COVER SHEET

Designing Spaces for Learning and Living in Schools: perspectives of a *flaneuse*

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ABSTRACT:
The design elements of school learning spaces - classrooms, laboratories, libraries, studios - have the potential to position learners and teachers and to prohibit, authorise, situate and regulate the ways in which learning takes place. Approaches to the designing of learning spaces can fail to take into account the changing social, cultural, pedagogical and technological factors impacting on learners and teachers. How can such taken-for-granted spaces accommodate the needs of learners and teachers and respond to the demands of 'rich task' curriculum and 'real world' learning experiences? Acknowledging Donald Schon's (1983) perspective that '*all occupations engaged in converting actual to preferred situations are concerned with design'*, this paper is linked to a site visit and workshop conducted in the Ken Thamm Information Resource Centre at Immanuel Lutheran College, Buderim as part of the 2005 Australian Curriculum Studies Conference *Blurring the Boundaries – Sharpening the Focus.*

Introduction

The perspectives developed in this paper form part of a Doctor of Philosophy project which is concerned with the designing of school libraries as spaces of conceptual, physical, and increasingly 'electronic gateway' importance - as spaces and places for learning. My experiences as an educator have presented opportunities to spend both working and designing time in the learning spaces of schools. In addition the research has enabled me to spend 'contemplative, sauntering time' both in schools and with the research literature, walking in Donald Schon's (1983) 'reflective design practitioner' shoes and engaging with the education landscape in much the same way as Edmund White's (2000) ***flaneuse*** [flaneur] saunters and contemplates as he engages with layers of the landscape of Paris.

Although there are specific 'library' motivations associated with the doctoral project, for the participant-observer *flaneuse* these are opportunities to examine the broader taken-for-granted-ness of the learning spaces of schools and engage with an array of wider concerns about learning space design and designing. This paper addresses some of the puzzles and confrontations, assumptions and dilemmas associated with the designing of learning spaces:

- the rhetoric-reality gap between education policies and education facilities;
- issues associated with equality of education facility provision;
- the system and process constraints related to education facility design and planning;
- the limitations of 'fitting-in-and-fitting-out' conceptions of learning spaces; and
- the perpetuation and reproduction of these elements through current systems, processes, designing relationships and education facility design publications.

In the light of these elements the paper draws on selected writers to address the possibility of designing learning spaces which are *wide-awake* to the human dimensions of built spaces and the changing social, cultural, pedagogical and technological factors impacting on learners and teachers.

Contradictory discourses and practices: is this the best we can do?

The rhetoric of education policy, syllabus and curriculum documentation can appear to exude opportunity in terms of foundation potential for the designing of learning spaces of transformative quality. The Queensland (Australia) Syllabus documents for instance, describe learners as knowledgeable and creative people, complex thinkers, and reflective, self directed learners, who actively investigate, communicate and participate interdependently in their worlds. For some educators the personal-social, emotional and even spiritual dimensions of learners could well be added to this inventory. Such emerging learner identities – the polished performers of a Queensland education encounter - are said to develop best through engagement in cumulative, quality learning experiences which foster the active construction of meaning (Queensland Studies Authority).

Improving student performance and learning outcomes via the application of strategically applied teaching and learning strategies – *productive pedagogies* - is a pivot of Education Queensland's New Basics initiative. Documentation endorsing productive pedagogies, describes typical *rich task* learning experiences which involve learners in scaffolded and self-directed ways with the diversity and challenge of the world beyond the classroom. *Rich tasks* supported by productive pedagogies are invested with the capacity to develop the quality of students' intellectual engagement and their capacities for relationship building and communication. Such approaches construct capable learners of whom there are high intellectual and social expectations (Education Queensland, 2001).

Thus the Queensland syllabus learning outcomes and the *rich tasks* describe the complex calibre and scope of real-life learning experiences which are pertinent to learners in changing and challenging times. It seems reasonable therefore, to expect that the designing of built spaces for learning would come within the scope of discussions about achieving rich task outcomes. If we accept that learning is situated in the places of schools and more widely in an array of communities, it seems reasonable to ask:
If these are the learners that we imagine, that we hope for and actively seek to develop, and these are the learning experiences we value in the process of developing such learners, then what kinds of learning spaces might support such learners and learning?

However, Education Queensland publications on rich tasks and productive pedagogies do not explore the implications of the physical/geographic 'situated nature of learning' (Groundwater-Smith, 2004, p. 5). Thus while a network of teaching practices and learner activity is described, learning space design and designing, are absent from the most pivotal policies and documents about learners. The designing and design of the places and spaces for learning are unaddressed, assumed within current practices and unconnected to the valued learning experiences encouraged by the policies and syllabus statements. Teachers and learners as makers of places for learning are ignored.

Beyond the zone of early childhood education facilities it is rare to find the physical learning environment included in documentation about learning and teaching. Kenn Fisher (2001) documents 27 research studies that examine possible causal linkages between school building condition, student outcomes and student behaviour, in a digest prepared for the Commonwealth Department of Education Science and Training. Across the studies the most demonstrable connections related to school size, the age of buildings, lighting, acoustics, air quality and temperature, furniture and the use of colour. The school library as a learning space features in only one of the annotated studies (Doll, cited in Fisher, 2001) and the only reviewed study which examines the relationship between social and pedagogical contexts and the design of learning spaces is an Australian Government report (DETYA, 1993) related to the desirability of separate middle school environments for young adolescents.

Issues of inequality in education facility provision are evident across the scope of school environments (Bunting, 2005; Nair, 2005). These are rarely more apparent than in the cut-and-paste accommodation of the 'learning revolution' technologies - as promoted and prescribed by government, researchers, technology pundits and marketplace commentators. The constraints of hardware and infrastructure provide a significant rhetoric-reality mismatch which sees a majority of learners and teachers occupying classrooms and other learning spaces designed before the surge of the technology tide. These are spaces where 25 – 30 individuals are required to shuffle up to accommodate computers and peripherals which can absorb the space of several people. In the form of 64 – 72sq m classrooms, the size of the spaces alone makes significant assumptions about the people in residence and the kinds of learning which can conceivably take place. These could be described as 1770s spaces because in such classrooms and in spite of the technology Captain Cook would have little doubt where he was.

There is no shortage of innovative education facility designs and solutions promoted internationally through organisations such as the Council of Education Facility Planners International (CEFPI), the DesignShare Forum and the National Clearinghouse for Education Facilities. The websites showcase both new and redesigned education facilities, including the refurbishment of heritage buildings. The education facilities conference circuit offers a consistent programme sponsored by agencies such as the OECD Programme on Educational Building and CEFPI. The Australian Chapter of CEFPI has conducted an annual conference since its inception in 2000. The June 2005 edition of 'Teacher' carried two articles on current and innovative school designs – Bexley Academy, London and Reece Community High School, Tasmania.

Thus budgeted 'new' facilities, whether they are new or redesigned projects, receive significant attention. The great invisible zone of education facilities encompasses existing education facilities, everyday classrooms where no priority is assigned or budget allocated to re-designing, such that the learning spaces are taken-for-granted and unaddressed in terms of adaptation for changing learning conditions. It is also worth noting that in the tertiary preparation of teachers there is little discussion about potential influence of physical spaces on learning and rarely are there study or research options to stimulate an interrogative approach to the designing of learning spaces. The Queensland University of Technology provides perhaps the only opportunity Australia-wide for education students at post-graduate level to engage with learning spaces design in its Master of Learning Innovation unit 'Designing spaces for learning'.

A Brisbane architect, Catherine Baudet reflects:

> Children are undervalued in building terms. They deserve great buildings and great outdoor spaces. They deserve spaces that inspire and are safe and their carers and teachers deserve the same.
>
> For example: if teachers are unable to carry out their programmes because of inadequate space and inflexibility of the space, then children are compromised. They are our greatest resource – we need to provide them with the best
>
> (Baudet, 2001, unpaged)

Somewhat more caustic commentary is provided by Kenn Fisher (2004) who describes the social spaces of schools as predominantly featuring 'asphalt, concrete and chain wire mesh'.

Taking these themes into a more theoretical zone Dovey (1999, p. 15) examines the everyday practices of power which are mediated in built form and contends that 'built forms use metaphor and construct mythologies through a politics of representation'. The history of schools and their evolving social and educational roles could be said to construct and naturalise particular views about what constitutes, for example, knowledge, culture, privacy and community. Such mediations are evident in place-power dimensions wherein built spaces coerce, position, dominate and seduce. In these terms, the segmentation and divisions of the built spaces of schools establish public and private dimensions, permit and prevent access and create conditions of surveillance.

In practice the built spaces of schools could be seen to prioritise the herd and the corral, to insist on the visibility of most individuals most of the time and to diminish the independent and interdependent individual. For students who operate independently in the world during their leisure time, some of the physical constraints built into education facilities appear to assume them to be untrustworthy and undisciplined. An example for discussion might be the school tuckshop/canteen as a social space. The leisure experience of the local coffee shop: seated at tables, selecting from a menu, talking with friends, is a significant contrast to the tubular steel queue-managers, sparse spaces, and lack of seating of many school canteens.

The puzzle for the *flaneuse*? … *Is this the best we can do to balance a duty of care with the recognition of students as developing, responsible people?*

Learning Spaces in Schools: grand assumptions and dilemmas

For most Australian schools the designing and building of education facilities is regulated by Federal and State government standards and by school-system or governing body processes. Frequently, education facility building projects are directed by combinations of school facility planners, project directors and designers/architects. In an established school, the process of designing or refurbishing an existing facility is not certain to include systematic consultation with resident educators. For example consultative approaches can include broad but limited initial consultation, or consultation of varying intensity with specific educators. It is likely that significantly more consultation will take place with those who manage the financial aspects of the project than with those who will live and work in the facility. From an educator's perspective the focus of much consultation pivots around plan-view documents – not necessarily a familiar language - which may offer a constrained view of the facility as a place for learning. In such cases, this may be the only vehicle for engagement between the educator, designer-architect and facility planner. In less common circumstances consultation with a specially constituted Reference Group is continuous throughout the project.

In the case of new schools, where future educators have not been appointed and thus are unavailable for consultation, the process of designing specialist aspects of an educational facility – for example the school library - lacks transparency, and is unreferenced to those people who will work in and use the facility. The designing process gives the appearance of being governed by what could be described as 'the parachute principle'. That is, the school library is designed out of its learning context by unrelated individuals. It is then 'parachuted' into the school site, and the people are 'parachuted' into the buildings. In these cases it is unclear how teaching and learning perspectives have influenced the project. Although a Principal is usually appointed some months in advance of a school

opening, this is often well beyond the point of educator perspectives informing the final design except in the most cosmetic ways. Further to this, new teaching staff members are unlikely to see the facility before completion, and along with students, are rarely consulted. Compounding this effect is the potential for a perceived 'successful' school library design to be 'parachuted' into multiple greenfield sites, apparently unreferenced to the needs of different communities. A similar scenario could be described for a range of specialist learning facilities.

Using the example of designing school libraries, a particular constraint is the nature of published materials available to educators to support their designing endeavours. Broadly, the available texts are concerned with checklist and template approaches, with 'fitting in and fitting out', making the most of available spaces and furnishing them accordingly. Other texts, reveal something of an adversarial character, relying on planning and building blunders or stories of contentious relationships between architects and educators to make their point, albeit sometimes humorously, about the follies of taking entrenched positions and the benefits of collaborative planning partnerships (Fenton, 1999; Johnson, 1999). Rarely do texts deal with the situated nature of learning, the social ordering of spaces, the meanings and implications of surveillance or the disruption of physical boundaries by electronic technologies.

The *flaneuse* might ask: *How can we think about the human dimensions of spaces in designing places and spaces for learning and teaching?*

A Critical Interrogative: who and what is valued here?

It would be an error to suggest that there are physical or ambient characteristics common to all built spaces which we can identify and include in our built space designing endeavours to ensure that an education facility 'works'. Similarly it would be misguided to propose that there is a universal template for the processes of designing or that only certain players/roles are appropriate to be involved in the designing process. However, as a reflective practitioner *flaneuse* I have encountered the work of several writers, designers and thinkers which provide enriched perspectives about the human dimensions of spaces, about the process of designing and about the relationships of the 'voices of experience' – educators, designers/architects, education facility planners and students - who might be appropriately engaged in designing spaces for learning.

Christopher Alexander is recognised as an influential writer by many architects and designers. However his work is criticised in some quarters as over-aesthetic or academic. Three of his texts express, for me, unique perspectives on the human dimensions of built spaces. While the style of Alexander's writing tends to the instructive or didactic, the texts are imbued with an almost palpable respect for human circumstances, conditions and needs.

A pattern language: towns, buildings, construction (1977)
The timeless way of building (1979)
*The Oregon experiment (*1975)

Together the texts develop a philosophy and practices for the designing of spaces for living and working – for the expression of human lives. Alexander (1977) describes his approaches as 'a pattern language'. From post-modern, post-structuralist perspectives, promoting ideas of patterns, templates or formulae, or of 'language' as singular, has the potential to invite derision. Alexander (1977) has his own explanation for the

appropriateness of the term and his own justification for some of the patterns which infer varied cultural practices and styles of living. However, conceding that the book's title is 'of its time', a deeper exploration of the 'pattern language' may serve to demonstrate that the term 'pattern' might be regarded, at most, as a somewhat limiting descriptor which masks the rich social, cultural and human considerations contained within many of the 'patterns'.

Alexander (1979) explores the human dimensions of built spaces through the 'patterns of events' which take place in spaces. The quality of spaces - 'alive, holistic, balanced, self-sustaining, timeless, and appropriate' - is partnered with the notion that 'the life and soul of a place depends not simply on the physical environment, but on the patterns of events that happen there' (Alexander, 1979, p.167). These patterns of events extend beyond human activity to encompass diurnal and seasonal elements, cultural diversity and geometric relationships. Such living patterns of events invest a quality, an energy, a life which is described as a 'sleepy awkward grace which comes from perfect ease' (Alexander, 1979, p.167). Hardly in the manner of most schools of our acquaintance, but perhaps worth considering in order to think against the grain and to challenge the taken-for-granted-ness in the learning spaces of schools.

Such perspectives stimulate other ways thinking about the human and learning dimensions of the built spaces of schools and about the participants and processes of designing within the scope of evolving 'vernacular' everyday experiences (Lawson, 1997, p.197). The perspectives offered by Alexander (1977; 1979) present a conceptual frame, at once historical and contemporary [timeless], aesthetic and pragmatic, open and precise and above all reflective. Overlaying an array the 'patterns' on the learning spaces of schools supported the evidence of my experiences: that such spaces are often overwhelmingly inconsiderate of learners and teachers. Consequently, a guiding question for the critical theorist *flaneuse* engaging with the research and with the designing of learning spaces becomes: '*who and what is valued here?*

Educators as placemakers and designers

The human experience and interdependent concepts of space and place are expressed across the disciplines – in art, philosophy, literature, geography, psychology and anthropology. Theories about space and place include conceptions of space as static and concrete; space as location for objects, subjects and events; space as defined completely in terms of relationships and space as a socially produced (Soja, 1989; Lefebvre, 1991). This production (spatialisation) is achieved through human practices located in spaces, through representations of spaces such as maps and plans, which regulate and organise space, and through often contested social, cultural, political, and economic meanings. In an ICT dominated world, humanity could be said to live in a continuum from the materiality of geographic space to the virtuality of cyberspace (Curry, 1998).

Explorations of concepts of *place* have been associated traditionally with cultural landscape studies involving, sense of place, aesthetics of place and landscape as text (Bachelard, 1958; Lefebvre, 1991; Mitchell, 2000; Armstrong, 2003). While these aspects are bound up with the physical geography of places of natural, historical and heritage import, they are also concerned with the everyday places associated with our identity, our places of belonging. Bachelard (1958) proposes that there is a deeply embedded link between personal and cultural identity and identifying with place. This link is most powerfully in evidence at times of social upheaval or the loss of 'place' or 'identity with place' which is associated with phenomena such as migration, urbanisation and

globalisation – the experiences of displacement resulting from 'mobile and fragmented urban milieux' (Buttimer, 1980, p.116).

A number of designers/architects provide perspectives to inform the ways educators might analyse and critique existing and prospective learning spaces. Acknowledging the circumstance of the novice or unqualified designer, Alexander (1979) and Lawson (1997) describe the history of designing embedded in our vernacular understandings and experience of space and place. They propose that design thinking as a skill is not the exclusive province of those with design training. Daily we are faced with design decisions in the clothes we select to wear, the arrangement of our desk space, the order of our tasks. A concept of vernacular design places educators, designers/architects, facility planners and students within the scope of an extended notion of design experience and capacity with respect to the designing of learning spaces (Day, 2003; Lawson, 1997; Lawson, 2001).

Using both vernacular and specialist knowledge, Day (2003) promotes participative or mediated consensus approaches to design which work towards agreement, relying on respect, the building of trust and the moderation of entrenched personal positions. While consensus approaches may have significant potential as action and process based methods for advancing design knowledge – design as a form of research – it seems that commitment to collaborative reflection within the consultative process is of prime importance. Day (2003, p. 220) describes a model for assessing the character of spaces based on identifying the qualities (values and spirit) of place and space, the appeal of spaces to users of the space and the surrounding physical contexts. The model concentrates on the ways in which the design of spaces 'can grow out of the developmental currents already at work' [Appendix 2]. Heath (1989) elaborates his version of developmental currents through the scope of Values, Attitudes, Site/System and Technology (VAST) elements which need consideration in the design of spaces for living and working.

The VAST heuristic (Heath, 1989) is a promising focus for a shared/inclusive language of designing which has the potential to accommodate the scope of concerns of educators, designers/architects and education facility planners. Interrogative approaches are embedded in both Heath's (1989) VAST heuristic and Day's (2003) site assessment model. The VAST heuristic (Heath, 1989, p.17) offers a rich alternative to checklist/template approaches to designing. Involving strategic and tactical methodologies, such a model could have relevance in the evaluation of learning spaces, in design planning and in critical appraisal of education facility design texts and design processes. The **Values, Activities, Site/System and Technology** elements can be expressed in a range of ways as demonstrated in Appendix 1. As a device to encourage the *reflective practitioner* (Schon, 1995, p. 77), the VAST heuristic offers a platform for consultative conversation and reflection among designing participants.

An inclusive language of designing needs to acknowledge the fundamental differences in the ways in which places/spaces are experienced by *insiders* (those living and working in a space) and the ways in which those spaces are observed and described by *outsiders* (those who might typically be accredited designers) (Buttimer, 1980; Day, 2003). It seems reasonable to suggest the desirability of an inclusive language of designing if design partnerships are to result in relevant, satisfying education facilities. These heuristic

approaches present avenues for designing which begin from *insider* positions and thus invite the participation of users of learning spaces into the designing process.

Remaining open to a range of perspectives on conceptual and process aspects of design, Schon (1995, p. 77) points out that, 'all occupations engaged in converting actual to preferred situations are concerned with design'. Such a perspective has the effect of drawing the educator, the designer/architect, the education facility planner and the student into what could be described as a designing relationship. Schon's (1995) perspective may also connect with ideas about the collaborative potential of multiple voices of experience in the process of designing education facilities for particular communities.

Re-emerging patterns?

As if to build on earlier work by Alexander (1979) and Lawson (1997) the notion of *patterns* gains some currency in recent conference presentations and publications about learning spaces. Jeff Lackney (2001) for example, outlines 33 Principles of Educational Design. Each principle is referenced to empirical research or to the reflective practice of educators and design professionals. The principles apply across the phases of education facility planning, design, construction and maintenance and are published and updated through the website of the School Design Research Studio, University of Wisconsin-Madison.

Fielding and Nair (2004) founders of DesignShare (http://www.designshare.com/), promote their 'patterns' as principles developed in response to particular circumstances and needs rather than recipes, checklist items or must-have elements. Such approaches underline the potential for proactive, specific learning space designs considerate of learner and educator needs and expectations.

The *flaneuse* speculates …

Changing social, cultural, pedagogical and technological conditions impacting on learners and teachers are opportunities to question the adaptability and responsiveness of learning spaces. In particular, the effects of the ICT 'signs of the times' and shifting pedagogies associated with 'learning revolution' technologies provide a significant challenge to long held notions of space-time for learning and consequently to the nature and designing of spaces and places for learning.

However it is possible to conjecture that, while new spatial-temporal understandings are emerging, the space-time disruption and flexibility of ICTs does not render space meaningless [spacelessness]. Rather, material space can be regarded as being supplemented by virtual/online space – geography, is still important (Dodge and Kitchin, 2001). The human dimensions of the physical and online learning spaces of schools deserve the *wide-awake* attention of educators as participants in the designing process and makers of places for learning.

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Appendix 1

VAST – *Design planning heuristic*

Heath, T. (1989). *Introduction to design theory*. Brisbane: Queensland University of Technology

Values ***People have values***	**Activities** in relation to aspects (activities),	**Site/System** of buildings	**Technology** which must be expressed in built form
System of human relationships • Feelings – subjective • Attitudes – observable • Beliefs – organised • Customs – habits • Laws – enforceable	System of human activity • participants/actors • characteristics • relationships • materials • actions: sequence, outputs • action effects • conditions: requirements • relative dimensions • support services • information support • risks	System of human activity • participants/actors • characteristics • relationships • materials • actions: sequence, outputs • action effects • conditions: requirements • relative dimensions • support services • information support • risks	Production of the built space system • structure • skin • climate control • subdivision: internal • services • finishes
Representing values: • literary descriptions – narrative of the users • sociological analysis – systematic observation • speech protocols – interview, forum, 'listening space' • exemplars – 'like'	**Representing activities:** • adjacency matrix: activity connections • flow chart: linear, recursive • bubble diagram: patterns of connections • room data sheet: equipment space requirements • time lapse photography: 'slices of time' • video: 'what it looks like in action' • computer graphics; dynamics	**Representing sites & systems:** • location plan: relationships • photography: qualitative • annotated site plan: integration of aspects • overlay plan: transparency rendition of aspects • model; 3D • computer graphics: dynamic of all the above	**Representing technology:** • photographs: installations • sections & elevations • type details: detailed drawings of aspects

Appendix 2

Assessment Matrix: *appropriate to the evaluation of an existing space*

Day, C (2003) *Consensus design: socially inclusive process*. Oxford: Architectural Press.

What is its *individual* spirit? [*What is its essence; its inspiration, its 'esprit de place'; genus loci?]*	*What values and spirit should things convey?*
How do people *feel* about it? [*What appeals; how do we respond?*]	*What qualities does this imply?*
***Time* continuum?** [*What is ebbing and flowing and changing?*]	*How can these grow out of the developmental currents already at work?*
What is its *physical* context? [*What is its bedrock; its material substance; its physicality?*]	*What material changes does this require?*