

Who delivers urban design in Australia and New Zealand and what is their culture?

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ABSTRACT: Urban design integrates a wide range of knowledge fields embracing many aspects of human endeavour and it is applied at all scales of development in the built environment. There is an expectation that urban design is contemporaneously relevant and adds value that is measurable and accountable in the public domain. But is urban design delivering? Do we know enough about the field? This paper engages with questions about what is urban design's heritage, who are urban designers in Australia and New Zealand, what is their culture and are urban designers equipped to design future sustainable places? Over the past half century urban design epistemology has developed considerably, much of it borrowed and adapted from other built-environment disciplines. Its destiny is to forever be a 'work-in-progress', responding to evolving circumstances and anticipating change in cities. A snap-shot of urban design culture in Australia and New Zealand suggests that while there is a high level of expertise and many examples of excellence, the discipline is not be as mature as it should be to engage with current and future challenges.

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INTRODUCTION

This paper aims to interpret and present knowledge about urban design in Australia and New Zealand. It examines the profile, activities and methods used by practitioners who identify as urban designers. The introduction contextualises the discussion followed by an outline of historical development in urban design in terms of scale, scope and issues. This leads to consideration of expert knowledge. The third section is devoted to a critical evaluation of data gathered in Australia and New Zealand about urban design and urban designers. The final section reflects on the culture and speculates on challenges for urban design.

Emerging at the forefront of postmodernism, urban design sought to address what were perceived as inadequacies in modernism's outcomes and thinking about cities. Jose Luis Sert, Dean of the Harvard Graduate School of Design, initiated the first 'Urban Design' conference in April 1956, summaries of which were published in 'Progressive Architecture' in August of that year followed by reports in December in 'Architectural Record' under the heading 'Whither Cities'. Sert is credited with coining the phrase 'urban design' at a conference in 1953, when he criticised planning for turning its back on the 'city proper' its streets activities and places, through encouraging sub-urbanism. With Sert's support Sigfried Gideon introduced a course in the 'History of Urban Design' at Harvard in 1954. Sert saw solutions through "the integration of city-planning, architecture and landscape architecture in the building of complete environments", in order to accommodate the cultural, economic, political and intellectual dimensions of people-oriented places (Mumford 2006: 11,12).

These early attempts to identify urban design's domain remain familiar in today's world of urban design as does the professional roles within which remedies may be found.

Sert's effort to synthesize the historic and the new, the technological and the artistic, in a context of strengthening urban pedestrian activity during a time of rapid urban decentralization remains of considerable contemporary importance (Mumford 2006:19)

Urban design has evolved and continues to grow as both a practice and discipline in Australia and New Zealand. This is evident by the growing body of published research, guiding documents, built examples, awards and the increasing number of appointments of staff with urban design expertise at state and local authority levels as well as in consultancies. It is recognised that growth remains at a slow pace and is coming from a low base. Educational institutions have responded to demand by providing explicit education in urban design, there now being eleven programs, following the first one established at QUT in 1987. Universities also offer urban design courses, subjects or units in related fields, with most programs in architecture, landscape architecture and planning now including at least one course in urban design. Some urban design courses are offered as electives to students across universities. Universities are also undertaking research in urban design across a wide field of topics.

Despite Denise Scott Brown's reservations about urban design "lacking a penumbra of scholarship, theory and principles", her premise being that most urban design precepts, methods and concepts are borrowed from other disciplines (Scott Brown 2006:42,43), there is evidence that urban design epistemology is now quite substantial (Holden 1996). But the field's precise definition remains as elusive as it did in the beginning as discussed by Marshall:

Urban design has always been and continues to be a work in progress – progress not toward clarity of definition or professional accreditation but toward a professional engagement with the changing complexity of the urban condition. Urban design provides an important role for the generalist who has the ability to ask the questions that no one else is asking, to seek connections where others seek distinctions. The urban designer needs to understand, integrate and communicate across professional divides all the evolving complex factors that create the urban situation. (Marshall 2006:32).

1. PHASES OF URBAN DESIGN DEVELOPMENT

Urban Design knowledge development may be considered in several ways related to theories and philosophies but a convenient way to understand the field is to look at the scale, scope and issues of concerns. Three phases of urban design's development can be identified in this context (Sommer 2007) but it is speculated that there is an emerging fourth phase focused on unfolding issues and scope driven by the electronic communications transformation and the sustainable design imperative.

Critically building on Camillo Sitte's studies (1889) of European Medieval cities, which celebrated the public realm, and linked to the American City Beautiful Movement, which praised urban aesthetics, and the British Garden Cities Movement which encouraged suburban living, the early urban design movement looked to re-focus planning and design attention on revitalising the places at the heart of the city (Marshall 2006).

In the first phase from mid to late 1950's until about the end of the 1960's urban design was mostly spoken about at the precinct scale of place making and this borrowed heavily from 'Modern Movement' compositional ideas in architecture, but also from community of users aspects of urban planning. The term 'civic design' was often used to describe this phase, which tended to address 'set pieces' of cities such as cultural centres, however the focus was moving away from single client to collective urban populations of users with consequential complexities (Mumford 2006:19). David Harvey (2004) considers that postmodernism largely evolved out of modernism, retaining much in common, but rather than having a unified view it searched for a wider 'pluralistic' scope with less preoccupation and tensions between competing concepts in its drive to bring vitality and place-meaning to cities. Although Harvey regards postmodernism as beginning in the early 1970's, some writings of the foundation 'gurus' embraced collective users of the city and they searched for different ways of understanding the city, which aligns with postmodern thinking. These include: Kevin Lynch; Donald Appleyard; Gordon Cullen; Jane Jacobs; Christopher Alexander and the pioneer Lewis Mumford.

During the second phase between the early 1970's and late 1980's when postmodernism strongly takes hold, urban design laid down both substantive and procedural knowledge and techniques but also continued to draw from architecture, planning and landscape architecture. It also expanded pluralistically to embrace topics from other disciplines including human-environment studies; perception; cognition; comfort, economic and social-cultural factors. Second phase Urban Design extended beyond precinct and local scales to place-making at neighbourhood and aspects of metropolitan scales. Pluralist thinking and concerns expanded to scope across theoretical constructs to practice methods. Important contributors include: Christopher Alexander (again); Ian McHarg; William Whyte; Edmund Bacon; Colin Rowe; Rob Krier; Amos Rapoport; Stanford Anderson; Roger Trancik; Christian Norberg-Schulz; and, Ian Bentley et al.

The third phase from about the 1990's until the present, informed by existing knowledge and methods, was driven by performance expectations and the early uptake of the international sustainability agenda – involving people from a wide range of disciplines, embracing all aspects of human endeavour and applied at all scales of urban space from individual sites to city regions. Urban design was expected to deliver 'measurable' positive value and be accountable in the public domain, by implication requiring the need for post construction evaluation and empirical studies, which unfortunately are rarely undertaken. Contributors expanded significantly to include synopses publications and websites and many authors and topics from other disciplines but with key contributions by: Spiro Kostof; Peter Katz; Peter Calthorpe; Peter Rowe; Geoffrey Broadbent; David Gosling; Barry Maitland; Jon Lang; Jan Ghel; David Shane; Urban Design Compendium and the RUDI website as well as numerous national and local government initiated publications on principles and guidelines, such as the Ministry for the Environment publications in New Zealand.

We may now be in the early stage of a fourth phase, one that needs to acknowledge and respond to the challenges and opportunities presented by the electronic communications 'revolution'. The impact of this on economic, cultural, political, social, aesthetic and psychological aspects of urbanised areas has yet to be fully understood.

2. EXPERT KNOWLEDGE

Notwithstanding Scott-Brown's concern about borrowing knowledge from other disciplines, urban design education, research and activity has been contributing to a spiral of knowledge creation of its own and with this comes increasing expertise as explained by Johnson:

One of the dilemmas of expertise is that the expert knowledge base expands through dissemination of research and experience, so professional knowledge generally is increased and tends to dissipate the expertise that promoted it. The expert must therefore maintain not only an active awareness of current knowledge, but of necessity, must specialise further as that knowledge is diffused (Johnson 1994: 156).

This means that the knowledge we use cannot stultify, it must continually advance through expansion, testing and refinement. Specialisation is often interpreted as gaining depth of knowledge of a narrow focus; however it may also mean the gaining of greater breadth of knowledge. As Urban Design is centrally about comprehensiveness, depth and breadth should not be mutually exclusive. The level of specialised knowledge used within a profession is an important indicator of the profession's overall maturity (Cuff, 1991)

Given its significant development over more than fifty years, urban design could now reasonably be expected to be underpinned by a mature epistemology based on a tested body of knowledge. However, conclusions drawn from the survey below suggest that for some urban design practitioners there is selective use of knowledge and there appears to be little testing of that knowledge through empirical assessment. Some urban designers may not have moved forward sufficiently when the shift from an attempted unified world view of a modernist structuralist nature was overruled by a postmodernist pluralistic one. Jencks writes that:

an essential goal of the post-modern movement is to further pluralism, to overcome elitism inherent in the previous paradigm...the end of a single world view...a resistance to single explanations, a respect for difference...thus for instance reductivism, the key method of modern science, is not rejected...but subsumed within a larger duality : reductivism/holism (Jencks 1992: 11-13).

Coherence and relevance underpinned by empirical confirmation have not become redundant but are now part of a more comprehensive approach embracing 'reflective-critical-pluralism' together with a systematic body of expert knowledge, all within an environment of regular evaluation of performance. But is this being reflected in practice?

3. URBAN DESIGN SURVEY EVALUATION

In July 2007 a survey questionnaire was sent electronically to urban designers in Australia and New Zealand. The consultants and authority officers identified as urban designers was sourced through professional journals, websites, the telephone book and position descriptions (n = 95). Twenty-six survey responses were returned representing a 27% response rate: 12 (46%) from New Zealand and 14 (54%) from Australian practitioners. In addition to age and gender profile and education qualifications, the survey sought to identify:

- views on urban design status
- urban design activities undertaken
- concepts, principles or approaches employed in those activities,
- case study exemplars of urban design excellence in Australia and New Zealand
- important published urban design resources used to inform practice.

3.1 Gender - age profile

Age and gender distributions indicate imbalances. However it must be acknowledged that this is a relatively small sample that cannot be confidently extrapolated across the population of the field. Nonetheless, the response does reveal that the overwhelming majority of participants are male (86%) and 71% are in the 40 to 60+ age group.

3.2 Foundation qualifications of urban designers

The foundation qualification of the majority of participants is in architecture (57%) with landscape architecture at (20%) and planning at (15%) and the remainder from arts or sciences backgrounds. Twenty-one of the twenty six participants completed a second qualification and one third of these indicated having undertaken a program in urban design, all at masters' level. Second qualifications in landscape architecture (29%); architecture (14%) at both undergraduate and masters; and, planning (14%) mostly at undergraduate level were also indicated. Of the eleven respondents indicating they had completed a third qualification 87% had achieved master or doctoral level qualifications in urban design. Overall eighteen of the twenty six participants have formal urban design qualification

This profile suggests that professionals in urban design are highly qualified in both urban design and related design fields of architecture, landscape architecture and planning. This implies that these professionals draw on considerable knowledge of the physical domain with a design focus to inform their urban design practice.

3.3 Views on urban design status and role

In response to a question about participant attitudes to urban design as a profession, a strong majority (77%) identified as an urban designer in conjunction with other terms. The remainder call themselves an urban designer in preference to other terms. Of the twenty-six participants 62% believe that urban design should exist as a separate profession while 58% do not believe urban design activities are effectively practiced under the umbrella of existing professions. An interpretation of this is that the time may be right for urban design to establish itself as a free-standing profession in order to have a stronger voice about urban matters, while recognising that most urban design practitioners are likely to also retain their association with their foundation profession.

Visions for the current and future status for urban design mostly grouped under headings of: scope, values, role and education. Many participants consider that their work spans across site; precinct; district; metropolitan and region.

Most participants (70%) see urban designers as champions of the public domain of cities, experts who can take a broad holistic view of city development, considering overall form, liveability, social responsibility and sustainability incorporating political and professional collaboration.

A significant proportion of participants (37%) regard urban designers as needing to have overseeing roles with regard to public domain urban space and form of other professionals, for example in setting guidelines coordinating teams and in design quality review and management.

There were repeat calls (30%) for a larger component of urban design education to be injected into the foundation programs of relevant disciplines including: architecture, landscape architecture, planning, traffic and transport engineering, sociology, arts, economics as well as for post graduate urban design education being made available for people from a wide range of professions. Educating decision makers about urban design was also strongly supported, which is seen as one of the responsibilities of urban design practitioners.

3.4 Key activity areas of urban design

Participants were asked to identify and allocate the percentage of their urban design focused time to the types of activities they had actually undertaken over the previous twelve months. Responses were aggregated under headings of: Diagnosis; Assessing and Advising; Designing and Planning; Managing (Table 1).

Table 1. Urban design key activities undertaken by practitioners

Activity Heading	Activity Sub-heading	% Total
Diagnosis	Analysis	25%
	Form studies	
	Policy development	
	Research	
	Transport Studies	
	Total diagnosis and reporting	
Planning and Designing	Concept development	48%
	Masterplans – campus/retail centre	
	Structure plans	
	Streetscape design	
	Subdivision design	
	Local centre design	
	Total Designing and Planning	
Advising	Guidelines/ briefing	23%
	Workshops/education	
	Expert Hearings	
	Writing articles / conferences	
	Total Advising	
Managing	Project management	4%

Source: (Author 2007)

Diagnosis activities may be expanded under sub-headings of: analysis, form studies, policy development, research and transport studies. Planning and Designing encompass all activities relevant to design including concept development, master-plans, design detail, frameworks, and relevant documentation. Activities under the heading Advising include case studies, guidelines and briefing, workshops, education and expert witnessing. Managing activities relate to anything management related including project management. Clearly activities under the heading 'Planning and Designing' is most often performed across all respondents, representing nearly half of all activities reported, although it is recognised that while the headings are a construct to understand the activities undertaken, it is possible that some sub headings in 'diagnosis' and 'advising' could interchange.

Several participants mentioned that most of their work was undertaken in teams involving people with expertise in particular areas or stages of a project, or in a project type. No respondents mentioned undertaking post-construction evaluation of their work.

3.6 Concepts and approaches used in urban design practice

Participants were asked what concepts, principles or approaches they had found useful when undertaking urban design activities and these are organised under the same activity headings previously used in the review sequence of participant responses, but the list has no hierarchy (Table 2).

Despite the attempt of some writers to establish an overarching theory for urban design, including Lynch (A Theory of Good City Form 1981) and Lang (Urban Design The American Experience 1994), both of whom it might be argued tend more toward structuralist thinking than post-modernist pluralism, an analysis of the spread of concepts and approaches mentioned in Table 2 and the reasons given for nominating exemplar case studies (Table 3), suggest that urban design practice does not have a unified theoretical underpinning.

Table 2. Concepts and approaches

Activity	Concept or Approach
Diagnosis	Responsive Environment approach
	Gehl pedestrian walkability studies
	Place making principles
	Character assessment
	Community workshops/surveys
	Environmental Analysis
	Land use analysis
	Circulation analysis
	GIS-socio/economic demographics
	Economic modelling
	Variety analysis
	Transport & traffic modelling
	Tissues studies
	Prospect/refuse theory application
	Lynch image principles
	Morphology analysis
	Space syntax
	Figure/ground analysis
	Activity analysis
	Building age profile
Connectivity analysis	
Detailed site analysis	
Townscape/streetscape studies	
NZ-UD protocol principles	
Evaluate against CPTED principles	
Planning and Designing	Computer modelling
	Drawing overlay
	Comparison of alternatives
	Reference to guidelines
	Exploratory 'charettes' workshops
Advising	SWOT analysis
	Advising local government
	Advising communities
Managing	No response recorded

Source: (Author 2007)

Noticeably and of concern, there is no mention of sustainable design concepts or approaches. However, the concepts and approaches in use cover a wide range each support by a practical method, sometimes referred to as tools (see for example 'Urban Design Toolkit' 2006). Tools may be used independently or in combination depending on what is useful and deemed to be appropriate under the circumstance of each project, which one can speculate is likely to be widespread. As explained by one respondent:

We don't consciously apply particular theories to urban projects. Each project develops out of a brief and site analysis, with the method being developed based on general principles and accumulated experience and techniques. We adapt and adopt what seems useful (Respondent P16, 2007)

Case study exemplars of urban design excellence in Australia and New Zealand

Respondents were asked to rate up to five examples of high quality urban design projects in New Zealand or Australia. Sixty seven cases were identified, almost equally divided between the two countries with numerous respondents from both countries mentioning examples in the other country. However, only nineteen out of fifty nine built examples were mentioned by more than one respondent, the first ten ordered by frequency of mention are shown in Table 3. Several respondents identified urban design policies, plans or processes including: West Australian Liveable Communities Code; Building Better Cities Program; Light's Adelaide Plan; Hoddle's Melbourne Plan; and Urban Design Charettes, with the New Zealand Urban Design Protocol being mentioned three times.

Of the fifty nine built examples, twenty four are water oriented projects. That waterfronts figure prominently is interpreted as a product of historical timing of rejuvenation work on redundant waterfronts close to city centres, which are also undergoing pedestrian oriented re-vitalisation. Waterfront design opportunities have largely come about because of technological redundancy of city centre old ports. Containerisation water transport, that requires large port facilities close to road and rail transport interchanges away from city centres, is the new technology.

Table 3. Case study exemplars

% Total	CASE STUDY EXAMPLE	REASON
26%	Melbourne City Centre	Design-led approach to city management, good analysis and strategy, good design incremental implementation; Active street frontages, greening of streets, activity mix; Consistent application of good policy...revitalisation of streetscapes, walkable realm, new residential areas; High quality urban design a major plank of city identity and economic & cultural wellbeing; Good leadership; Regular evaluation; Reclaimed the city for pedestrians.
26%	Wellington Waterfront	Good outdoor spaces, opening up the waterfront; Combination of places for different activities; Showcase NZ waterfront development treatment of land-water edge; Focus on people access. Good quality design & materials.
26%	Brisbane Southbank	Creative and functional public realm; A successful long-term strategic initiative with private-public partnerships; Good quality design ideas and implementation.
22%	Federation Sq Melbourne	Good quality urban design for the public places; Celebrates vibrant new city-people places; Functions well for a variety of purposes.
16%	Subiaco Perth	Good integration of places, functions and public transport; Well resolved residential densities and mix including affordable housing.
16%	Kelvin Grove Village Brisbane	Exemplary example of walkable mixed uses in an inner-urban development; Notable for creating partnerships between university, state housing and private enterprise; Strongly led.
12%	Melbourne City Lanes	Recapturing the urban grain of the city; New 'breeder' places for small & alternative business ventures; Provide good connectivity & meet needs of cafe society.
12%	Victoria Park Sydney	Combination of good site design, building design and sustainability practice on a brown field location; Good water sensitive urban design.
12%	Waitangi Park Wellington	Good design of open spaces with a strong sustainability agenda; A triumph of the competition process with commitment to design excellence.
12%	Geelong City Foreshore	High quality robust public place design with good integration of existing industries and tourist needs; Transformation of city image through design improvement and reconnection with water.

Source: (Author 2007)

Common characteristics across the top three examples are that success is considered to be underpinned by a combination of aspects. These include: thorough analysis; clear design strategy supported by long-term strong leadership commitment (across political change); consistent implementation policy that values high quality outcomes in terms of workable and robust functionality; as well as the use of resilient materials and integration of aesthetics. Curiously no explicit urban design theory was mentioned as being used in the examples, there being more attention given to processes, methods and characteristics.

3.8 Important published urban design sources used to inform practice.

Urban designers were asked to nominate what they consider to be up to ten most important published sources that informed their urban design practice. The seventeen sources that received at least two nominations (8%) are shown in Table 4.

The full list shows that collectively Urban Designers are referring to a wide range of both early and contemporary sources. Not surprisingly given the convenience of contemporary communications, participants identified web-sites and web accessible 'suites' of publications as the top most important sources. Significantly several first phase guru's of urban design including Lynch (1960), Mumford (1961) and Jacobs (1961) remain relevant to participants as do second phase leaders including Alexander (1977), Bacon (1975), Krier (1979), Whyte (1980) and Bentley (1985).

Table 4. Important published sources that inform urban design practice.

AUTHOR	TITLE	YEAR	% Total
MfE - NZ	Suite of Publications e.g. Value of Urban Design	2002	32%
CABE	Suite of Publications: e.g. U D Compendium	1998	24%
Bentley	Responsive Environments	1985	20%
Lynch	Image of the City + others	1960	16%
Gehl	Life Between Bldgs; New City Spaces; Public Spaces	1993	16%
A. Jacobs	Great Streets	1993	16%
Alexander	Pattern Language/Timeless Way	1977	12%
RUDI	RUDI Website	2000	12%
Carmona	Public Places Urban Spaces	2003	12%
UDF	UDF Website	2005	12%
Cullen	Townscape	1961	08%
Bacon	Design of Cities	1975	08%
Katz	New Urbanism	1994	08%
J. Jacobs	Death & Life of American Cities	1961	08%
Mumford	City in History	1961	06%
Whyte	Social Life of Urban Space	1980	08%
Krier	Urban Space	1979	08%

Source (Author 2007)

About half of the short-list publications are from between twenty five to fifty years old, possibly demonstrating the lasting influence of early thinkers, or that the readings reflect participant's age profile, which tends towards mid to late career maturity. It is noticeable that except for the New Zealand Ministry for the Environment (MfE) and the Urban Design Forum (UDF) mentions, the remainder of the short-list are USA or UK publications. However this is balanced somewhat by the overall figure of 25% of the list being Australian and New Zealand publications, which supports the burgeoning regional epistemology. At the time of the survey MfE documents were in centre stage in New Zealand.

Of the first phase writers Lynch's 'Image of the City' remains high on the list, no doubt because of the perceived usefulness of the principles he developed relating to city image. But one wonders if urban designers are aware of what Lynch himself had to say on reflection about 'Image of the City' in 1985?

What was not foreseen, however, was that this study, whose principal aim was to urge on designers the necessity of consulting those who live in a place, had at first a diametrically opposite result. It seemed to many planners that here was a new technique – complete with the magical classifications of node, landmark, district, edge, and path – that allowed a designer to predict the public image of any existing city or new proposal (Lynch 1985: 251).

How many urban designers realise that Lynch's message was to study the place and consult users? He was clear that it was not intended that the image elements were to be used willy-nilly, because they belong to the places that he studied and not necessarily anywhere else.

While theory and principles, both empirical underpinned and positivist conjectural, are present in the sources mentioned, their confirmation as being relevant and appropriate to particular urban design applications in Australia and New Zealand is less clear. However, greater understanding may yet be available through tripartite interrogation of the important sources (Table 4) with the reasons given for the nominated exemplars (Table 3), and with concepts and approaches (Table 2). This is seen as potentially a follow-up interview study that could be rewarding. It is speculated that the results could align with collective wisdom about current popular principles of urban design.

4. REFLECTION AND CHALLENGES

To return to the beginnings of the first phase of urban design's development, we are reminded that one of the central roles is meaningful and functional urban place making, of relevance to local experience. This is one of the constants on urban design thinking over the past fifty years. Yet increasingly local interpretation and proposals are influenced by global examples, generating what Meyrowitz (2004) calls 'glocality', roughly a merging of global and local. Gosling refers to this homogenisation of places as 'anyplace' (Gosling 2003: 245). Place making in our world of electronic communications challenges basic concepts about physical 'place', possibly leading to a conclusion that attempts to make places may become irrelevant, or at least that the criteria for place-making will change. "Today's consciousness of self and place is unusual because of the ways in which the evolutions in communication and travel have placed an interconnected global matrix over local experience" (Meyrowitz, J. 2004: 23). The essential message from Meyrowitz (1985, 2004) is that electronic media are dissolving the historic connections between physical place and social place. In the electronic era, people no longer must gather in physical places in order to 'belong', because the electronic social networks are highly relevant and powerful. Where will this leave urban design? Is the future role one of producing interesting and exciting, but endlessly changing places, to keep users engaged in competition with personal and public electronic attractions, connections and novelties? Countering this is the reality that we remain social creatures who need face-to face interaction. The challenge is how to accommodate the new technology.

Other than a few forward thinkers from about fifteen years ago including William Mitchell (City of Bits 1996) and Christine Boyer (Cyber Cities 1996), there has been little that has challenged urban design principles that have been in place for decades. No new body of theory and methods has developed to address the communication challenge, yet it must happen and it is predicted that changes will be more significant than the preceding phases of urban design's development. Mitchell alerts us to the potential of the electronic communication revolution to change cities:

What does it matter? Why should we care about this new kind of architecture and urban design issue? It matters because the emerging civic structure and spatial arrangements of the digital era will profoundly affect our access to economic opportunities and public service, the character and content of public discourse, the form of cultural activity, the enactment of power, and the experiences that give shape to texture of our daily lives (Mitchell 1996: 5)

Another key challenge is to create effective ways to imbed sustainable design principles into urban design theories and methods. As Michael Sorkin writes "It is simply no longer possible to understand the city and its morphology as isolated from the life and welfare of the planet" (Sorkin 2007:18)

CONCLUSION

The profile of urban design practitioner qualifications coupled with the scope of theories, principles and methods used, notwithstanding their eclectic nature, suggests that the field works with a relatively mature epistemology and practitioners satisfy the 'expert' test. However it is concluded that urban design must continue to develop robust knowledge of its own as well as engage with cross-disciplinary theories and methods, especially in communications.

Critical reflection on theory and methods is needed to ensure successful projects and this calls for imbedding post-construction evaluation of performance against the theoretical and substantive performance criteria that underpinned the project. This is needed in order to evolve theory, especially related to understandings about 'place' in this changing environment and also encompassing sustainability. There is a need to continue to build theory and methods that grow out of Australian and New Zealand examples informed by but not simply adopting international knowledge.

Urban design has demonstrated capacity to add value to cities by creating liveable, functioning places that have meaning to society. Better knowledge of urban design's culture is seen as necessary to advance its future capability.

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