

The ‘Studio’ conundrum: Making sense of the Australasian experience in Architectural Education

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ABSTRACT

The ‘studio’ is typically viewed as being central to the role of educating architecture students because it facilitates learning during the design process, it encourages the integration of knowledge and skills, and it generates an environment where professional norms and standards are cultivated. The lineage of the ‘studio’ in architectural education extends back to the first ‘university’ courses in the 19th century and before these aspects of the master/apprenticeship model, in the 17th and 18th centuries. A recent comprehensive study of Architectural Educators in Australasia (Ostwald & Williams 2008) revealed that definitions of the studio and associated practices were for the most part polarised. In Australia, the studio may physically range from a dedicated workspace –for groups of students to work and learn in – to a hot-desking arrangement, to a generic tutorial space. For some, the studio has ceased to include the physical workspace for students and become the approach to teaching design or the reference to the unit of study. Despite this difference of opinion, it is a common assumption that the studio is a familiar and well-understood concept amongst architectural educators. This paper will discuss the new context that the studio operates within and explore the issues and factors that have prompted such quandaries and for some, opportunities to expand the approaches used to teach design. The paper will also draw on, and make comparisons with, with studies from Europe and Northern America.

INTRODUCTION – MYSTIQUE AND MASTERY

In examining the role and definition of the ‘studio’ in architectural education it is important to acknowledge that the processes of designing and how to teach design are largely based on the profession’s tacit knowledge and experiences and the traditions/ ‘rituals’ developed in Schools of Architecture. Banham (1996) famously described architectural education as a ‘black box’ (299). Outsiders may observe the student entering whom later exits as an architect but the process that takes place, happens within a ‘secret society’. He provocatively speculates that if the profession dared to interrogate the ‘box’ they may find nothing but

mystique itself! (299). What is of equal importance is that Banham identifies the studio as the location where this education or transformation takes place, including the formation of attitudes and values through socialisation. The first use of the term ‘mystique/mastery’ comes from Argyris’ (1981:577) description of the architectural design process from a large study of architectural education in the US in the 1970s (Porter & Kilbridge 1981).

In the third edition of *How Designers Think*, Bryan Lawson (1997) states that since his first edition in 1980 he does not feel that any simple conclusions can be drawn, only some principles. The design process still remains to be fully understood and provides an addictive challenge for researchers; a position supported by Nigel Cross (1996). Lawson and Cross argue that there is no one correct way to undertake the design process, which implies there is probably no one correct way to teach it (Lawson 1997, Dinham 1989). The art of design studio teaching in architectural education is largely learnt from one’s own experience within the community and language of architecture.

The ‘studio’ concept and methods in architectural education were significantly influenced and positioned by two schools, the Ecole des Beaux-Arts (French) and the Bauhaus (German). It has been also suggested that the master/apprenticeship model shares a number of similarities with the ‘studio’ in terms of the working environment, the use of projects and one-on-one interaction, however this theory is contested. (Webster 2008:64). For most the formation of the Ecole des Beaux-Arts in Paris in 1819 represented the first dedicated and formal course in architectural education. The significance of the Beaux-Arts model was the *atelier* (the studio) and associated teaching methods, which were broadly adopted from arts-based pedagogy and practice.

The Bauhaus and Modernism gradually overtook the influence of the Beaux-Arts model and most schools in the US, UK made the change over the period of the 1930s to the 1960s (Lubbock & Crinson 1993: 49) By 1958 Australia and New Zealand had a five year course and the same design pedagogy as in the UK (Heads of Schools Conference 1950 in Blythe 1998: 60). The Bauhaus reinforced the central role of design education in the studio environment. There were many important contributions made by the Bauhaus and its teaching masters, the Bauhaus represented stimulus for educational reform. Approaches to the design process were

expanded and technical skills were discovered by experiments and design solutions (Cross 2006: 24, Brawne 2003, Bannister 1954 qtd in Beinart 1981: 106).

Essentially, design studio teaching is thought to reflect the constructivists' perspective, which proposes that the student constructs and determines their own learning. However, this categorisation is dependent on the approach taken by the facilitator or tutor with the students. Project-based learning is the main approach employed in teaching architectural design (Webster 2004a, Ashton 1997). This approach requires a continual process of critical reflection by the learner and input by others (tutor, peers and external critics). The ultimate goal is to allow the learner to develop a level of confidence to undertake self-directed inquiry and problem solving to generate appropriate and creative solutions. Research into project and problem-based learning does not solicit much information regarding the role of the physical learning environment in student learning. It recommended the space for students to work was more than a classroom or reading space, it needed to allow for a multiplicity of activities, resources and ways to learn individually, in small groups or with the class (Chambers 2007, Adderley et al 1975). There was no explicit link made between the quality of the physical learning environment to improve student interaction and dialogue, which is critical to project, and problem based learning.

This paper highlights the different interpretations made by academics regarding the role and definitions of the studio in Australasia and the potential influences and impacts resulting. These findings are compared and discussed within the international context. It is noted that this paper represents only a small part of the larger pursuit to identify good practices and make recommendations, however this cannot be realised until an understanding of what it is, is known (Porter & Kilbridge 1981: pviii, Ostwald & Williams 2008:1).

I THE 'CONTEMPORARY' STUDIO IN AUSTRALASIA

In 2007, full-time academics involved in architectural education were asked "What form does the studio have here?" or "What does the term 'studio' refer to here?" These questions were posed individually to 39 academic managers at 19 schools. Academic staff were also invited to participate in separate focus groups where a total number of 73 volunteered (Ostwald and Williams 2008:33). Preliminary findings led Ostwald and Williams to hypothesise whether the understanding of 'the studio' had shifted away from references to a physical studio space but remained firmly entrenched in the academics' psyche. The term 'studio' was used liberally to describe any manner of things related to design teaching and its curriculum, even when a studio space did not exist (2008:18). In 2009, an in-depth analysis of this data showed that less than half of responses viewed the studio as a physical workspace for students. Equally, 45% of responses thought the 'studio' referred to the design unit/subject. These represented the highest levels of association with the five themes identified in the data coding process.

The five themes, including examples from the transcripts, were:

A. Physical workspace for students (includes dedicated studio space or for a day),

"Studio is a dedicated space for the students with significant access." (West Australia – academic manager, WA-am).

B. Teaching space (physical, concept or virtual),
"Not a place. It is a site for learning. They are classrooms not an individual place with ownership. The studio is an intellectual rather than a physical place." (South Australia – academic manager, SA-am)

C. Collaborative/peer learning,
"It's not just an idea. It has to be a physical place, it has to be a place where students and staff interact in meaningful ways where ideas are the basis of a discussion and where there's a high level of mutual support amongst the students and between the students and staff." (Regional, REG-am)

D. Teaching approach;
"The studio is a type of delivery rather than a physical space." (NSW-staff); and

E. The design unit,
"The studio dominates far too much. Absolutely absurd. The students said there should be more points allocated to design because that is where they spend the majority of their time." (NZ-staff).

It is apparent even in these small excerpts from the data that descriptions of the 'studio' were multi-faceted. The majority of responses were composed of two themes. Very few were made from one or three themes. A two-way matrix was established with the same set of five themes, heading the vertical and horizontal axis to map the position of 44 analysed responses. The method and results were published in the paper, *Sustaining the Studio: A snapshot of academics' perceptions towards studio in 2007* (Wallis, Williams & Ostwald 2009).

When reading the overall description of the 'studio' (composed of two themes), the most accepted description was the *Physical workspace for students* and *Collaborative/peer learning* (23%). This set of responses shared similar characteristics in their geographic position and the size of the school, there was only one exception. All three New Zealand schools were represented in this group as well as the small to mid size schools in regional Australia. An analysis of mid to large schools of architecture (student enrolments ranged from 460 to 664) showed the majority of their responses were not linked to the theme of physical workspace for students. The three exceptions were all Heads of Schools and their descriptions opposed the descriptions made by their academic staff. Overall, the trend was that the academic managers/leaders were far more optimistic in their tone than academic staff.

These results suggest that small to mid size schools, mostly in regional areas were better placed to provide physical workspaces for students. However this does not explain the association with all three New Zealand schools. Two of these schools had 490 student enrolments, which made them larger than some schools in Australia who disconnected the 'studio' concept to a physical workspace. What adds to this anomaly is the fact that New Zealand experienced more dramatic growth in student enrolments than Australia and this took place four years later in 1999. Some of the differences may be explained by the following facts/ observations:

- A. Number of studio hours per week. The transcripts suggested New Zealand schools had between 10 to 12 hours per week. The on-line survey carried out earlier that year found that most academics thought 6 hours or more a week was 'ideal' to teach 18 students in a design studio, suggesting hours were less.
- B. Student staff ratio. In 2006, Australia's average SSR was 24:1 and New Zealand was 17:1 (Ostwald and Williams 114); and
- C. Transcripts described how students actively used and populated studios spaces in New Zealand. One academic manager in Australia talked enviously about studio culture in New Zealand when compared to their studios, saying, that our's is "mainly empty again".

This does suggest that the funding model in New Zealand must be more conducive to design studio teaching than in Australia.

These results basically indicate that for more than half of the responses, the 'studio' was not associated with a specific space or learning environment for students to work in and outside of class times. It was not conclusive whether these descriptions were informed principally by the limited availability of studio workspaces for students. The interest in whether the 'studio' description included references to a physical workspace or not is indicative of the teaching philosophy and sometimes the teaching approach. Part of students learning in the studio workspace comes from their acts of working and socializing, in addition to the formal teaching and learning activities. A lot of the communication observed in the 'studio' and the teaching of design combines verbal, graphic and non-verbal forms of communication. Academics have highlighted that the students' studio tells them a lot or gives them a better context to understand the students' work and learning approach.

Another layer of details evolved in examining the responses related to the studio workspace. A few explained that the provision of the studio workspace did not necessarily lead to usage or the rise of a studio culture. Academics reported that the art of studio culture had not been lost but was hindered by staffing resources and budget constraints.

If there's a reason for students to be together and get feedback from each other and from staff, they'll be there. (SA-am).

Irrespective of the provision of studio workspaces some academics perceived that student attitudes to learning had also changed and their level of engagement and commitment to the design studio was less. One staff member summed up the student viewpoint as being, "as long as I can get a job I don't need you" (VIC-staff).

Where the studio workspace was available the typical response was associated with a concern that inadequate resourcing and the increase in student numbers were making these techniques impractical or difficult to achieve. A few eluded perhaps a new approach or philosophy may need to be developed as they saw that the 'traditional' one-on-one tutoring was ineffective, repetitious and labour intensive. They thought that there might be other opportunities.

What I see happening is that rather than encourage alternate forms of education that is the studio might be a space where all sorts of flexible or informal arrangements might occur: small group learning, student based delivery, peer to peer teaching. What I see is that tutors follow

students around repeating the same didactic lecture over and over and over. Then they sit down six hours later and say I'm really exhausted as though they've done a good days work. (NZ-am).

The one-on-one tutoring technique referred to in this quote is associated with most approaches to teaching design, regardless of the availability of studio workspace.

The findings from the 2009 paper (Wallis, Ostwald & Williams) speculated that innovation or changes to teaching practices were more prevalent in schools where resources seemed more reduced. Two out of the three innovations identified from the transcripts came from schools, which essentially did not have studio workspaces. These innovations are the focus of further research to gain a better understanding of the approach and what factors influenced this development.

Draft findings presented by the Studio Teaching Project (STP) in Art, Architecture and Design (STP 2009), indicated that there was no strong correlation between innovative design teaching and learning strategies with the availability of a dedicated studio workspace in Australasia. The STP learnt from their comparisons of Art, Architecture and Design that academics in architecture expected their students to spend at least 6 hours in the studio per week. This doubled the amount of time identified by academics in Art and Design. (Zehner 2008:6). The architecture students also had the greatest level of 24-hour access to facilities. It suggests that the level of commitment expected of architecture students by academics exceeds the other creative disciplines. These findings suggest a number of hypotheses, that:

- architectural students require more points of inputs or time with their tutor and peers to learn the practice of architectural design; or
- the increased number of architectural students in a class compared to Art and Design means that the number of hours associated to teach, tutor and review students is longer; or
- architectural students are expected to be spend longer hours in studio during class and outside of class than Art and Design due to the discipline culture; or
- maybe a combination of the hypotheses above.

The STP team also identified that the studio had four critical and interdependent elements, which included: a culture, a mode of teaching and learning, a program of project and activities, and a physical space or constructed environment (STP 2009:1). Early published papers by members of the STP did not explicitly express the need for a physical space or constructed environment (de la Harper & Peterson 2008 in Zehner 2008:2) or suggested it was difficult to maintain or achieve studio spaces in the current university climate and questioned whether the quality of work had noticeably suffered (Zehner 2008). The diversity of the descriptions whether the physical space or the constructed environment is included in the description of the 'studio' reflects the diversity of the STP team in their backgrounds, institutions, and discipline cultures. One other hypothesis generated from the STP (2009) toolkit containing case studies of good studio practice is the presence of examples that involve large classes and the use of studio spaces. Most examples that incorporated the physical studio space were

small in class size or to ensure a manageable class size they were offered as electives.

II. THE INTERNATIONAL CONTEXT

There is little discussion regarding the validity and need for the 'studio' workspace apart from the UK. It is unclear whether architectural education in other countries shares these concerns or face similar economic conditions/rationalisation of space as in Australia, New Zealand and the United Kingdom. The focus of research from the US and UK principally relates to the effects of studio culture, design critiques, one-on-one tutorials and the role of ESD in design. Most literature into architectural education fall into two categories: a description of an academic's studio structure and product outcomes and secondly, the critique of 'traditional' teaching practices and the argument for practice to be informed by research than habit.

An overview of the topics that have emanated from the UK regarding the provision and role of the studio space in architecture education (Leon 2004, Duggan 2004, Potts 2000 and Ashton 1997) resembles the debates within Australasia. In many cases, dedicated studio spaces have been transformed into hot-desking arrangements, which permit students in a studio class to set-up for the day, or a session. A few schools have managed to extend their facilities (Leon 2004, Duggan 2004, Potts 2000). Other factors that have been highlighted is the impact of technology, more students having part-time jobs, the diversity of students studying architecture and the question whether studio culture provides more negative effects than positive (Leon 2004). References to the role and value of studio culture drew from research in the US (Anthony 1991, Dutton 1991 & Koch *et al* 2002). It is noted that this type of research and findings were presented earlier in the US (Porter & Kilpatrick 1981) but ignored (Dinham 1987). The reference to technology indicated how wireless laptop computers had hastened the attitude to 'drop-in' to the studio than 'live-in'. As to how the digital environment or the digital studio has impacted has not been investigated yet.

An observation and empirical study carried out in a number of UK schools in 1997 found that academics perceived cramped and shared studio facilities effected students' attendance (Ashton). The case studies showed that this was not significant or contributing factor, what was identified was the way the teacher engaged and supported group work and participation. Not unlike the reference made earlier in Australasian transcripts that if students have a reason and gain benefits, they will be present and active (SA-am). In the case studies the 'traditional' studio space had the least attendance whereas the most cramped and unsatisfactory studio space had the greatest level of participation, which begins to illustrate the complexity and interconnectedness of issues related to student motivation and engagement. The emphasis of the 21st century learning has moved to the student experience and what they do.

This paper has shown how the traditions of design studio learning have withstood time, but also how they have responded by small shifts and adaptations. For example, the simulation of project works in the Beaux-Arts studio, which was viewed radical in its time from the master apprenticeship model and later the American adaption of the *atelier*/ studio. The data from Australasia indicates that the current

conditions within universities are generating at least two distinct differences in academics perceptions of what form does the 'studio' take, which suggests that different approaches may be evolving, but are they? Does the one-on-one tutoring model exemplified by Schon (1983, 1985, 1987) operate within both of these contexts, of student studio workspace or not? The STP research in Australasia has also recorded the tension and difference in philosophy and value awarded to the studio workspace. The fact that architecture students are expected to spend more time in and outside of class time within the studio suggests the influence of the discipline culture? The UK experience indicates similar struggles in maintaining and providing adequate studio workspaces and concerns about student motivation/engagement. Many more questions have been raised in the UK regarding the studio workspace's role and approaches used in the studio, for example the effectiveness of tutors and the one-on-one tutoring role (Webster 2008, Ashton 1997, Beinart 1981). These will be the focus of future papers, as will the identification of the different approaches evolving in Australasian practice. What approaches and techniques will encourage students to take more personal interest and responsibility in their learning, without employing the 'stick', and work effectively in the current environment? There is no one correct approach to designing, hence the room and the need for more than one approach to teach design studio. Tradition and uncertainty should not dissuade inquiry and debate into the 'studio' and student-centered approaches.

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