

# **Placemaking Practice: Transforming Classrooms from the Inside Out – the Critical Role of Spatial Literacy**

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## **Abstract and overview**

For decades CEFPI, the OECD Program on Educational Building, the Schools Learning Laboratory and other related organisations have pursued transformative approaches to the planning and design learning environments to suit contemporary perceptions of learning. Yet these attempted paradigm shifts are predominantly applied by spatial practitioners 'from the outside-in'. The end recipient of these efforts, that is, the classroom teacher and his or her students, generally have little say in how their learning environments might be constructed to better serve their learning needs. This presentation will briefly explore creative pedagogical practices (resource-, problem- and project-based learning, active learning, students as researchers) and the flexibility of the curriculum framework to suggest how multiple literacies in students might be actively engaged in their daily learning lives in placemaking. In particular the development of spatial literacies augmented through spatially oriented pedagogical and curriculum development practices applied to the very classrooms in which students engage in an action-based 'pedagogy of architectural encounters' will be explored. Three case studies (one primary, two secondary) will be used to illustrate the idea of learning geographies to assess its worth in schools design. The presentation will examine how teacher professional development is fundamental to any cultural change or school transformation in parallel with school design innovations. Further, it is hoped that this paper will demonstrate an 'inside-out' transformative placemaking practice which will foster change from within the classroom, rather than being imposed from without.

## **Introduction**

Despite relentless efforts to plan and design new learning environments since the War the classroom still takes pride of place in schools and schooling, as it has for over 150 years. I argue that this stasis has occurred because teachers and students are seemingly unconscious of their surroundings, or alternatively helpless to change them due to a lack of funding. This presentation suggests that a renewed effort to understand the school as a place and space of learning is well overdue. Above all the paper urges an increased effort towards developing spatial literacies in teachers and students using the immediate spaces around them, ie the school, as a learning laboratory.

## **Context**

Whilst there are pockets of innovative teaching and learning in schools I believe that the predominant paradigm is largely based on that developed during the Industrial Revolution almost two centuries ago. That paradigm is predicated on a model which is teacher-centred, is carried out largely in a classroom, is based on equal progression of class cohorts, is constrained by curriculum and assessment requirements and the intensification and marketisation of teachers work and, at least in the public education sector, is accompanied by a rapidly diminishing funding base.

Yet contemporary educational rhetoric speaks of a revolution in learning brought about by the impact of IT and the Internet. The reality is far from this. If you wander around any educational institution this rhetoric is not evident in the physical fabric where formal classrooms and traditional laboratories predominate and make up some 90% of teaching and learning spaces. Social spaces are generally given short shrift and consist largely of asphalt, concrete and chain wire mesh.

Whilst there have been genuine efforts at bringing about change this appears to me to be primarily from the top down. The new schools program in WA, the Australian Science and Mathematics Schools at Flinders University, the public private partnerships program in NSW and a host of other examples illustrate wonderful vision but little acceptance of the very real barriers to change that exist at the coalface. Here teachers and students deal with run down facilities, a lack of available IT (although where it is available it is in very high demand – utilisation and occupancy rates are often around the 100% mark), the requirements of curriculum outputs and the ultimate requirements of assessment. To teach in teams, offer flexible learning programs, online programs and other such innovative approaches requires significant extra effort and this has to be carried out in the context of largely diminishing funding.

Many present at this conference have undoubtedly been involved in innovative projects, many of which have been very successful. The key to these innovations is, however, delivering those new approaches across the mainstream of schooling. For example the learning laboratories and learning commons at the Australian Science and Mathematics School at Flinders University are much loved by the students. And, while the staff are still coming to terms with having to rewrite curriculum and pedagogical approaches to match the flexible arrangements of these studio like learning spaces, the 97% of schools in the rest of South Australia continue to struggle with timber transportables and a vast amount of classrooms and laboratories most of which were built in the 1960's.

CEFPI, the OECD Program on Educational Building, the UK Department for Education and Employment and [www.designshare.com](http://www.designshare.com) all offer wonderful new approaches but the majority of opportunities, as pointed out by Susan Groundwater Smith, lie in the existing schools with their backlog of overdue refurbishment and maintenance. It is within these schools that my research interests lie. That said, much of my consulting work is carried out in those organisations that are well funded and are able to pay consulting fees to determine how their new learning environments might look.

I will attempt to scope all of these areas, particularly in the examples in the last part of this paper. But what I want to do is to try to connect these attempts at creating stimulating and vibrant learning environments with the concept of graduate competencies. That is, the desire for students to move from their formal learning at each transition phase, or right of passage, with an enhanced ability to think critically, collaborate in teams, solve problems, work on projects and to be able to communicate in a range of modalities as both a student and as a public citizen. These competencies are largely not the domain of the current assessment system which principally evaluates the student's ability to regurgitate memorised knowledge. The 'pedagogy of assessment', perhaps the topic of another session, should be held accountable for the cultural inertia which is evident in the pedagogical approaches and learning environment design which has predominated over past decades.

### **Pedagogy, space and place**

The conference theme - 'Facility design and learning: has the paradigm changed' - has involved a number of keynote presentations including:

- 'Change - the pedagogy of walls stopping free thinking clusters' - Chris Johnson, NSW Government Architect
- 'Transforming learning: transforming places and spaces for learning' - Susan Groundwater Smith
- 'University sector - the way I see it' - David Fuller
- 'Doing away with the red flag acts' - Julia Atkin
- 'TAFE teaching facilities and the forces which shape them' - Malcolm Kite
- 'Schooling in the future - *I never let schooling interfere with my education*' (Mark Twain) - Greg Whitby
- 'Facility design and learning outcomes' – Cecilia Wilson

These papers indicate a strong willingness to change the paradigm. The OECD and ANTA's 'Clicks on Bricks' project has attempted to understand the links between information technology and the built environment with a key finding being that all of this infrastructure should be seen as seamless and as one holistic technology of learning. In short, buildings should not be separated from IT.

Yet even in these projects the users/inhabitants/occupants/residents (can anyone offer a term which is politically acceptable?) still have to struggle to develop programs which can be implemented in these learning environments. Whilst there might be funding for capital works often the funding for curriculum development, assessment redevelopment, professional development, relief teaching and so on are nowhere to be seen. We calculate the capital works and ICT infrastructure requirements and recurrent and operational costs but we move the teachers and students into these facilities with little preparation.

For example, the Australian Science and Mathematics School was to have its core teachers appointed 4 months out from the opening of the school so that they could develop curriculum and pedagogical approaches to match the new sciences (eg nanotechnology) rhetoric. As it turned out, due to budget constraints, they were appointed two weeks out and found themselves using traditional 'Mode 1' pedagogies in spaces designed for 'Mode 2' pedagogies (after Gibbons, 1994). The result was that, whilst the students loved the school, the teachers initially found it very difficult to teach in.

Looking once again at professional development much effort is actually put into IT training, curriculum, pedagogy and so on. But how much is put into space and place? Is it because of lack of funding and an unwillingness to raise unfulfilled expectations that space and place are avoided, except when there is a funded capital works program afoot? I argue that we should be pursuing space and place (along with IT) as a critical tool for teaching and learning. Space is a key resource which consumes from 10-20% of operating budgets in most educational institutions. Why is it being ignored? I think it is of a lack of what I call 'spatial literacy' and a consequent lack of spatial vocabulary, coupled with a 'dumbing down' because 'there is no money so don't even think about it'. Whilst the presentations you have heard today have argued for a spatially unrestricted approach to learning, still the classroom reins supreme.

I call this apparent dumbing down the 'spatial subconscious' or unconscious.

Yet it is in the formal environment of the classroom and the informal environment of the campus grounds that architecture is lived, learnt and experienced by teachers and students. I believe that we form our architectural vocabularies and spatial literacies during these formative educational years. Our experiences of school, college and university architecture sets the spatial benchmark for our understanding of environmental quality later on in our adult lives. If we have positive experiences in our learning environments then maybe community expectations regarding high quality public spaces will be enhanced resulting in better architectural outcomes across the whole community.

The 'actuality' or phenomenological experience of the interaction between learning and the physical environment has only really been extensively explored using the natural environment and the school grounds through such agencies as Learning Through Landscapes in the UK and the Learnscapes Trust in Australia. What educational architectural academies, such as the School Design and Planning Laboratory (at the University of Georgia) and Designshare.com (run by CEFPI) should be exploring is the interactivity between the built environment and learning through action-learning projects which engage students and teachers in architecture. It is only through living, controlling and shaping learning spaces and places that they will become real and not simply experienced as passive containers for learning.

Now, in the so-called Knowledge Age, learning is becoming increasingly interdisciplinary, collaborative, problem- and project- based. It involves learning in the community and in industry with sustainable personal and social communication being the key to such transdisciplinary activities. Neither Internet chat rooms nor classrooms alone can achieve this

objective. Pedagogical concepts such as constructivism (negotiated individual curricula), multiple literacies (including spatial), multiple intelligences (after Gardner, 1999), distributed learning (facilitated by mobile and wireless communications), integrated curricula, worked-based learning and so on will all require a rethink of the spatiality of learning.

However, such innovations as the Australian Science and Mathematics School, which attempts to embrace these ideas, are futile unless they become part of the mainstream of schooling. The ideas demonstrated in these prototypes must be leveraged into all schools, colleges and universities for there to be any significant reform in schooling.

On the contrary I think there should be a much greater focus on space and place in educational institutions. In schools there are ample opportunities to do this through the curriculum. Such approaches can be within the faculty domain or across disciplines as thematic topics taught simultaneously across all eight learning areas. The Royal Australian Institute of Architects has a largely inactive BEE (Built Environment Education) program and the Learnsapes Trust (and Learning Through Landscapes Trust in the UK) offer tested alternatives to bring space and place alive in students everyday learning and being. Perhaps there should be a non-government organisation devoted to the built learning environment, such as the Education Foundation but focused on learning environment design (see also [www.edfacilities.org](http://www.edfacilities.org)).

My strategy, at least at the schools level, is to tackle the problem through the concept of multiple literacies (Gardner, 98). These can be integrated across all subject areas and the very school itself can be the case study or project which students can research. Instead of trying to replicate the outside world, why not engage with the lived reality which is the school itself? Why wait for a large capital works grant? Get on with incremental transformation from within the classroom in manageable bite sized pieces. Professional development programs should showcase more flexible pedagogical approaches which utilise strategies such as the social construction of learning epitomised in the Mode 2 approach to knowledge production. Such approaches can be tackled through the use of a wide range of case studies, to which I now turn.

### **Case studies**

There are a number of projects across Australia and overseas examining the quality of the built learning environment and its impact on learning across all sectors of education. Many of these projects are highly collaborative and co-constructed with teachers, students, planners and designers. Some examples are outlined below and will be considered in more depth at the conference presentation.

- **Collaborative Schools Planning** - the SchoolsWorks program in the UK. Also the recently funded research project on visual and spatial literacies and the DfEE Schools for Tomorrow Study
- **The Australian Science and Mathematics School** – opened in March 2003 at Flinders University this Year 10-12 secondary school concentrates on reframing of the teaching and learning of maths and science. It is also a teacher professional development centre for the State and for Australia
- **Ridley Grove Primary School** - a 'students-as-researchers project' which turns its gaze back on to the school itself as a subject for study. Supported by the Myer Foundation.

### **Conclusions**

It is time to reinforce the 'form-follows-function' adage as stated as recently as last week:

The Board of Visitors, which meets today through Saturday, will discuss a new way of planning buildings, by first concentrating on instructional and functional needs, rather than the visual appeal of a building, President John T. Casteen III, University of Virginia, said. (Academic Impressions, April 2004)

Furthermore it is time to focus more deeply on the functional aspects of the learning environment in collaboration with those that use them. In other words, learning environment planners and designers must devote more time to working with teachers and students to co-construct these spaces and places of learning. This will require a greater effort on the part of professionals. As teachers are increasingly becoming facilitators in the learning process so, too, must planners and designers become facilitators in the process of creating learning environments.

That there is still a need for leadership in the planning and design process is acknowledged. But this leadership must embrace the notion of multiple literacies in its widest sense, including spatial literacies. One way to achieve this is to develop a cross-curriculum thematic study based on the principles of urban design. This emerging profession integrates collaboration, consultation, spatial literacy, community participation, social justice and a host of related competencies which are compatible with the aspirations of the national curriculum framework.

I urge the implementation of a spatial literacy teacher professional development program across the nation as a means of achieving a true spatial transformation of schools 'from the inside out'. This is the approach being taken by Malloway-Fisher at Ridley Grove. The core strategy of this firm is to combine the best of interpretive design with collaborative placemaking practice. Here form and function are integrated through the aegis of learning, for teachers and for students, using spatial literacy as the primary tool.

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