Abstract

One anticipated result of an increase in petrol prices is that the number of people living in inner cities will increase, thus reducing residents’ need to travel to places of employment, entertainment and retailing. In various ways, local authorities in New Zealand are already encouraging and enabling more people to live in city centres. As more people move into the centre of cities, it is increasingly important to understand the changes taking place. Using two case study areas in central Wellington, the aim of this paper is to identify the transformations that have occurred, evidencing that inner city living is emerging as an important feature of contemporary society. The implications of these changes on the infrastructure required by an expanding residential population are also discussed.

Empirical discussion is based on two separate forms of information and analysis as follows:

- *The global renaissance of inner city living*: Evidence is presented of the revival of inner city living. To put this into context, some of the main changes to inner city Wellington that have occurred from early European settlement to the present day are investigated.

- *Contemporary transformations of inner city areas*: This part of the research uses property ratings data from 1994-2009 to document the transformations occurring to property functions (e.g. retailing, healthcare, warehousing, residential) in two parts of central Wellington: Te Aro and Thorndon.

The empirical evidence suggests that recent transformations are not uniform, are location specific and have occurred rapidly. If economic and social processes are aligned with local and national state policies, then further swift transformations are possible in the future.

Introduction

It is anticipated that as the cost of transport fuel increases, the number of people living in inner cities will also increase, reducing travel distances to places of employment and sites of consumption. In various ways, local authorities in New Zealand, like those in other countries, are already encouraging and enabling more people to live in city centres. At the same time, developers are providing people with the inner city living opportunities they seek.

Although New Zealand policy-makers are seeking to understand the changes to their inner cities, scholars have paid scant attention in recent years to urban land use changes with the
possible exception of Murphy (2008). The purpose of this paper is to investigate recent transformations to Wellington’s inner city and suggest possible implications for infrastructure providers if these trends are sustained. In particular, analysis and discussion is focussed on the suburbs of Te Aro and Thorndon.

This paper is divided into five sections. First, we discuss post-industrial land use transformation, the concurrent repopulation of city centres, and link these to gentrification. Second, we look at the broad changes that have occurred to Wellington's inner city since European settlement, and the likely causes of increased demand for and supply of inner city living. Third, using property ratings data we examine land use changes in Te Aro and Thorndon since the mid 1990s. In the fourth section we discuss the implications of the trend towards increased inner city living for infrastructure providers. Finally we conclude by linking the adaptation of Wellington’s inner city to the broad arguments about post-industrial land use changes and the future repercussions.

1 Transformations of post-industrial land use and the resurgence of inner city living

During the Nineteenth and early Twentieth Centuries, land use in most cities was led by industrialisation, resulting in the rapid expansion of urban areas as population numbers grew. Before motorised transport, workers’ residences had to be located in close proximity to places of employment because travelling long distances from home to work was too expensive or difficult. From the late Nineteenth Century, the construction of suburban transport infrastructure allowed cities to expand into new suburbs on the fringes of the old city. As time passed, many employers also relocated outwards to cheaper locations.

Over the last 20-30 years, people have returned to live in the centres of cities, resulting in a dramatic change in land use. Contributory factors include: the decline of manufacturing employment; the rise of employment in the financial, service and creative industries; changes in communications technologies; social changes, such as the greater participation of women in the workforce; the strengthening of globalisation and localisation processes; and the rescaling of the state (Smith, 1986).

In addition to their impact on economic and social processes, post-industrial changes have impacted on the built environment (Hamnett & Whitelegg, 2007; Ley, 1996; Savitch, 1988). Examples include the closure and abandonment of old factories, the decline of transport infrastructure such as ports, railways and warehouses, and the dereliction of former workers’ housing. In an attempt to attract mobile capital and labour, local governments have taken a more active role in enabling the modernisation of the urban built environment through local economic development, urban design and cultural strategies, resulting in the development of new commercial buildings that accommodate the latest information technology, and the creation of new civic, cultural and recreation spaces (Hamnett & Whitelegg, 2007; Murphy, 2008).

Amidst these changes, since the 1960s there has been a movement of middle classes into areas previously occupied by the working class and the poor (Glass, 1964). The term ‘gentrification’ has been used to describe this shift with definitions evolving over time to include apartment conversions and then later new-build developments (Hamnett & Whitelegg, 2007; Murphy, 2008).
New residents and development interests are not the sole agents in the gentrification process, as the state also plays an important role as a facilitator or supporter of the process (Lees, 2009; Smith, 2002).

2 Inner-city land use in Wellington City (1840-2010)

Similar trends to those discussed in the preceding section have been evident in Wellington. Since European settlement, the city has been shaped by economic and social processes. At the same time, central and local government have sought (not always successfully) in different ways to support the development and redevelopment of the city. We outline below some of the key themes and events that have shaped Wellington, with particular reference to the suburbs of Te Aro and Thorndon.

European settlement in 1840 marked the beginning of Wellington as we know it today. The initial colonial settlement was sited on the only two pieces of flat land available, which today form parts of the suburbs of Te Aro and Thorndon. Even before Wellington became the capital, Thorndon was designated by colonial administrators as the centre of government (Lowe, 2001; McLean, 2000). Town acres in the northern part of Thorndon were owned mainly by the city’s elite and provincial run holders not under pressure to develop. When subdivision eventually occurred, the sections remained large and the houses were grand. By contrast Te Aro, with its safe moorings for shipping, became the focus of commercial activity in the settlement (Hamer, 1990). As land here was swampy, Te Aro became more industrialised than Thorndon though in due course housing for workers followed.

Once Wellington became the nation’s capital in 1865, many businesses relocated their head offices or established branches in the city to gain the advantages of being close to government (Humphris & Mew, 2009). However the city barely expanded beyond its early boundaries, and commerce and industry pushed further into Te Aro. There were no controls of subdivision and as immigration increased, speculative builders subdivided sections to create land parcels as small as 126 square metres in Te Aro. The high densities of housing formed slums with little or no sanitation, leading to outbreaks of cholera and typhus. The threat of disease and the development of transport infrastructure in the city hastened the shift of residents outwards to new suburbs from the late Nineteenth Century.

The 1930s Depression ended the suburban housing boom as finance for mortgages dried up. As about a quarter of the city’s housing stock was decrepit, the inner city suburbs were home to the city’s poor and transient, with many of the once grand houses in Thorndon converted into boarding hostels or rental properties (Lowe, 2004; McKinnon, 1997; Schrader, 1996). To address the housing crisis, the 1935 Labour government had amongst its early policies a public housing scheme and a widening of financial assistance for home purchase. However the new suburban homes were expensive and Te Aro’s older population fell outside the Government’s target group for rehousing, so slums remained until the early 1960s.

With its broader focus on social welfare following Labour’s election, the public service expanded, requiring more office accommodation. The area to the east of Parliament in Thorndon was identified as a suitable location for a ‘government centre’ leading to the progressive demolition of old houses and shops and the razing of some of Thorndon’s original streets (Black, Kelly, & Cochran, 2008). In their place new buildings were built from the late 1960s to house government departments and company headquarters. More houses and streets
were lost elsewhere in Thorndon when the urban motorway was constructed in 1974. At the same time, marking an early stage in the gentrification process, people began renovating former workers’ cottages in the suburb, and flats and hostels were restored to single residences (Lowe, 2001).

Meanwhile little had been done to clear slums in Te Aro despite earlier pledges. Local authorities were empowered by the 1945 Housing Improvement Act to redevelop their urban areas, but schemes to improve Te Aro were criticised as being little more than traffic plans (Schrader, 1996; Walker, 1996). The absence of housing from these schemes was also said to contribute to the continued flight of residents to the suburbs. The trend was sustained into the 1970s, and between 1945 and 1979 the number of dwellings in Wellington’s inner city halved and the residential population fell by two-thirds (Edridge, 1983).

From the early 1980s wider economic and social processes began to transform the centre of Wellington. The 1979 District Scheme Review ended zoning that excluded residential as a permissible use in the inner city and at the same time new life was breathed into the city in the evenings and weekends as reforms liberalised shop trading hours and alcohol licensing laws ((Edridge, 1983; Wellington Civic Trust, 2002). Many older commercial buildings were no longer economically viable and stood empty as the national economy restructured and businesses relocated out of the city (Edridge, 1983; Holden & Gjerde, 2009). Much of this older building stock fell victim to the demolition ball, when, in 1983, the Council indicated its intention to require the demolition or strengthening of old masonry buildings likely to be dangerous in an earthquake (Kernohan, McMaster, & Gardner, 1994). Financial deregulation in 1984 also had an impact on the city’s built form as investment companies were given more flexibility to invest in sectors of their choice like commercial real estate (Page, 1996). This encouraged further demolitions as developers constructed high rise office buildings, and by 1987 Wellington was in a building frenzy that saw property values double from $7.2 to $15 billion in three years (McGill, 2003).

Following the 1987 stock market crash, share prices of property companies fell dramatically, saving the city from further planned mega-developments (Moricz & Murphy, 1997; Morrison & O'Malley, 1992). Excess capacity saw office vacancy rates hit 27% (Schouten, 2010) and this weakened property market had two effects. First, it led to Council-funded experiments with waterfront apartments that confirmed latent demand for inner city living (Morrison & Schrader, 2010). Second, rising office vacancies and increasing earthquake insurance premiums made apartment conversions more attractive to property developers (Morrison & McMurray 1999; Roakes, Barrows, & Jacobs, 1994).

After 1991 Wellington’s growth pattern was reversed as the centre of the city grew and development on its periphery slowed (Morrison, 2000). Demand for inner city living resulted from: increased value placed on ‘time’, resulting in workers wishing to spend less time commuting and more time earning; the highly centralised employment structure in Wellington; the Council’s response to competition from other cities for mobile labour and capital that resulted in improvements in local infrastructure and the creation of a cultural image for the city; the growth in the number of households seeking an alternative to suburban living; and the return from overseas of New Zealanders with their experience of urban living alongside new immigrants from more urban cultures (Holden & Gjerde, 2009; Morrison, 2000).
Also contributing to the development of inner city apartments in the early 1990s was a new generation of city planners and councillors who openly encouraged conversions through changes to the consents process, making rates breaks available, and the provision of funding assistance for the reinforcement of buildings that required earthquake strengthening (Edridge, 1983; Morrison & McMurray, 1999). As investment opportunities on the urban fringe dried up for developers, the inner city became an attractive proposition. The pattern slowly changed from conversions to new-build apartments, and by 2010 there were an estimated 6500 apartments in the central city with a further 1100 apartments being built, or due to be, before the end of 2011 (Fisher, 2010; Fisher & Harris, 2010).

In 2010 few sites remain within the traditional CBD area suitable for commercial development. There is a strong preference for office accommodation in the northern part of the city due to its proximity to the government centre and transport hubs, though there has also been a shift towards building offices on port land (Bayleys Research, 2009). The public service has been one of the most active tenants commissioning additional and consolidated office space, preferring one tenancy to many. These recent changes to the inner city’s built environment are explored in more detail in the next section.

3 Transformations in land use in Te Aro and Thorndon since the mid 1990s

Using annual property ratings data provided by Property IQ, we examined in more detail the land use transformations that have occurred since the mid 1990s in two of Wellington’s oldest inner city suburbs, Te Aro and Thorndon. At a Census meshblock level, this data included the number of properties, and land and building area occupied by property type (that is Commercial, Industrial, Residential and Other). Within each of these four categories, properties are sub-classified to a more detailed level such as Commercial Retail, Commercial Office, Industrial Warehouses or Residential Vacant. Ratings data was provided from 1991 to 2009, but the first three years of data was categorised differently making comparisons awkward. Data was therefore analysed from 1994 onwards, and is summarised in Table 1. Rather than analyse data for the whole of each suburb, 28 meshblocks in Thorndon and 25 meshblocks in Te Aro were selected for investigation. Meshblocks in Thorndon were selected that contained both residential and non-residential properties in 2010. An area in Te Aro of comparable size and containing a mix of property types was also selected (see Figure 1).

From the data significant growth in the numbers of residential properties and residential building floor space is evident in both suburbs. The amount of land area occupied by residential property has also increased in both suburbs but not to the same degree as building floor area. This difference can be explained by the fact that 97% of the additional residential building floor area in Thorndon (94% in Te Aro) is occupied by dwellings that share land or party walls with other properties like units, flats on cross lease, and townhouses. This newly built accommodation is therefore medium or high density housing, requiring less land area than traditional low density housing. Certainly in Thorndon, prior to 1994 about a third of residential building floor area was occupied by single dwellings, but 15 years later this proportion had dropped to 18%, reflecting the construction of higher density housing.

In Te Aro though, there were few dwellings in 1994, as at that time the suburb was dominated by commercial and industrial properties. Although even now residential land use remains low, residential usage of building floor area is the second highest after commercial usage, having
exceeded industrial floor area for the first time in 2006. The data relating to industrial property in Te Aro is unambiguous, confirming that industry is vacating the inner city. Most of the decline relates to warehouses which by 2009 accounted for roughly half the building area occupied by warehouses fifteen years earlier.

Table 1: Property categories in Te Aro and Thorndon, 1994 and 2009

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Te Aro count</td>
<td>Commercial</td>
<td>146</td>
<td>744</td>
<td>410%</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>141</td>
<td>106</td>
<td>-25%</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>5</td>
<td>1,233</td>
<td>24560%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>12</td>
<td>29</td>
<td>142%</td>
</tr>
<tr>
<td>Te Aro land area</td>
<td>Commercial</td>
<td>135,140</td>
<td>163,650</td>
<td>21%</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>83,306</td>
<td>58,566</td>
<td>-30%</td>
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<tr>
<td></td>
<td>Residential</td>
<td>368</td>
<td>2,656</td>
<td>622%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>37,862</td>
<td>91,227</td>
<td>141%</td>
</tr>
<tr>
<td>Te Aro building floor</td>
<td>Commercial</td>
<td>269,897</td>
<td>299,316</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>101,210</td>
<td>63,743</td>
<td>-37%</td>
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<tr>
<td></td>
<td>Residential</td>
<td>830</td>
<td>114,387</td>
<td>13682%</td>
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<td></td>
<td>Other</td>
<td>17,760</td>
<td>77,828</td>
<td>338%</td>
</tr>
<tr>
<td>Thorndon count</td>
<td>Commercial</td>
<td>78</td>
<td>287</td>
<td>268%</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>21</td>
<td>19</td>
<td>-10%</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>234</td>
<td>894</td>
<td>282%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>29</td>
<td>43</td>
<td>48%</td>
</tr>
<tr>
<td>Thorndon land area</td>
<td>Commercial</td>
<td>124,080</td>
<td>134,360</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>26,389</td>
<td>22,912</td>
<td>-13%</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>38,175</td>
<td>41,928</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>80,670</td>
<td>122,560</td>
<td>52%</td>
</tr>
<tr>
<td>Thorndon building floor</td>
<td>Commercial</td>
<td>243,610</td>
<td>281,849</td>
<td>16%</td>
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<tr>
<td></td>
<td>Industrial</td>
<td>46,580</td>
<td>44,200</td>
<td>-5%</td>
</tr>
<tr>
<td></td>
<td>Residential</td>
<td>33,570</td>
<td>94,042</td>
<td>180%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>41,790</td>
<td>61,954</td>
<td>48%</td>
</tr>
</tbody>
</table>

Figure 1: Map showing study areas in Thorndon and Te Aro
Even though commercial properties in Te Aro continue to dominate land and building usage, the 410% increase in the number of commercial properties is somewhat misleading. The commercial category includes separately rated car parks, which number 481 of the 744 commercial properties in Te Aro in 2009. If car parks are ignored, then the number of commercial properties has still increased by 83% since 1994 with the uplift due to additional retail properties (from 43 to 90) and properties classified as multiple (or other) commercial (from 14 to 81).

The construction of car parks in Thorndon also makes the increase in commercial properties deceptive, with 170 parks constructed here. Apart from these, the largest increase in Thorndon’s commercial property has been in the number of offices which has increased by 50% from 50 to 75 in 2009. Building floor area occupied by offices in Thorndon has increased by a third over the period, and in 2009 occupied the most space in the suburb, equating to 46% of total building floor area and 20% of land area.

Whereas the number of offices in Te Aro had barely changed over the same period, building floor area occupied by offices had declined by a quarter. In 1994 offices in Te Aro had occupied the most building floor area, but by 2008 this primary position was held by dwellings. Offices had also been the largest usage of Te Aro’s land area in 1994, but land area occupied by offices declined by 37% in 2009. Retailing is now the biggest single usage of land area in this part of the city.

4 Implications for inner city infrastructure

The evidence presented in the previous section confirms that higher density living has become more established in our case study areas, and indeed is now a dominant form of land and building use. Having a larger population living in one place makes it possible to achieve greater economies of scale in terms of infrastructure, facilities and services provision. In this section we outline some of the features that infrastructure providers will need to consider as more people move into the centres of cities and higher density living becomes more common.

**Utilities infrastructure:** Fewer opportunities to reduce resource consumption and contribute towards production are available when retrofitting multi-unit buildings than for private detached dwellings (Ghosh, Vale, & Vale, 2006). It is recommended that to offset the additional demand for power and water resulting from residential intensification, enhancements to improve sustainability are built into multi-unit buildings as they are constructed.

**Neighbourhood quality:** People’s satisfaction with where they live is related to how they balance different aspects of their neighbourhood, such as green areas, noise, and recreational services (Walton, Murray, & Thomas, 2008). Without investment in the public infrastructure in the immediate neighbourhood, it can detract from residents’ quality of life in a town centre (Dupuis & Dixon, 2008). Existing open space needs to be well-maintained and attractive, and for cities that do not have existing open space or landscape features like harbours in close proximity to high density living, new open space opportunities should be provided.

**Social diversity:** If more people choose to live in the inner cities, it might be expected that the types of people who are inner city residents will expand beyond the typically young singles, and young/older couples presently living in the centres of cities. Consideration is needed of
the infrastructure requirements of the additional services/facilities, such as childcare, aged care, education, healthcare, and playspace, required by a wider demographic.

**Transport:** One of the main drivers for inner city living is that it reduces the need to travel by car, but many people who live in the centres of cities still own a car, retaining a vehicle for business related travel and recreational trips outside the city (Witten, McCleanor, & Rose, 2006). Although it is unlikely that car ownership will be completely abandoned, it is expected that use of public transport will increase, and indeed wanting good public transport is likely to be a motivating factor for living in higher density areas (Walton, Murray, & Thomas, 2008). At present recreational travel on public transport is under catered for in terms of timetabling and destination, and would need to be expanded to meet the needs of residents who choose to live without their own vehicles (Dravitzki & Lester, 2007).

## 5 Renaissance of inner city living and its future implications

Over the last 170 years Wellington has evolved from a colonial settlement to a post-industrial city, sharing many of the features and transformation processes experienced in cities elsewhere in the world. Through the actions of national and local governments, the private sector, and its residents, the city expanded outwards from its original location near the harbour into low density, mainly residential, suburbs. Until the early 1990s the inner city was dominated by commerce and industry, whilst living in the centre of the city meant either low density housing in prestigious suburbs or medium density apartment blocks. The stock market crash at the end of the 1980s led to sweeping changes in the inner city as more dwellings were built in either converted buildings or new-build developments. This was facilitated by a Council that actively sought to increase its inner city population and by wider economic and social processes also occurring. The different waves of population movements into Wellington’s centre embody the process of gentrification.

The analysis of the ratings data presents a detailed picture of the transformations that have taken place in Wellington’s inner city over the last 15 years, reflecting the differing situations of the two suburbs chosen for study. On the one hand, both suburbs share the same experience of a significant expansion of the new-build dwelling sector. As these types of dwellings are mainly high density, the impact of this expansion in both suburbs is greater in terms of building area than in land usage. Te Aro, in particular, has undergone a dramatic change in terms of residential usage over the period, from having almost no residential provision in the mid 1990s to multi-unit dwellings becoming the single most prolific use of building floor area in less than 15 years.

In other ways, the patterns of change in Te Aro and Thorndon have differed. The importance of office space in Thorndon has consolidated. In part this reflects Thorndon’s role as the location of the government centre and the desire of the public service to combine different offices. Another reason for office expansion in this area is its proximity to transport interchanges, enabling easy access to commuters travelling into the city.

In Te Aro by comparison, office space has retracted, suggesting that this part of the city has become less desirable for this type of property and that redevelopment into other forms of usage like retailing and residential is more profitable. Indeed, it seems evident that Te Aro has undergone dramatic changes with the recession of office and industrial usages and a boom in terms of residential and retailing. Whereas little more than a decade ago Te Aro (with the
exception of Courtenay Place) would have been deserted outside working hours as employees departed for the suburbs, now it is alive in the evenings and weekends.

This study identified that the current transformations affecting inner cities are not uniform and are location specific. In some ways, these changes reflect early development decisions and each suburb’s distinctive history, like Thorndon’s designation as the government centre by colonial administrators. It is also evidenced that significant changes can occur over a short period of time, suggesting that if economic and social processes are aligned with local and national state policies, then further swift transformations are possible in the future. This is important as changes to fuel prices may stimulate more people to move into the centres of cities, increasing demand for greater residential provision. This will have implications for infrastructure providers who will need to predict accurately and promptly what new and altered infrastructure will be required to ensure that inner city living is sustainable for future generations.

6 References


