Towards a Regional Landscape Framework: *Is Practice Ahead of Theory?*

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Abstract

Current research into the peri-urbanisation associated with the rapid population growth of preferred Australian metropolitan regions has shown that their landscape values are put at risk and the region's QoL and the community's standards of liveability are consequently threatened. Whilst the concept of a landscape framework as an analytical, policy and management tool has general acceptance, there appears to be few if any working examples where this concept has been operationalised.

To date, the conventional approaches utilised by regional planning agencies and Local Government have not been able to deliver the necessary tools to incorporate the necessary landscape planning principles let alone processes to address the regional landscape values at risk in the peri-urban areas of rapidly growing regions.

However, promising initiatives have emerged from the associated field of landscape planning. Within this alternative planning paradigm a conceptually workable framework has been articulated that can address the management of the priority regional landscape values of peri-urban areas.

Despite shortcomings in the theoretical development of this conceptual framework, a regional landscape framework has been incorporated into the recently released *SEQ Regional Plan 2005*-2026, a statutory planning instrument for the South East Queensland (SEQ) region, Australia's fastest growing metropolitan region.

Whilst it is conceivable that in the SEQ case, **practice may be ahead of theory,** there is now an priority imperative to develop this framework in a manner that it can utilised as a regional policy framework and as an integrating instrument to address the values of the SEQ regional landscape including the range of existing and emerging rural values of the critical urban–rural interface.

Introduction

The special qualities of regional landscapes of many favoured destinations are increasingly at risk as these regions experience significant in-migration leading to rapid and unplanned population growth. These challenges are particularly acute for metropolitan regions experiencing rapid peri-urban and urban growth. It has been the nature and the rapidity of this population growth that has seriously challenged planners and policy makers responsible for the proper management of these metropolitan regions.

At stake are a number of important landscape attributes that define a region and provide its special locational and environmental qualities that are a major contributing factor to its high degree of liveability and quality of life. It is these special qualities that act as magnetic 'pull factors' that contribute to the attraction for the migrating population and establish the region as a popular tourist destination.

In the wake of this experience it is interesting to reflect on whether our current suite of conceptual frameworks that are typically associated with traditional planning paradigms has provided a suitable basis to derive policies to address the key issues of concern.

This paper considers the case of the rapidly growing metropolitan region and asks the question: Do we have adequate planning paradigms and conceptual frameworks to safeguard regional landscape values at risk from unchecked peri-urban expansion in rapidly growing metropolitan regions?

Contextual Theoretical Issues

Population growth of metropolitan areas can be accommodated either as infill of the existing urban area, through 'brownfield' development of gentrified locations which normally result in increased densities, or as extensions to the existing urban area through its outward expansion into new 'greenfield' sites, usually at low densities.

This paper is concerned with the phenomenon of low density outwards growth of urban areas into the metropolitan centre's non-urban hinterland. In particular, it is focused on the space that lies immediate outside of the existing urban area into which the growing urban centre is expanding. Burnley and Murphy (1995a & b) have recognised this area as the "perimetropolitan region" and define it to include the zone from the urbanising areas of expanding cities to the outer extent of their commuting zone. They have noted that these areas which are dominated by ultra-low density rural residential developments have also been described as 'exurba'.

This view that cities should been seen within their broader spatial context has implications for their planning and management which hitherto had normally been restricted to considerations within their singular and artificial administrative boundaries. The increasing popular notion that the city or the metropolitan region should be the basic unit for environmental planning and management, especially for growing cities has been supported by a wide range of disciplines over the last decade (McHarg, 1992; Glasson, 1992a&b; Claval, 1993; Castells and Hall, 1996; Purdy,

1996; Scott, 1996; Hall, 1998; Leccese and McCormick, 2000; Ravetz, 2000; Beer et al, 2003; Randolph, 2004). Selman (1999) had identified the regional scale as "the critical scale of effectiveness" whilst McDonald (1996) had viewed the region to have "the most effective boundary of a sustainable system".

In noting this resurgent interest in regional scale management, Calthorpe (2000: 15) has argued that "it's becoming clear that the economic building blocks of the global economy are regions - not nations, states, or cities. It's equally clear that many of our environmental challenges are regional in scope …. our basic infrastructure investments also are regional in scale and scope. Issues of economic equity, social integration, and race all now play themselves out in a regional geography …. our sense of place is increasingly grounded in the region".

These dynamic growth fringes are not restricted to metropolitan areas and can be associated with urban centre of all sizes and have been referred to as peri-urban areas (McKenzie, 1996; Houston, 2005). This peri-urban concept has its origins in the need to acknowledge the increasingly diminishing divide between rural and urban (Champion and Hugo, 2004). However there is no universally acceptable definition of this concept.

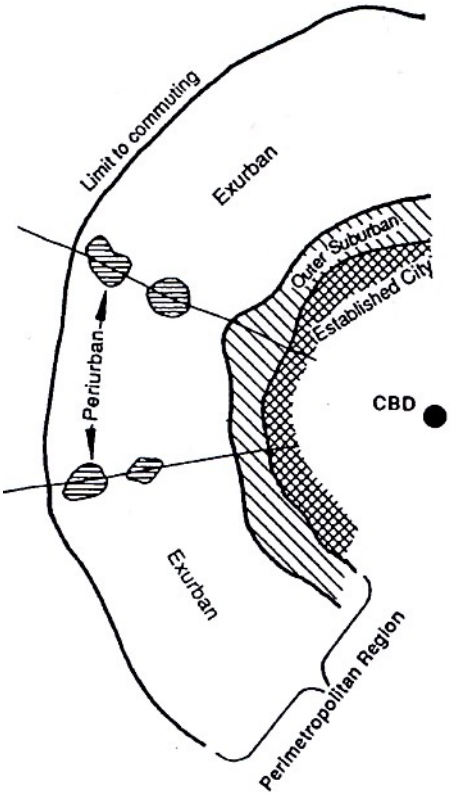
A number of typologies of peri-urban areas have been advanced in recent Australian studies to distinguish the different structure, form and processes within the perimetropolitan region. They include:

1. A perimetropolitan region (Burnley and Murphy 1995a) that provides three types of residential settings comprising:
    - Outer suburbs - contiguous to the metropolitan centre and its CBD;
    - Peri-urban centres - located beyond the outer suburbs up to the limits of commuting and are less accessible to the metropolitan centre; and
    - Exurban - rural land between the outer suburbs and the peri-urban centres.

2. A perimetropolitan region (Burnley and Murphy 1995b) comprising a refined set of components influenced by the boundaries of available spatial data namely:
    - Edge Urban - contiguous to the metropolitan centre and its CBD and with parts defined as urban;
    - Edge Rural – includes parts defined as urban and other parts where commercial agriculture is occurring;
    - Peripheral Urban - defined as rural and located within commuter shed; and
    - Peripheral Rural - contiguous with the outer limits of commuting.

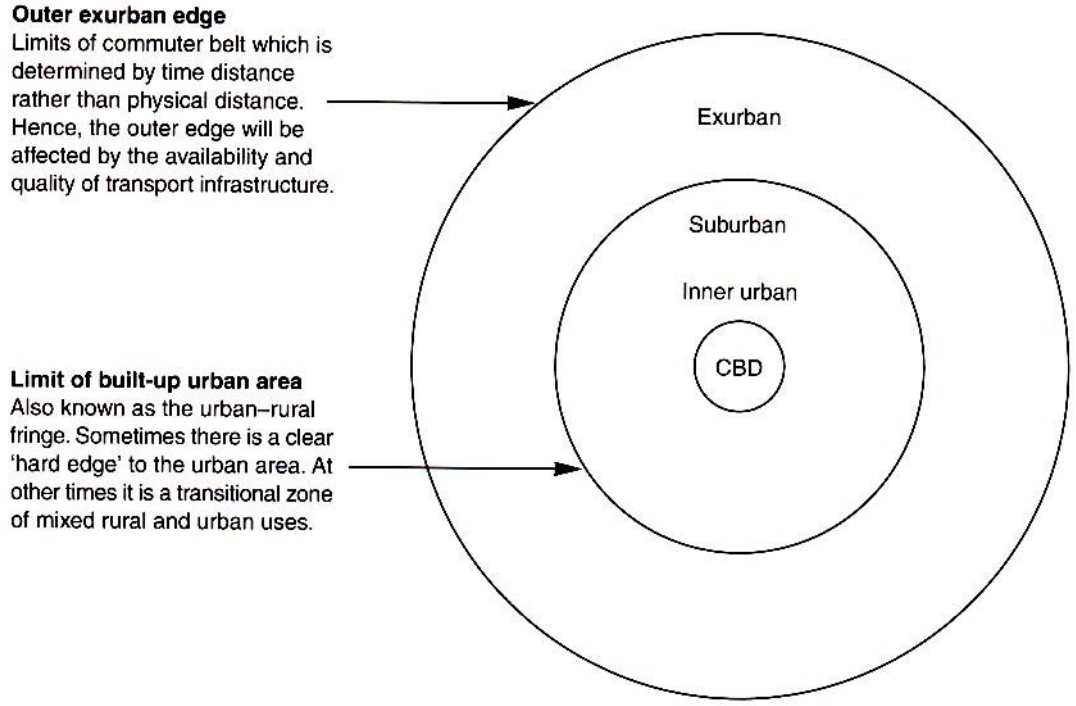
3. Exurban (McKenzie 1996) comprising:
    - Inner Exurban Zone – recognised where less than 50% of physical land area is urbanised and is contiguous to the metropolitan area; and
    - Outer Exurban Zone – within 100km radius from CBD but not contiguous to metropolitan area.

Burnley and Murphy's (1995b) second typology is useful for closer examination of a large growing city's perimetropolitan region. Its principal components are illustrated in Figure 1. By comparison, the relationship between McKenzie's (1996) exurban zones to the overall form of the metropolitan centre can be seen in Figure 2.



(After Burnley and Murphy, 1995b)

Figure 1: Components of the Perimetropolitan Region



(After McKenzie 1996)

Figure 2: Relationship between Exurban Zones and the Metropolitan Centre

The perimetropolitan region, specifically the peri urban areas, have become the focus of recent research interest where it has been recognised that peri-urban areas are not restricted to their normal association with areas adjacent to metropolitan centres but can occur in a range of settings, including:

- adjacent to a metropolitan centre;
- along a growth corridor;
- adjacent to an urban centre within the non-urban commuter hinterland of a metropolitan centre; or
- adjacent to a regional centre (RMIT & GU Peri-Urban Research Team, 2006).

Hence it is possible to refine the nature of peri-urbanisation and identify a more definitive typology. This four fold typology is illustrated in Figure 3.

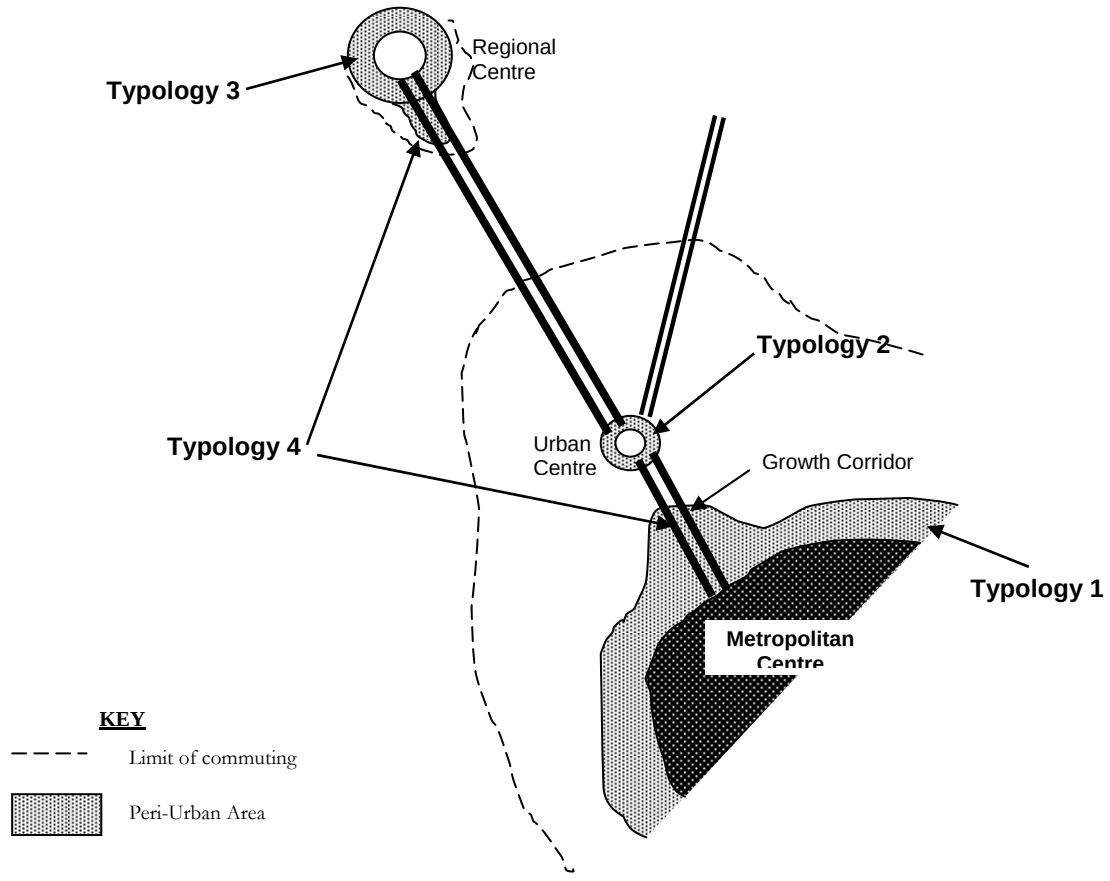


Figure 3: Peri-Urban Typologies

This populating process has given rise to a range of quite diverse residential types which have been described in the literature as rural residential, hobby farms and lifestyle properties. One distinguishing and common characteristic is that none of the new owners/occupants of these properties will use them as an agricultural enterprise that becomes their primary source of income.

Many of the peri-urban typologies have been developed through the recognition of one distinguishing attribute. Unfortunately this single indicator approach does not sufficiently describe the full context of the complicated structures and functions that are associated with this peri-urban phenomenon.

The principal attributes of the peri-urban zone that contribute to its distinctive character as well to its complex set of management challenges include:

- a dynamic zone undergoing constant and rapid change;
- its growth is related to the growth of nearby metropolitan/urban centres;
- a growing population increasingly dependent on the nearby metropolitan areas for employment, cultural, social and recreational needs;
- an area in transition dominated by the temporary nature of land uses;
- low to ultra low housing densities;
- a heterogeneous population;
- an increasing diverse range of heterogeneous and conflicting rural and urban land uses;
- an increasingly fragmented landscape;
- a location within the sphere of influence of adjacent urban centres;
- a poorly planned and managed landscape;
- highly contested activities and values; and
- an increasingly illegible landscape character.

The challenge for planners and policy makers working at the heart of these rapidly evolving peri-urban dynamics is the management of change in a confusing milieu of land uses, values and aspirations which bear little resemblance to past circumstances in which planning has been applied. For example, it is contended that in a post-industrial context there are no longer any sharp distinctions between 'urban' and 'rural'. Yet our most available conceptual frameworks have been associated with these traditional rural and urban paradigms. Hence we need new ways of approaching these contemporary and emerging challenges of the peri-urban areas.

More recently, Selman (2006: 5) had advanced the notion of planning at the landscape scale. He cites the European Landscape Convention's definition of "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" and points to its suitability as it:

- recognises the role of human construction and imagination in creating and interpreting units of the environment that nevertheless possess a functional as well as visual coherence;
- assumes that a functional feature of landscape is its distinctive 'character' which has resulted from a complex pattern of actions and interactions, manifest in both historical legacy and contemporary dynamics; and
- implies that distinctive places are frequently the outcome of a fortuitous combination of natural and human factors (Selman, 2006: 6).

To a very large extent, the nature of the ecological, social, economic and cultural challenges associated with the rapid growth of the peri-urban areas will determine the specific policy and planning frameworks that are eventually adopted.

Challenges to Rapidly Growing Regions

The perimetropolitan region's exurban development process which has been dominated by ultra-low density rural residential housing subdivisions has resulted in a range of serious environmental challenges, principally:

- unviable economics of service delivery to ultra-low density residential properties;
- fragmentation and sterilisation of good quality agricultural lands;
- loss of landscape character;
- pollution from on-site waste disposal;
- loss of natural resources;
- introduction of weed and pest species;
- inefficient use of resources; and
- introduction of social conflicts.

A principal concern for contemporary society has been the changing landscape of familiarity dominated largely by the loss of open space and the perceived insecurity that result. A region's special landscape qualities, which are derived from its particular environmental and landscape attributes, have a major influence in determining its unique 'sense of place' and character. To a very large extent, these landscape qualities are dominated by the region's open space. They play a significant role in determining the quality of life that the region's residents and visitors enjoy. Low Choy (2004) has pointed to the cumulative effect of these influences on a regional community's quality of life (QoL) that in turn promotes a notion of liveability, real or imagined, in the minds of the community. He notes the interconnected contribution of the regional landscape to a region's QoL and liveability that is provided by the wide and diverse range of functions that it performs, including: conservation, mental health, physical health, outdoor recreation, social, cultural, and economic functions. This set of functions, along with others not necessarily related to the regional landscape, contribute to the region's QoL which in turn giver rise to the assessment of the region's liveability by residents and visitors alike.

The influence of the landscape on a region's QoL and the relationship between regional open space and liveability will become increasingly important issues as communities seek to maintain their QoL in the face of rapid population growth and change that is particularly associated with the peri-urban areas. This relationship between the regional open space and Liveability and QoL has been conceptualised as "the community places value on landscape attributes such as scenery (or nature conservation or outdoor recreation opportunities) that are derived from the open space that constitutes the regional landscape. These values determine the QoL that residents enjoy which in turn contributes to the achievement of liveability objectives that the community seeks for the region" (Low Choy, 2004: 13).

Thus open space within a region is the custodian of a wide range of community values that not only contribute to the liveability of that region and but also sustain its regional communities. The open space that constitutes the regional landscape includes land and water assets displaying the community's regional landscape values of high biodiversity, high scenic amenity, good quality agricultural land, sustainable

nature based recreation opportunities and important cultural heritage of recognised community significance. However open space can only safeguard these community values and contribute to a region's QoL and liveability if it exists in some coherent and integrated form – a regional framework which has utility for landscape analysis and policy development (McHarg, 1992; Yaro & Hiss, 1996; Simonds, 1998; Calthorpe & Fulton, 2001; Randolph, 2004; Selman, 2006). This raises the question as to whether we have an adequate and tested framework for such purposes.

Towards a Conceptual Regional Landscape Framework

Contemporary notions of regional landscapes and regional open space can be traced to the pioneer 1890s/1900s work of Ebenezer Howard with his 'Garden City' and related concepts of 'green belts' and more recently, to post World War 2 initiatives such as the 'open space', 'greenways' and 'green space' movements.

Subsequent regional planning endeavours have attempted to safeguard regional environmental assets through the incorporation of an established landscape (open space) framework that can support the urban areas and is not violated through inappropriate developments (Low Choy, 1994; Yaro and Hiss, 1996; Simonds, 1998; Leccese and McCormick, 2000; Heid, 2004). A landscape framework clearly has to embrace the previously noted values of open space and incorporate the full range of the key functions and activities that the regional landscape performs.

Selman (2000: 108/109) argues that "landscape … (is) an important integrating framework for sustainable development … (and that it) must be integrated into the drivers of regional and national change rather than treated as a sectoral activity". This requires that the essential policy framework in which landscapes are managed should comprise liveability, biodiversity and prosperity policies and initiatives.

However, there has to be an institutional mechanism to bring a regional landscape framework into effect and for managing it through the implementation phase of a formal planning process operating at the essential regional scale. This also requires an institutional process for monitoring, reviewing and reporting the outcomes in a manner that will lead to a learning process and eventually affect an adaptive management process. Simonds, (1998: 371) concludes, "perhaps the most important task of regional planners is to define and help bring into being a spacious, interconnecting, and permanent open-space preserve as the framework for ongoing development".

Selman (2006: 13) notes that "landscape is a concept of multiple meanings" and exist as 'real', 'perceived' or 'symbolic', whilst at the same time it also serves a multiple of functions. This situation is especially relevant to the rapidly changing peri-urban areas that have previously been discussed. These views support the recognition of a number of distinctive functional and meaningful landscapes including:

- the working landscape;
- the protective landscape;
- the supporting landscape;
- the inhabited landscape;
- the leisure landscape;

- the viewed landscape;
- the imagined landscape; and
- the indigenous landscape.

Rarely nowadays do these landscapes exist in isolation and in regions experiencing rapid growth such as perimetropolitan regions, it is not uncommon for many of these landscapes to be bound up together in the 'contested' landscape. This provides a clear *raison d'être* to seek a resolution through the application of a planning approach that is supported by a conceptual framework to guide the analysis, policy development and implementation measures. However, can the necessary conceptual frameworks required to address these regional landscape issues and to protect the regional landscape values at threat be derived through traditional forms of planning, particularly (statutory) land use planning?

It has been forcefully argued that planning should take a central role in addressing sustainable development as it can provide the essential coordination between various human strategies and designs that are seeking sustainable outcomes (Selman, 1996; Campbell, 1996; Blowers and Evans, 1997; Kenny and Meadowcroft, 1999). In this regard it is well accepted that one of the planning discipline's most important contributions to the environmental management field is the planning process. However, Campbell also acknowledges that "land-use planning remains the most powerful tool available to planners, who should not worry too much if it does not manage all problems. The trick in resolving environmental conflicts through land-use planning is to reconcile the conflicting territorial logics of human and natural habitats … (as) ecological and economic systems require the interconnectivity of critical mass to be sustainable …. (where) the guiding challenge for land-use planning is to achieve simultaneously spatial/territorial integrity for both systems …. that (also) aspires to social justice" (Campbell, 1996: 307).

The general criticism of the theory and practice of traditional forms of planning has included its:

- physical and design bias;
- blueprint planning approach that lacked an appreciation of plan implementation and the ongoing continuous nature of the planning process;
- normative approach which overemphasised utopian ideals, had conservative concern for aesthetics and promoted a 'technicalist' view of planning;
- undesirable adversarial style promoted by the 'command and control' approach;
- singular urban and economic efficiency focus and lack of rural focus;
- underpinning by laws, regulations, guidelines etc which were developed to protect society from human error and for health, safety and welfare reasons rather than environmental sustainability;
- over-reliance on legal approaches especially where legal precedence often over-rides technical planning issues;
- lack of flexibility with the 'command and control' approach which led to limited innovation;
- lack of suitable philosophical perspective to address emergent environmental management and ecological issues;
- lack of science input; and

- lack of community involvement in the planning and decision making processes.

These constraints to the conventional forms of land use planning which are perhaps best exemplified by those associated with the statutory forms of planning, suggest that new forms of planning should be investigated, including in particular, those that have emerged in allied disciplines

An Alternative Planning Paradigm

Regional scale planning has been give renewed emphasis through developments in allied professions who have been seeking appropriate scales to address the sustainability challenges emerging in their respective fields. Strong advocacy has emerged for more comprehensive and integrated approaches that facilitate the full appreciation of all components and interactions of the environmental matrix. This has seen the advancement of strong arguments for the employment of the ecological paradigm as the basis for study, analysis, planning, policy development and overall management. These advancements have notable and forcefully emerged from the Landscape Architecture profession and have given rise to the emergent field of landscape planning.

Proponents of modern forms of landscape planning at the end of World War 2 saw it as embracing management and the creative designs for broad landscapes (Crowe 1969; Hackett, 1970; McHarg, 1969; Laurie, 1986). They considered the prime objective was to ensure that "landscape changes continue to provide habitat conditions that will accommodate the various forms of life, either in the existing pattern or, if the habitat conditions are changing, in a new pattern" (Hackett, 1970: 1).

Hackett (1970: ix) saw landscape planning's "particular connotation which stems from its ecological basis …. (to imply) an understanding of the pattern of natural habitats and an acceptance of the principles of evolution and survival in the development of the landscape". He advocated for the injection of the aims and objectives of landscape planning into statutory planning, noting "it would not be feasible or wise to rely upon the precepts of good traditions in landscape development or upon developers whose morality respects Nature". Hackett also argued for social and economic considerations to be incorporated into the landscape planning process, but also saw situations when aesthetic factors would dominate.

Contemporary views of landscape planning acknowledge a number of its distinguishing dimensions, viz:

- an ecological dimension;
- social and cultural dimensions; and
- a scientific dimension.

An ecological dimension

A significant and pragmatic contribution to the ecological underpinning of the landscape architecture profession came from McHarg with his seminal 1969 publication: *Design with Nature* which he describes as "a book on ecology and planning" (McHarg, 1996: 199-200). McHarg defines ecological planning as "that

approach whereby a region is understood as a biophysical and social process comprehensible through the operation of laws and time. This can be reinterpreted as having explicit opportunities and constraints for any particular human use. A survey will reveal the most fit location and processes" (McHarg and Steiner, 1998:195).

Forman (1995: 444) notes that landscape planning had developed independently of landscape ecology but argued that his "landscape-ecological planning (concept) … usually focuses on humans, and how the land can be effectively designed for their use". He notes that environmental characteristics, visual quality or cultural characteristics are examined in order to accommodate human activity with minimal impact to the landscape. Landscape ecology has added a further dimension to landscape planning, specifically in the areas of: rural and agricultural land; natural resource areas for forestry, wildlife and biodiversity; and corridors and greenways. Forman (1995: 522) considers that our most pressing challenge is to "discover …. an optimal spatial arrangement of ecosystems and land use …. that makes ecological sense in any landscape or region …. (that seeks) to maximise ecological integrity …. for achieving human needs …. (and) for creating a sustainable environment". Forman advocates for the incorporation of the following five specific sustainability dimensions to achieve "a broad spatial-and-ecological plan for every landscape .... (comprising) (1) a time frame of human generations; (2) an equal balance of ecological and human dimensions; (3) a focus on slowly changing attributes; (4) a focus on relatively objective assays; and (5) the optimal spatial arrangement of elements now rapidly emerging from the study of land mosaics" (Forman, 1995: 523). To Forman (1995: 524), "landscapes and regions …. are a 'surrogate for long term' …. when we plan …. conserve …. design …. manage …. make wise decisions for landscapes, and especially for regions, we manifest sustainable thinking and act for human generations".

McHarg's further contribution to the planning and management of landscapes was through the elevation of our thinking (and treatment) of landscapes to the regional level. Le Gates and Stout (1996: 133) describe McHarg as "an unabashed regionalist, convinced that cities must be planned in relation to their natural regions. He was among the first planners to draw on ecological theory to stress the interconnectedness of natural systems and the value to urban areas of often ignored resources such as wetlands, marshes, airsheds, and aquifers". McHarg's ecological planning approach also incorporated another contemporary dimension – that of "an ongoing (planning) process, one where information about a place is used to chart paths for its futures" (McHarg and Steiner, 1998:278).

The social and cultural dimensions

Contemporary views hold that landscape planning has both social and cultural dimensions. Linehan and Gross (1998) consider landscapes to be more than a scale and set of interacting ecosystems. They claim that landscapes are not only a container of resources but are themselves resources - they are simultaneously ecological, cultural, economic, political, poetic, ideological, and symbolic sociospatial phenomena.

Linehan and Gross (1998: 209) argue that whilst landscape planning has achieved moderate success in clarifying its ecological relevance, it has failed to prove its social relevance to society and have challenged their profession to become "more socially

relevant …. (to) become aware of, account for, incorporate, and challenge the problems and opportunities that cultural adoptability, economic viability, social equitability, and political relevance have on the condition of our landscapes …. (noting that) although natural processes largely determine the ecological condition of our landscapes, social processes will continue to determine the directionality these processes take".

Linehan and Gross correctly conclude that it will be society that will ultimately determine whether and what degree our landscape becomes sustainable. This is a view shared by Luz, who, quoting Hirsh (1992), notes that "as a rule, landscape planning aims can only be accomplished with collaboration of the local actors and stakeholders …. (as) the implementation of ecological concepts stems from social rather than ecological systems" (Luz, 2000: 157). The issue of public involvement in landscape planning was of concern to early landscape planners such as Hackett. In 1970 he commented that "landscape by virtue of its continuity over the land and over the centuries is of public concern, whether in private or public ownership …. (and) if public participation is to be real and not given lip service, the proposals …. should be readily available for public inspection and comment" (Hackett, 1970: 111). In calling for socially relevant practice, Linehan and Gross (1998) argue for the engagement of open and participatory planning processes so that landscape planning can receive adequate attention in larger planning circles.

The Scientific Dimension

Laurie (1986: 106) has advocated for the greater application of science to landscape planning and design, commenting "a scientific aspect concerned with research and a shaping aspect based on the research; the two parts result in the production of a policy statement. The landscape plan sets out the framework and the lines of action by which the landscape is to be adjusted in accordance with ecological principles to meet the needs of changed circumstances". McHarg likewise was credited with the use of a scientific approach to landscape planning. Walker and Simo (1994: 277) comment, "in practice, McHarg has typically offered scientific arguments for a particular land-use plan, backed by economic justification - often bottom-line profits. Yet the starting point of analysis is the natural environment - not human need or greed". Linehan and Gross (1998) support this view acknowledging that landscape planners must promote claims of sustainable development plans, and even ecologically benign ones through the application of sound scientific theory and method. Further support for a scientific approach to landscape planning comes from Selman and Doar (1991); Rookwood (1995); and Wilkin, (1996).

Rookwood (1995) also advocates that landscape planning should be based on well informed scientific analysis, linked with pragmatic policies in an effective planning process that displays certain scientific qualities including a well researched and understood plan and a process that is cyclical through monitoring and review.

A future role for Landscape Planning

Low Choy and Bull (1990) have summed up these contemporary views of the evolving nature of landscape planning thus:

1. it has a strong ecological and cultural base and ecological and cultural principles and objectives are afforded a high priority throughout the planning process;

2. it seeks to rationalise ecological and cultural objectives with the economic and other objectives of sustainable development;
3. it pursues multi-purpose objectives as opposed to single-purpose objectives;
4. it is responsive to community needs and values whilst matching ecological with cultural and community priorities;
5. it seeks opportunities for the integration of the natural and cultural elements and provides for the fullest appreciation and enhancement of cultural landscapes;
6. it has a very strong focus on the visual and experiential environment, and hence, visual resource management is given a high priority in traditional resource management terms;
7. it has a problem solving dimension and it seeks solutions through the design process; and
8. it is interventionist in order to address contemporary problems and issues and it is attuned to the political decision-making process in which it operates.

Turner (1998) believes that the planning process needs to be led and inspired by long-term and high-level ideals such as beauty, harmony, composition, sustainability, health and spirituality. He further believes that it is difficult for statutory planning to provide this lead and that the task should and must fall to landscape planning. The question of the links (if any) to statutory planning will need to be addressed and balanced against those other arguments by authors who suggest some forms of statutory controls for the enforcement of landscape policies are necessary to achieve the objectives (see Hackett, 1970, McHarg 1969 and 1992).

Wilkin (1996) has argued that we should be monitoring local progress towards sustainability by critically applying landscape planning expertise to the development of systems for the comprehensive monitoring of human ecosystem productivity. Not-with-standing his idea has potential merit in the wider sense, he himself has pointed out, that quality of life issues which are commonly sought-after objectives of most contemporary planning endeavours, are not well understood and imprecisely measured at present.

The preceding discussion has argued that the field of landscape planning can provide a discipline base and professional expertise in core areas including regional scale landscape design, landscape ecology, and social and cultural aspects related to landscape design. Low Choy (2002) has concluded that landscape planning has the potential to offer:

- a philosophical planning foundation based solidly on ecological principles;
- an emerging philosophical planning foundation incorporating social and cultural principles;
- a philosophical and evolving methodological base to address 'nebulous' landscape issues such as scenic quality, landscape aesthetics, human perception and cultural affinity to landscapes;
- a broad scale approach for planning large landscapes, regions and natural entities such as catchments;
- a planning approach that can address strategic and long-term issues;
- a scientific approach facilitating the incorporation of scientific information and methods into the planning process;
- a design approach providing the best spatial fix consistent with ecological principles, aesthetic considerations and social analysis of user needs;

- a planning approach that can lead to the design and management of landscapes (natural, constructed and rehabilitated); and
- a planning process that can facilitate open and participatory planning in the context of a participatory action research approach.

A brief comparison between the approaches of traditional land use planning and those of landscape planning to the protection of regional landscape values is provided in Table 1. Clearly, the traditional land use planning approaches are challenged in providing adequate responses that can be integrated into the mainstream planning processes of that paradigm and at the same time ensure that community expectation and aspirations for their region's landscape are met. By comparison, the emergent landscape planning approach can provide a range of potential solutions to the challenges of identifying and developing appropriate management policies for protecting regional landscape values at threat in the peri-urban areas of these rapidly growing regions.

Table 1: Appropriateness of Different Planning Paradigms to Identify and Protect Regional Landscape Values

Regional Landscape Values to be protected	Traditional Land Use Planning	Landscape Planning
High biodiversity	Can be conceptually embedded into its underlying philosophy but is not operationalised and if undertaken it is a separate exercise and the problem remains as to how to integrate it with the other conventional aspects of the plan.	Highly suited to facilitate the recognition of this value. It is a normal task in the landscape planning process. It can be assessed concurrently with other values.
Good quality agricultural land	This may not be attempted as a normal task. However, it can be applied through a separate set of planning tasks if there is an overarching direction. The problem of how to integrate it with the other conventional aspects of the plan still remains.	Highly suited to facilitate the recognition of this value. It is a normal task in the landscape planning process. It can be assessed concurrently with other values.
Sustainable nature based outdoor recreation opportunities	It would be rare for this to be attempted as a normal task. However, it can be applied through a separate set of planning tasks if there is an overarching direction. The problem of how to integrate it with the other conventional aspects of the plan still remains.	Highly suited to facilitate the recognition of this value. It is a normal task in the landscape planning process. It can be assessed concurrently with other values.
Scenic amenity	It would be rare for this to be attempted as a normal task. However, it can be applied through a separate set of planning tasks if there is an	Highly suited to facilitate the recognition of this value. It is a normal task in the landscape planning process. It can be assessed concurrently with other

Regional Landscape Values to be protected	Traditional Land Use Planning	Landscape Planning
	overarching direction. The problem of how to integrate it with the other conventional aspects of the plan still remains.	values.
Important cultural heritage of recognised community significance	It would be rare for this to be attempted as a normal task. However, it can be applied through a separate set of planning tasks if there is an overarching direction. The problem of how to integrate it with the other conventional aspects of the plan still remains.	Highly suited to facilitate the recognition of European cultural values. It is a normal task in the landscape planning process. It can be assessed concurrently with other values. However, difficulties remain in addressing indigenous landscape values.

The future context to realise the opportunities for a landscape planning approach has been summed up by McHarg (1992: vi) who wrote, "…. in 1969, while many people accepted the proposition - **Design with Nature** - there was no legislation empowering or requiring ecological planning …. now the situation is vastly different and it is the new legislation which provides this book with an enlarged purpose …. the power to employ ecological planning from national to local scales has accumulated slowly. Serious omissions remain, notably the fragmentation of environmental sciences and the plethora of responsible institutions, but there are now innumerable opportunities to employ the (his) method". This statement sums up the current regional planning situation on the State of Queensland, Australia where the South East Queensland (SEQ) region which contains the state capital of Brisbane City has experienced phenomenal population growth by Australian standards over the last decade and is expected to remain the fastest growing metropolitan region in the country for at least the next decade.

The SEQ Case Study – A region under pressure

Recent Growth Pains in the Peri-Urban Areas

The SEQ region has experienced unprecedented population growth during the past two decades making it the fastest growing metropolitan region in Australia. During the ten year period (1991 to 2000), the region's population grew by 25%, largely through interstate migration. The current projection has the region's 2001 population of 2.5m growing to 3.5m by 2021 – a further increase of 37% (Queensland Government and SEQROC, 2003). Favourable perceptions of a high QoL and liveability based largely on the region's open space and landscape attributes have played an important role as "pull" migration factors in this process.

The additional housing demands created by this population growth has largely been accommodated in greenfield developments in the form of a low density "urban tidal wave" moving outwards into the region's peri-urban areas from it's major metropolitan centre, Brisbane City, as well from other urban centres in the region. This form of urban development has resulted in a significant loss of open space with

reported land clearances resulting in the loss of approximately 7,500 ha of bushland and agricultural land each year. This situation is further compounded by the projected population increases where it has been estimated that some 575,000 new dwellings will be required by 2026 (Queensland Government and SEQROC, 2005).

Continued low density greenfield developments are unsustainable and place at risk the very essence of the region's quality of life that continues as one of the principal magnets to draw people to the region in increasing numbers. It has become blatantly clear in recent times that the region's residents, both old and new, expect government intervention to guarantee the maintenances of the region's QoL and the protection its landscape values that contribute to their desired standard of living.

This brings firmly into sharper focus the need for adequate planning processes with conceptual frameworks that are capable of working through the often conflicting demands on the regional landscape while addressing the emerging community concerns for loss of regional open space, declining QoL and threats to liveability.

The SEQ Regional Plan 2005-2026

The most recent regional planning response from the State and local governments to the continued population growth has been the release of the *SEQ Regional Plan 2005*-2026 in June 2005. Unlike previous regional planning initiatives, the new Regional Plan is a statutory instrument. It is the pre-eminent plan for the SEQ region and takes precedence over all other State and Local government planning instruments (Queensland Government and SEQROC, 2005).

The Plan has delineated designated areas for future growth – urban footprints with clear separations provided by interurban breaks. Another of the Plans principal initiatives has been the designation of a 'Regional Landscape and Rural Production Area' that accounts for 83% of the region. A 100 hectare minimum subdivision regulation in the Plan prohibits further rural residential development in this Area.

Regional Landscape and Rural Production Area

The stated intent of the 'Regional Landscape and Rural Production Area' is to protect the regional landscape, rural production and other non-urban values from "encroachment by inappropriate development, particularly urban and rural residential development" (Queensland Government and SEQROC, 2005: 15).

The Plan has designated land displaying a range of values to be incorporated into the 'Regional Landscape and Rural Production' Area, including state or regional nature conservation significance; endangered or concerned regional ecosystems; national parks, conservation parks, resource reserves or other conservation areas; koala conservation areas; good quality agricultural land and other productive rural areas; natural economic resources including extractive resources and forestry plantations; water catchments, water storages and groundwater resources; native forests; coastal wetlands; and land forming strategic and regionally significant inter-urban breaks (Queensland Government and SEQROC, 2005).

In essence, this 'Regional Landscape and Rural Production Area' is an initial attempt to establish a conceptual and an applied framework within this new regional planning process. Its purposes are consistent with the theoretical ones previously discussed,

namely: an analytical framework that can also serve to support the development of appropriate policy and oversee its implementation.

A range of principles and policies support the regional landscape's Desired Regional Outcome (DRO) which seeks to ensure that "key environmental, economic, social and cultural resources of the regional landscape are identified and secured to meet community needs and achieve ecological sustainability" (Queensland Government and SEQROC, 2005: 36). These policy areas include the 'Regional Landscape and Rural Production' Area; scenic amenity; landscape heritage; outdoor recreation; and regional open space. A number of selected significant policies cover proposals to:

- collaboratively define, plan and manage the Regional Landscape and Rural Production Area and a regional open space network;
- develop a regional landscape planning framework;
- develop rural precinct plans;
- promote the adoption of a common methodology for assessing scenic amenity; and
- develop an outdoor recreation strategy.

This recent SEQ Regional Plan introduces directive planning to the peri-urban area of the Brisbane perimetropolitan region for the first time. In fact, the 'Regional Landscape and Rural Production Area' includes examples of the three peri-urban typologies previously advanced (see Figure 3). It is evident from its stated policies that the current Plan is seen as the beginning of the process – for example, it has yet to derive the necessary regional landscape planning framework. Even then it is uncertain if this will be sufficient to provide the required protection for the region's landscape values in order to maintain the region's QoL and the community's desired standards of liveability.

Current Notions of a Regional Landscape Framework

Selman (2006: 13) considers the landscape to be "a visually comprehended and perhaps relatively self-contained environmental unit … (that) can be used as a framework for analysis, synthesis, policy development and plan implementation". However, the operationalisation of this concept is problematic as there are few if any working and applied examples.

The Regional Landscape Framework concept that is currently embedded into the SEQ Regional Plan's 'Regional Landscape and Rural Production Area' is not currently operationalised and not developed as a policy framework. It is accepted however as an integrating instrument to address the values of the SEQ regional landscape including the range of existing and emerging rural values, although these values are far from ascertained in a scientific sense. Figure 4 provides an overarching conceptual view of the current development of the regional landscape framework that supports the 'Regional Landscape and Rural Production Area'.

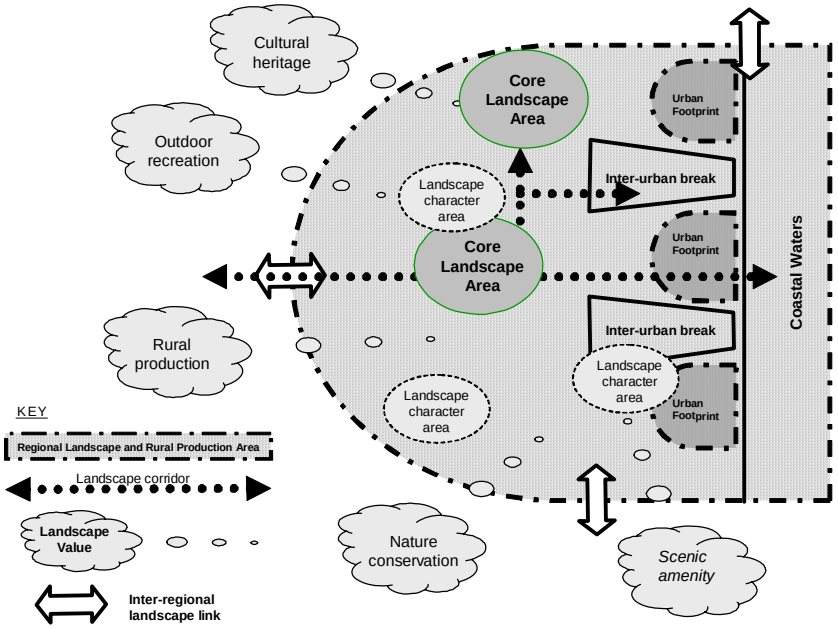


Figure 4: Conceptual Landscape Planning Framework

Interestingly, the notion of a 'rural precinct' has been introduced into this evolving situation. The Plan contains a policy to "develop rural precinct plans where appropriate to achieve the most suitable use of lands within the Regional Landscape and Rural Production Area" noting that the "development of rural precincts … will assist in managing regional landscape areas and values at a local level" (Queensland Government and SEQROC, 2005: 37). Again this conceptual commitment has not yet been developed and there is uncertainty as to its principal purpose and what form this initiative might take.

On the surface it does appear to represent an opportunity to deal directly with the development pressures that confront the peri-urban areas and in a proactive way seek to protect the essential landscape values of the region under pressure, particularly those associated with commercial agriculture. Unlike the methodologically challenges confronting the operationalisation of the regional landscape framework, there are precedences for landscape evaluation at regional and local scales with the intent of recognising homogenous landscape units and their suitability for use and conservation in the traditions of the landscape planning approach previously described.

The review of the literature does suggest that there are gaps in planning theory to support the current initiatives and policy commitments in the June 2005 *SEQ Regional Plan 2005*-2026. It further suggest that the solutions and paradigms to address these issues will more likely be found in associated fields such as the landscape planning discipline. In this regard the very recent work of Selman (2006) provides a range of promising concepts upon which an applied regional landscape framework could be developed.

Conclusion

This paper has reported on current research into the peri-urban phenomenon and its relevance to the ongoing rapid population growth of an Australian perimetropolitan region. It has shown that the region's landscape values are at risk and consequently, the region's QoL and the community's standards of liveability are also threatened. Whilst the literature discusses the notion of landscape frameworks as tools for landscape analysis, policy development and plan implementation, there appears to be few if any working examples or articulation of these theoretical concepts in operational terms.

It is doubtful if the conventional planning approaches currently utilised by regional planning agencies and Local Government have the capability or the capacity to apply the necessary landscape planning principles let alone processes to address the regional landscape values at risk in the peri-urban areas of rapidly growing regions. By contrast, the developments in the associated field of landscape planning provide interesting and promising indications that solutions to the challenges of developing workable frameworks to address the management of regional landscapes of peri-urban areas could be forthcoming from that alternative planning paradigm.

Despite these shortcomings in the literature, the recently released *SEQ Regional Plan 2005*-2026, a statutory instrument of the State and Local governments in the region, has acknowledged a regional landscape framework and incorporated a policy to further develop this conceptual framework.

Under these circumstances, we may very well ask: **Is Practice ahead of Theory?**

References

Beer, A., Maude, A. and Pritchard, B. (2003) ***Developing Australia's Regions: theory and practice***, UNSW Press.

Blowers, A. and Evans, B. (eds) (1997) ***Town Planning in the 21st Century***, Routledge, London.

Burnley, I.H. and Murphy, P.A. (1995a) "Residential Location Choice in Sydney's Perimetropolitan Region", in ***Urban Geography***, 16(2), pp 123-143.

Burnley, I.H. and Murphy, P.A. (1995b) "Exurban Development in Australia and the United States: Through a Glass Darkly", in ***Journal of Planning Education and Research***, 14, pp 245-254.

Calthorpe, P. (2000) Ch 1 in Leccese, M. and McCormick, K. (eds) (2000) ***Charter of the New Urbanism***, McGraw Hill, New York.

Calthorpe, P. and Fulton, W. (2001) ***The Regional City: Planning for the end of sprawl***, Island Press, Washington DC.

Campbell, S. (1996) "Green Cities, Growing Cities, Just Cities", in ***Journal of the American Planning Association***, 62(3), Summer 1996, pp 296-312.

Castells, M. and Hall, P. (1996) "Technopoles: Mines and Foundries of the Informational Economy" in LeGates, RT, & Stout, F, (eds), 1996: ***The City Reader***, Routledges, pp 476-483.

Champion, T. and Hugo, G. (2004) ***New Forms of Urbanization: Beyond the Urban-Rural Dichotomy***, Ashgate, Hants, UK

Claval, P. (1993) ***Initiation à la Géographie Régionale***, translated by Thompson, I. (1998) ***An Introduction to Regional Geography***, Blackwell, Oxford.

Crowe, S. (1969) ***Landscape Planning: A policy for an overcrowded world***, IUCN Publications, Switzerland.

Forman, R.T.T. (1995) ***Land Mosaics - The Ecology of Landscapes and Regions***, Cambridge University Press, Cambridge.

Glasson, J. (1992a) ***An Introduction to Regional Planning - Concepts, Theory and Practice***, 2nd ed, 6th impression, UCL Press, London.

Glasson, J. (1992b) "The Fall and Rise of Regional Planning in Economically Advanced Nations", in ***Urban Studies***, 29(3-4), pp 505-531.

Hackett, B. (1970) ***Landscape Planning - An Introduction to Theory and Practice***, Oriel Press, UK.

Hall, P (1998) ***Cities in Civilization: Culture, Innovation and Urban Order***, Weidenfield & Nicolson, London.

Heid, J. (2004) ***Greenfield Development Without Sprawl: The Role of Planned Communities***, ULI Working Paper on Land Use Policy and Practice, Urban Land Institute, Washington DC.

Houston, P. (2005) “Revaluing the Fringe: Some Findings on the Value of Agricultural Production in Australia's Peri-Urban Regions”, in ***Geographical Research***, 43**,** pp 209-223.

Kenny, M. & Meadowcroft, J. (eds) (1999) ***Planning Sustainability***, Routledge, London.

Laurie, M. (1986) ***An Introduction to Landscape Architecture***, 2nd ed, Elsevier, New York.

Leccese, M. and McCormick, K. (eds) (2000) ***Charter of the New Urbanism***, McGraw Hill, New York.

Le Gates, R.T. & Stout, F., (eds), 1996; ***The City Reader***, Routledge, London.

Linehan, J.R. & Gross, M. (1998) "Back to the future, back to basics: the social ecology of landscapes and the future of landscape planning", in ***Landscape and Urban Planning***, 42(2-4), pp 207-223.

Low Choy, D.C. & Bull, C. (1990) "A Landscape Management Approach for the Catchment", Ch 40 in Davie, P., Stock, E. & Low Choy, D. (eds) (1990) ***The Brisbane River - A Source Book for the Future***, Australian Littoral Society Inc in assoc with Queensland Museum, Brisbane.

Low Choy, D. C. (2002) ***Cooperative Planning and Management for Regional Landscapes***, unpublished PhD thesis, University of Queensland, Brisbane

Low Choy, D.C. (2004) 'The Regional Open Space Paradox', in ***Queensland Planner***, 44(3), September 2004, pp12-15.

Luz, F. (2000) "Participatory landscape ecology - A basis for acceptance and implementation", in ***Landscape and Urban Planning***, 50(1-3), pp 157-166.

McDonald, G.T. (1996) "Planning as Sustainable Development", in ***Journal of Planning Education and Research***, 15(3), pp 225-236.

McHarg, I.L. (1969 & 1992) *Design with Nature*, John Wiley, New York.

McHarg, I.L. & Steiner, F.R. (1998) ***To Heal the Earth: Selected Writings of Ian L. McHarg***, Island Press, Washington DC.

McKenzie, F. (1996) ***Beyond the Suburbs: Population Change in the Major Exurban Regions of Australia***, Australian Government Publishing Service, Canberra.

Purdy, J. (ed) (1996) "The Future of Regional Governance", special edition of ***National Civic Review***, 85 (2), Spring-summer, 1996.

Queensland Government in association with South East Regional Organisation of Councils (SEQROC) (2003) *SEQ2021* ***A Sustainable Future – South East Queensland's Regional Planning Challenges: Options for the Future***, Department of Local Government and Planning, Brisbane

Queensland Government in association with South East Regional Organisation of Councils (SEQROC) (2005) ***South East Queensland Regional Plan 2005-2026***, Office of Urban Management, Brisbane.

Randolph, J. (2004) ***Environmental Land Use Planning and Management***, Island Press, Washington DC.

Ravetz, J. (2000) ***City-Region 2000: Integrated planning for a sustainable environment***, Earthscan Pub Ltd, London.

Rookwood, P. (1995) "Landscape Planning for Biodiversity", in ***Landscape and Urban Planning***, 31, pp 379-385.

Royal Melbourne Institute of technology (RMIT) and Griffith University (GU) Peri-Urban Research Team (2006) ***Change and Continuity in Peri Urban Australia***, in progress, research for Land & Water Australia.

Selman, P.H. & Doar, N.R. (1991) "A Landscape Ecological Approach to Countryside Planning", in ***Planning Outlook***, 34(2), pp 83-88.

Selman, P.H. (1996) ***Local Sustainability - Managing and Planning Ecologically Sound Places***, Paul Chapman Publishing, London.

Selman, P.H. (1999) "Three decades of environmental planning: what have we really learnt?", Ch 7 in Kenny, M. and Meadowcroft, J. (eds) (1999) ***Planning Sustainability***, Routledge, London.

Selman, P. (2000) 'Landscape Sustainability at the National and Regional Scales', Ch 6 in Benson, J.F. and Roe, M.H. (eds) (2000) ***Landscape and Sustainability***, Spoon Press, London.

Selman, P. (2006) ***Planning at the Landscape Scale***, Routledge, London.

Scott, A.J. (1996) "Regional Motors of the Global Economy", in ***Futures***, 28(5), pp 391-411.

Simonds, J.O. (1998) ***Landscape Architecture: A Manual of Site Planning and Design***, 3rd ed, McGraw-Hill, New York.

Turner, T. (1998) ***Landscape Planning and Environmental Impact Design***, 2nd ed, UCL Press, London.

Walker, P., & Simo, M. (1994) ***Invisible Gardens - The Search for Modernism in the American Landscape***, MIT Press, Cambridge.

Wilkin, D.C. (1996) "Accounting for sustainability: challenges to landscape professionals in an increasingly unsustainable world", in ***Landscape and Urban Planning***, 36, pp 217-227.

Yaro, R.D. and Hiss, T. (1996) ***A Region at Risk: The Third Regional Plan for the New York-New Jersey-Connecticut Metropolitan Area***, Regional Plan Association, Island Press, Washington DC.