Rosenthal, D. B. ed. (1980). *Urban Revitalization. Urban Affairs Annual Reviews Vol. 18*. London: SAGE Publication.

Roseth, J. (1991). The Case for Urban Consolidation. *Architecture Australia*. 80: 30-33.

Rudlin, D., and Falk, N. (1999). *Building the 21st Century Home: The Sustainable Urban Neighbourhood*. Oxford: Architectural Press.

Schmits, A. (2003). *The New Shape of Suburbia*. Washington: Urban Land Institute.

Schoenauer, N. (2000). *6,000 Years of Housing: Third Revised Edition*. Montreal: W. W. Norton & Company.

Serageldin, I. (1997). *The Architecture of Empowerment: People, Shelter and Liavable Cities*. London: Academy Edition.

Shirvani, H. (1981). *Urban Design Review: A Guide for Planners*. Washington: American Planning Association Planner Press.

Sirat, M., Che Hamat, A.F., Abdul Aziz, A.R., Rahim, A., Salleh, H. and Yaakob, U. eds. 1999. *Housing in Urban-Industrial Centres of Malaysia: Issues and Challenges*. Pulau Pinang: Penerbit Universiti Sains Malaysia.

Smart, E. (1985*). Making Infill Projects Work*. Washington: Urban Land Institute.

Stead, D. (2000). Unsustainable Settlements. In: Barton, H. ed. *Sustainable Communities: Potential for Eco-Neighbourhoods*. London: Earthscan.

Suchman, D., Middleton, D. S. and Giles, S. L. (1990). *Public/Private Housing Partnerships*. Washington: Urban Land Institute.

Suchman, D. R. (1997). *Developing Infill Housing in Inner-City Neighbourhood*. Washington: Urban Land Institute.

Syed, Z. A. (1993). The Need to Colaborate Informal Human Activities: In the Context of Designing for Identity: A Case Study for Malaysian Town and Cities. *Symposium on Urban Design*. Haikou, Hainan Province, People's Rupluc of China.

Syed, Z. A. (2004). Enhancing Quality of Life through Urban Design in Challenges of Urban Living for Quality of Life and Community Development. *Proceedings of the Leadership Seminar (SEACUM 11).* 19-20th May 2004.

Talha, K. (2004). Planning and Managing for Quality of Life in Urban Malaysia in Challenges of Urban Living for Quality of Life and Community Development. *Proceedings of the Leadership Seminar (SEACUM 11)*. 19-20th May 2004.

Tanghe, J., Vlaeminck and Berghoef, J. (1984). *Living Cities: A Case for Urbanism and Guidelines for Re-urbanization*. Oxford: Pegamon Press.

Teymur, N. (1988). The Pathology of Housing Discourse. In: Teymur. N., Markus. T. A. and Woolley. eds. *Rehumanizing Housing*. London: Butterworths.

Thiberg, S. ed. (1990). *Housing Research and Design in Sweden*. Stockholm: Swedish Council for Building Research.

Trancik, R. (1986). *Finding Lost Space: Theories of Urban Design.* New York: Van Nostrand Reinhold.

Tyrwhitt, J. (1951). Core within the Urban Constellation. In: Tywritt, J., Sert, J. L. and Rogers, E. N. eds. *The Heart of the City: Towards the Humanisation of Urban Life.* London: Lund Humphrises.

Urban and Economic Development Group (URBED). (1994). *Vital and Viable Town Centres: Meeting the Challenge*. London: HMSO.

Urban Land Institute & Real Estate Research Corporation. (1982). *Infill Development Strategies.* Washington: Urban Land Institute.

Urban Land Institute & Lincoln Institute of Land Policy. (1985). Making Infill Projects Work. Washington: Urban Land Institute.

Urban Land Institute. (2000). *Multi-family Housing Development Handbook*. Washington: Urban Land Institute.

Urban Land Institute & Real Estate Research Corporation. (2001). *Infill Development Myth & Facts*. Washington: Urban Land Institute.

Valentine, B. (2004). Transit First. *Urban Land*. March 2004. Pg. 29.

Vitulli, Dougherty, and Hutch. (2000). Urban Competitive Advantage and Brownfields Redevelopment. *Proceedings of Brownfield Conferences 2000*. October 11–13. Atlantic City, New Jersey: National Governors Association

Walker, C. (1993). Nonprofit Housing Development: Status, Trends and Prospectus. *Housing Policy Debate*. 4(3): 369-414.

Ward, P. M. (1982). Self Help Housing: A Critique. In: *Sustainable Urban*

Extensions: Planned through Design. Oxford: Mansell Publishing Limited, Alexandrine Press.

Ward, S.V. (1992). The Garden City Introduced. In: S. V. Ward, ed. *The Garden City: Past, Present and Future*. London: E & FN Spon.

Welter, V. M. (2003). From Locus Genii to Heart of the City: Embracing the Spirit of the City. In: Whyte, I. B. ed. *Modernism and the Spirit of the City*. London: Routledge.

Wentling, J. W. (1990). *Housing by Lifestyle: The Component Method of Residential Design*. (2nd Edition). New York: McGraw-Hill, Inc..

Wheeler, S. M. (2001). Infill Development in the San Francisco Bay Area: Current Obstacles and Responses. *Proceedings of the Annual Conference of the Association of Collegiate Schools of Planning*. Cleveland, Ohio.

Witherspoon, R. E., Abbett, J. and Gladstone, R. (1976). *Mixed-use Developments: New Ways of Land Use*. Washington: Urban Land Institute.

Wolf, P. (1974). The *Future of the City: New Directions in Urban Planning*. New York: Watson-Guptill Publication.

World Bank. (2000). *World Development Report 1999/2000.*

World Commision on Environment and Development. (1987). *Our Common Future.* Oxford: Oxford University Press.