A Tale of Two Cities: Sydney and Melbourne's growth strategies and the flawed city-centric approach.

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Abstract:
The expansion of city boundaries into its non-urban hinterland has meant that most agriculture and other non-urban activities that support urban activity, such as food production, provision of fresh water, waste management and economic services, have been forced to retreat. Yet the growth of urban populations requires more of these non-urban lands and their products and attributes. Despite knowledge that resources are finite and there are no more lands to discover, cities continue to develop with apparent disregard for the consequences of continuing this trajectory using traditional approaches. The effects of managing peri-urban land under current paradigms are demonstrated in case studies of Melbourne and Sydney, Australia. The conclusion uses international examples to suggest that new planning approaches that take an holistic view of land use management in a new paradigm are needed.

Introduction

More than 50 per cent of the world’s population is now urbanised (and this is projected to reach nearly 70 per cent by 2050) (Department of Economic and Social Affairs, 2012, p. 3). Growth in an urban area is accommodated physically by either increased densification, or by expansion of the existing urban boundary into the adjacent non-urban area. In most cases it is by a combination of both, with the proportions varying from place to place.

Urban populations rely on non-urban lands for their natural values. These include water catchment, food production, ecosystem services, recreation, waste management and mineral resources. Each urban expansion consumes non-urban land that provides these services to support urban populations, placing increasing pressure on the reduced area of non-urban land to provide for the increasing urban population.

Current approaches to land use planning utilise legal, scientific and economic approaches developed during the late eighteenth to late twentieth century. This period was characterised by protectionist nation states that were characterised by colonial expansion, Fordist production, the nuclear family and unquestioning faith in science (Beck’s (2000) ‘first modernity’) (Mayer and Knox, 2010).

As we enter an era of increasing globalisation, with its multi-functional, multi-faceted society, technological compression of time/space and greater social connectedness (referred to by Beck (2000) as ‘second modernity’) nation-states struggle to develop land use planning strategies that deal with the consequences of land use expansion at the local level using traditional approaches.

This paper does not suggest that cities can, or should, be self-contained. What becomes apparent though is that current land use planning strategies that utilise approaches based solely on first modernity frameworks will produce undesirable direct and indirect outcomes for all, especially as we approach peak ‘everything’, e.g. water, oil, food production (and continue to argue over climate change and its possible impacts) (Flannery, 1994; Diamond, 1997; Flannery, 2005).

Strategic planning implies that there is a shared vision of a future outcome and that the there is a comprehensive, balanced approach to solving complex problems (Albrechts, 2004). This paper argues that there is a disconnect in strategic planning in cities such as Sydney and Melbourne where the plans continue to focus on the urban aspects of the city with little concern for the non-urban land required to support the urban population.

The paper first situates Sydney and Melbourne in the Australian planning context. This is followed by a description of the strategic planning for each city. The paper concludes by suggesting areas of fruitful reform, drawing upon international examples where urban and non-urban land use issues are considered in a more balanced manner.
Methodology

This paper examines the planning strategies for Sydney and Melbourne in the context of Beck’s (2000) description of planning for the second modernity. Second modernity represents the emergence of a multi-faceted, globalised society that is no longer dominated by nation-states. It is also an era of increasingly complex problems, such as globally unequal distribution of food and fresh water; loss of agriculturally productive land from urbanisation and climate change; broader effects of climate change, such as sea level rise and more intense / prolonged climatic events; and, resource peaks, such as peak oil and peak phosphorous.

Situating Sydney and Melbourne in the Australian Context

A constitutional, two-tiered system of government, with a national, six state and two territory governments operates in Australia. There are also 565 local governments, but these are not constitutionally recognised; their power derives from either the Commonwealth or State/Territory governments. State/Territory governments are largely responsible for land management, with certain of those powers and responsibilities delegated to local authorities. The Commonwealth has limited direct effect on state planning. With some exceptions, such as crown land and leaseholds and indigenous holdings, all land operates under this system.

The population of Australia currently exceeds 23,000,000 (Australian Bureau of Statistics, 2013). Sydney and Melbourne, located on Australia’s eastern seaboard (Figure 1) have primacy in terms of population (the Greater Sydney (4.67 million) and Melbourne (4.17 million) Statistical Divisions contain nearly 39% of Australia’s total population; Australian Bureau of Statistics, 2012) and by such measures as employment, construction, production and consumption (O’Connor, Stimson and Daly, 2001). Sydney and Melbourne are the capital cities in their respective states and have evolved over similar time frames under the same system of constitutional governance.

Figure 1: A Map of Australian States and Territories Showing the Location of Sydney and Melbourne.
Sydney’s Land Use Planning Trajectory

Prior to World War II land use planning in Sydney and Melbourne was undertaken by local government as a sub-set of state government legislation. In the immediate aftermath of World War II Australia experienced an influx of migrant population, mainly from Great Britain and Europe, coupled with a significant local increase in marriage and what became known as the ‘baby boom’. This unprecedented growth in population created pressures for housing and led to rapid suburbanization of Sydney. In response location specific land use plans were created (Bunker, 2002).

Sydney’s first planning specific instrument was the 1951 County of Cumberland Planning Scheme (CCPS). This planning scheme drew significantly on Patrick Abercrombie’s plan for the rebuilding of London. For the first time local councils were given localized control over land development and use. The most significant feature in relation to peri-urban land was the creation of a green belt whose purpose was specifically to contain urban sprawl (Colman, 1969).

Under pressure for additional land releases to provide for the rapidly increasing population the green belt was gradually eroded to the point where the CCPS was replaced in 1968 with the Sydney Region Outline Plan (SROP). Whereas the CCPS was largely technocratic, the SROP was Australia’s first attempt at a systems approach to land use planning (Bunker and Houston, 2003). Its focus was on regional-scale land use planning with the city considered to be an integrated social and physical system. The SROP contained general objectives for regional and sub-regional development planning. Detailed land use planning controls remained within Part XIIA of the New South Wales Local Government Act, 1919 (created to facilitate the CCPS). The focus of the plan remained on urban growth and employment (Searle, 2002).

By the mid-1980’s the growth areas identified in the SROP had largely been developed, leading to the adoption in 1988 of a new plan, Sydney into its Third Century (STC). The plan identified new urban growth areas and introduced urban consolidation strategies for the identified regional and sub-regional centres. The new urban areas consumed non-urban land at the urban fringe and between outer regional centres along road and rail transport corridors. Figure 2 shows Sydney’s urban growth from pre-1917 to 2005.

Scientific modelling showed that STC would produce unacceptable air pollution in the south-western greenfield release areas and an increase in water pollution generally.
In 1994 a neo-liberal government was elected and a new strategic plan- *Cities for the 21st Century* was adopted. This plan increased the urban growth areas and proposed new transport corridors. The number of regional centres proposed under STC was reduced and there was an increased emphasis on urban consolidation, although the urban footprint of Sydney continued to increase (Figure 3).

Despite identifying strategically important agricultural land at the urban fringe, the plan allowed urban development outside the growth areas if it avoided land of cultural, environmental or agricultural significance (Searle, 2004).

*Cities for the 21st Century* is openly neo-liberal in its approach to planning, in the sense of greater emphasis on market forces driving investment in the type, timing and location of development and government being the facilitator of that development (Searle, 2004). Ecological sustainability, a compact city and effective strategy implementation are listed as the strategy’s three underpinning principles. In effect, though, the emphasis is repeatedly on global economic competitiveness and regional economic development. No physical limits to Sydney’s growth are proposed on the basis that city size creates global economic advantage. Where environmental sustainability is mentioned in the plan, its success is inexorably linked to economic growth, economic systems and economic development.

As per neo-liberal philosophy, the NSW Government placed the emphasis in *Cities for the 21st Century* on a reduction in government regulation and the streamlining of planning approvals processes so as to achieve the government’s prime objective of attracting economic investment (Searle, 2007). Capital accumulation and private sector investment (economics) became the dominant paradigm by means of the adopted planning strategy (law). The scientific issues of air and water pollution indentified by the scientific studies under *Sydney into its Third Century* remained unresolved.

Another change of State government occurred in 1995 and the Labor government set about developing a new planning strategy for Sydney. In 1998 *Shaping Our Cities* replaced *Cities for the 21st Century*. *Shaping Our Cities* was very similar to its predecessor and adopted similar targets and approaches, although achievement of the projected population (4.5 million) was anticipated to occur much sooner (2011-2016, rather than 2021 as in the 1994 strategy) (DUaP, 1998). Although the neo-liberal discourse present in the previous plan was removed the focus was still on urban growth and related transport provision and economic activity.

Just six years later, in December, 2005, a new strategy, *City of Cities* - *A Plan for Sydney's Future*, was adopted. *City of Cities* has five aims: to enhance liveability; strengthen economic competitiveness; ensure fairness; protect the environment and to improve governance. These aims are, in turn, supported by seven strategies: economy and employment; centres and corridors; housing; transport; environment and resources; parks and public places; and, implementation and governance (DoP, 2005, p. 3-5). *City of Cities* continues the trajectory of the previous plans with emphasis on urban and economic growth.

It becomes clear that issues that were identified in 1988, such as air and water pollution and transport management from increased urban growth still have yet to be resolved. The actions in regard to non-urban resource protection, especially agricultural land appear superficial, such as: 'complete mapping of regionally significant activities' and 'provide a consistent approach to the zoning system in rural lands and ensure resource lands are maintained and protected' (DoP, 2005, p. 43). The 'measures of success' (Table 1) under the plan indicate that this plan has a definite tangle between its conceptual framework and its outcomes. The measures do not provide a clear connection between the strategic plan and the outcomes for the broad cross-section of residents in Sydney. This indicates that those responsible for the strategy have limited understanding of the complexity of issues at play in a modern city. The measures of success provide single measures and implied, rather than explicit benchmarks. For example, the Mercer 'Quality of Living' index is merely a tool for comparison of standing between global cities and the survey instrument does not indicate the quality of what is being compared at a local scale (Mercer, on-line). Overall, the measures of the strategy’s performance are very limited and weak and do not indicate how the plan addresses social equity, socio-economic issues or the issues raised in this paper in regard to the direct and indirect effects of urban expansion into non-urban land.
<table>
<thead>
<tr>
<th>Aim</th>
<th>Measure</th>
<th>Benchmark</th>
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<tr>
<td>Liveability</td>
<td>Quality of Living Maintain or improve Sydney's index and ranking of quality of living, according to Mercer Human Resource Consulting global quality of living survey.</td>
<td>In 2005 Sydney ranked eight out of 260 cities in the Quality of Living Survey with an index on 105.</td>
</tr>
<tr>
<td>Economic Competitiveness</td>
<td>Contribution to National Economy Maintain or increase the proportion and value of Sydney's contribution to Gross Domestic Product (GDP).</td>
<td>In 1998-99, Sydney produced 23% of Australia's value added wealth, totalling $130 billion.</td>
</tr>
<tr>
<td>Fairness</td>
<td>Access to Services</td>
<td>In 2005, 80% of Sydney residents can access a major centre, regional city or global Sydney within 30 minutes by public transport</td>
</tr>
<tr>
<td>Environment</td>
<td>Environmental Footprint No increase in Sydney's environmental footprint per capita.</td>
<td>During five years from 1994 to 1999, the environmental footprint of Sydney's residents increased by 16% to 7.4 hectares per person.</td>
</tr>
<tr>
<td>Governance</td>
<td>Metropolitan Strategy and Infrastructure</td>
<td>Metropolitan Strategy directions and identified transport and infrastructure needs inform the annual State Infrastructure Strategy.</td>
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(Source: DoP, 2005, 63)

*City of Cities* was replaced in December 2010 by the *Metropolitan Plan for Sydney 2036* (*Sydney 2036*). *Sydney 2036* contains greater detail than its predecessor. The north-east and south-west growth corridors are maintained and, although the strategy proposes significant urban consolidation (up to 70% of Sydney's housing is to be provided in existing urban areas) 30% of Sydney's new housing will be on greenfield sites at the peri-urban fringe. The focus of the plan continues to be on urban activities and the achievement of the plan is largely based on direct, or indirect, measures of economic performance.

There are 9 strategic directions, including Strategic Direction F – Balancing Land Uses on the City Fringe. In regard to peri-urban land, Strategic Direction F does not in fact achieve the promise in its title, containing no certainty for agricultural or other non-urban land. Wilkinson (2011) estimates that Sydney will lose about 6,800 hectares of agricultural land overall to provide the projected 125,000 homes on greenfield sites under *Sydney 2036*.

The performance measures described in Table 1 have been maintained, augmented with an additional 29 performance measures. Of these only two relate the Strategic Direction F (DoP, 2010, p. 250). These are: contain Sydney's urban footprint (already included in Table 1); and, grow the value of Sydney's agricultural industry (another economic measure of performance and nothing to do with scientific values of land).

In a demonstration of the tangle in Sydney's approach to land use planning, of the 2,025 hectares currently under production for vegetable growing in the Sydney area, half of these vegetable producing lands are identified for urban development in the north-western and south-western growth areas (Malcolm and Fahd, 2009). To put this in perspective, this land is estimated to produce between
80-100% of all New South Wales' perishable vegetables (Knowd, Mason and Docking, 2006). The proposed loss of half of the productive vegetable growing land will lead to increased food imports with the attendant issues accompanying the debate over 'food miles', e.g. energy consumption, transport congestion, resource management, production pressures on other agricultural land, food quality and amenity.

In summary, Sydney’s 1954 planning strategy placed urban and non-urban land on par by protecting the peri-urban fringe with a green belt. Over the ensuing fifty-six years subsequent strategies have increased the emphasis on urban land and economic measures of performance to the point where Sydney 2036 almost completely disregards non-urban land at the peri-urban other than for its economic value to the city in terms of expanding the urban footprint. While the most recent planning strategies for Sydney include statements about non-urban land there is an increasing tangle as the plans and policy focus more on land development for urban purposes and increasingly less on the non-urban land values needed at the peri-urban fringe.

**Melbourne’s Land Use Planning Trajectory**

By 1951 Melbourne’s population had reached 1.4 million (MBMW, 1954, 22). The same growth pressures were affecting Melbourne as those affecting Sydney in the immediate post-World War II period – rapid immigration and the post-war baby boom. The 1954 Melbourne Metropolitan Planning Scheme report stated that its specific purpose was to control infrastructure costs by the imposition of an urban boundary. The plan proposed an arbitrary boundary to accommodate up to 2 million people at Melbourne’s existing housing density. The planning report stated that urban growth would continue beyond the life of the plan (an estimated 25-30 years) but recognized that continued urban boundary growth ‘increase the disabilities inherent in this type of growth and put out of production more and more food producing areas’ (p. 22). Interestingly, the Melbourne Metropolitan Planning Scheme was only adopted in 1968, by which time the Victorian Government had already begun considering a replacement strategy (MMBW, 1971).

A feature of Melbourne’s 1971 land use strategy was the introduction of urban growth corridors and ‘green wedges’, the non-urban areas between the urban growth corridors. Green wedges were intended to provide permanent protection of agricultural, environmental and major infrastructure, such as airfields, extractive industries and sewage treatment facilities (Alastair Kellock and Associates, 2000).

The 1981 Metropolitan Strategy Implementation incorporated the 1971 concepts into the plan while providing for future urban growth on other land outside the existing urban boundary (MMBW, 1981, Ch. 16).

In 1995 the Kennett Liberal government introduced its metropolitan strategy living Suburbs. Whilst openly stating that green wedges were to be preserved (DoPD, 1995, 59-60) ad hoc rezonings significantly eroded them (Mees, 2003). It is estimated that between 1996 and 2002 over 4,000 hectares in the green wedges was rezoned to provide for 1,300 new housing lots (Buxton and Goodman, 2003). Allowing development on land outside the defined urban boundaries led to loss of land whose non-urban values had been clearly defined for preservation under the 1981 strategy. The government’s approach to peri-urban development exhibited typical neo-liberal characteristics - government facilitated development, whose location and timing was determined by the development industry. Such an approach is taken on the basis that the market is best placed to determine what, where and when development should occur, i.e. business has the capital and takes the necessary risks, and there will be widespread and immediate economic benefits. The non-urban benefits of the developed land cannot be restored or replaced and these costs are ignored (Brueckner, 2001), or passed on to others in the community (Burchell, 1997).

In 2002 Labor won government. The incoming Labor Victorian State Government released Melbourne 2030 – Planning for sustainable growth, a strategic plan intended to manage the projected population growth of Melbourne over a 30-year period. The emphasis in the plan, in response to the ad hoc rezonings undertaken by the previous government, was to protect urban fringe values, such as agricultural land, and to increase utilisation of existing land within Melbourne by introducing activity centres surrounded by increased housing densities (DoNRE, 2005). Preservation of the green
wedges was regarded as the only significant difference to *Living Suburbs* and largely occurred due to community pressure to protect these areas (Mees, 2003).

Between 2002-2009 *Melbourne 2030* underwent a number of amendments (known as *Melbourne @ 5 Million*), all of which affected land within the existing urban boundaries. In July 2010 the investigation areas shown in Figure 4 (an additional 43,000 hectares [106,255 acres]) were added to the UGB on the basis that 600,00 new homes were required in Melbourne over the next 20 years and the growth corridors will provide for 284,000 of these (the balance will be provided along the transport and employment corridors in Melbourne's existing suburbs) (DoPCD 2010, p. 3). The expansion of the urban growth boundary has been widely criticised, as has *Melbourne 2030* more generally (see, for example, Mees, 2011). Buxton and Goodman (2003, pp. 205-206) point out that the green edges contained land that was 'Victoria's second most valuable agricultural area, with production three times greater in value per hectare than the most productive area'. Yet the Victorian government appears to have ignored this when subsuming the green wedges into the urban expansion shown in Figure 3.

![Figure 3: New Land Brought in to the UGB 2005 – 2009 and Investigation Area for Future Growth 2009](Source: Victorian Department of Planning, 2009)

A Liberal Government won the Victorian election in November, 2010 and has undertaken to prepare a new metropolitan strategy to guide Melbourne's growth over the next 30-40 years (DoPCD, 2012).

In summary, Melbourne's first planning scheme proposal focused on urban efficiencies of land use and infrastructure, so as to save on costs. The plan explicitly did not enter the debate about ideal city size or containing the urban boundary. Subsequently this issue was addressed in the 1971 strategy and the resultant 1981 plan, whereby non-urban land values at the peri-urban fringe were explicitly acknowledged and an urban growth boundary adopted. Since this time Melbourne's strategies have reflected the difficulty of providing for Melbourne’s population growth. The increasing frequency of plan adoption / change indicates that the plans have been unable to create a mature, balanced planning approach for the long time period (25 - 30 years) that the plans are supposed to provide for. The tangle has yet to be addressed and it will be interesting to see if the proposed new strategy can...
disentangle the issues and create a plan that will be acceptable to the broader community and remain the underlying strategy for planning over the intended 30-40 years.

Discussion and conclusion

Sydney and Melbourne’s strategic planning do not consider land use in an integrated manner. The non-urban resources that support the city are given token consideration, at best, and are generally ignored. O’Connor et al. (2001) argue that the traditional concept of carrying capacity in terms of rainfall, soil and agriculture has been replaced with a concept that measures carrying capacity in terms of ‘the ability to move traffic and accommodate people’ (p. 205). According to O’Connor et al. (2001) it is the regional and global relationships of cities that largely affects a city’s carrying capacity. This modern notion of carrying capacity underlies the strategic plans of Sydney and Melbourne. The language is about providing for growth of population and each city’s economy to increase their regional and global importance. All this ignores the fact that the city needs to consider non-urban land in its vicinity equally - the more traditional notion of carrying capacity provides those non-urban values and services on which cities rely for physical, social and environmental well-being. Failure to substantively recognise the importance non-urban land in city strategic plans shows the manner in which city planning is skewed to an approach which places at risk the city to be truly sustainable in the longer-term.

Current planning strategies for Sydney and Melbourne utilise first modernity’s approach to land use and development. This approach is referred to by Doyle (2000, p.111) as an unrestrained approach that is characterised by:

1. “It emphasises the value to humans that can be acquired by physically transforming the non-human world (e.g. by farming, damming, mining, pulping, slaughtering). It emphasises, in other words, the physical transformation value of the non-human world.
2. It not only measures the physical transformation value of the non-human in terms of economic value, but also tends to equate the physical transformation of ‘resources’ with economic growth. Economic growth in turn is equated with ‘progress’.
3. In order to legitimise the continuous expansion of resource exploitation (physical transformation activity, this approach relies on the myth of superabundance, that is, on the idea that there is ‘always more where that came from’. In view of this feature in particular, some writers have characterised this approach as frontier or cowboy ethics. Unrestrained exploitation and expansionism – frontier or cowboy ethics – is ‘how the West was won’.
4. It is totally anthropocentric; the non-human world is considered to be valuable only insofar as it is of economic-value to humans.
5. It is characterised by short-term thinking, that is, anthropocentrism does not even extend to consideration of the interests of future generations of humans. This can be viewed as radical anthropocentrism of this approach since one can afford to ignore the possibility of future problems if one has unquestioning faith in the capacity of human ingenuity to meet these problems as they arise.
6. When forced to consider the longer term, deleterious effects of continued unrestrained exploitation and expansionism – or continued ‘business as usual’ – this approach fall back on technological optimism (i.e. on a faith that ‘technological fixes’ will always be able to deliver us from possible harm).”

Utilising an unrestrained approach is clearly of first modernity and ignores the changes and accompanying challenges of second modernity. The planning strategies for Sydney and Melbourne are based on outmoded structures of operation and while they may appeal to many due to their relatively simple mantras relating to ‘business as usual’ they do not provide solutions to problems that are looming ever closer. The current planning strategies are largely reflective of Neo-liberal ideas that small governance and rapid planning approvals, coupled with increased urban development leading to employment and economic growth are the appropriate way forward. This is being implemented without regard for the consequences or any understanding that continuation of his single-sided approach to land use is leading to undesirable consequences, resulting in declining lifestyles and increasing social separation. At best the decline will be relatively gradual and at worst there will be an unexpected economic and social collapse. The increasingly short-term life of the strategy plans is symptomatic of the lack of a strong and robust framework within which Sydney and Melbourne’s land use planning can operate to sustainably address the issues associated with second modernity.
Copenhagen's Finger Plan and Oregon's (USA) land use planning system provide examples of long-term landuse strategies that provide for urban needs in ways that balance non-urban land values. The planning system in Copenhagen operates with a balance of private and public control over land ownership and development. Oregon's land ownership is more in private than public hands, but land development operates under a set of objectively measured outcomes. Key features that differentiate planning in Copenhagen and Oregon from the approaches taken in Sydney and Melbourne include:

i) a long-term strategy that transcends changes of government;
ii) understanding and 'ownership' of the principles underlying the planning system;
iii) a balance between public and private interests in planning;
iv) an integrated approach to planning, whereby all levels of government and all administrative authorities are responsible for planning under and in accordance with the strategy; and,

v) maintaining non-urban land in balance with urban land growth and change.

Planning strategies for Sydney and Melbourne, for example, propose containment of urban boundary expansion, mainly on the basis of reducing costs of providing additional infrastructure (Centre for International Economics, 2010). Despite urban consolidation strategies consumption of non-urban land continues. The general values of non-urban land is largely ignored, except for the economic values that directly support urban development, such as defined water catchment, national parks and resources for building, construction and energy production.

Sydney and Melbourne’s more traditional approach leads to outcomes which are generally unsatisfactory to all, leading to the regular adoption of new plans that try to untangle the issues arising from previous plans. Sydney and Melbourne’s approach seems more typical of planning strategies than the more well-known Copenhagen and Oregon examples. One of the issues in relation to cities being more successful in untangling their land use planning systems is that they have tried components of exemplars, such as Oregon's Urban growth Boundaries, without understanding the whole system from which they are taking their idea. The incorporation of the out-of-context idea increases the tangle. What is needed is for a loner-term, integrated strategic approach that uses the principles from successful cities, but is adapted to local circumstances. By doing this there would be a truly sustainable city that manages its peri-urban land for its non-urban values as much as its urban development potential.

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