



A Creative Thinking Dimension in Architecture and Urban Design Education Programs

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Abstract

This paper explores the introduction of a program to restructure an undergraduate foundation course in urban design at the University of Adelaide. From experience in educating designers over many years and their own architectural, urban and design practice the authors contend that current pedagogical practice is deficient in this field, a view supported by a body of evidence appearing in the literature and from professional bodies in the discipline. To address this situation, we have developed methodologies allowing students to understand and apply basic underlying principles in creative thinking applied to urban design methodology. This process is intended to build a structure and foundation in design thinking for the remainder of their design degree studies and professional life.

Keywords: Urban Design, Education, Creativity

BACKGROUND

The authors observed a form of 'disconnect' in the fundamentals where good design and architecture 'struggled' in the context of the totality of the urban realm and the built environment. A disconnect between urban design theory and a wider social context. Gunter. (2011) [6].

Sternberg (2000) [17] states that urban design lacks cohesive theoretical foundations, often relying on analytical techniques and architectural ideas whose theoretical justifications are unclear. Urban design faces a number of challenges one of which is to not simply advocate one set of design approaches but should rather reveal the principles that underlie several of them.

The inclusion of urban design in past design studies programs within our experience, embracing architecture and landscape architecture was a very thin thread woven intermittently through the course work of the two disciplines, .Arefi M, Triantafillou M.(2005) [1]. The pedagogy of traditional architectural education results in participants having the ability to produce potentially well designed buildings but often lacking in consideration to the total involvement of the urban environment (architecture, landscape architecture and city planning).The result is a lack of cohesion and social/community responsibility and a comprehensive understanding of the city, which can connect directly to the economic, political, social and cultural processes which structure social life'. Cuthbert. (2007) [4].

Aseem Inam (2002) [2] describes it as a superficiality of impressions and aesthetics of physical form; which often implies an exaggerated emphasis on the end product.

In our current programs the majority of students emerge with a set of skills that place the emphasis on physical design in a single site and architectural context, rather than a working understanding of urban issues in the context of the rich complexity that exemplifies the ever-changing city and a sense of place. Arefi , Triantafillou.(2005) [1]. Schurch, (1999) [13]. Cuthbert (2001) [4].

We wanted students to have a clear understanding of the social, functional, cultural, environmental, community and political fabric that contribute to the urban environment/city and the creative thinking approaches to bring this about.

As Arefi and Triantafillou (2005) [1] state a call for a meaningful urban design that recognizes the importance of rich experiences, processes and evolution of cities.

DEFINITIONS

These identified deficiencies may partly emanate from issues concerning problems in understandings and narrow definitions of urban design and a subsequent difficulty of bringing a consensus of understanding to its meaning.

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This is compounded because urban design is often ill defined within current educational programs and within certain sections of the urban design profession it is perceived as a skill base that tries to cobble together design inputs to assist in the design of cities.

Aseem Inam (2002) [2] and Cuthbert (2007), state that Urban design is vague because it is an ambitious amalgam of several disciplines, including architecture, landscape architecture, urban planning and civil engineering ideologies and practices. Mandanipour, (2006) [9] contends that it is superficial because it is obsessed with impressions and aesthetics of physical form; and it is practiced as an extension of architecture.

The current program from our experience has presented the discipline in what we contend to be a narrow project description/approach, what Shirvani [14] describes in key words such as “streetscape plans, neighborhood revitalization.” and including CBD development, master planning, action plans and urban renewal.

An urban designer is not simply an architect landscape architect or planner who has an interest or has built projects in cities but one who has a sophisticated and deep understanding of cities and of the substantive contribution that urban design can make to cities.

We were attempting to challenge the assumptions of traditional learning founded on concepts of basic skills and the trivial nature of urban design theory in favor of a more contextual and reflexive conduit for urban design programs based in urban social theory, Cuthbert (2007) [4].

APPROACH

Our approach to convey broader underlying principles and structure challenged existing practice and aimed to provide a foundation that the students could apply in understanding and practicing urban design in subsequent years of study and into their professional careers.

An example of this often practiced narrow educational approach were typical past first year Urban Design projects where the focus was on the design of isolated products such as small scale spatial structures like a bus shelter undertaken without any real context regarding the total urban landscape. Our concern was the assumption made that from this experience and skills base students would be capable of making connections, and see the relationship or transfer to other situations, technologies and disciplines regarding the principles that underlie the experience and context so as to be able to apply them in new situations. In reality it did not provide the ability to understand, observe and think about ideas for change beyond the set project thus not conveying skills in applying basic underlying principles for the design of *anything* in the future from product to any urban scale project. We perceived little evidence from student outcomes and formal feedback that any urban design thinking achieved at this entry level provided a framework for deeper learning to be carried forward for the remainder of the student's study and into a future career.

In addressing the above deficiencies our intention was to make students aware that urban design is not only the physicality of a city but the manifestation of many social, cultural, functional, cross discipline and infrastructure influences.

Students were introduced to urban design as a professional activity which encompasses an understanding of the skill areas of Architecture, Landscape Architecture and City Planning and the emergence of new technologies and subsequent disruptions in a complex mix that informs city making.

We facilitated and enhanced these concepts by introducing skills in creative thinking and idea generation, a component we saw as lacking in the program. Bowden (1999) [3]; Cross (1999) [5]; Runco (2004) [12]; Siqueira (2007) [15]; Sternberg (1991) [16] all contend that higher education must redress lack of structures in curriculum and pedagogy to teach students about creativity so as to develop their creative capacities to prepare them for future careers. This is in contrast to the expectation of a creative output from students in current urban design programs, often presented in a vacuum with little in the way of guidelines both in terms of meanings, the nature of creativity and how to actively practice it. Rufinoni. (2002) [11]. Jeffries. (2007) [7]. Kowaltowski, (2010) [8]

Our methodologies promoted concepts such as risk taking, learning from mistakes, and speculative exploratory and investigative mode of learning where fluency and flexibility was encouraged. We introduced chance and random input, withholding judgement, ambiguous, metaphorical and analogous thinking structuring the curriculum to facilitate the challenging of assumptions about much in the built environment that is taken for granted and accepted unquestionably.

As well we wanted to enhance skills in observation, analysis, reflection and visual communication methods including quick hand sketching (analogue drawing) and journal documentation.

The project encompassed a sector of the city of Adelaide covering 17 blocks. Students were allocated a block on the Adelaide orthogonal grid comprising built form, streets, open space and city squares. Students made observations through a variety of direct sensory experiences exploring qualities and functions of the built environment creating awareness and sensitivity expressed in personal attitudes and values about how place and space affects the way we function physically and emotionally.

Teams in open forums discussed their findings from determining a structure of what effective observation means and can achieve, to written, visual and audio methods leading to responses, reflections, communicating and sharing with others.

Subsequent analysis demonstrated knowledge of factors that make environments responsive like human scale, variety, resilience, legibility, permeability and personalization. McGlynn, Smith, Alcock, Murrain. (2013) [10]. This developed an understanding of the relationships between people, places and activities, enhancing student's abilities to interpret and critically analyze the information in terms of place as opposed to space and to speculate about change whereby the identification of problems, finding alternatives and making informed decisions emerged as well as the means of presenting and communicating ideas.

Students began to think beyond the topic and the creative thinking input worked in tandem to facilitate meaningful observation, identify issues, adapt to changing situations, see connections between things and to create new and innovative ideas, changes and ways of communicating. Students began to question much more, looking for differences and alternatives beyond obvious or expected scenarios.

Student comments both formal (Student Evaluation of Learning and Teaching) and in focus groups provided positive feedback re the experience

Typical student journal entry:

'Before this, I had always thought that Urban Planning was a very dry, boring subject and that all there was to it was placing city blocks side by side. Now I realize that it is an important subject as it could result in the progression or non-progression of a city. Cities have to be planned carefully as they affect the wellbeing of their inhabitants'.

SUMMARY

The work has challenged thoughts on urban design educational practice allowing us to trial approaches providing a basic structure for students to understand underlying principles in the discipline, building on these and applying them creatively in various and changing situations in their future practice. We have challenged past practice in Urban Design education that others have described as lacking structure to teach creativity and tending to deal with superficial aesthetics of physical form usually as an extension of or under the umbrella of architecture often characterized by an exaggerated emphasis on an end product.

The result both in the form of student work that we have formally evaluated and the extensive feedback from students and colleagues teaching these same students in other courses where the impact of our approach has been noticed, has given us encouragement that the course is making a difference.

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