

The impacts of mandatory design competitions on urban design quality in Sydney, Australia

By Gethin Davison, Robert Freestone, Richard Hu and Sarah Baker

Manuscript accepted for publication in the Journal of Urban Design – May 2017

Abstract

The pursuit of high-quality urban design through the planning process is made challenging by two key problematics. First, control over the decisions that produce or alter the built environment is differentially distributed across numerous public and private agents. Second, there is little agreement about what ‘good’ urban design is, and how it is best pursued. Recognising this, the focus in this paper is on how these two problematics are being tackled through a unique design control initiative in Sydney, Australia. This initiative requires that all major property developments are subject to a design competition before they can be approved. The paper reports the findings of 41 stakeholder interviews and appraisals of the 25 projects completed under these provisions. These findings indicate that mandated design competitions have helped force a general raising of urban design quality by re-distributing decision-making control and enabling a broad but non-prescriptive approach to the regulation of design excellence.

Introduction

Urban design has steadily moved up the policy agenda in recent decades (Punter 2007a, 2010), and there has consequently been growing interest in the ability of the state to pursue improvements in urban design quality through the planning process (Barnett 1974; Punter and Carmona 1997; Parfect and Power, 1997; Punter 1999; Punter 2007a; White, 2015, Carmona 2016a). A diverse suite of tools exists for state intervention in the means and processes of designing the built environment: from formal design control to practice guides and advocacy campaigns (Carmona 2016b). There remain two key challenges for the state in pursuing high-quality urban design through the planning process, however. The first is the ‘distributed’ nature of decision-making (George 1997: 151): control over the decisions that produce or alter the built environment is distributed across numerous private and public agents, limiting the extent to which state intervention can singularly influence decision-making and outcomes. The second is an absence of agreement about what ‘good’ urban design is, and how it is best pursued (Punter and Carmona, 1997; Tiesdell and Adams, 2011; Carmona 2016a).

The focus in this paper is on how these two challenges are being tackled through a unique design control initiative in Sydney, Australia. Developed by the City of Sydney and known as the Competitive Design Policy (CDP), this initiative is the centrepiece of the City’s commitment to “Design Excellence”. It requires that major developments in Sydney’s Central Business District (CBD) be subject to a design competition before they can be granted planning approval. This effectively means that no major public or private project can be granted approval until a minimum of three different designs have been proposed for it, and a jury has decided which is best. Introduced in 2000, the CDP represents an attempt by the City to improve the design quality of property development by shaping the means through which design services can be procured; the latter being an aspect of the design process that planning authorities can seldom influence, despite it being a crucial determinant of quality (Punter 2011).

Design competitions in architecture and urban design are nothing new (Spreiregen, 1979), and a substantial case-study literature exists on their varying procedures (Rönn and Zettersten 2012; Andersson et al. 2013, 2014; Chupin et al. 2015). Generally, competitions will be of a format that is open to all entrants, or limited to certain types of entrants (e.g. registered architects), or to invited entrants only (Lehrer 2011). Whether aimed at generating a design concept or implementable design (Alexander and Witzling, 1990), they can be a way of improving design quality, encouraging experimentation, uncovering new talent, educating members of the public about design, and generating increased profile for developments (Spreingen 1979; Ollswang 1990; Seidel 1990; Chupin 2011; Lehrer 2011; Kazemian and Rönn, 2009; Picken 2013; White 2014; Van Alen Institute 2015). The most common criticisms of design competitions are that they tend to be costly to administer and compete in, may result in outcomes that reflect the preferences of jurors rather than clients or users, and can be derailed by political intervention (Banerjee and Loukaitou-Sideris, 1990; Seidel, 1990; Nasar 1999; Sagalyn 2006).

The purpose of this paper is to analyse the effectiveness of mandated design competitions in raising the urban design quality of large-scale property development in Sydney's CBD. In no other city are competitions mandated through statutory planning processes, nor for public *and* private developments. With an estimated AUD\$3.3 billion of development now completed under its provisions, the CDP thus represents a unique experiment in the use of mandated design competitions as a design control tool. Three sources of triangulated data were collected to enable analysis of the CDP's impacts on urban design quality: descriptive data was gathered on the quantitative and qualitative characteristics of all projects subject to its provisions between 2000 and 2015; appraisals were undertaken of urban design outcomes in the 25 projects completed to date; and semi-structured interviews were conducted with 41 key stakeholders. The paper first reviews existing literature on the challenges of pursuing high-quality urban design through the planning process, before providing further information about this research approach. The design and operation of the CDP, and its overall effects on urban design quality, are then discussed. Next, an account is provided of interviewee perspectives on the benefits and detriments of design competitions as a tool for achieving high-quality urban design. The paper concludes by highlighting the ways in which mandated design competitions have helped the City of Sydney address the two design control challenges identified above.

State intervention in urban design, and its challenges

Urban design intervention has increasingly been embraced by state authorities in recent decades as a means of attracting economic investment and helping cities gain competitive advantage (Gospodini 2002; Punter 2007a; Turok 2009; Knox 2011). Gospodini (2002) refers to this as the 'new role' of urban design: she argues that rather than the quality of the built environment being an outcome of economic development as it has been in the past, today it is a pre-requisite for it. The focus of much state intervention in urban design has been on the delivery of major projects to attract investment and improve place-image: new convention centres (Hubbard 1996; Smyth 2005), cultural institutions (Gomez 1998; Prytherch, and Huntoon, 2005), financial districts (Gospodini 2006), regeneration schemes (McGuirk et al. 1996; Swyngedouw et al. 2002; Dovey 2005; Punter 2007b; Carmona 2009), 'starchitecture' (Klingmann 2007; McNeill 2009; Knox 2011), and broader public realm strategies (Hubbard 1996; MacLeod 2002; Wansborough and Mageen, 2000; Biddulph 2011; Rofe and Stein 2011). In parallel with their involvement in these sorts of projects, however, many state authorities have also shown

increased willingness to pursue improvements in urban design quality through their design control functions (Punter and Carmona 1997; Punter 1999; Punter 2006a; Carmona 2016b).

Design control refers to a range of activities through which the permission to proceed with a development may be granted or refused by state authorities (Carmona 2016b). The interest in this paper is in the ability of authorities to exercise influence over design quality through the planning approval process. This is an inherently problematic activity for two reasons. First, although planning officers and politicians have the final say about whether approval for a proposed development should be granted, control in the design process is differentially distributed across numerous public and private agents (George 1997): developers, investors, architects, highway engineers and utility providers will also exercise varying degrees of control over decision-making. As illustrated by Bentley (2004), the various actors in the design and development process all operate with particular resources and constraints: each has a limited degree of autonomy, or ‘opportunity space’ (Tiesdell and Adams, 2011), to pursue their objectives. The opportunity space of planning officers, for example, is affected by factors relating to site, market and politics: it is likely to be constrained where sites are problematic, markets weak, and where political imperatives exist for minimal state intervention in markets. The degree to which the various agents in a design process will share an agenda is limited, and the most powerful agent will frequently be the developer (Punter and Carmona, 1997; Carmona, 2009). The latter is likely to be especially true in countries such as Australia, where market initiative is generally privileged in line with neo-liberal political ideology (Gleeson and Low, 2000; Peck and Tickell 2002; Sager 2011).

The second design control problematic is to do with a lack of agreement about what constitutes “good” urban design, and how it is best pursued. For while there have been numerous attempts to identify desirable urban design qualities (see Carmona et al. 2010) and identify criteria for urban design appraisal (Rowley 1998; Punter and Carmona 1997; DETR, 2000; CABE, 2006; Gehl, 2013; Ewing and Clemente, 2013), urban design quality remains an inherently problematic concept because it is so specific to context and time, and will mean different things to different people (Carmona 2016a). Whilst acknowledging this and stressing the limitations of any single conceptualisation of urban design quality, Carmona (2016a) highlights a range of concerns that must be considered: from aesthetics, functionality and ecological sustainability, to contextuality and user perception, and the process through which an intervention came about. Compounding the difficulties involved in conceptualising urban design quality, however, there is little agreement about how “good” design, however defined, is best pursued through control processes. Of particular relevance to this paper are the objections of architects to being overruled on design considerations by planners with little design training, and the complaint that over-prescriptive design control, by limiting creativity, leads to mediocre outcomes (Scheer 1994; Parfect and Power, 1997; Punter, 1999; Carmona 2016a).

Research approach

As a means of analysing the impacts of the CDP on urban design quality in Sydney’s CBD, three sources of triangulated data were collected between 2014 and 2016.¹

First, descriptive quantitative and qualitative data was gathered on a total of 66 design competitions undertaken in Sydney’s CBD between 2000 and 2015 under the CDP’s provisions. Digital records were

¹ The data collection formed part of a multi-year research project concerned with design governance in Sydney (Australian Research Council Discovery Project DP150104054, entitled ‘Designing Global Sydney: The negotiation of public and private interests’)

obtained from the City of Sydney that included information on: site address, developer, owner, dates of Development Application (DA) lodgement and determination, approval authority, responsible planning officers, competition jurors, competing architects, competition type, site area, floorspace, building height, land-use, capital value, and construction status. The information was patchy, however, and it was necessary for all data to be verified and for numerous gaps to be filled before analysis could be undertaken. In doing this, reference was made to planning documentation on the public record and in the City of Sydney’s internal records. For the latter, the City permitted a research team member to spend twelve days at their offices, searching through files associated with competitive design processes. As of mid-2016, twenty-six competitions had resulted in a built outcome. This included two competitions for elements of the same building, yielding a case-set of 25 completed projects. Information on the quantitative characteristics of these 25 projects is provided in Table 1.

Table 1: Quantitative characteristics of the case-set projects

	Minimum	Maximum	Mean	Median	Total
Site area (m ²)	305	11,378	3,452	2,516	86,307
Floor-space (m ²)	4,215	142,222	38,438	23,127	960,957
FSR	4.1	16.91	11.42	12.4	
Height (m)	25.11	169.5	101.9	110.1	
Capital value (\$AUD)	\$11,132,000	\$480,935,701	\$132,723,394	\$82,000,000	\$3,318,084,850

Whilst recognising that any appraisal of urban design “quality” is inherently problematic, the second strand of data collection involved assessing urban design outcomes in the case-set projects. A simple appraisal tool was developed for these purposes. This tool was informed both by the literature cited above in discussion of urban design quality, and by the measures of quality used locally (CoS, 2012; NSW Government, 2016). Rather than seeking to measure the quality of each project numerically, something that is highly problematic because of the need for assumptions to first be made about the relative significance of the various assessment criteria (Rowley 1998), the appraisal tool was designed to enable qualitative judgement of the impacts of each project, along a series of urban design considerations. Just as importantly, however, the appraisals would familiarise the research team with the range of projects completed under CDP provisions and identify potential case studies for further investigation through subsequent interviews. The appraisals were undertaken by two members of the research team, with the impacts of each project assessed against every consideration on the checklist (see Table 2 for a list of the matters considered and a summary of the results). These assessments were reviewed by the other two research team members and an external advisor.

Table 2: Appraisals of the case-set projects. This table provides a summary of the public realm impacts of each of the case-set projects, as assessed against a series of urban design considerations. Due to the large number of projects and assessment criteria, the latter have been grouped into three categories (functional / social considerations; visual / morphological considerations; and built heritage considerations) in order to enable comparison. For each of these categories, the overall impacts of each project have been assessed either: Positive (Green); Neutral (Yellow); Negative (Red); or Not applicable (n/a).

Project characteristics						Appraisal criteria		
Project ID	Site area (sq. m)	Year of approval	Capital value (adjusted)	Land-use	Competition type Invited competition / Design Alternatives process (Note: for certain early projects it was necessary to make assumptions about competition type based on the number of architects competing)	Functional / social considerations	Visual / Morphological considerations	Built Heritage considerations
						Publicly accessible open space; active ground floor uses; ground floor solid-void ratio; through-site pedestrian links; demarcation of public and private realms; Land-use mix; occupants; restrictions on entry; Imageability; cues to use; street activity; pedestrian comfort and convenience	External design and appearance of buildings; human scale; visual relationship with context; morphological relationship with context; Enclosure, definition of space; street furniture; landscaping; materials	Relationship to or treatment of pre-existing buildings and heritage items
ID6 Margaret	1694	2001	\$87.2m	Residential	Design alternatives	n/a	Positive	Neutral
ID9 Quay	2516	2001	\$53.1m	Residential	Design alternatives	Positive	Neutral	n/a
ID15 Pitt	4881	2001	\$96.6m	Hotel	Design alternatives	Positive	Neutral	n/a
ID4 George	3500	2002	\$179.2m	Residential / Office / Retail	Design alternatives	Positive	Neutral	n/a
ID10 Hickson	7105	2002	\$109.8m	Residential / Office	Design alternatives	Neutral	Positive	Positive
ID11 Ultimo	2409	2002/12	\$68.1m	Substation / Office	Design alternatives	Neutral	Neutral	n/a
ID2 Common	305	2002	\$15.7m	Residential / Retail	Invited competition	Positive	Positive	n/a
ID3 Kent	11024	2003	\$355.5m	Office / Retail	Invited competition	Neutral	Neutral	Neutral
ID5 George	4227	2004	\$453.9m	Residential / Office / Retail	Design alternatives	Positive	Positive	Positive
ID30 George	1726	2004	\$51.8m	Residential	Unknown	Neutral	Negative	Negative
ID34 Pitt	1147	2005	\$74.0m	Residential / Office / Retail	Invited competition	Neutral	Negative	Negative
ID25 George	1934	2005	\$122.1m	Residential / Office / Retail	Invited competition	Positive	Neutral	Neutral
ID28 George	1778	2005	\$86.1m	Office / Retail	Design alternatives	Neutral	Neutral	Neutral
ID29 George	4400	2005	\$265.2m	Office / Retail	Invited competition	Positive	Positive	Positive
ID41 Sussex	1499	2006	\$39.1m	Substation	Design alternatives	n/a	n/a	n/a
ID39 Liverpool	1354	2006	\$128.7m	Residential	Design alternatives	Positive	Positive	n/a
ID43 Shelley	5000	2007	\$103.4m	Office / Retail	Design alternatives	Neutral	Neutral	n/a
ID45 Market	11378	2007	\$592.9m	Office / Retail	Invited competition	Positive	Neutral	Neutral
ID51 Castle	4490	2007	\$255.5m	Office / Retail	Invited competition	Positive	Positive	Positive
ID103 College	1400	2007	\$88.8m	Residential / Retail	Invited competition	Positive	Positive	n/a
ID40 Bent	3328	2007	\$342.6m	Office / Retail	Invited competition	Positive	Positive	n/a
ID47 Campbell	1296	2008	\$80.4m	Residential / Office / Retail	Invited competition	Positive	Neutral	Negative
ID52 Chifley	1581	2009	\$186.3m	Commercial / Retail	Invited competition	Positive	Positive	n/a
ID56 Quay	3188	2011	\$118.1m	Residential / Retail	Design alternatives	Positive	Neutral	Positive
ID63 George	3147	2012	\$276.4m	Office / Retail	Design alternatives	Positive	Positive	n/a

Third, it was necessary to obtain a depth of understanding of the rationale for the introduction of the CDP, the workings of design competitions, the impacts of mandated design competitions on design quality, and the specifics of instructive case studies. Because of the complexity of these issues and the likelihood that varying experiences and perspectives would exist among stakeholders, qualitative interviews were the most appropriate method for this (Rubin and Rubin, 2005). In total, 41 people were interviewed. Interviewees were selected based on their experience with the design and/or operation of the CDP, and most were currently or had been in management positions connected to CBD development. Eighteen architects were interviewed, along with three City of Sydney officers, four current or former councillors, six developers, six private consultant planners, two academics and two representatives of non-government organisations. Interviews ran between 30 and 150 minutes and all were professionally transcribed. A single member of the research team was responsible for editing and coding all interview data.

In the remainder of the paper, the research findings are presented. First, information about the design and operation of the CDP is provided. Data from project appraisals and interviews are then used to assess the overall effects of the policy on urban design quality. Next, there is an account of interviewee perspectives on the benefits and detriments of design competitions as a tool for achieving high-quality design. The paper concludes by highlighting the ways in which the mandating of design competitions has helped the City of Sydney address the two design control challenges identified in its introduction.

The pursuit of Design Excellence in Sydney

Sydney's CBD is a narrow and geographically constrained area of land bounded to the west and north by the harbour and to the east by parklands. It has a haphazard morphology produced by the combined effects of topography, unplanned eighteenth century development, and post-war land amalgamation and

high-rise development. Many property boundaries today are irregularly shaped, streets are narrow and irregularly laid out, and levels of site coverage and enclosure are high (Figure 1). Following decades of design ‘agnosticism’, the legacy of which was a swathe of unsympathetic developments that damaged the city’s heritage, blocked views and overshadowed public spaces (Punter, 2004, 2005), urban design concerns were elevated by the City of Sydney from the 1990s. Alongside the introduction of design review processes and the development of more sophisticated design guidance, a key initiative was the introduction of mandatory design competitions for major public and private developments in 2000. The principal aim of this initiative was to improve the design quality of major property developments, not least by generating greater variety in the architecture firms designing CBD buildings. In the latter respect, it was hoped the policy would break the monopoly of a few firms that were perceived to no longer be innovating or improving their product.

Figure 1: Castlereagh Street, looking north from Park Street. Most streets in Sydney’s CBD are narrow (<20m), and levels of enclosure and site coverage are generally high.



The CDP provisions introduced in 2000 survive today, albeit with a broader scope and greater statutory force. The City of Sydney’s statutory plan, the Local Environmental Plan (LEP) 2012, requires all developments in Sydney CBD meeting or exceeding specified height (55m), site area (1,500m²) and capital value (AUS\$100,000,000) thresholds to be subject to a design competition. The granting of planning approval is contingent on those competitively designed developments being deemed by planning authorities to exhibit ‘design excellence’, as determined by the way they address the matters listed in Table 3. To compensate developers for the costs of undertaking design competitions, the City may award a bonus of up to a 10% increase in building height or Floor Space Ratio (FSR).

Table 3: In assessing whether a proposed development exhibits “design excellence”, the consent authority must have regard to the matters listed in Clause 6.21 (Subclause 4) of the LEP. These matters are listed in full in the table below.

City of Sydney Local Environmental Plan (LEP) Clause 6.21, Subclause 4

In considering whether development to which this clause applies exhibits design excellence, the consent authority must have regard to the following matters:

- (a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
- (b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,
- (c) whether the proposed development detrimentally impacts on view corridors,
- (d) how the proposed development addresses the following matters:
 - (i) the suitability of the land for development,
 - (ii) the existing and proposed uses and use mix,
 - (iii) any heritage issues and streetscape constraints,
 - (iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,
 - (v) the bulk, massing and modulation of buildings,
 - (vi) street frontage heights,
 - (vii) environmental impacts, such as sustainable design, overshadowing and solar access, visual and acoustic privacy, noise, wind and reflectivity,
 - (viii) the achievement of the principles of ecologically sustainable development,
 - (ix) pedestrian, cycle, vehicular and service access and circulation requirements, including the permeability of any pedestrian network,
 - (x) the impact on, and any proposed improvements to, the public domain,
 - (xi) the impact on any special character area,
 - (xii) achieving appropriate interfaces at ground level between the building and the public domain,
 - (xiii) excellence and integration of landscape design.

There are three types of design competitions identified in the CDP (CoS 2013): ‘open’ competitions, ‘invited’ competitions, and ‘the preparation of design alternatives on a competitive basis’ (known as ‘design alternatives’). The similarities and differences between these three competition types are summarised in Table 4. The key difference between ‘competitions’ and ‘design alternatives’ types is jury composition: although there is some blurring, juries for open and invited competitions are split between nominations from the planning authority and developer, while the design alternatives panels are developer-appointed and require no design expertise. It is the developer’s decision about which type of competitive design process their development will pass through.

Table 4: The characteristics of the different competitive process types

	Open Competition	Invited Competition	Design Alternatives
Invitation process	Public notification of an Expression of Interest	Developer invites competitors, with advice from the City of Sydney	
Number of participants	All respondents can participate; usually ends with shortlist of approximately five firms	Minimum 5 firms	Minimum 3 firms
Jury name	Jury		Selection panel
Number of jurors	Minimum 4; maximum 6		Not stipulated

Juror Appointment	Half nominated by planning authority, half by developer Only persons with design or construction expertise Majority to be registered architects	All Panel members appointed by developer; City of Sydney observer present
Shortlisting	Jury may suggest refinements to one or more schemes	Selection panel may request refinements to one or two schemes
Bonuses available	10% FSR or building height 50% reduction in Heritage Floor Space (HFS) requirement ²	10% FSR or building height
Timeframe	28 days	

Most competitive processes in the case-set involved a ‘staged’ DA process. Within this process, a ‘Stage 1’ DA is akin to a development control plan, essentially gaining in-principle support from the planning authority for the basic parameters and configuration of buildings and spaces. This Stage 1 approval informs the subsequent brief for the design competition, which is prepared by the developer but must be approved by the City. In a similar way, the selection of architects is the developer’s, but happens in consultation with the City. Once invited to participate, the competing architects have approximately six weeks to prepare their scheme, at which point they present to the jury. After the design competition is completed, a jury report is written and a more developed ‘Stage 2’ DA follows, with final planning approval for the project gained at this stage.

The impacts of mandated design competitions on urban design quality

Without exception, interviewees believed that the projects passing through the City of Sydney’s design competitions represented a significant improvement on the status quo prior to the introduction of the CDP, and that the mandating of design competitions had led to a ‘general raising of the standard’ in CBD development (Developer 4). Although some developer interviewees criticised competitions for increasing planning assessment times and costs, even they acknowledged their positive effects on design quality. So too did architects that were seen by other interviewees to have been part of the monopoly of large firms not innovating or improving their product in the 1990s. Most interviewees cautioned that competitions were not the best way of delivering design excellence in every circumstance, but all agreed that the CDP had helped ‘lift the average’ quality of development over time (Councillor 1).

This suggestion that the outcomes of design competitions are getting progressively better is borne out by an appraisal of the case-set projects. Taken as a whole, these projects deliver considerable public benefit: thirteen are dominated by active ground floor uses, thirteen provide through-site pedestrian connections and sixteen include publicly accessible open space without visible restrictions on access. Where projects adjoin other buildings, frontage setbacks are usually consistent with their surroundings. And in most of the numerous projects where pre-existing heritage-listed buildings are adjacent or incorporated, effort has been made to respond through design to the scale and composition of those buildings, especially through massing and floor heights. The more public parts of the case-set projects tend also to be those exhibiting the highest quality design: most notably, there is frequently a discernible difference in the external treatment of podium and tower, with the former tending to incorporate costlier materials, especially sandstone, and overall to be visually richer.

² The City of Sydney requires that certain developments accommodate prescribed levels of HFS (LEP Clause 6.11). Where developers opt for open or invited competition formats, they are eligible for a discount on the amount of HFS that must be allocated to their development.

When the outcomes are viewed comparatively (Table 2), it is apparent that levels of design quality are improving, as suggested by interviewees. The weakest design outcomes are in residential developments approved in 2005 or earlier and targeted at the lower end of the market, especially those located on irregularly shaped sites (Figure 2). In contrast, the strongest urban design outcomes are mostly in projects approved since 2006. Stand outs are two major commercial projects that deliver major public benefits in the form of high-quality publicly accessible open space and increased permeability (Figures 3 and 4). Two further projects are notable for their architecture, but have urban design outcomes that are less well resolved (Figures 5 and 6). Although admittedly an imperfect measure of the CDP's influence on design quality, data on industry awards supports the suggestion that the design quality of competitive projects is improving: 60% of the case-set projects have won industry awards, but this figure rises to 75% when only those approved since 2007 are considered.³

Interviewees attributed observed improvements in the quality of competitively designed projects to two factors. First, competition briefs and the management of the competitive design process by the City of Sydney had become more 'sophisticated' over time (Architects 3 & 4); the process was running more smoothly and predictably than in the past, with stronger direction and better outcomes. Competition briefs, especially, are increasingly rigorous, with model briefs now issued to proponents. Second, developers have become familiar with the competitive design process as an approval pathway, and increasingly they hire specialist planning consultants to guide them through it. Although varying by case, the role of planning consultants is generally to smooth the process by liaising with planning officers, jurors and competing architects on behalf of developers, and helping to write competition briefs and jury reports.

Figure 2: Two of the most underwhelming projects in our case set, both wrapped around corner heritage buildings on "L" shaped sites. Each provides demonstrable public benefits: one includes a through-site link, and both activate streets and provide pedestrian shelter. However, the quality of their materials and detailing is poor and both dominate and overwhelm surrounding low-rise buildings. In neither has any concerted effort been made to respond to context, except through street setbacks.



³ Awards surveyed: Australian Institute of Architects, Property Council of Australia, Urban Development Institute of Australia, Urban Taskforce, Housing Industry Association, Master Builders Association

Figure 3: 161-167 Castlereagh Street. Designed by FJMT (Australia) and approved in 2007, this project includes a 43 storey commercial tower, publicly accessible open space and a new through-site pedestrian connection. It also involved the adaptive re-use of a heritage building. The open space is enclosed, well-appointed and activated by several cafes and restaurants. It also provides public seating and art. There are no physical restrictions on access but we were asked not to take photos. The site is physically but not visually permeable because the through-site connection involves a significant level change and requires users to pass through the tower lobby. Photographs (clockwise from left): Tower viewed from the east; the street entry to the publicly accessible open space; view from the tower lobby entrance towards Castlereagh Street.



Figure 4: 190-200 George Street. Designed by FJMT (Australia) and approved in 2012, this is the most recently completed case set project and perhaps also the strongest in terms of its contribution to the public realm. It is a 37 storey commercial building that provides new publicly accessible open space and two pedestrian through-site connections. The project makes a distinctive and positive contribution to the city skyline, provides a strong street edge, greatly improves visual and physical permeability, and achieves strong activation on the ground floor. Photographs (clockwise from left): The tower viewed from the west; one of the through-site pedestrian connections; the interface of the tower with George St



Figure 5: 15-19 Bent Street. Designed by Architectus (Australia) and Ingenhoven (Germany) and approved in 2007, this project is a 29 storey commercial tower that includes two small areas of publicly accessible open space and a through-site pedestrian connection. Highly awarded for its architecture and environmental performance, the building is visually interesting and elegant in form. The two areas of publicly accessible open space are activated by cafes, but a considerable portion of the street frontage is blank façade. The slope of the site necessitates multi-level street frontages, with the level change managed through a staircase that wraps around the northern side of the building. Although this staircase affords sitting and offers views of neighbouring heritage buildings, it provides a weak street address for the project at the lower level.



Figure 6: 8-12 Chifley Square. Designed by Rogers Stirk Harbour and Partners (UK), and Lippmann (Australia), this project is a 35 storey commercial building that includes an area of publicly accessible open space in the building undercroft. It has won numerous industry awards for its architecture and environmental performance, but has been criticised locally for the exclusivity and sterility of the undercroft space. Although the undercroft space is publicly accessible and incorporates a café, public seating and an art installation, it is uninviting and does little to define or activate the street on any of its three public edges.



Contributors to improvements in design quality

When asked how mandated design competitions had helped improve the urban design quality of property developments in Sydney's CBD, interviewees identified four main ways in which they had been supportive of higher-quality outcomes.

First, the involvement of a greater number of designers, with varied perspectives and expertise, meant that any given design problem was more likely to be solved than it would be through direct hiring. In this respect, competitions were seen by some interviewees to provide insurance against under-performance by architects. As one architect-academic commented:

...seven times out of 10 I'll have the pitch perfect response. But three times I won't...On balance you think...if you've got three approaches in the room...one will rise to the top. (Academic 2)

Both interview commentary and data on competition entrants and winners for the case-set projects indicate that a variety of architects are designing buildings under the CDP provisions, and that competitive processes are increasingly providing the opportunity for 'up-and-coming' architects (Consultant Planner 1) to attract their first big commission.⁴ This contrasts with what many interviewees described as a monopolistic situation in CBD architecture prior to the policy's introduction.

Second, the CDP provisions provide a mechanism through which the City's planning officers can positively influence the procurement of design services by private developers. The process of selecting architects for a design competition is a co-operative one, within which officers may propose architects for consideration:

usually the proponent will put forward a list of architects whom they would like to be amongst those invited to compete, and they'll...show those to council, and ask if the council has any other suggestions they might want to put to the proponent. So there's a kind of co-operative dialogue usually, but ultimately it's the proponent's choice. (Consultant Planner 1).

Although the City cannot specify which architects will be on the list, developer and planning consultant interviewees believed that considerable influence in architect selection is nevertheless wielded. They explained that the City's preferences were usually accommodated in an effort to increase the likelihood of a straightforward approval process:

[developers] see the advantage of being inclusive of council's objectives because it helps the relationship and their brand as a developer in the city. But also I think - again, [it] goes back to the objective certainty. Getting certainty of support from the council ...[the City] not being obstructionists. (Consultant Planner 2)

⁴ Sixty-three different firms participated in design competitions for the case-set projects, including numerous collaborative entries. Of the participating firms, 37 competed once, sixteen competed two or three times, eight competed four to six times, and two competed seven times. There were 24 one-time winners and three two-time winners. There were also three collaborative winning schemes, and one project where two winners were each awarded a portion of the project. Of the 27 firms that won, five were headquartered outside Australia.

Third, architect interviewees described how the competitive tension implanted in the design process created a situation in which they knew they must work harder for their commission and think more creatively in order to distinguish themselves from other competitors. As one competition-winning architect recounted, in a design competition:

you're out on your own, as a designer you have to choose a direction, you're usually in very hot company and you have to stand out and you also have to meet very demanding and rigorous briefs because you're assessed...across planning, urban design, financial, functional, technological, marketing and engineering and so on...the jury will get expert advice and you know you have to meet all these requirements to win it, you just know that you can't have a weak spot. (Architect 5)

Interviewees spoke of how this competitive tension and the 'exhilarating' (Council staff 3) experience of competing against peers challenged architects to 'up their game' (Architect 16), brought a 'freshness of approach' to their work (Architect 1), and led to design innovations that would not otherwise 'have seen the light of day' (Architect 5).

Fourth, competition-winning architects explained that the competitions and presence of juries gave them greater power to resist requests from developers to "dumb-down" design. As one architect put it:

... because [the competition is] ratified by the City of Sydney, [that] means that architects probably feel a little bit more comfortable or confident in pushing design, in recognition or acknowledging that the City of Sydney is probably going to support that. (Architect 14)

This "pushing" of design was enabled especially by the City's requirement that the winning architect must sign-off on final project designs before planning approval can be granted, and be retained through to completion of the building.

Detriments to design quality

The main criticisms of mandated design competitions from interviewees concerned their cost and effects in lengthening planning approval times. These are frequent criticisms of competitions (Spreiregen, 1979; Seidel 1990; Nasar, 1999), and design control generally (Scheer 1994), but they are about cost rather than design quality. Interviewees did, however, identify two ways in which the City's design competitions could also be detrimental to design quality.

First, in design competitions there tends to be less dialogue between developer and architect than there would normally be in a relationship established through direct hiring. This can lead to weaker design outcomes because architects are less familiar with client needs and preferences. As expressed by one frequent juror:

The problem with any competitive process is that the design team is at arm's length from the client and yet to get a good design outcome they need to work closely with the client to know what their drivers are, what their real ingrained understanding of the brief is, how malleable that is and how the team can move within that understanding... During the competition the architect

is in some ways working blind. They only have the written brief and have to make a range of assumptions based on that. (Architect 4)

Second, many interviewees criticised the lack of any direct public involvement in the City's design competitions for private buildings.⁵ It is noted that design competitions are inherently more democratic than direct hiring (Lehrer 2011), and that the involvement of members of the public in a competition does not necessarily lead to the generation of different ideas (Garde 2014), nor guarantee improved levels of public satisfaction with outcomes (Nasar 1999). Interviewees argued, however, that in addition to helping educate members of the public, public participation in competitions would prompt designers to think harder about the public interest. This point seems pertinent given the frequent mismatch between expert and lay design preferences (Nasar 1999). Interviewees from the City indicated that the absence of public participation in design competitions owed to concerns about the intellectual property of non-winning architects and the administrative burden it would place on staff. A further view expressed by other interviewees was that developers would be reluctant to see public participation in design competitions for fear that a jury decision could be contested by dissatisfied members of the public.

A further potential detriment to design quality, albeit not one raised by interviewees, is the damaging effect that the 10% bonus in FSR or height might have on the public realm: reduced sunlight, blocked views, traffic and so on. However, the distribution of additional FSR and height is something that is modelled by the City in advance of any design competition, and is factored into the controls established through the Stage 1 DA and competition brief for a site. In cases where modelling indicates that an increase of 10% height or floorspace would have damaging impacts on the matters in Table 3, the City may grant lesser incentives. Although less than 10% FSR or height had rarely been awarded in the case-set projects, the granting of incentives has not been controversial, and neither did any interviewee believe it necessarily resulted in lesser outcomes.

Design quality and competition format

There were mixed responses when interviewees were asked whether open and invited competitions delivered higher quality outcomes than 'design alternatives' processes. Some architects and jurors criticised design alternatives processes, claiming they were not 'genuine competitions' (Architect 12) because juror and architect selection remains so tightly controlled by developers, and because there is no requirement for design expertise on juries. Others believed, however, that the quality of outcomes had little to do with the formal format of the competitive process, and much more to do with the case-by-case selection of architects and jurors. Data from the project appraisals tends to support this latter view. Of the eight case-set projects rating the most highly overall, five were the products of invited competitions and three the products of design alternatives processes. Of the three projects receiving the poorest ratings overall, two were the products of invited competitions and the format of the other is unknown. What this indicates is that competition format was not an important determinant of urban design quality in the case-set.⁶

⁵ There is public participation for the City of Sydney's own projects

⁶ It should be noted that confirmation of competition type could not be confirmed for some of the earlier case-set projects due to the unavailability of data. In these cases, an assumption was made about competition type, based on the number of architects competing.

Design quality and developer commitment

In discussion of the circumstances that increased the likelihood that a design competition would generate high-quality design outcomes, many architect interviewees spoke of how the best design outcomes resulted from competitions undertaken with genuine ‘commitment’ (Architect 8) from the developer: rather than seeing the competition as simply another obstacle that must be overcome in order to gain planning approval, these developers positively embraced competitions as a mechanism for achieving better design outcomes. This meant that they engaged seriously in brief writing, provided resources for technical support for competitors, opted for invited competitions rather than design alternatives processes, actively identified and shortlisted the most appropriate architecture firms, including through study tours, and appointed the jurors with the expertise most relevant to their project, rather than those most likely to share their views. The developers exhibiting this sort of commitment were those who saw themselves as having a reputation for quality and for whom development projects represented long-term investments. As expressed by one such developer who managed the competitive process for two stand-out projects in the case-set:

... we've got a ... reputation to try and uphold and very much a part of that is our brand is known for quality...For a lot of developers, I'm sure [the competitive process] is a painful process and it's a process that adds time and money but [for us]...a competitive process where you're having to look at multiple design solutions for a site, is only a good thing. (Developer 6)

Most interviewees believed that in the period of its operation the CDP had helped raise awareness among developers of the commercial benefits of high-quality design. Even the developers most renowned for cutting corners on design were said to be increasingly accepting of competitions. As a planning consultant with experience guiding several developers through the competitive process explained:

‘Developers who have been through the process, a lot of them, at the end of it, whilst it's been something that they've resisted perhaps initially if they've not done it before, at the end ...I think they've all acknowledged that they'd got a better outcome than if they'd just gone to one architect...the developers are now recognising that if they've got a really well-designed building, and if it's got a name attached to it ...it rents for more. (Consultant planner 1)

Not all developer interviewees held this view, but the majority did. And given that the attitudes and values of a developer are key in attaining design quality (Punter, 2011), perhaps the most important lasting influence of the CDP on design quality will be its effects in forcibly exposing developers to the commercial benefits of high quality design; what Punter (2007a) calls the ‘design dividend’.

Design competitions as design control: Learnings from Sydney

This research indicates that the mandating of design competitions has helped improve the urban design quality of major property developments in Sydney CBD, and that these outcomes are getting progressively better with time. There are two other City of Sydney initiatives that are supportive of the CDP, and have contributed to those improvements: the establishment of a design review panel in 2007; and the development of more sophisticated design guidance to support planning assessment in 2012. These two are established tools whose advantages and disadvantages have been discussed elsewhere

(Scheer 1994; Punter 2003; Punter 2007a; Dawson and Higgins 2009; Carmona et al. 2010; Punter 2011; Carmona 2016b). Whilst recognising their contribution, the final section of this paper focuses on the value that mandated design competitions, specifically, have added as a design control tool. Of particular interest are the ways in which competitions have helped address the two design control challenges identified in the paper's introduction: the distributed nature of urban design decision-making; and the absence of agreement about what constitutes "good" urban design, and how best to pursue it.

Re-distributing decision-making control

There are five main ways in which the mandating of design competitions enables planning officers to influence aspects of the design process that other design control tools cannot, thus enlarging their opportunity space and providing greater opportunity for the City of Sydney's objectives to be pursued. In the process, some decision-making control is relinquished by developers and the opportunity space for design is enlarged.

First, the involvement of the City in the development of the competition brief allows them to establish design expectations early, and before developers are financially committed to any particular design. Officers issue a model brief to developers at the outset, there is dialogue between them, and the brief cannot be finalised until it has officer approval. Because of the limited communication between designers and developers during a design competition, the latter will usually want the brief to be tightly defined (Alexander and Witzling, 1990). And the designers will be working specifically to address that brief, knowing that jurors will assess them against it. For a planning authority, the ability to influence the brief is thus a major advantage – and something that is not possible to the same extent where designers are hired directly by developers. Second, the CDP allows the City's officers to influence decisions made by developers about who is invited to design a project. This is something that planning authorities do not normally have any influence over, despite its fundamental implications for quality (Punter 2011). Furthermore, where a competition jury includes one or more City nominees, these jurors are directly involved in decisions about which design firm is hired. Third, the competitive tension the CDP implants in the design process affects the way that designers work: architect interviewees described how competitions compelled them to work harder and more creatively to distinguish themselves from other competitors. Fourth, competitions enlarge the opportunity space for design by giving architects greater confidence to resist requests from developers to "dumb-down" their designs. Finally, the CDP offers a means of forcibly exposing developers to the economic benefits of higher-quality urban design: where a competition entry offers a developer a design dividend, this is likely to influence their subsequent decisions about design in a way that no amount of research evidence or advocacy ever could.

Put simply, the mandating of design competitions redistributes control over several aspects of urban design decision-making that have fundamental implications for design quality. Most notably from a design control perspective, it gives the City greater control both over decisions about design procurement, and the ways in which design outcomes are shaped. That re-distribution of control has been achieved in a co-operative rather than combative manner, through incentives rather than disincentives, thus responding to Carmona's (2016b) call for the governance of design quality to be more inclusive and based on the constructive engagement of all parties.

The pursuit of high-quality design

As a design control tool, the CDP's mandated design competitions have also helped the City of Sydney address the challenges involved in defining 'good' urban design, and pursuing it effectively through planning approval processes. The framing of the policy, and the use of the concept of 'design excellence', enables juries and planning officers to seek the incorporation of a wide range of public benefits through the process; in theory anything fitting under the headings in Table 3 can become a pre-requisite for achieving excellence, with the design priorities for a project being determined through expert judgement on a case-by-case basis. Having this series of matters for consideration indicates to competition entrants what the key contributors to design excellence are, without prescribing acceptable outcomes. It also forces a focus on design performance, and enables several different approaches to the achievement of high-quality design to be explored for any given site. Compared with 'negative' forms of development controls regulating what is unacceptable for a site, the framing of planning provisions in this way, and the competition format generally, is aspirational and challenges designers to produce the best outcomes possible – knowing that other competitors will be doing the same. The CDP also enables competitors to break the rules if they think this is justified, and having multiple entries provides insurance against mediocrity. The CDP also harnesses a range of tools towards its ends: the competition brief is informed by design guidance and incentives are used in a way not dissimilar to that through which public plazas and other public goods have been incentivised for decades elsewhere (Barnett, 1976; Feiock et al., 2008; Schmidt et al. 2011).

When assessed against critiques of design control and best practice guidance (Scheer 1994; Punter and Carmona 1997; Punter 2007a; White 2015), the CDP performs well: its scope is broad and substantive, extraordinary rather than ordinary performance is encouraged, the operation of the policy and the matters used to conceptualise design quality are flexible and adaptable to the specifics of individual cases, and it is not overly-prescriptive. It does increase the time and complexity of the planning approval process but developers are compensated for this through a bonus in floorspace or height. The main area where the CDP falls down is in the extent of public involvement in the design competitions it mandates: there has been and continues to be no direct public involvement in design competitions for private developments.

Final remarks

Notwithstanding the above point about public participation, the mandating of design competitions, as a design control tool, offers the City of Sydney a series of considerable benefits: it expands the opportunity space of both planning officers and designers, constrains that of developers, and enables an approach to the pursuit of quality that is broad in its remit, and flexible and co-operative in its operation. Given this, it is apt to finish by considering why no other city currently mandates design competitions through its design control functions. As well as perhaps being revealing of a unique political environment and planning and development culture, or reflecting a lack of wider awareness of what is being done in Sydney, this likely has something to do with the particularities of the NSW planning system, which combines 'administrative' and 'discretionary' development controls (Punter 2007a). This makes it possible for permissible building envelopes to be established through Stage 1 DAs and written into competition briefs, but for the assessment of design excellence to still be made on a discretionary basis. In contrast, code-based development controls alone leave little room for design competitions, and an entirely discretionary process does not need design competitions to drive innovation. Perhaps then, the mandating of competitive design processes through design control is workable only in systems where both administrative and discretionary development controls can be applied simultaneously.

References

- Alexander, Ernest R., and Lawrence P. Witzling. 1990. "Planning and Urban Design competitions: Introduction and Overview." *Journal of Architectural and Planning Research* 7(2):91-104.
- Andersson, Jonas, Magnus Rönn and Leif Östman. 2013. "Editorial: Architectural Competitions I – Exploring the phenomenon of competing in architecture and urban design." *FORMakademisk* 6(4):1-6.
- Andersson, Jonas, Magnus Rönn and Leif Östman. 2014. "Editorial: Architectural Competition II – The dynamics of competing and organising competitions in architecture and urban design." *FORMakademisk* 7(1):1-5.
- Banerjee and Loukaitou-Sideris, 1990
- Barnett, Jonathan. 1974. *Urban design as public policy*. New York: Architectural Record, McGraw-Hill.
- Bentley, Ian. 2004. *Urban Transformations : Power, People and Urban Design*. 1. ed. Hoboken: Taylor and Francis.
- Biddulph, M. 2011. "Urban design, regeneration and the entrepreneurial city." *Progress in Planning* 76(2):63-103.
- Carmona, Matthew. 2009. "Design coding and the creative, market and regulatory tyrannies of practice." *Urban Studies* 46(12):2643-2667.
- Carmona, Matthew. 2016a. "Design governance: theorizing an urban design sub-field." *Journal of urban Design* 21(6):705-730.
- Carmona, Matthew. 2016b. "The formal and informal tools of design governance." *Journal of Urban Design*, <http://www.tandfonline.com/doi/full/10.1080/13574809.2016.1234338>
- Carmona, Matthew, Steve Tiesdell, Tim Heath and Taner Oc. 2010. *Public Places-Urban Spaces: The Dimensions of Urban Design*. Oxford: Architectural Press.
- City of Sydney (2012) Local Environmental Plan.
<http://www.legislation.nsw.gov.au/#/view/EPI/2012/628>. Accessed 1/11/16
- City of Sydney (2013) *Competitive Design Policy*.
http://www.cityofsydney.nsw.gov.au/_data/assets/pdf_file/0004/128065/Competitive-design-policy-adopted-09-December-2013.pdf. Accessed 1/11/16.
- Chupin, Jean-Pierre, Carmela Cucuzzella and Bechara Helal (editors). 2015. *Architecture Competitions and the Production of Culture, Quality and Knowledge*. Montreal: Potential Architecture.
- CABE. 2006. *Design review: How CABE evaluates quality in architecture and urban design*. London: CABE.
- Dawson, Eric, and Marilyn Higgins. 2009. "How planning authorities can improve quality through the design review process: Lessons from Edinburgh." *Journal of Urban Design* 14(1):101-114.
- DETR. 2000. *By Design: Urban design in the planning system: towards better practice*. London: DETR
- Dovey, Kim. 2005. *Fluid City: Transforming Melbourne's Urban Waterfront*. New York: Routledge.
- Ewing, Reid, and Otto Clemente. 2013. *Measuring Urban Design: Metrics for Livable Places*. Washington D.C.: Island Press.
- Feiock, Richard, Antonio Tavares, and Mark Lubell. 2008. "Policy instrument choices for growth management and land use regulation." *Policy Studies Journal* 36 (3):461-480.
- Garde, Ajay. "Citizen Participation, Design Competition and the Product in Urban Design: Insights from the Orange County Great Park." *Journal of Urban Design* 19(1):89-118.
- Gehl, Jan. 2013. *Cities for people*. Washington D.C.: Island press.

- George, R.Varkki. 1997. "A procedural explanation for contemporary urban design." *Journal of Urban Design* 2(2):143-161.
- Gleeson, Brendan, and Nicholas Low. 2000. *Australian urban planning: new challenges, new agendas*. St Leonards: Allen & Unwin.
- Gómez, María V. 1998. "Reflective images: the case of urban regeneration in Glasgow and Bilbao." *International Journal of Urban and Regional Research* 22(1):106-121.
- Gospodini, Aspa. 2002. "European cities in competition and the new 'uses' of urban design." *Journal of Urban Design* 7(1):59-73.
- Gospodini, Aspa. 2006. "Portraying, classifying and understanding the emerging landscapes in the post-industrial city." *Cities* 23(5):311-330.
- Kazemian, Reza, and Magnus Rönn. 2009. "Finnish architectural competitions: structure, criteria and judgement process." *Building Research & Information* 37(2):176-186.
- Knox, Paul. 2011. *Cities and Design*. Abingdon: Routledge.
- Lehrer, Ute. 2011 "Design Competitions", in Banerjee, Tridib, Loukaitou-Sideris, Anastasia, eds. *Companion to Urban Design*, New York: Routledge.
- MacLeod, Gordon. 2002. "From Urban Entrepreneurialism to a "Revanchist City"? On the Spatial Injustices of Glasgow's Renaissance." *Antipode* 34(3):602-624.
- McGuirk, PM, Hilary Winchester, and Kevin M Dunn. 1996. "Entrepreneurial approaches to urban decline: the Honeysuckle redevelopment in inner Newcastle, New South Wales." *Environment and Planning A* 28(10):1815-1841.
- McNeill, Donald. 2009. *The Global Architect : Firms, Fame and Urban Form*. New York: Routledge.
- Nasar, Jack L. 1999. *Design by competition: making design competition work*. Cambridge: Cambridge University Press.
- Ollswang, Jeffrey E. 1990. "SUCCESSFUL COMPETITIONS: PLANNING FOR QUALITY, EQUITY AND USEFUL RESULTS." *Journal of Architectural and Planning Research* 7(2):105-113.
- Parfect, M., Power, G. 1997. *Planning for Urban Quality : Urban Design in Towns and Cities*. London:Routledge
- Peck, Jamie and Adam Tickell. 2002. "Neoliberalizing space." *Antipode* 34(3):380-404.
- Picken, Felicity. 2013. "From designed spaces to designer savvy societies: The potential of ideas competitions in willing participation." *Environment and Planning A* 45(8):1963-1976.
- Punter, John. 1999. "Design" in Cullingworth, B. (ed.) "British Planning", p.137-155
- Punter, John. 2003. "From Design Advice to Peer Review: The Role of the Urban Design Panel in Vancouver." *Journal of Urban Design* 8(2):113-135.
- Punter, John. 2004. "From the ill-mannered to the iconic: Design regulation in central Sydney 1947–2002." *Town Planning Review* 75(4):405-446.
- Punter, John 2005. "Urban design in Central Sydney 1945-2002: Laissez-Faire and discretionary traditions in the accidental city." *Progress in Planning* 63(1):11-160.
- Punter, John 2007a. "Developing urban design as public policy: Best practice principles for design review and development management." *Journal of Urban Design* 12(2):167-202.
- Punter, John. 2007b. "Design-led regeneration? Evaluating the design outcomes of Cardiff Bay and their implications for future regeneration and design." *Journal of Urban Design* 12(3):375-405.
- Punter, J. 2010. "Planning and good design: indivisible or invisible? A century of design regulation in English town and country planning." *Town Planning Review* 81(4):343-380.
- Punter, John. 2011. "Design Review - An effective means of raising Design Quality?" In *Urban Design in the Real Estate Process*, Steve Tiesdell and David Adams (eds.). Chichester: Wiley-Blackwell.
- Punter, John, and Matthew Carmona. 1997. *The Design Dimension of Planning*. London: E&FN Spon.

- Rofe, Matthew and Luke Stein. 2011. "Shedding New Light on Adelaide? Intersections between Urban Design Projects and City Marketing." *Journal of Urban Design* 16(3):333-350.
- Rönn, Magnus and Gerd Zettersten. 2012. "Editor's Notes." *Nordic Journal of Architectural Research*. 24(1): 5-12.
- Rowley, Alan. 1998. "Private-property decision makers and the quality of urban design." *Journal of Urban Design* 3 (2):151-173.
- Rubin, Herbert and Rubin, Irene. 2005. *Qualitative Interviewing*. Thousand Oaks: SAGE
- Sagalyn, Lynne. 2006. "The Political Fabric of Design Competitions," in Catherine Malmberg(ed.) *The Politics of Design: Competitions for Public Projects*. Princeton, NJ:Policy Research Institute for the Region, 29-52.
- Sager, Tore. 2011. "Neo-liberal urban planning policies: A literature survey 1990–2010." *Progress in Planning* 76(4):147-199.
- Scheer, Brenda. 1994. "Introduction: The debate on design review" in Scheer, Brenda and Preiser, Wolfgang, eds. *Design Review: Challenging Urban Aesthetic Control*, 1-10. Springer.
- Schmidt, Stephan, Jeremy Nemeth and Erik Botsford. 2011. "The evolution of privately owned public spaces in New York City." *Urban Design International* 16(4):270-284.
- Seidel, Andrew D. 1990. "DESIGN COMPETITIONS RECEIVE MIXED REVIEWS." *Journal of Architectural and Planning Research* 7 (2):172-180.
- Spreiregen, P. D. 1979. *Design competitions*. New York: New York : McGraw-Hill.
- Swyngedouw, Erik, Frank Moulaert, and Arantxa Rodriguez. 2002. "Neoliberal urbanization in Europe: large-scale urban development projects and the new urban policy." *Antipode* 34(3):542-577.
- Tiesdell, Steve and Adams, David. 2011. *Urban Design in the Real Estate Development Process*. Chichester: Wiley-Blackwell
- Turok, Ivan. 2009. "The distinctive city: pitfalls in the pursuit of differential advantage." *Environment and planning A* 41(1):13-30.
- Van Alen institute / The Architectural Record. 2015. "Design Competition Survey." <https://www.vanalen.org/projects/architectural-record-van-alen-institute-competition-survey/#introduction>. Accessed 1/11/16
- Wansborough, Matthew, and Andrea Mageean. 2000. "The role of urban design in cultural regeneration." *Journal of Urban Design* 5(2):181-197.
- White, James. 2014. "Design by Competition and the Potential for Public Participation: Assessing an Urban Design Competition on Toronto's Waterfront." *Journal of Urban Design* 19(4):541-564.
- White, James. 2015. "Future Directions in Urban Design as Public Policy: Reassessing Best Practice Principles for Design Review and Development Management." *Journal of Urban Design* 20(3):325-348.