

Architectural design in 1890s Wellington cityscapes

Adrian Humphris

ABSTRACT: In the absence of landscape architecture as a profession the aggregation and location of architects (and local authority engineers) directly impacted cityscapes where they practiced. As well as the built environment other factors were significant in shaping the cityscape, such as the distribution of population growth, regulation of subdivision and road construction, and land sale practices of the time. The late nineteenth century was a period over which the architectural profession was beginning to consolidate. While still lacking formal structure and regulation, meaning the individuals involved possessed a range of experience, knowledge and ability, architects increasingly became professional office workers with well-staffed offices capitalising on the demand for construction. Using Wellington as a case study, this paper uses local authority building permit records and other sources to determine the location and patterns of architecturally-designed dwellings in the city's streetscapes. Findings suggest that architect's impact on the urban form varied considerably across the city.

Wellington in the 1890s

Wellington was growing rapidly through the 1890s. From 31,021 residents in 1891, by the turn of the century there were 43,638 people, all living within roughly the same boundaries that had been laid out by the New Zealand Company.¹ While reclamation in the 1880s had added 116 acres of land to the central area,² it did little to reduce the intense competition for existing inner-city land and provided no extra land for residential use.³ Growth was spreading south towards

¹ Population figures from Statistics New Zealand. Historical census collection, 1891 and 1901.

² Humphris "Tramways and Suburban Growth" p 73.

³ In fact reclamation often reduced land for residential use, as commercial development replaced it. A good example is the Grainger Street block, and area of high-density housing around Blair/Allen Streets that was cleared in the late 1890s and converted into a warehouse and market district.

Newtown and Mount Cook, in part facilitated by the steam (and later horse) trams established in 1878. The Wellesley Block subdivision in Newtown would be the last large-scale subdivision to take place, with 228 lots going up for auction in 1889.⁴ It would not be until the early 1900s that electric trams would free the city from its constraints, as subdivision and a building boom in the surrounding area would occur.

The cityscape of the 1890s and the role of the architect

Emerging from the 1880s depression, the 1890s saw increased building activity, as experienced across the country. A rising population with more disposable income saw an increased demand for housing. Businesses, churches, and the government could spend

⁴ Auction plan, Wellesley Block.

more on architectural design. Banks and large commercial firms, more insulated from the depression, had continued to prosper.⁵ Over the decade, in place of smaller wooden buildings that had dominated streetscapes, boldly ornamental masonry structures of three, four and five stories set the new character of the cities.⁶ As the *New Zealand Times* commented in 1893, "The transition of Wellington from the age of wood to that of brick and stone proceeds rapidly apace."⁷

There was a greater public awareness of architecture, with the degree of success of buildings debated in newspapers and new buildings regularly illustrated.⁸ With more

⁵ Shaw *A History of New Zealand Architecture* p 58.

⁶ Stacpoole & Beaven *Architecture 1820-1970* p 41.

⁷ "The transition of Wellington [untitled]" p 2.

⁸ Stacpoole & Beaven *Architecture 1820-1970* p 41.

architects practicing, aesthetic standards were seen to rise and even quite modest buildings were expected to be an ornament to the town.⁹ Mixed in with this appreciation of architecture was an element of what Ben Schrader refers to as "place-promotion and civic boosterism" – the need to keep abreast (or ahead) of rival towns.¹⁰

Wellington's newly formed Association of Architects¹¹ was keen to reinforce how essential good architectural design was. Vice-President WC Chatfield referred in the *Evening Post* to the "large numbers of a class of buildings are erected without recourse to any architect at all" before suggesting the Council should only accept plans prepared by a qualified architect.¹² Not everyone agreed with this sentiment; "Working Joiner" agreed with the need to prevent "indifferent houses being built in Wellington," but disagreed with the need for an architect to design the average Wellington house, as "six out of every ten

⁹ Webster "The Architectural Profession in Leeds 1800-1850" p 187.

¹⁰ Schrader *The Big Smoke* p 103.

¹¹ The Association was formed on 16 August 1892. "Building Conditions of Contract" p 2.

¹² "The Architects Association, Vice-Presidents Paper" p 3.

schoolboys could do it."¹³

Other impacts on the 1890s cityscape

As well as the location and extent of architecturally-designed buildings, many other factors had influenced the cityscape. Most significant was the layout and availability of sections to build on.

By 1890 Wellington was a city of many narrow two-storeyed houses crowded together in groups with open fields in between.¹⁴ Some areas were heavily populated, but other areas had spaces where land was being held for speculative gain so not developed.¹⁵ This prevalence of absentee landowners reduced the supply, causing land that was available to be used more intensively.¹⁶ There was the emergence of high-density housing, particularly in the Te Aro area.

¹³ "Jerry Buildings" p 4.

¹⁴ Humphris "Tramways and Suburban Growth" p 73.

¹⁵ With rates based on rental value, not land value, there was no incentive to subdivide and develop land. With the introduction of land value rating in 1902 this began to change.

¹⁶ By 1890 there were still 314 of the 1,100 Town Acres (or 28.5%) with no built development; by 1900 this reduced to 144 empty acres, or 13.1%. Humphris "Tramways and Suburban Growth" p 72

Borough Councils were allowed to control the built development of cities. Road formation was governed by the Municipal Corporations Act 1867. Subdivision of land had to be approved by Council as the roads formed would go become public roads, requiring maintenance and upkeep. The minimum width of streets was initially prescribed as 40 feet, "from front to front of the buildings" with alleys to be no less than 20 feet.¹⁷ By 1886 this was widened to 66 feet for streets.¹⁸ Legislation, however, was difficult to enforce. As well as the costs involved, close links with councillors and building developers led to political pressure not to adhere strictly to the regulations.¹⁹

For most of the nineteenth century this limited control over subdivision was challenged by the need for greater numbers of lots due to the influx of immigrants. The result was often narrow streets and cul-de-sacs with numerous very small allotments being laid out. The pattern of small section frontages did not reflect a land shortage so much as the commercial factors under which speculative builders catered for housing needs at differing

¹⁷ Municipal Corporations Act 1867 ss 291, 292.

¹⁸ Municipal Corporations Act 1875 s 233.

¹⁹ Humphris "Tramways and Suburban Growth" p 74.

economic levels.²⁰ Smaller lots reduced the land cost per house. Frontages in parts of the city were commonly as small as 20 feet (6 metres), or in the case of semi-detached dwellings 16 feet (just under five metres). Land plots in Thorndon and Te Aro were subdivided as small as five perches (125 square metres).²¹

The process of land subdivision also changed over the nineteenth century. Land development had tended to be a mixed and variable pattern of small-scale developments. The aim of developers was to sell as many sections as possible and subdivisions often consisted of a variety of lot sizes, to capture as many buyers as possible.²² By the late nineteenth century subdivisions became increasingly standardised in terms of layout and section size, catering to a single residential market.

Although outside the boundaries of Wellington City, the original subdivision of Kilbirnie township in 1877 clearly displays this earlier approach. Creating 133 lots for sale, they ranged in size from quarter acre

(1,011 square metres) residential sections (around half the lots for sale) to the largest section which was four acres (16,187 square metres).²³ This can be contrasted clearly with the previously mentioned Wellesley Block subdivision in Newtown in 1889; all 228 lots are between 10 and 15 perches (on average around 300 square metres), accessed by roading in a regular square pattern.²⁴

The cityscape of 1890s Wellington would have been variable. With nearly fifty years of colonial development some areas were densely developed, whereas others were less so or still vacant. Many areas, for example across Thorndon or Mount Victoria, developed earlier so had seen smaller in-fill subdivision of original larger land parcels, hence a less ordered cityscape and narrower streets or lanes. More recent subdivision was more uniformly arranged with wider streets and larger lots. Spending time wandering the city via the 1891 Thomas Ward Map gives a clear idea of this variety.

The availability of sections and their layout and size would have affected new

construction. The available section sizes would have placed physical limits on the size of dwellings that could be built, and the orientation and shape of sections would have affected design decisions. The provision of infrastructure may have influenced the cityscape over time. Trams had been introduced in Wellington in 1878, running on a route from Thorndon through to the intersection of Riddiford and Constable Streets.²⁵ While they were not a major factor in population distribution beyond the inner area of the city, they were a factor in dispersing the population within the city. As well as facilitating the development of Newtown, trams also led to more densely settled areas along the main arterial route.²⁶

The 1890s also saw the construction of a city-wide drainage scheme, completed in 1898.²⁷ While the entire city was connected within the space of the decade, potentially built development may have responded to its expansion over time, for example by construction increasing or following the introduction of the service. This is an area for future investigation.

²⁰ Humphris "Tramways and Suburban Growth" p 73.

²¹ Humphris "Tramways and Suburban Growth" p 73.

²² Humphris "Tramways and Suburban Growth" p 45.

²³ Township of Kilbirnie, Deposited Plan 65

²⁴ Plan of Subdivision of Sections 772, 773, 797-799, 801-807, 809, 816, 818 Wellington, Deposited Plan 467

²⁵ Wellington City Council Archives, 2008/23-309

²⁶ Humphris "Tramways and Suburban Growth" p 95.

²⁷ Humphris "Tramways and Suburban Growth" p 83.

Analysis and data sources for architectural design and the cityscape

Given the public's awareness of architecture and the increasing prominence of architects, how did the building they designed relate to or shape Wellington's urban cityscapes? Was the proportion of architecturally-designed houses consistent across the city, or did it vary between suburbs based on their size or affluence? Did the age of suburbs, or their rate of growth, affect how many buildings were architecturally-designed? And did architects resident in Wellington take work across any suburb, or was their reach limited?

Data for this paper has been sourced from building permit records at Wellington City Archives.²⁸ It is limited to the original boundaries of Wellington Borough as this is the only area where comprehensive building permit records exist.²⁹ Due to the volume of

²⁸ Registers were used to determine the total number of dwellings built per year, then the physical permit applications were used to determine the proportion that were architecturally designed. It does have to be noted that for the years analysed only around 50% of permits are still extant. It has been assumed that the analysed permits are representative of the full sample.

²⁹ While land surrounding Wellington was starting to develop and new Boroughs formed, for example Melrose (1888) and Karori (1890), only Wellington

Suburb	Sample size	Architect-designed	% architect-designed
Aro Valley	50	7	14.0%
Berhampore	18	1	5.6%
Kelburn	9	6	66.7%
Mt Cook	89	13	14.6%
Mt Victoria / Oriental Bay	91	29	31.9%
Newtown	144	30	20.8%
Te Aro / Pipitea	55	20	36.4%
Thorndon	51	16	31.4%
Wellington Central	27	21	77.8%
Total	534	141	26.4%

Table 1: Proportion of new dwellings architecturally designed, by suburb. Source: Calculated using building permits records, Wellington City Archives.

records to analyse, a representative sample was collected for the calendar years 1893, 1896 and 1899.

The distribution of architecturally-designed houses in the cityscape

Analysis of the permit records suggests on average one in five new houses built in 1890s

retained plans and specifications as part of the building permit process in the 1890s. Most local authorities required plans be inspected and approved before construction could take place, but requirements to submit plans were implemented later; for example, Melrose Borough Council permit records only begin in 1901.

Wellington was architecturally-designed. There was a degree of variation year to year; a low of 15% of new houses in 1891 was followed by a peak of 26% of houses in 1893. From 1895 onwards the ratio was much more consistent, with just one small peak in 1898.

Breaking the data down by suburb however, indicates there was significant geographical variation, as **Table 1** shows.

In Wellington Central and the adjoining Kelburn³⁰ more than two thirds of new dwellings were architecturally-designed. These suburbs contrast strongly with those to the south; Berhampore, Mount Cook, Newtown and the Aro Valley (Newtown being the highest of the three with 21% of dwellings being architecturally designed).³¹

As noted, growth in 1890s Wellington was concentrated to the south. Between 1878 and 1901 more than half of the city's growth occurred in Newtown and Mount Cook.³² Predominantly working-class suburbs, these areas were not as affluent as the more central suburbs such as Thorndon. Whether there were less residents who could afford an architect, or whether the number of architects

³⁰ Note that this table uses current suburban boundaries. In the 1890s Kelburn was still undeveloped and known as Upland Farm. It was not until the early 1900s that the cable car was completed, and the land made available for suburban development. Dwellings referenced here were in Clifton Terrace and Talavera Terrace, on the edge of the city.

³¹ Berhampore has a very low proportion, but also has a low sample size, so additional analysis may be required to confirm this proportion.

³² Yska *Wellington Biography of a City* p 74. Analysis for this paper confirms this – in 1896, Newtown and Mount Cook accounted for 51% of all dwellings approved by the Council.

	Average number of rooms			Least - most rooms	
	Builder	Architect	Difference	Builder	Architect
Suburb					
Kelburn	8.7	7.5	-1.2	2 - 9	4 - 7
Aro Valley	5.1	4.9	-0.2	3 - 8	6 - 6
Pipitea	6.0	6.0	0.0	3 - 12	6 - 11
Mt Victoria	6.0	6.2	0.2	3 - 8	3 - 8
Te Aro	5.8	6.1	0.3	3 - 11	3 - 11
Mt Cook	5.2	5.5	0.3	2 - 7	3 - 9
Wellington Central	7.0	7.5	0.5	3 - 8	6 - 9
Newtown	4.5	5.5	1.1	4 - 8	5 - 7
Berhampore	4.9	6.0	1.1	3 - 9	4 - 9
Oriental Bay	6.1	7.8	1.7	3 - 9	5 - 18
Thorndon	5.5	8.1	2.6	5 - 9	3 - 14

Table 2: Average number of rooms for dwellings by architects and builders, and the range in room size. Data is split by suburb. Source: Calculated using data compiled from building permit records, Wellington City Archives.

in practice could not respond to the size of the building boom, which was left to builders to fulfil, is a question for further analysis.

A more detailed look at architectural design vs builder design

Data was also collected looking at the number of rooms per dwelling.³³ Table 2 below compares the size of new dwellings designed

³³ This records all rooms except toilets and bathrooms, sculleries and pantries, and wash houses or washrooms. Future analysis may want to include these, as variation in numbers was also found; for example, larger houses often had a separate pantry and scullery.

by architects as opposed to builders.

It was assumed that architecturally-designed dwellings would be larger than those by builders. With the cost to hire an architect, a certain level of wealth would be required, and a larger house probably designed. A study in Leeds suggested architects rarely concerned themselves with working class houses; the more prestigious the building, the more likely an architect was involved.³⁴

³⁴ Webster "The Architectural Profession in Leeds 1800-1850" p 180.

Analysis suggests that as well as the proportion of architecturally-designed dwellings varying across suburbs, the size of those dwellings also varies. Architects were still designing a wide range of dwelling sizes (from three rooms through to the largest found being 18 rooms). There was also not a significant difference in size between builders and architects; in most suburbs the average house floor area was very similar.

Exceptions to this are Oriental Bay and Thorndon, where the average house size for an architecturally-designed dwelling was around two rooms larger. This may be due in part to the much wider range of dwelling sizes – three to 14 rooms for architects in Thorndon, when those for builders only ranged from five to nine rooms. Kelburn also seems to be an exception in that builder dwellings were on average larger than those designed by architects.³⁵

A range of house sizes in any cityscape is to be expected; it was not unusual in the nineteenth century for both rich and poor to live in the same street. Spatial segregation did not

³⁵ Given the very small sample size this may not be representative.

become more pronounced until the twentieth century.³⁶ The fact architects were taking on commissions for smaller dwellings does differ from evidence found overseas, an area for further analysis.

Distribution of architects across suburbs

The final question is how widely the architects in practice in the 1890s worked across the city. The profession in the 1890s was still largely unregulated, being a mix of professionals with overseas qualifications, those that had been articulated and trained professionally in New Zealand, and builders and carpenters also trying their hand.³⁷

It could be argued that the degree of ability of those practicing also affected the streetscape where their designs were built. Potentially the qualified professionals practiced more in affluent suburbs where their quality was recognised, while the builders-turned-architect focused more on the working-class

³⁶ Schrader *The Big Smoke* p 100.

³⁷ As noted by Webster in his study of Leeds, as well as the professional architects there were those that tried to "ascertain if a career could be launched merely by renting an office, purchasing a brass door plate, and obtaining entry in a directory." Webster "The Architectural Profession in Leeds 1800-1850" p 186.

suburbs, designing dwellings not that dissimilar than those by builders.

Of the 27 architects identified in the dataset, only three designed buildings in five or more suburbs; nearly half were only found in one suburb. Interestingly Newtown had one of the lower proportions of architecturally-designed dwellings, but the largest number of architects, with designs by 12 different architects found. Four of those architects designed in Newtown alone, and eight could be classed as builders who fancied themselves as architects.

As well as the ability of the architect, the size of dwelling and architectural style, be it plain or ornamental, may simply reflect the clients' demands. The cityscape in a working-class suburb such as Newtown or Mount Cook, even though it featured architecturally-designed houses, may have been more homogeneous as the architects were designing more generic four room dwellings as that is what was wanted; whereas in the more affluent suburbs it was more important to make a statement.

All this analysis must be looked at in the context of a very small sample size; more

detailed research would be needed to have greater certainty about the extent of work different architects undertook. The data does however suggest that within urban centres there was variation in architectural design, and in numbers and experience of architects operating.

Conclusions and next steps

The analysis presented in this paper suggests there is much value in a data driven approach to analysing the spatial arrangement of urban areas. Analysis has shown variation in cityscape in 1890s Wellington, because of both the preceding period of development, and through the proportion and location of architecturally designed dwellings.

While only a preliminary investigation, the analysis also shows the value in using case studies to explore or illustrate a specific aspect of cityscape. However, the research presented in this paper is a very high-level analysis and raises more questions than it answers. It identifies and suggests patterns and trends but does not attempt to explain them in any depth.

There are many other layers to be considered when (or if) the research is continued. Factors

such as the provision of public amenities, for example water and sewage reticulation, gas and electricity supply, may all have influenced the pattern of built development. There may also be value in further analysis at an even lower level; for example, mapping architecturally-designed houses by street or address to determine whether architecturally-designed houses were scattered across suburbs or clustered.

One final thing to note is the completeness and accuracy of the dataset used. Even with the resources of the Wellington City Archives, many plans and specifications were not available which has potentially limited the statistical accuracy of research reported in this paper. It is possible that when the explored archival records are combined with detailed newspaper reports and other sources, additional insights will be obtained.

REFERENCES

- 00053, WCC, Building Permit Applications, Wellington City Council Archive. Individual permits to construct new dwellings for the years 1893, 1896 and 1899 were viewed digitally via archivesonline.wcc.govt.nz (normally the actual digitised records are not publicly available). Given several hundred were checked, a complete list is not included here.
- "The Architects Association, Vice-Presidents Paper" *Evening Post* (8 February 1893):3.
- Auction plan, Wellesley Block, 228 building allotments to be sold by public auction, 1889. Wellington City Council Archives, 00248-306
- "Building Conditions of Contract" *Evening Post* (7 June 1899):2.
- Building permits register, Wellington City, 3 April 1888-27 March 1895, Wellington City Council Archives, 00334-1
- Building permits register, Wellington City, 3 April 1895-5 September 1906, Wellington City Council Archives, 00334-2
- Humphris, Adrian "Tramways and Suburban Growth: A Case Study of Kilbirnie, Wellington, New Zealand" Wellington: Master of Science in Geography thesis, Victoria University, 2003.
- "Jerry Buildings" *Evening Post* (10 February 1893):4.
- Map of Wellington showing proposed horse tramway route, 1876. Wellington City Council Archives, 2008/23-309
- Municipal Corporations Act (31 Victoriae 1867 No 24) http://www.nzlii.org/nz/legis/hist_act/mca186731v1867n24381/
- Municipal Corporations Act (50 Victoriae 1886 No 50) https://www6.austlii.edu.au/nz/legis/hist_act/mca188650v1886n50338/
- Plan of Subdivision of Sections 772, 773, 797-799, 801-807, 809, 816, 818 Wellington, Deposited Plan 467, approved 5 April 1889. Accessed via Institute of Cadastral Surveying Cadastral Database.
- Schrader, Ben *The Big Smoke, New Zealand Cities 1840-1920* Wellington: Bridget Williams Books, 2016.
- Shaw, Peter *A History of New Zealand Architecture* Auckland: Hodder Moa Beckett, 1997; first published 1991.
- Stacpoole, John and Beaven, Peter *New Zealand Art; architecture 1820-1970*. Wellington: A. H. & A. W. Reed, 1972.
- Statistics New Zealand. Historical census collection (1871-1916) <https://www.stats.govt.nz/census/previous-censuses/historical-census-collection/>
- Statistics New Zealand "Results of a Census of the Colony of New Zealand taken for the night of 31 March 1891 and 1901, <https://www.stats.govt.nz/census/previous-censuses/historical-census-collection/>
- Township of Kilbirnie, showing amended subdivisions into allotments of Section 4, Evans Bay District, Block VII Port Nicholson Survey District, Deposited Plan 65, approved 27 September 1877. Accessed via Institute of Cadastral Surveying Cadastral Database.
- "The transition of Wellington [untitled]" *New Zealand Times* (9 February 1893):2.
- Webster, Christopher "The Architectural Profession in Leeds 1800-1850: A Case-Study in Provincial Practice" *Architectural History* (1995) 38:176-191.
- Yska, Redmer *Wellington Biography of a City* Wellington: Reed Publishing (NZ) Ltd, 2006