Article

Aiming for a Better Public Realm: Gauging the Effectiveness of Design Control Methods in Wellington, New Zealand

Morten Gjerde * and Brenda Vale

School of Architecture, Victoria University of Wellington, P.O. Box 600, Wellington 6140, New Zealand; E-Mail: brenda.vale@vuw.ac.nz

* Author to whom correspondence should be addressed; E-Mail: morten.gjerde@vuw.ac.nz; Tel.: +64-4-463-6233; Fax: +64-4-463-6204.

Abstract: Design review aims to improve the quality of urban settings, principally by seeking to influence the design of individual buildings positively during the planning approval stages of development. Design review systems were first set up in New Zealand in the mid-1990s in Wellington. The aims of design review are laudable; even if the process is not set up to secure the best possible design outcome it should be able to prevent the worst outrages, so as to ensure a minimal visual quality of streetscapes. However, does design review really achieve what it sets out to do? After a brief summary of design review practices, this article considers whether current design control practices in Wellington are helping to foster well-liked urban streetscapes. Using the results from a recent case study, comparing the aesthetic preferences of the public to those of professionals who participate in design control, the article notes where preferences overlap and where they are different. In the process, the characteristics of buildings and streetscapes that are considered positive and negative are identified. The article goes on to speculate how design review could be made to work more effectively in Wellington.

Keywords: design review; urban design guidance; environmental aesthetics; urban streetscapes

1. Introduction

It is never difficult to find opinions critical of the appearance of buildings and cites. When discussing Sydney a decade ago, John Punter made the observation that the city had succumbed to "spectacularly ordinary commercial development" in the period after World War II and that this poor aesthetic quality is only excused by an otherwise discerning public because of Sydney's spectacular setting [1] (p. 406). Making a more general observation, Bentley [2] suggested that the public are united in their dislike of the ways cities have been transformed in recent times. When discussing New Zealand architecture, Layla Dawson of the *Architectural Review* recently expressed surprise that Auckland has the appearance of an unplanned jumble of high-rise blocks. Why, she asked, would the public put up with such poor architecture [3]? Criticism of New Zealand urban design is even older than this. In 1958 when the architectural historian Nicholas Pevsner visited New Zealand he was hardly complimentary, suggesting there was no town planning in New Zealand, and certainly none in evidence in the central areas of the nation's cities. Even if there were, he wrote, it would be viewed by the non-designer public with suspicion [4]. In a 1958 radio broadcast, Pevsner directed his critique specifically toward Auckland, noting that the city's grid layout was run through the centre with scant regard for the slope toward the Waitamata Harbour or, more generally, for the undulating topography [5]. However, these are the opinions of design specialists not the general public. For the latter does the appearance of the built environment really matter?

The appearance of the built environment can have a tangible influence over property values, directly affecting the financial well-being of those who own property or conduct a business in an area. The choices people make every day usually include an aesthetic dimension. These may include deciding which city to live in, which house to buy or even which street to walk along [6] (p. 164). It seems that visually attractive places are more sought after by the public, which serves to increase demand and therefore economic values. Increasingly, the built environment is being used as a tool in battles fought between cities for business investment, tourism and high-calibre workers [7,8]. People regularly make choices around matters of aesthetics and it is clear that the visual attractiveness of cities affects the financial well-being of individuals as well as the wider community.

Like many other cities, Wellington, New Zealand has adopted an explicit design control regime as part of its regulatory planning system. Through its District Plan the Wellington City Council seeks to "*encourage positive growth that promotes the City's comparative advantages*" and lists eight principles to guide development [9]. One of these principles acknowledges that the quality of the public realm is influenced by the buildings and structures that define it. The primary tool used by Council to achieve a high quality public realm is the Central Area Urban Design Guide, the aim of which is to ensure that new developments are coherently designed, make a considered response to their setting and establish positive visual effects [10].

2. What Is Design Control and How Is It Managed?

Design control is generally administered as part of the wider regulatory planning system. Regulation of private development emerged in the wake of the Industrial Revolution as it became clear that the free market could not be relied on to deliver appropriate results in a consistent manner. Many urban

environments had become unhealthy as well as unattractive through development that had been undertaken to support rapidly expanding industrial activities [11] (p. 25). The bases of contemporary planning regulation can be traced to efforts made in the wake of the Industrial Revolution to ensure that the interests of society as a whole are served when changes to the urban environment are proposed. Under the umbrella of planning regulation, design control is undertaken by local government on behalf of those who must live with the consequences but do not otherwise have a say in the design of new buildings [12,13]. Depending on the planning context, regulation is nothing more than a backstop to help ensure that individual projects are built in a manner that does not create untoward environmental effects. Coupled with reliance on the private sector to initiate changes, this means that planning regulation tends to be reactive, rather than proactive, when it comes to managing the built environment.

A number of methods for regulating and controlling the aesthetic outcomes of urban development have been developed and successfully operate in different parts of the world. Punter [14] advises that design review practices can be either regulatory or discretionary. Regulatory (also referred to as administrative) systems are an add-on to zoning controls, where design outcomes are controlled by rules and objective measures. Examples of this are maximum height limits, prescriptions for location of buildings in relation to boundaries, and floor area ratios. These systems provide high levels of certainty to all parties and regulation can be conducted largely through administrative functions, reducing demand on local authority resources. However, they are also criticised for being coarse in nature with a tendency toward monotonous environments as there is a tendency for new projects within an area to be built to the same prescribed limits [6,12].

Discretionary systems are more "pragmatic", as they allow regulation to refer to the immediate setting and other variable factors that cannot be accounted for in most rules based regimes. The more successful discretionary systems, in terms of meeting the needs of different stakeholders, are informed by design guidelines or briefs that provide both a target for designers and a reference for those assessing the proposal [15]. While discretionary systems often allow local conditions to be taken into account they are often criticised by the development industry and designers for being arbitrary [16].

Over the past 30 years regulatory design control has tended to become more discretionary, creating scope for development design quality to be scrutinised more closely. Likewise, design guidance informing discretionary systems has become more prescriptive in response to calls for more certainty around the process for applicants. In short, design control systems appear to be converging as they are modified to include both discretionary and regulatory characteristics [14].

The literature outlines a number of challenges for design review. Scheer [16] notes that design review is time consuming and expensive, that it is easy to manipulate through persuasion and pretty pictures, and that it is administered by overworked and inexperienced staff. However, she also suggests that these matters are easy to solve, mainly with additional financial or human resources, through education and by ensuring the process is adequately audited for political involvement. Presenting more substantial challenges for design review are issues relating to power, freedom, justice and aesthetics. These issues exist as tensions between competing social, political or legal forces. The *power* issue raises questions around who makes the key decisions. Arguing from the perspective of a design professional, Scheer makes the observation that design review is the only field in which lay people (or those not specifically trained in design) can be left to rule over professionals in their areas of expertise.

Freedom of expression in the built environment is another matter that troubles design review. Concerns about freedom are triggered by societal values aligned with property ownership, particularly in the "new world" countries. This concern is most pronounced in the United States although the courts there have consistently upheld the rights of government to control design outcomes [17]. Concerns about *justice* arise when the reviewer is seen to hold the power, which may limit the extent to which a "fair hearing" is possible. This issue is minimised where written guidelines underpin the planning process. Finally, the murky area of *aesthetic preference* questions whose values should be referenced. Scheer notes that in many cases guidance remains unhelpfully abstract and projects tend toward soft solutions and mimicry in order to navigate the review process.

Traversing the legal issues raised by design review, George and Campbell [18] identify the various interests that are active in it. Their work addresses the subject in an American context, so freedom of expression is a consistent theme. They highlight the need for variety in the built environment from a physiological perspective. As human wellbeing is affected by the environment, the case for regulation suggests that new designs should avoid inducing unnecessary stress, anxiety or fear in people. However, people also learn and develop their senses through environmental experience and so it can be useful for environments to be challenging. More complex settings, which arise through unfettered design decisions, can create such opportunities. It is on this basis that George and Campbell challenge control methods that require new developments to conform to the patterns and design expressions already present in the setting. In addition, pushing the current boundaries of design creates opportunities for development of new theories, new methods and general advancement of the field, which they argue would have wider social benefits. To acknowledge and balance the various interests properly, George and Campbell [18] (pp. 171–173) describe four criteria that a sound design review process must address:

1. A clearly articulated and demonstrable public interest;
2. Demonstrable links to the stated intent;
3. Application early in the design or decision process;
4. Encouraging a variety of acceptable decisions.

Punter [14] incorporates these criteria into a comprehensive framework for design review and development management (Table 1). The twelve principles are grouped under four headings; community vision, design planning and zoning, substantive design principles and due process. The principles under the first heading aim to capture the views of the community as a step in generating a comprehensive view to guide development and control. The community vision becomes the reference for all decisions. Secondly, three principles inform development of a suitable process that includes incentives as well as the requirements necessary to regulate for high quality design outcomes. The next three principles address the nature of the relationship between the comprehensive plan and the development industry charged with its implementation. Punter argues that the relationship should be pluralistic and not overbearing in order to allow creative solutions to emerge. Under the final heading four principles address issues of fairness in administering the design control regime.

Table 1. Principles for progressive design review. Source: Punter [14].

Heading	Principle
Community Vision	1. Committing to a comprehensive and coordinated vision of environmental beauty and design; 2. Developing and monitoring an urban design plan with community and development industry support and periodic review;
Design Planning and Zoning	3. Harnessing the broadest range of actors and instruments (tax subsidies, land acquisition) to promote better design; 4. Mitigating the exclusionary effects of control strategies and urban design regulation; 5. Integrating zoning into planning and addressing the limitations of zoning;
Broad, Substantive Design Principles	6. Maintaining a commitment to urban design that goes well beyond elevations and aesthetics to embrace amenity, accessibility, community, vitality and sustainability; 7. Basing guidelines on generic design principles and contextual analysis and articulating desired and mandatory outcomes; 8. Not attempting to control all aspects of community design but accommodating organic spontaneity, vitality, innovation, pluralism: not being over-prescriptive;
Due Process	9. Identifying clear a priori roles for urban design intervention; 10. Establishing proper administrative procedures with written opinions to manage administrative discretion, and with appropriate appeal mechanisms; 11. Implementing an efficient, constructive and effective permitting process; 12. Providing appropriate design skills and expertise to support the review process.

3. Does Design Control Help Achieve Well-Liked Streetscapes?

Concerns about the poor visual quality of many contemporary buildings, as noted in the popular media and by other researchers, must question the effectiveness of design control processes. In a 2003 study, McIndoe [19] audited the effectiveness of two residential character area design guides that had been introduced into the Wellington District Plan. The report reviewed the resource consent process and monitored the architectural merit of the completed project. Following the review of 16 projects implemented over a three year period, the report concluded that the planning rules and associated design guidelines had been effective in achieving desired character outcomes. These results could have been predicted however, as the study investigated the two character areas with the most prescriptive design guides in the District Plan. The report went on to note a positive correlation between the involvement of an architect and a successful design outcome. Similarly, there appeared to be a strong correlation between the absence of a skilled professional and a poor design outcome. The findings of this report thus question the chance of achieving high or even passable outcomes in those projects that do not involve skilled professionals and that are being undertaken in areas with no design guidance.

A year later, Rae [20] reviewed completed projects in the central area of Wellington including the Courtenay and Cuba Character Areas in a similar, subjective review of 20 completed projects. The study concluded that the guidelines were not effective when used in conjunction with controlled activity status under the District Plan. Controlled activity status is where the proposed building or activity essentially cannot be refused, regardless of the aesthetic qualities of the built form. While the earlier study found pre-application consultation to be widespread and beneficial for project outcomes, the second study found early consultations to be ineffective for a variety of reasons. The architects Rae consulted noted that the advice given by Council officers in the early stages was inconsistent and conservative. He also found that when it was undertaken, consultation did not take place at a critical, site-specific analysis stage. Instead, he found, it only took place once preliminary design proposals and economic budgets had been formed. As a consequence, Council urban design input was unable to prompt significant changes, should they be necessary, to improve outcomes. Finally, the research suggested that the discipline specific approach to evaluating projects could have detrimental effect on projects when compared to assessment of proposals in a more holistic manner. Rae cited changes in project particulars to satisfy singular and conflicting advice from heritage, traffic, wind, and urban design advisers as having diminished the quality of design outcomes.

While interesting, both of these earlier studies relied on the expertise of the authors to evaluate the design outcomes. The evaluations appear to have been done in the absence of a design framework, instead relying on the expert opinions of each author. Neither study sought input from others, including from members of the public. This would please Scheer [16], who argues that design review should be the exclusive domain of experts trained in the visual arts. In particular, she advocates for the process of design review, if it is undertaken at all, to be fully entrusted to architects, the experts in this field. However, there is little evidence to suggest that such experts speak on behalf of the wider population. Indeed, the little research that has been done to compare the aesthetic preferences of lay people and professionals suggests that there are differences in the way each group evaluates the built environment [21,22]. The paper will go on to discuss the findings of a study that was aimed at understanding people's perceptions of urban streetscapes and the individual buildings of which they consist. The study findings are then discussed in relation to the regulatory planning context to firstly understand the extent to which design control leads to well-liked urban streetscapes in Wellington and then to consider areas where improvement could be made.

4. College Street Case Study

Late in 2013 a survey of people's visual perceptions of the buildings lining the two sides of College Street in Wellington was conducted. The survey was designed to understand people's preferences for the designs of individual buildings, for the relationships formed between adjacent buildings and for the overall streetscape. The study also sought to identify areas where the aesthetic preferences of members of the different professional groups involved in design review might differ from those of the lay public. College Street was selected for the study for a number of reasons. Primarily, it was seen as a typical urban street, with buildings built to the street edge and from side boundary to side boundary. As it is not a main thoroughfare for motorcars there would be little traffic to distract the attention of people as they made their evaluations of the buildings. As there had been a moderate number of redevelopment projects

undertaken over the past 20 years, College Street was also seen as a setting that had been influenced by the city's design control practices.

Survey participants were recruited through notices placed in cafes and other semi-public places throughout a small geographic area. Others were recruited through notices placed in the newsletters of local community groups, business organisations and city council departments. Recruitment sought to ensure participation from a range of demographic backgrounds, including age and occupation. All participants were offered a pre-paid hot drink of their choice when they returned their survey form to one of the local cafes that had agreed to collect these. These efforts led to 75 responses being received.

Initial analysis of the survey data brought forward several streetscape circumstances for further discussion with the participants. Discussion of these issues took place in two focus groups, one comprising trained professionals working in the fields of planning, architecture and urban design and the other only made up of un-trained lay members of the public. The rationale for convening separate groups was to allow the discussions to run more freely, unhampered by a need to consider the views of the other group. The College Street case study is part of a larger research project design to identify characteristics in the design of individual buildings and their relationships with others that are valued by the public as well as those that are not. If those that are highly valued can be encouraged through design review and those that diminish aesthetic experience can be avoided then the chance that design control can have a positive effect on the visual qualities of Wellington would be improved.

Preferences for two individual buildings stood out. The first (Figure 1) can be seen to typify the changing context of this part of the city in that it is a building converted from its earlier light industrial use to one that is primarily residential. However, contrary to several other recent developments, it is of a reasonably small scale. The second most liked building is one that accommodates a well-known food market (Figure 2). With the business having been established in the area for more than 20 years, the building has recently been renewed and expanded. The key reasons given by survey respondents for their preferences for these two buildings were the façade details and their overall shapes. Through the focus groups it came to light that these characteristics help both buildings create a positive relationship with the street space and that fenestration helps people relate to the activities taking place inside. The two focus groups were in agreement that these qualities enabled people to forge positive associational meanings for the two buildings.

Figure 1. Residential building in College Street. This building has the highest preference rating among the public.

Figure 2. Detail from the street facade of the building of a prominent food retailer, the second best liked building in the street.

Although several buildings, like the two discussed above, were perceived positively, nearly half the buildings along the street were not liked by the public. The two most disliked buildings were a small, dark coloured structure between the two found to have the greatest appeal (Figure 3) and a multi-storey commercial building at the eastern end of the street (Figure 4). Both were considered impersonal buildings. In the case of the smaller structure, the mirrored glass and dark colour together helped generate these feelings for people. The larger building is large in relation to the street width, has very flat surfaces and finishes and at street level does not forge a relationship with the street because of its blank walls and driveway. Participants in the focus groups identified all these as reasons for the negative evaluation. Both buildings predate the current design control processes and were realised in a planning context where regulation of floor area ratio was the principal method of design regulation.

Figure 3. The least liked building in College Street was also judged by survey participants to form a positive relationship with the building to the left.

Figure 4. This large commercial building dating to the 1980s is the second least liked building in College Street.

There appear to be several positive relationships between adjoining buildings along College Street. The relationship between two buildings at the western end of the street (Figure 5) was established decades ago, when warehousing and light industrial activities were dominant. Known in the survey as buildings A & B, this harmonious relationship is enhanced not only by similarities in height but also by similarities in colour and design expression. As can be seen, the fenestration patterns, façade detailing and alignment between floor levels help create links between the two sites. Not far behind in this preference category is the well-liked relationship between the food market and the least liked building in College Street. This is an interesting result as the two are at opposite ends of the spectrum of public preference. Factors that made this relationship more likable include similarity in building heights, colour and rhythm of façade articulations. These links help overcome differences created by the design approaches taken by the respective designers.

Figure 5. The relationship between these two buildings is seamless and was well-liked by the survey respondents.

The least liked inter-building relationship is considered to be representative of the tensions that arise as the built environment changes to accommodate the growing popularity of an area. One half of this relationship is a large apartment building constructed in 2005, figuratively "riding the wave" of popularity of living close to the city centre. The project amalgamated several titles and was built to 4 m above the allowable height limit for the zone, which was 27 m. This building was built alongside a single storey, vividly coloured metal workshop with the resultant relationship judged to be very poor by the survey respondents (Figures 6 and 7). Discussions within the professional focus group suggested this poor relationship could be more the perceived "intrusion" of the smaller building, despite it having been there first. In terms of all respondents, the poor relationship was mainly attributed to differences in height and, to a lesser degree, differences in cladding materials. The professional focus group considered that the workshop activity is no longer appropriate for College Street, whereas the lay group felt the opposite.

Figure 6. This building for a metal recycling business is typical of the older buildings in College Street. The new apartment building to its left creates a poor relationship between the two.

Figure 7. The Trinity Apartments building, in the middle, establishes a poorly regarded relationship with its neighbours. The public also dislike the large blank side wall and the private balconies projecting beyond the site and into the public street space.

The final scale at which perceptions of the College Street environment were examined was across all buildings, in other words the *streetscape*. Respondents were asked to evaluate the collections of buildings along each side according to relationships between building heights, the three dimensional alignment between facades and the surface designs of these. Definition of these three levels or scales is based on environmental psychology literature [23,24]. The research findings suggest that, while some variation in height along a streetscape can be attractive, people are generally dissatisfied with significant variations within a single street. The southern side of College Street exhibits greater variation and was rated more poorly than the north. Respondents to the survey and participants of both focus groups were united in this opinion. Variations in height were given as evidence of poor relationships between buildings and disruptive of aesthetic coherence. While the southern side of the street has undergone more extensive redevelopment than the northern side during the past 20 years, it is perceived negatively at each of the three spatial scales.

As noted, the study was designed to enable comparisons between the aesthetic preferences of those who are directly involved in design review and the lay public, whose views are rarely, if ever, represented. It appears that the opinions of building designers and planners align with the lay public in several areas examined by the survey, with agreement for all but one of the six questions on streetscape. That is, both groups liked or disliked a particular streetscape characteristic, based on a comparison of mean preference scores. Building designers and planners appeared to be marginally more extreme in their ratings, particularly where the mean score fell below neutral. For example, Table 2 shows this group rated the relationships of façade styles on both sides of College Street lower than lay people did, so in this sense they could be considered more critical. When considering the individual buildings and their façade designs similar patterns were observed. In addition to designers and planners being more critical about buildings that were disliked their scores were also generally higher when both groups liked a building or façade design. These patterns align with an earlier study [25] that found professionals were more extreme in their views about streetscapes than lay people. Reasons for this were thought to be training and familiarity, which meant professionals were more confident of their opinions and could express them more clearly.

Table 2. Comparison of mean scores for the streetscape characteristics, on 5-point scale.

Streetscape Characteristic	Change Professionals	Lay Public
South side	–	–
Building Heights	2.95	2.77
Facade Alignment	2.42	2.63
Façade Styles	2.47	2.79
North side	–	–
Building Heights	3.16	3.53
Facade Alignment	2.79	3.31
Facade Styles	2.32	2.84

There were however, two areas where there were differences of opinion between these groups. Firstly, the lay public, unlike designers and planners, appeared to like the older, light industrial buildings in College Street, and this was true for every building belonging to the light industrial typology lay. One interpretation of this, supported by the focus group discussion, is that the designer group sees the street

character as emergent and considers the older, industrial buildings to be unwanted remnants and possible barriers to further development of the new street character. Secondly, the same group were both more positive about sharp differences in height along the southern side of the street and less positive about the settled pattern of building heights on the northern side. This finding was also supported by the focus group discussion with the possible reasons given for this being a higher wish for variety amongst those directly involved in urban transformation.

Discussions about the merits of the large apartment building seen in Figure 7 deserve special mention, as its design raised several concerns with the public. Those trained in design and planning were somewhat ambivalent about it but the survey responses suggest that the lay public liked the design. Despite this, members of the layperson's focus group gave several reasons for disliking the building. The key issues were its overall height, the poor relationships formed with the buildings on each side, the large blank side walls, the projecting private balconies over what was felt to be public space (the pavement), and the large areas of glass in the street façade. Interestingly, while people consider fenestration an important contributor to the design, it was generally agreed that the areas of glass are too large for the residential activity in this setting. People were both empathetic to the way glazing can restrict privacy for the buildings' residents as well as cause overheating. While they could appreciate the need for residents to address both concerns by drawing blinds during the day, people also thought the designers could have done more to avoid this.

5. Discussion

Building height came out as an important factor influencing people's perceptions of urban streetscapes. The surveys went some way toward identifying this and it was further established during the two focus groups. Where height had a negative influence it was either because this led to an overbearing presence in the street, essentially creating a sense of claustrophobia amongst the respondents, or because excessive variations in height meant large, blank side walls were easily seen. Pronounced differences in height, usually created by the more recent intervention, were considered to be visually awkward and gave an impression of overdevelopment.

More than any other characteristic, height leads to tensions in development and change processes. Height tends to be controlled by area-wide prescriptions. In the urban context, height is where the landowner stands to improve profitability of a redevelopment project. The Wellington design guides do not stress the importance of height relationships between buildings or height in relation to street dimensions. Accordingly new development is prone to push to the limit, and many projects push through it by putting forward an argument that the additional effects of the extra height are minimal. Nevertheless, height differences, such as those that emerge between the building seen in Figure 7 and its neighbours, appear to be recognised by people moving along the street.

The regulatory planning regime of Bergen, Norway is an example of how building height could be addressed in the design review process to limit, if not altogether avoid, potentially negative visual outcomes. The Bergen *Regulerings Plan* [26] allows for site-specific height controls. Allowable heights are set out in the plan and the current prevailing maximum is 27 m. However, there is also an overarching requirement for new buildings to fit closely with the context and this enables the regulators to limit the height of new buildings to no more than 3 storeys above the neighbouring structure, irrespective of the

stated maximum. Another restriction limiting height is the requirement for façades to have a relationship with the street width of no more than 1.1 to 1. Clearly the emphasis is on the public space surrounding the site rather than giving maximum development potential. While the vision of the plan is a denser, more compact city, the approach seeks to maintain existing building scale relationships while encouraging incremental change.

Wellington has established blanket allowances for building height, varying from 27 m in Te Aro to 65 m in the central area. The only additional factor influencing height appears to be the effect the proposed structure would have on wind patterns at street level. In most circumstances these can be mitigated by the addition of design features, such as sidewalk canopies, that interrupt the flow of wind down to street level. The regulatory context in Wellington does not enable building heights to be controlled in relation to adjoining building heights if they are at or below the blanket height restrictions. And yet, differences in height between adjoining buildings was found to be a factor leading to streetscapes that people dislike. It seems that streetscape outcomes could be enhanced if blanket height controls were to be moderated through consideration of how the proposed heights of new buildings relate to those of adjoining buildings such as is currently done in Bergen.

Visual interest in façade composition appears to be a key success factor. Where the street façade was flat and visually uninteresting, the public tended to judge the building poorly. The survey responses revealed strong correlations between people's preferences for the façade design and their preference for the building overall. The design review process appears to be effective in fostering interesting façade treatments in new buildings. The food market building redevelopment was a good example of this. Uninfluenced by design guidance, most warehouse buildings incorporate flat, utilitarian façade treatment as the emphasis is on a cost efficient enclosure of space. While the food market building in College Street fits with the warehouse typology, the new parts of the building that face onto the street incorporate surface treatments, fenestration and detailing that help generate visual interest. The public responded positively to this, making the street level façade design the best liked of all and ranking it overall the second best liked building in the street.

When it comes to building height new developments that are markedly higher than their neighbours mean the side walls become clearly visible from the street. Side walls are often kept blank for practical, economic and fire protection reasons. While the design guides in the Wellington District Plan seek to avoid uninteresting boundary walls, the recommendations tend to focus on surface treatment and small scale surface modelling. Fundamentally, these remain blank because of a lack of fenestration. It seems that design review has been unable to limit creation of new, visually uninteresting side walls in College Street. This may in part be attributable to a general acceptance by designers and planners that visual interest can be generated in these through application of surface patterns or textures. The public were not willing to accept such treatments as appropriate and expressed their disdain for these additions to College Street through the focus group.

Encroachment into public space by private development was considered to be negative in spatial terms as well as generate negative meanings about the building. The layperson's focus group was particularly concerned about the way the balconies of the large apartment building had been allowed to encroach into public space over the street (Figure 7). When it was pointed out that other buildings, such as the one judged to be favourite amongst all of those in College Street, also had balcony projections into public space, their views did not change. The difference, according to the discussion, was in the

number and extent of the encroachments. On the other hand, the professionals' focus group did not view these balcony extensions negatively. The design guide is supportive of the contribution that balconies and other façade articulation can make to design outcome but does not specifically address the matter of where they should be located in relation to the boundary. Encroachments are an opportunity for landowners to locate parts of their development on public land if there are reasons why they cannot be fully contained within their site or to accommodate some form of public amenity provided by the landowner, such as the sidewalk canopy. Approval of encroachments is dealt with outside the statutory planning process. Interestingly, where a design outcome relies on articulations extending across into public space there is always a risk the design detail would not be allowed by the encroachment evaluation process.

The literature reminds that people attach meanings to buildings and other parts of the built and natural environment when forming an aesthetic response. This fact has been confirmed, particularly through the focus group discussions where participants provided examples of positive and negative associational meanings when discussing their building preferences. Controlling or guiding design for the meanings people will attach to new developments could however, be problematic, given that meanings are personal, linking to a person's experience as well as to wider cultural or social constructs. Meanings also attach over time and can change over time. While links between certain design attributes and the meanings people relate to them are well known, the design control literature is largely silent on this issue. It may be appropriate then to undertake further research to enable better understanding of how, if at all, design control could be improved by accounting for this dimension of environmental aesthetics.

6. Conclusions

This article has discussed regulatory design control from the perspective of public opinion. After establishing the relevance of the appearance of the public realm to the lives of individuals and to society, the paper proceeded to discuss how local government controls the design of new development proposals. Although design control has a long history, only in the past half century has its use become widespread. Design control is not unproblematic and several of the tensions that arise have been identified, particularly tensions around freedom of expression and whose opinions are best to guide decisions about aesthetics.

The question as to whether design control is an effective means by which to ensure well-liked urban streetscapes, has become a research issue. The two earlier studies, both of limited scope, that were conducted in Wellington and that were discussed here did attempt to address this question. However, a significant shortcoming of both is that neither engaged with the public. The research reported in this article did consult with the public in an effort to gauge their opinions on the design quality of individual buildings, of relationships between building and of entire collections or streetscapes. Key factors affecting environmental aesthetic judgment include building height, visual interest and façade composition, the extent to which parts of a development encroach into public space and the meanings people associate with buildings and their details. Addressing the matter of height, it was noted that height is usually prescribed over wide areas with little regard for how this might affect individual relationships between buildings. Land value is clearly tied up with its development potential and allowable height is one of the key factors affecting value. Planning in the city of Bergen, Norway was cited to provide an

alternative means for controlling building height. Finally, it was suggested that new research is necessary to understand how associational meanings might be referenced in design control processes.

Author Contributions

The research and writing of the paper have been substantially carried out by Morten Gjerde. The research reported in the paper is part of a larger project being conducted by Morten Gjerde as part of his PhD in urban design. Professor Brenda Vale is supervising the research and contributed directly to the Introduction section of the paper.

Conflicts of Interest

The authors declare no conflict of interest.

References

1. Punter, J. From the ill-mannered to the iconic: Design regulation in central Sydney 1947–2002. *Town Plan. Rev.* **2004**, *75*, 405–445.
2. Bentley, I. *Urban Transformations: Power, People and Urban Design*; Routledge: London, UK, 1999; p. 298.
3. Dawson, L. Architecture in the land of the long white cloud suffers from suburban creep and a lack of identity. *Archit. Rev.* **2010**, *227*, 33.
4. Pevsner, N. New Zealand. *Archit. Rev.* **1959**, *126*, 205–206.
5. Pevsner, N.; Games, S. *Pevsner: The Complete Broadcast Talks: Architecture and Art on Radio and Television, 1945–1977*; Ashgate Publishing Company: Burlington, VT, USA, 2014.
6. Madanipour, A. *Design of Urban Space: An Inquiry into a Socio-Spatial Process*; John Wiley & Sons: Chichester, UK, 1996.
7. Carmona, M.; Magalhaes, C.D.; Edwards, M. Stakeholder views on value and urban design. *J. Urban Des.* **2002**, *7*, 145–169.
8. Cuthbert, A.R. *The Form of Cities, Political Economy and Urban Design*; Blackwell Publishing: Oxford, UK, 2006; p. 290.
9. Wellington City Council. *Wellington District Plan Chapter 12: Central Area*; Wellington City Council: Wellington, New Zealand, 2013; pp. 1–64.
10. Wellington City Council. *Central Area Urban Design Guide*; Wellington City Council: Wellington, New Zealand, 2012; pp. 1–25.
11. Carmona, M.; Heath, T.; Oc, T.; Tiesdell, S. *Public Places Urban Spaces*; Architectural Press/Elsevier: Oxford, UK, 2010; p. 368.
12. Delafons, J. Democracy and Design. In *Design Review: Challenging Urban Aesthetic Control*; Scheer, B.C., Preiser, W.F.E., Eds.; Chapman & Hall: New York, NY, USA, 1994; pp. 13–19.
13. Ellin, N. *Integral Urbanism*; Routledge: New York, NY, USA, 2006; p. 173.
14. Punter, J. Developing urban design as public policy: Best practice principles for design review and development management. *J. Urban Des.* **2007**, *12*, 167–202.
15. Nasar, J.; Grannis, P. Design review reviewed. *J. Am. Plan. Assoc.* **1999**, *65*, 424–433.

16. Scheer, B.C. Introduction: The Debate on Design Review. In *Design Review: Challenging Urban Aesthetic Control*; Scheer, B.C., Preiser, W.F.E., Eds.; Chapman & Hall: New York, NY, USA, 1994; pp. 1–10.

17. Lai, R.T. Can the Process of Architectural Design Review Withstand Constitutional Scrutiny? In *Design Review: Challenging Urban Aesthetic Control*; Scheer, B.C., Preiser, W.F.E., Eds.; Chapman & Hall: New York, NY, USA, 1994; pp. 31–41.

18. George, R.V.; Campbell, M.C. Balancing different interests in aesthetic controls. *J. Plan. Educ. Res.* **2000**, *20*, 163–175.

19. McIndoe, G. *Mt. Victoria and Thorndon Residential Character Implementation Audit*; Wellington City Council: Wellington, New Zealand, 2003; p. 20.

20. Higgins, M. Urban design and the planning system in Aotearoa-New Zealand: Disjuncture or convergence? *Urban Des. Int.* **2010**, *15*, 1–21.

21. Groat, L.N. Carbuncles, Columns and Pyramids: Lay and Expert Evaluations of Contextual Design Strategies. In *Design Review: Challenging Urban Aesthetic Control*; Scheer, B.C., Preiser, W.F.E., Eds.; Chapman & Hall: New York, NY, USA, 1994; pp. 156–164.

22. Stamps, A.E. Demographic effects in environmental aesthetics: A meta-analysis. *J. Plan. Lit.* **1999**, *14*, 155–175.

23. Stamps, A.E. *Psychology and the Aesthetics of the Built Environment*; Kluwer Academic Publishers Group: Dordrecht, The Netherlands, 2000; p. 320.

24. Nasar, J.L. *Environmental Aesthetics: Theory, Research, and Applications*; Nasar, J.L., Ed.; Cambridge University Press: Cambridge, UK, 1988; p. 529.

25. Gjerde, M. Visual evaluation of urban streetscapes: How do public preferences reconcile with those held by experts. *Urban Des. Int.* **2011**, *16*, 153–161.

26. Bergen Kommune. *Kommunedelplan Sentrum*; Bergen Kommune: Bergen, Norway, 2002; p. 63. (In Norwegian)