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3. Outcomes are identified and there is evidence of scholarly reflection on their significance.
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# Contents

Limits and Thresholds: On the Power of Interiority  
*Professor Mark Kingwell*  
1

Di-visions/double vision  
*Suzie Attiwill*  
3

Interior Design Criticism: Between Excess and Austerity  
*Dr Jill Franz*  
11

(IM)MATER(IALITY) and the Black-Box Theatre as an ‘Empty Space’ of Re-production  
*Associate Professor Dorita Hannah*  
23

The Nourishing Art  
*Jane Lawrence and Rachel Hurst*  
35

Glue and Gumption  
*Associate Professor Douglas Lloyd-Jenkins*  
47

Raising Understanding of Indigenous Australian Culture through Creative Production in Interior Architecture  
*Associate Professor Marina Lommerse*  
57

Design, the Decoration of Culture?  
*Tom Loveday*  
71

Maori Time: Notions of Space, Time and Building Form in the South Pacific  
*Bill McKay and Antonia Walmsley*  
85

Absolute Zero – Revealing the Void  
*Darragh O’Brien*  
97
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Interpretive and Contextual Approach to Interior Design Education: A Study about integrating Theory and Practice</td>
<td>107</td>
</tr>
<tr>
<td>Dr Tiiu Poldma</td>
<td></td>
</tr>
<tr>
<td>Shifting Between Economy and Cladding</td>
<td>117</td>
</tr>
<tr>
<td>Julieanna Preston</td>
<td></td>
</tr>
<tr>
<td>Between-ness: Theory and Practice within the Margins of Excess</td>
<td>131</td>
</tr>
<tr>
<td>Catherine Smith</td>
<td></td>
</tr>
<tr>
<td>The NetWorkPlace Phenomenon: Connecting the Space of Place and the Space of Flows</td>
<td>145</td>
</tr>
<tr>
<td>Paul Smith</td>
<td></td>
</tr>
<tr>
<td>The Way of the Detail in Japanese Design</td>
<td>161</td>
</tr>
<tr>
<td>George Verghese</td>
<td></td>
</tr>
<tr>
<td>Growing a Discipline: Evolving Learning Practices in Interior Design</td>
<td>173</td>
</tr>
<tr>
<td>Dr Jacqueline Vischer and Dr Tiiu Poldma</td>
<td></td>
</tr>
</tbody>
</table>
Limits and Thresholds: On the Power of Interiority

Professor Mark Kingwell, University of Toronto, Canada


Abstract: Before we can approach the tension between austerity and excess – or any other productive tension in a design practice – we must first enter the metaphysical space of ‘interior’ itself.

The notion of interior is always defined by at least three ‘working parts’: inside, outside, and (most important yet least noticed) the threshold setting one off from the other. Properly speaking, this threshold is neither outside nor inside; rather, in setting the limit between them, it partakes of both. Like the skin of a body or the cladding of a building, indeed like any surface, the threshold comes into contact with what lies on both sides of it, linking the two environments in the act of separating them. ‘A surface separates from out and belongs no less to one than to the other’ (Don DeLillo).

The threshold is an ontological anomaly, a space outside of space, existing only in its vanishing. In theory, a threshold, as with any line in geometrical definition, has extension but no dimension. It is literally zero degrees thick. The function of the threshold, therefore, is not to be wide but to be crossed. Every limit is also its own negation. Drawing the limit-line is coeval with the possibility, the suggestion, we might even say the demand that the line be crossed. Once established, boundaries ‘ask for’ breaching – traditionally, a task for heroes.

This crossing is no simple matter, though we may blithely perform it dozens or even hundreds of times a day. What is involved here? What relationships of time and space, of consciousness and identity, of necessity and freedom, are created by the move from outside to in, and back again?

In this paper, I approach the thought of limits (and maybe the limits of thought) by taking the interior back to its moment of geometric inception, its philosophical ground zero: the drawing of lines and circles. Once inside, but only then, we may begin to ask what it is we seek in this crossing over, this transgression, of the threshold. Is it comfort? Security? Control? Or perhaps something deeper, and more challenging: the act of thinking itself.
Di-division/double vision

Suzie Attiwill, RMIT University, Australia

Abstract: The conference theme ‘Between excess and austerity’ indicates a division which has shaped the discipline of interior design during the twentieth century. This paper is the outcome of a desire to open up this binary relation which continually dogs the practice of interior design. The writings of Gilles Deleuze, in particular his attempt to ‘overturn Platonism’, are used as a tool to lever and open up possibilities for thinking differently. The immediate effect is that in between excess and austerity one encounters an ‘and’ – excess and austerity – hence the title of the paper ‘di-division/ double vision’. Rather than between or either/or, it is both. This produces a blurring of vision which problematises the distinction made between interior design and interior decoration based on questions of excess and austerity as one equated with ornamentation versus the essentialism of a minimal aesthetic. This paper considers three familiar modernist surfaces from the twentieth century. Looking through glasses provided by the writings of Deleuze, the Platonic nature of the surfaces is apparent but so too are other ways of viewing these surfaces – division becomes di-division or double vision and the possibilities for other ways of thinking and doing proliferate. The question of excess and austerity shifts from one of ‘to decorate or not?’ to one where the binary is blurred and the between becomes ‘and’ rather than a between of moderation. This involves an epistemological shift from a search for essences and ideals to an encounter with surfaces where meaning and events happen in which the proliferating intensity of life can be both austere and excessive.

Keywords: Platonic division; Gilles Deleuze; Le Corbusier, Adolf Loos; Mies van der Rohe

Introduction

There is something provocative about the conference title ‘Between excess and austerity’. On one hand it suggests moderation – for what else lies between excess and austerity? – on the other, it restates a binary that has plagued and dominated the shaping of interior design over the past century. Interior design as a discipline has defined itself as a practice in relation to notions of excess and austerity coupled with a distinction between interior decoration and architecture respectively. Its allegiance with architecture has produced a line of filiation with minimalism as a form of austerity in a binary opposition to ornamentation which was considered to be in excess of the modern surface.

The aim of this paper is to surface this division as one informed by Platonic ideals. In the process, a di-division or double vision will also become apparent which disorientates the
apparent self-given quality of the interiors that are produced by this division. Here one encounters the excess which lingers in the austerity of these surfaces and austerity in the excessiveness. This paper is an attempt to construct a platform of departure for interior design thinking and practice; to affect a shift in what appears to be dominating dichotomies and divisions that have shaped interior design as a discipline. Through different encounters, it aims to open up ideas and chances for different ways of designing and thinking about interiors.

The writings of Deleuze, in particular those that attempt to ‘overturn Platonism’, assist in this inter-rupting to produce a double vision. His writings are used in the spirit with which he advocated – like a pair of glasses, to look through and see the world. This paper is produced through an encounter with his writings – ‘You should not try to find whether an idea is just or correct. You should look for a completely different idea, elsewhere, in another area, so that something passes between the two which is neither in one nor the other. Now, one does not generally find this idea alone; a chance is needed, or else someone gives you one. You don’t have to be learned, to know or be familiar with a particular area, but to pick up this or that in areas which are very different. This is better than ‘cut-up’. It is rather a ‘pick-me-up’ or ‘pick-up’ – in the dictionary = collecting up, chance, restarting of the motor, getting on to the wavelength; and then the sexual connotation of the word’ (Deleuze & Parnet, 1987, p. 10). The immediate effect is one affecting the conference title – his propositions of the conjunctive poses ‘and’ rather than ‘between’ – excess and austerity, hence the title of this paper ‘di-division/double vision’. Rather than ‘between’ or the division of ‘either/or’, it is both – di-division. The shift in this paper to di-division or double vision from division and binaries is to entertain multiplicity, proliferation, intensities, differences and paradoxes of excess and austerity.

This paper argues that the dominant understanding of interior design in the twentieth century is shaped by the notion of an interior that is implicit in the Platonic division between inner and outer which distinguishes between the Ideal and the copy, essence and appearance, good and bad. The interior for Plato is a site of identification and recognition. Deleuze on the other hand embraces difference and that which is in excess of resemblance – the simulacra (Deleuze, 1990, p. 254). Simulacra are of ‘no fixed identity, contradictory or disguised entities in which the dimension of an unlimited and illogical becoming is revealed, a dimension in which objects may be said to be simultaneously both hotter and colder, bigger and smaller, younger and older. Such objects escape the domination of the idea and as a result threaten both models and copies’ (Bogue, 1989, p. 56). Deleuze’s strategy is to make
manifest what is latent in Plato: [and to] 'deny the primacy of an original over the copy, of a model over the image' and 'glorify the reign of simulacra and reflections’ (Deleuze in Bogue, 1989, p. 57).

A site for the Platonic division is the surface as it has been a site of contestation between excess and austerity in the design of interiors. For example, the distinction between interior design and interior decoration could be argued as a distinction between surfaces, between excessive surfaces (interior decoration) and austere surfaces (interior design). It is also the site for Plato of the encounter with the Ideal – via the shadows that can be seen on the surface of the cave wall. Considered as such, the surface becomes a site of meaning and events where meaning is ‘the surface effects of words’ and events, ‘the surface effects of things’ (Bogue, 1989, p. 72). For Plato, and also Deleuze, this is a process of interiorisation – one of resemblance and identification for Plato; for Deleuze, one of difference. The former involves containment and enclosure, the latter conjunctions and proliferation.

This focus on surfaces shifts from the conventional focus on space in relation to interior design – the question of vision which this paper addresses is of necessity directed at the surface as it is where light becomes visible, vision possible and where meaning and events take place.

Surfaces constructed in the early twentieth century that divide, organise and order excess through austerity, truth and imitation will be discussed; specifically, Le Corbusier’s whitewashed surface and Adolf Loos’s theory of cladding. A third type of surface – Mies van der Rohe’s reflective planes in the Barcelona Pavilion – are examples of modern surfaces that have also ‘had tremendous impact on modern interior design’ (Pile, 2000, p. 276). Its surfaces – both austere and excessive – challenge the Platonic division and the Platonic interior that accompanies it. The aim here is not to describe a lineage – to write a history – so much as to make apparent the Platonic presence on the surface and the interior produced. Each surface is a different encounter and each has occupied a seminal point in the discipline of interior design. Double vision – excess and austerity – blur: this paper is an intervention rather than a history – an inter-story if you like.

**Division**

The division between decoration and minimalism articulated as a distinction between excess and reduction is informed by Platonism which privileges the Ideal, the essence and essential. According to Plato, in the world there are only copies – of which these are further divided into good copies and bad copies. The mind is able to determine which is good by identifying inner resemblance to the Ideal. The bad copy is one that does not resemble well (it includes
other qualities which are therefore in excess of the Ideal or the original). So constantly there is a process of division – between essence and appearance, good and bad, resemblance and semblance. Gilles Deleuze wrote, ‘The purpose of division then is not at all to divide a genus into species, but, more profoundly, to select lineages: to distinguish pretenders; to distinguish the pure from the impure, the authentic from the inauthentic’ (Deleuze, 1990, p. 254).

These notions of essence, authenticity and purity are familiar terms within a modernist discourse and are used in relation to interiors, both architectural and psychological. Decoration in relation to interior design and modern architecture has been equated with the inessential, applied, surplus, fake and imitative. It is deemed to obscure the truth of materials, cover over and mask the authentic. Viewed in relation to Platonism and notions of essence, purity and the Ideal, the pejorative positioning of decoration in relation to architecture and interior design can be understood as an equation with a bad copy – that is, with that which bears no resemblance to the Ideal and is therefore in excess of inner resemblance – simulacra.

The motivation for this and the dismissal of interior decoration can be perhaps found in the interior that is posited by Platonism: an ideal interior that seeks resemblance and identification. This becomes apparent in reading texts on architecture and noting the use of the word ‘interior’ in a variety of ways to include both physical architectural interior and the interior of the subject. The nature of dwelling for example is both physical and psychological (Heynen, 1999; Wigley, 2001). One could map interior design's lineage with modern architecture rather than interior decoration as one of identification of the interior in a quest to identify and represent the modern subject.

In 1890 Hermann Bahr wrote The Modern: he spoke of a sense of disorientation amongst the younger generation due to the perceived fact that while the modern was present, it was not evident ‘in the spirit’. Bahr called for a purge of the old and an exorcism of falsehood in order to create the space for ‘… a new culture, a culture that would erase the difference between outward appearance and inner spirit and thus would be based on truth, beauty and harmony … The ideal house should be a Gesamtkunstwerk that would reveal the inner truth of its inhabitant: ‘… In a house like this I would see my own soul everywhere as in a mirror” (Heynen, 1999, p. 72). This concept of the inner spirit is Platonic and the necessity for it to find resemblance (rather than disorientation) in the surfaces of modernity is critical to the lineage produced for interior design. This ideal interior of the modern subject is assumed as a pre-existing entity and has remained unquestioned – a given – in the production of surfaces which were to reflect the inner state of ‘modern man’. These surfaces were austere – excess lead to uncertainty, lack of clarity, simulacra.
Surface

The surface, like a mirror, suggests an interior production – and an encounter with the
surface, a process of interiorisation. Modernism, as a pursuit of ideals and essences,
locates the Platonic interior as a state of inner resemblance. The surface becomes the site
for recognition and identification; reflecting the image of the ‘soul’ back as a process of
identification of inner resemblance. This may also explain the equation of the interior with
notions of intimacy, comfort and security – as an enclosure of certainty. Excess cannot be
contained and is therefore uncertain.

The interior is illuminated as opposed to the darkness of the unknown exterior. Hilde Heynen
made a similar point: ‘The mimetic gesture of ‘enclosing oneself’ is parallel to the quest for
identity and self-realisation that forms a basic characteristic of modernity’ (Heynen, 1999, p.
223). This mimetic gesture is performed on the architectural surfaces. It was a gesture that
was carried out through a process of reduction towards an austerity of surface and one that
constantly fought excess by dismissing the superfluous, superficial, inauthentic, decorative
and difference. This links to the other major force in interior designs of the twentieth century
– René Descartes and his declaration of certainty based on the subject as an interior mental
state ‘I think therefore I am’.

This relation between outward conditions and inner sensibility was constantly negotiated on
the modernist surface and is evident in the surfaces focused on in this paper. The surface
becomes a site of engagement and encounter – of reflections and contestations – where
events and meaning occur. Here the process of division, di-division and double vision – between
excess and austerity – becomes apparent. Yet this is not to say that interior design, as a
discipline, is necessarily a discipline of surfaces. In fact, many would make the distinction that
it is a discipline of space and this would be again to distinguish it from interior decoration.

A prioritising of surface over space is not new but it involves another epistemological shift
where space is not a given or a thing but rather a relation between surfaces. J.J. Gibson in
his book on visual perception took it one step further and wrote: ‘We live in an environment
consisting of substances that are more or less substantial; of a medium, the gaseous
atmosphere; and of the surfaces that separate the substances from the medium. We do
not live in space’ (Gibson, 1972, p. 32). The writings of the architectural historian Gottfried
Semper also posit the surface, in this case textiles, as the site of the production of space
and in particular interior space. Mark Wigley said of Semper’s position – ‘… The interior is
not defined by a continuous enclosure of walls but by folds, twists, and turns in an often
discontinuous ornamental surface’ (Wigley, 2001, p. 11).
‘Oh, those Greeks! They knew how to live. What is required for that is to stop courageously at the surface, the fold, the skin, to adore appearance, to believe in forms, tones, words, the whole Olympus of appearance. Those Greeks were superficial – out of profundity’ [Friedrich Nietzsche, preface to second edition of Die fröhliche Wissenschaft (The Gay Science), 1886 (Wigley, 2001, p. xxviii)].

Double vision

The surface as a site of Platonic division is exemplified in the whitewashed surface of Le Corbusier. These surfaces are an expression of Platonic idealism – white, essential, pure sites of exclusion in the pursuit of certainty. The removal of decoration from the wall surface was the removal of ‘a representational layer … (as) civilisation is defined as the elimination of the ‘superfluous’ in favour of the ‘essential’ and the paradigm of inessential surplus is decoration’ (Wigley, 2001, p. 2). It is a form of architectural hygiene to be carried out in the name of visual truth: ‘… Everything is shown as it is’ [says Le Corbusier]’ (Wigley, 2001, p. 3). All previous architectural surfaces are dismissed; the temporal and historical are whitewashed to reveal the timeless essence of the universal. The division is absolute or nothing and the encounter is deemed to be with the essential and the universally true. As an absolute surface it is a site of total projection. Yet gazing at these surfaces, the excess of white produces glare which affects the eyes, causing blurred vision when one looks away.

In contrast to the concept of liberated vision posed by Le Corbusier, Adolf Loos advocated cladding as the most appropriate surface for modernity and ‘modern man’. For Loos, the surface could not adequately represent or resemble inner states as the relation between inner experience and outward forms could no longer be perfect in modern culture. Therefore the surface acted as a mask and an enclosure. ‘The most cultured person is the one who can adapt to every circumstance and who is capable of responding in an appropriate fashion on all occasions and in every sort of company. This quality is achieved by imposing a deliberate partition or mask between inner and outer. The mask must be designed in such a way that the conventions are respected’ (Heynen, 1999, p. 78). Austerity was expressed through ideas of decency or propriety rather than reduction and as is familiar through Loos’s writings, decoration was equated with crime and excess. Loos constantly divided house and monument, art and useful objects, interior and exterior of the house, pleasure and utility. ‘… division, he argued, is fundamental to the modern condition’ (Heynen, 1999, p. 95). The interior in contrast to the dumb mask – the surface of moderation that lies between austerity and excess – is one of intensities and excess, as exemplified in: the bedroom he designed for his wife Lina; the Josephine Baker project; the showroom of the Goldman & Salatsch
menswear store in Vienna. These interiors are composed of spectators and spatial encounters. ‘The artist, or rather the architect, thinks first of the effect he is aiming at, then he constructs the image of the space he will create in his mind’s eye. This effect is the sensation that the space produces in the spectator: which may be fear or fright … respect … pity … the feeling of warmth, as in his own house … forgetfulness, as in taverns’ (Gravagnuolo, 1995, p. 23).

The Barcelona Pavilion by Mies van der Rohe is both simultaneously excess and austere. The division becomes di-vision in which ‘less is more’. Continually becoming and changing, these surfaces defy the Platonic division in that the inner is not a state of resemblance, identification or representation. Even in its role as the German Pavilion, there is no representation of its origin (although some have argued that the colours of the materials are the same as the German flag). Meaning is produced through an encounter with the pavilion’s surfaces not so much as a question of division where one seeks identification but of proliferation. Everywhere reflections double the spatial dimensions creating spaces of mirror reflection and contradictory perceptions.

The pavilion’s surfaces abound in reflections of light, people, and movement producing a disorientating, sensual experience of immersion. Paradoxically, the overwhelming sense of interiority produced is not one of enclosure but extension and openness. Caroline Constant writes of the pavilion’s landscape quality and how it is aligned with notions of the picturesque where meaning is produced through movement and change rather than imposed. ‘Despite its overwhelming interiority, the pavilion resists inhabitation. The role of the spectator is fleeting, transitory. The reflective surfaces of glass, polished marble and chromium-plated steel absorb any human presence, casting doubt even on the body’s own substance, just as the pavilion’s architectural language denies its metaphoric presence. The self merges with the other as fleeting ephemera in the cumulative layers of reflection’ (Constant, 1990, pp. 50–51).

As with Le Corbusier and Loos, van der Rohe’s surfaces are sites of encounter for the subject – ‘the will of the epoch translated into space’ – but for him, this subject was not a Platonic subject seeking certainty but rather one which was encountering change and proliferation; for van der Rohe, this is ‘the intensification of life’ (Constant, 1990, p. 53).

**Conclusion**

The discipline of interior design has been and continues to be dominated by a discourse and conception of interior based on Platonic ideas of a pre-existing interior – the subject – and a pursuit of the essence of things. This paper has sought to bring this to the surface and to make it apparent while also suggesting through the re-viewing of some familiar surfaces
of modernism that divide as well as produce di-visions. Viewed as such, the surfaces of modernity offer a plurality of division – di-visions doubling vision – in an endless proliferation of possibilities of excess and austerity. Rather than between excess and austerity, it suggests excess and austerity simultaneously; to encounter in the surface not the division of exclusion in the search for essence but as van der Rohe advocated ‘the intensification of life’ and participation in a world which is endlessly changing, celebrating its excessive austerity and austere excesses.

References
Interior Design Criticism: Between Excess and Austerity

Dr Jill Franz, Queensland University of Technology, Australia

Abstract: In this paper, an analysis of a review article in an Australian design magazine is undertaken using a selected model of architectural criticism. While the model is found to be restrictive in facilitating exploration of fundamental philosophical issues in interior design, it does reveal the potential of interior design criticism as a ground for further developing and defining interior design’s distinctive qualities and possibilities. The paper shows that a special aspect of the critical ground is its ability to accommodate oppositional concepts and through the tension in their proximity to provide for more constructive debate and exploration.

Keywords: Interior Design; Architecture; criticism

Introduction

What is valued in interior design today? What are the ideals that contemporary interior design practice purports to uphold through the environments that are produced in its name? What constitutes ‘good’ interior design? What is the knowledge that qualifies interior design as a discipline? These are the types of questions that I struggle with as I teach and practice interior design. This paper is an attempt to respond to these questions more explicitly. As outlined in the paper, I approach this from the position of design criticism; or more precisely, through a critique of design criticism. The critique draws on personal experience of undertaking a review of the GPO Hotel, in Brisbane, for Artichoke magazine. It will examine this process in terms of the nature of design criticism, the position it occupies ‘between excess and austerity’, and the potential of occupying this liminal position in gaining a better understanding of the nature of interior design. It represents an initial, work-in-progress stage in an ongoing process of discovery and consolidation. Specifically, it involves the application and evaluation of the model of architectural criticism described by Attoe (1978).

The role of criticism in (interior) design

The formal activity of criticism has played a significant role in art and literary areas, and, through these areas, in society. In his book, The Function of Criticism, Eagleton (1984) described how in eighteenth century England, the modern concept of literary criticism was closely tied, through its provision of a public voice and a forum for debate, to the emancipation of middle class society (p. 10). He also highlighted how literary criticism contributed in varying ways to the development of diverse fields such as semiotics, psychoanalysis, film studies, and cultural theory (p. 123). In terms of art criticism, this too
has a long and rich history contributing not in the least to our understanding of aesthetics and beauty. In turn, studies of these phenomena have informed or been the impetus for development of certain areas of philosophy such as those relating to judgement and ethics; an example being the work of Kant as conveyed in his 1952 seminal text: *The Critique of Judgement*.

By comparison, the tradition of critique in architecture has not been very productive or constructive. As Attoe stated in 1978, architectural critics ‘…have made few identifiable contributions to our understanding of the environment and, more importantly, to improving it’ (p. xi). Unfortunately, twenty-five years later this still appears to be the case despite the continuing significance of architecture, the role of critique in design teaching, and the increasing prominence of allied design disciplines such as interior design. In fact, searches of literature give no indication of a concerted effort to explore the possibility of developing a discipline of interior design criticism distinct from that of architecture. The term ‘discipline’ is used here in the sense of an explicit body of knowledge incorporating philosophical, theoretical and procedural frameworks for informing criticism and the criticism of criticism within a specific area that has its own distinctive substantive and procedural application.

The absence of and the need for a discipline of interior design criticism recently became apparent when I was asked to review the renovation and refurbishment of the original Fortitude Valley Post Office, which I approached without any overt understanding of the nature of design criticism, its role and various frameworks. To undertake the review I relied on my own values in relation to design and a tacit understanding of the purpose of critique influenced somewhat by my interpretation of the expectations of the magazine; the latter judged solely on the tenor of articles appearing in past issues. While analysing other articles I became very aware of how they reflected, through opinions expressed by the authors as well as descriptions of the environments, underlying assumptions about the nature of interior design and its value in today's society. At the same time, it also occurred to me that interior design criticism has the potential to play a vital role in developing a general ethos of interior design.

The act of criticism provides a ground in between what has been created and what will be created. According to Attoe (1978), ‘criticism will always be more useful when it informs the future then when it scores the past’ (p. xii). The key to this, he suggested, is in breaking down the negative and oppositional perception normally attributed to criticism. Integral to this is conceiving criticism as behaviour that facilitates understanding rather than as judgement that finds faults and invites defensiveness (Attoe, 1978, p. 2). This same sentiment is expressed
by Barthes (1987) who held that: ‘…true ‘criticism’ of institutions and languages does not consist in ‘judging’ them, but in perceiving, in separating, in dividing’ (p. 33). Barthes’ reference to ‘dividing’ is used in the sense of the Greek understanding of criticism ‘krinein’ which means to separate, to sift, to make distinctions (Attoe, 1978, p. 4). Having said this, Barthes recognised the constraints as well as the possibilities of critiquing another’s work. ‘The critic cannot claim to ‘translate’ the work, and particularly not to make it clearer, for nothing is clearer than the work. What the critic can do is to ‘engender’ a certain meaning by deriving it from the form, which is the work…. The critic separates meanings, he [sic] causes a second language – that is to say a coherence of signs – to float above the first language of the work’ (Barthes, 1987, p. 80). Barthes advised that the critic should not bring the work down to pure explicitness (austerity) since at this point there is nothing more to say about it (p. 87). ‘…to wish to diminish the symbol is just as excessive as refusing to see anything other than the strict letter’ (Barthes, 1987, pp. 88-89).

**Criticism of the criticism: Between excess and austerity**

To view criticism broadly, Attoe (1987) applied the precedents provided by art and literary criticism; precedents which I use for the analysis described in this paper. While the application of frameworks outside the discipline of interior design provides a vehicle for better understanding the general nature and potential of design criticism, it also highlights deficiencies which, in turn, lends support for the view that interior design does in fact have a specific and distinctive role to play in providing for meaningful experience through the built environment. What is also revealed is the potential of interior design criticism to provide a platform for further understanding and developing discipline-specific knowledge.

**The context of the review**

As mentioned previously, the review analysed in this paper is of the refurbishment and extension of an historic post office (Figure 1) for use as a hotel incorporating a restaurant, bars, gaming room, wine cellar, function room and private lounges.

The review was commissioned by *Artichoke*, a quarterly Australian national magazine covering several areas of design including interiors, products, graphics, furniture, textiles and exhibitions. The magazine has just undergone a substantial change to its format to enable it to compete on a commercial basis with other established national and international design and architecture magazines. Its aim is to appeal to the general public, specifically people with a specific interest in design, as well as to design practitioners, educators and students. In its forward, the magazine presents itself as providing focussed comment about the practice and outcomes of design highlighting that it ‘…has design at its core and presents expert,
informed opinion and commentary on all of design’s diverse aspects – by designers who are practitioners, educators and observers’ (Fitzpatrick, 2002, p. 10).

The role of the critic

The magazine presents the commentator as a reviewer. However, the role is much more that of a critic because it involves ‘the studied evaluation over time of an artistic effort’ (Titchener, 1998, p. 2). It is not, as Titchener (1998) noted with most newspaper reviews of plays or other performances, an overnight reaction. From my own experience, I found that the magazine’s use of the term ‘review’ caused confusion and uncertainty about the role I was to adopt. In many ways, it prevented me from exploring how I as a critic and designer was positioned within the culture, how I was being used, and how my critique work would be used (Merod, 1987, p. 19). In other words, the magazine’s use of the term ‘review’ complied to restrict opportunities to perceive wider possibilities and to contribute to the discipline in a more focussed way; a situation contradictory to its stated mission. Having said this, it is recognised that the vehicle for the commentary is a magazine not an academic journal and that the editors are walking a fine line between the excessive license of popular press and what is perceived in comparison as the austere contrivance of academic writing. Also, it should be recognised that these magazines provide a great opportunity and very accessible ground for collective critical examination of the field of interior design. Apart from this IDEA journal, there are no other academic Australian interior design journals and very
few international interior design journals. In addition, it should be remembered that design magazines reach a wide section of the public providing an excellent opportunity for achieving a broader appreciation of the nature and role of interior design and a more inclusive and collaborative environment for its development.

Realising the position of critic rather than reviewer would have made me more conscious of the need to explore my inherent biases and preconceptions of this role (Attoe, 1987, p. 4). ‘Once the bias in a critic’s assessment or position is recognized, those who are the objects of criticism are freed of the burden of Final Judgment and drop defences and learn from the frank encounter with the other whose life has been touched’ (Attoe, 1987, p. 8). To help understand the various roles of critic, Attoe (1987) identified some of the metaphors used by other critics. He described R. P. Blackmur’s metaphor of the literary critic as a kind of magical surgeon who operates without ever cutting living tissue (p. 6) and Ezra Pound’s understanding of a critic as a patient man showing a friend through his library (p. 7). From the dramatic arts, he referred to Charles Marowitz’s metaphors of critic as diarist, tourist, sit-down comic, fastest gun in the west end, to mention but a few (p. 7). With respect to architecture, he noted an obvious absence of stated metaphors suggesting as possibilities: missionary, proselytizer of good taste and steward of the environment (p. 7).

In analysing my position as critic for the article described in this paper, it occurred to me that it is possible for a critic to adopt several roles and engage several metaphors in the one article. For instance, there are instances in the article that reflect the value I place on cultural heritage such as the emphasis given in the introduction to describing the architectural character of the building and highlighting its significance to the people in the community when it operated as a post office. Specific mention is also made of the fact that it is heritage listed and that this presents a certain type of challenge and responsibility to the designer. There is also direct criticism of the designer’s failure to use local materials and products; the impact of which is somewhat diluted by, in the same sentence, praising him for addressing the local climate and lifestyle culture. Another role I adopt in undertaking the criticism is that of narrator concerned with articulating the experience of the environment. This focus on experience reflects the view that people connect with environments in various ways not in least being at an emotive, dynamically interactive level.

**Forms of criticism**

Integrally tied to the role of the critic is the purpose of the criticism. Incorporating taxonomies from other areas of criticism, Attoe (1987) identified three general purposes of architectural criticism: normative, interpretive, and descriptive (p. 9). Normative criticism is characterised by
its recourse to something outside the environment in question such as a doctrine, a system or a measure. As noted by Attoe (1987), architecture is well represented by statements that stipulate an ethos for design – that form should follow function being one of numerous well-established truisms. For a critic, conforming to this doctrine is problematic in the context of the reuse of an existing type of building for another purpose. Given that a significant degree of interior designing occurs independent of the architectural fabric the application of this doctrine has to be limited to the interior environment alone, in the process weakening the extent to which the designer can feel moral and absolved from having to adhere to specific requirements. For many designers, it is easier to adopt the utilitarian doctrine of ‘progress at any rate’. At the other end of the continuum is the preservationist/conservationist doctrine, which is more prevalent in the case of historic buildings (Attoe, 1987, p. 14). As noted previously, the focus in my criticism was very much in favour of maintaining the architectural quality and cultural value of the post office. This is also conveyed in the article through mention of how the designer has reinforced the building’s architectural quality via references in the furniture to Victorian Italianate detailing (Figure 2). Implicit in this is acceptance of another doctrine relating to the production of form that is appropriate for the material and vice versa.

Figure 2: Historic reference in furniture detailing
(Photography: Author)
In order to better acknowledge the complexities of human interaction, Attoe (1987) also referred to criticism’s recourse to a system of principles such as Vitruvius’s *Firmitas, Utilitas and Venustas* (p. 21). As to whether these were intended to be principles has been questioned by Capon (1999) who suggested that it is possibly more accurate to talk of Vitruvius’s emphasis on order, arrangement, eurhythmy, symmetry, propriety and economy as principles (p. 9). In the article under scrutiny, there is an obvious endorsement of what is perceived to be the designer’s attempt to manage and organise the elements of the environment in terms of firmness, commodity and delight through the use of order, arrangement and so on. ‘…the [ground floor bar] space is now punctuated by several unashamedly large pendent lights that hang over and give definition to the central rectilinear chocolate coloured marble bar’ (Franz, 2002, p. 26). Figure 3 is a photograph of this area. The article also notes how the over-scaled light fittings and commissioned artworks by David Band ‘…enhance the volume of the space, giving it a quality that invites interaction and exploration’ (p. 26).

![Figure 3: Formalist features of the space](Photography: Author)

With respect to a systems approach associated with the normative categories of criticism, there is also a typal form of criticism that attributes consistency to human behaviour demanding a consistent approach in how we design the built environment (Attoe, 1987, p. 34). In terms of the article, there is strong inference of the suitability of the post office to its new use as a hotel and of the new use to the post office. This notion of fit demands further investigation in interior design and interior design criticism.
The second major purpose of architectural design criticism as noted by Attoe (1987) is interpretive. With this purpose in mind, the critic attempts to place the reader in the critic’s position as someone having experienced the environment. This can be achieved in an advocatory way by giving the reader a new perspective on the environment; or in an evocative way by evoking in the reader feelings similar to those experienced; or in an impressionistic way by using the environment to create a work that has value in itself (Attoe, 1987, p. 49-83). As mentioned previously, the main approach in writing the article was for the reader to get some feeling for the environment; to experience the environment in a surrogate way. To do this end, I used very emotive language and focussed on elements of the environment that are implicitly rich and provocative and that by association produce specific emotive responses. ‘Scarlet red light spilling from the interior through window and door openings creates the impression of a place that is raw, pulsating, provocative, yet at the same time inviting and reassuring’ (Franz, 2002, p. 26). While all the elements are used extensively by the designer special mention was given to his use of colour, form and texture in furnishings, finishes and furniture as illustrated in Figure 4. In addition, I wrote and structured the article from the viewpoint of someone walking or driving past or entering and moving through the various rooms in the buildings.

Figure 4: Focus on inherently evocative form, colour and texture
(Photography: Author)
As is the case here, specific use was made of photographs in the article to support the visualisation and experience of the hotel. This was achieved through consultation with the photographer, in the early stages providing him with the text of the article and an outline of what I was trying to achieve. As well as being descriptive, the photographs are also evocative and impressionistic in their content and presentation.

It has been made apparent to me through this experience how interior design more than architecture lends itself to interpretive criticism particularly its evocative and impressionistic forms; and that, subsequently, herein lies a vehicle for further exploring this aspect of the discipline, including the notion of designed form as art. Underlying this statement is the view that, as currently practiced, there is a distinction, albeit at times quite fuzzy, between interior design and architecture but that this distinction is not as explicitly recognised in interior design’s body of knowledge as it could (or perhaps, should) be. The situation for interior designers at the moment is ‘…an unfinished project of self-definition’ (Spector, 2001, p. 26).

The third general purpose of architectural criticism as noted by Attoe (1987) is descriptive criticism. A descriptive approach is characterised by its focus on explication through either the depiction of static or dynamic aspects of the environment, or biographical details about the designer and/or client, or contextual descriptions that reveal social, political, economic, environmental constraints/opportunities experienced by the designer and/or client (Attoe, 1987, pp. 85–106). In terms of the critique of the hotel, the emphasis for the most part was on the activities accommodated by the various spaces. As such, this was a missed opportunity to comment on the ability of the environment to support or not support certain social practices as explained, for example, through Erving Goffman’s dramaturgical model (Attoe, 1987, p. 96) or through Pierre Bourdieu’s work with habitus, which presents, among other things, the built environment as a social agent (Stillar, 1998, p. 95). As outlined previously, however, an attempt was made in the criticism to consider socio-cultural, environmental and political contextual factors. While, for the most part, these could be viewed as constraints, it was apparent, given the extremely high quality of the finishes and the accommodation of the unusual request to design the building so that a motor vehicle could be hoisted into the second floor function room, that economic factors provided opportunities rather than constraints.

An analysis of the criticism using Attoe’s criteria highlights the use of several rhetorical devices including: dualism, where the experience of the environment is described as both evocative and inviting; juxtaposition, through the use of paradoxical statements and the positioning of photographs in relation to the text; exaggeration, in the form of emotive language and in the use of full-page colour photographs some of which have been electronically manipulated;
and intensification involving a verbal focus on specific aspects of the environment, as well as the cropping of photographs to direct attention to a specific visual element of the interior. What could have been considered is a greater use of metaphors and perhaps even personification where the environment is given a voice; being careful in the process to balance the benefits of being colourful and excessive with the risks of manipulating the information to the extent that it is overly exaggerated and austere in meaning (Attoe, 1987, p. 109).

Overall, the analysis of the criticism reveals a general approach noted by Attoe (1987) whereby, through description, the critic attempts to have the reader see what they see, experience what they experience; to proceed from this basis to the interpretation of what is seen and experienced; and from here to make a judgement of the design (p. 85). In the case of the hotel, the judgement was that the designer, for the most part, had produced what equated to ‘good’ design. But why was there this presumption that a summing up of the environment’s worth was needed? In responding to this, Spector (2001) advocated the use of ‘thick’ rather than ‘thin’ concepts in architectural critique. Thick concepts employing emotive, perhaps even excessive, language ‘…allows the reader to get inside the interpretation itself and play with the point of view being offered up’ (Spector, 2001, p. 120). This compares with thin concepts that provide for an austere and diluted understanding of ethics through their recourse to universal principals and a position of privilege outside the interpretation of the work (Spector, 2001, p. 120).

**Conclusion**

The application of Attoe’s model of architectural criticism presented in this paper reveals its usefulness in providing a basic framework for exploring underlying values and assumptions in interior design. As noted, the inclusion of interpretive and descriptive dimensions is particularly appropriate and with further development could be influential in better understanding the distinctive quality of interior design. On a deeper more philosophical level, however, the model has serious limitations. Further research is planned to investigate how various critical theories such as teleology, deontology, virtue theory and contract theory (Wasserman et al, 2000), for example, can be used in conjunction with Attoe’s model to provide a more enduring and fundamental basis for addressing the questions identified in the introduction and final section of this paper. Overall, the paper confirms the value of criticism in providing an effective ground on which traditionally perceived oppositional structures like excess and austerity come together and through their tension produce a richer understanding of the nature and value of design.
'Criticism is an imaginative art that has a spiritual and visionary dimension that helps to defeat the chaos of the time' (Hart, 1994, p. 246).

**References**


(IMATERIALITY) and the Black-Box Theatre as an ‘Empty Space’ of Re-production

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Abstract: This paper examines a paradigmatic interior from the 20th century, the ‘black-box theatre’, associated with a fundamental rejection of the potential role played by the built-form within the art-form. Material space is denied in order to establish an apparent void-space. This perceived emptiness is reflected in a paucity of architectural and theatrical discourse surrounding the model. However an investigation of its physical and discursive absences suggests its apparent ‘lack’ veils a surplus of meaning. Such gaps and their associations with theatrical production reveal complicated links to the space of human reproduction and its attendant excesses which, in turn, leads to a distinctive link between the black-box and Plato’s notion of ‘chora’. This uncovering of material through the im-material, proposes a more embodied and performative approach to theatre space and to readings of the interior.

Keywords: theatre architecture; performance space; gender and interior

Introduction

Each theatrical epoch in western history is defined by its literature and performance styles as well as the architecture that contributed to shaping the event (i.e., the roman amphitheatre, renaissance theatre, Shakespearean globe, restoration playhouse, and horseshoe opera house). The auditorium, a complex room, uniting actors and audience, evolved as an elaborate spatial apparatus for housing performance, heightening the experience, and ordering the collective body of participants. However last century brought with it a crisis in theatre architecture, where the built-form was negated in favour of a more non-representational space. Modernity’s theatrical avant-garde called for a reworking of the auditorium, so that the excess of meaning surrounding performance events could be facilitated by a spatial austerity. This resulted in the total eradication of architecture’s role in the event and the evolution of the ‘black-box’ theatre.

Described by Marvin Carlson (1989) as a ‘featureless box filled with light and abstract figures…’ (pp. 196–197) and also referred to as ‘the empty space’, the black-box became the major spatial paradigm for twentieth century theatre. Yet very little has been written on it in either theatrical or architectural discourse. Such a paucity of visible features does not necessarily imply an absence of substance. Rather it challenges our ways of discussing phenomena that are not always visually (or indeed perceptually) marked.
This paper takes a step into the absences (visual, aural, textural and discursive) surrounding the black-box… or is it a fall? The body suspended within it is always held in that moment between flying and falling; caught in the act of endlessly dis-appearing. In opening up a dialogue on the notion of the black-box in interior architecture, is not one doomed to be sucked into the vortex of its silence? Is this silence in fact a simple statement of nothing-to-be-said? Or is the empty space neither silent nor vacant but rather replete with an overwhelming amount of matter?

One way of understanding the black-box and its absence of material form is through a collective desire for the modern theatre to embody a primordial space. Edward Gordon Craig most explicitly expressed this in his claim as its procreator, rendering the space a means of theatrical reproduction. Investigating this claim opens up a gendered discourse surrounding the interior of the black-box. It becomes both womb-space and void-space. This vacillation between the material and immaterial suggests that, within the ‘empty space’ of 20th century theatre production, theatrical re-production is played out as an act of procreation. Each performance becomes an originary act born out of darkness. The space, which eschewed the traditional boundaries between participants, becomes an enveloping stage machine threatening to overwhelm all those implicated within its environs.

A tension therefore arises between the immateriality of the void and the abject materiality of the womb. This tension is, in turn, linked to Plato’s complex notion of ‘chora’, the in-between space, as discussed by Alberto Perez-Gomez (1994) and Elizabeth Grosz (2000, 1999). In reviewing this space of human creation and participation, with its links to both architectural and theatrical theory, perhaps we can find a resolution between the technological abyss and a more embodied spatiality; where the virtual and the visceral can be simultaneously housed.

**Phantom-womb**

The black-box theatre was born out of theatrical revolution and perceptual shifts at the end of the nineteenth century. Its genesis was hailed by English scenographer Edward Gordon Craig almost a century ago when he wrote: ‘As I write, it is not easy to refrain from singing – the moment is the most lively, the most hallowed in all my life – for in a few minutes I shall have given birth to that which has for a long while been preparing far back before I was born, and all during my life, and now I am the one selected to this honour and am amongst the creators’ (Roose-Evans, 1970, p. 33). This excerpt from a letter from Craig to Martin Shaw reads like a post-annunciation song of praise, heralding the arrival of a messiah created through ‘immaculate conception’. The writer is positing himself simultaneously as mother, father and messenger, in announcing a progeny, which was strange fruit indeed. Craig’s
could, in fact, be marked as the arrival of the black-box theatre, the vision of which he outlines in his *Theatre of the Future* as follows: ‘The place is without form – one vast square of empty space is before us – all is still – no sound is heard – no movement is seen… nothing is before us – And from that nothing shall come life – even as we watch, in the very centre of that void a single atom seems to stir – to rise – it ascends like the awakening of a thought in a dream – … No light plays around it, no angles are to be seen, no shadows are visible – only the inexorable ascension of a single form – …’ (cited by Roose-Evans, 1970, p.33).

Craig’s ‘empty space’, a dark, silent and formless place where objects and bodies are materialised and suspended, was not only his (co)creation and gift to the world, but constituted a generic place within which events could be endlessly produced and reproduced. This was made possible by advancements in lighting and stage technology. He was issuing forth a product, which also re-produced itself elsewhere, by virtue of black walls or drapes, rendering any space of suitable dimensions a ‘black-box’. Edward Gordon Craig, son of an architect and the celebrated actress Ellen Terry, is like Mary Shelley’s Dr Frankenstein, constructing his own architectural/theatrical progeny through technology. But what he is in fact creating is the apparatus for its production, the re-productive organ; a cyborgian womb. This is achieved through a space hollowed in the dark, within which is grafted the machinery for its efficient operation. The womb-less creator was man-ufacturing a theatrical space of reproduction. However this appropriation of maternal space lacked matter, that physical substance out of which things are made.

Materiality, through its etymological roots in ‘materia’, is associated with the maternal and the matrix (womb), representing an embodiment of substance. Whilst Craig allotted himself the maternal role, his ‘empty space’, as an apparatus of theatrical reproduction, simultaneously denied a materiality. Its analogical status lacked viscera. However its formlessness links it to matter in Aristotelian terms as ‘undifferentiated’, achieved by receding the container itself into the shadows where it could not be perceptually apprehended. Its boundaries were concealed suggesting a limitlessness within which performance could be endlessly reproduced.

In denying a purely visual apprehension of built space, and suggesting a profound interiority, the black-box posits a new way of regarding the body in space. The body of this (anti) architecture, rather than the proportioned ideal of classicism, the rational ordering form of modernism, or even the mutilated corpus of post-modernism, could be an uncertain polluted body whose abject interior constantly threatens to erupt through an obscured surface. This
abject body is also a performative body that is unclean, untameable and improper. As a body of uncontainable matter it oozes, bleeds, leaks and defecates; natural forms of purification and therefore clarification. Yet the black-box, whilst alluding to an abject interior, withheld qualities of abjection.

The appropriation of the womb as a space of creation has a longstanding tradition in architectural discourse. European architecture, in its constant bid for longevity and sustainability, carries with it an anxiety of ruination and loss. This valorisation of the permanent seeks to create an architectural corpus that not only survives the bodies of its creators but represents them into the future. This notion of progeny is also inherent in the classical marking of architecture as ‘mother of the arts’ where the architect appropriates the maternal image of creator-of-life.

In the black-box theatre, architects have been denied the role of mother-creator, co-opted instead by 20th century ‘theatricians’ who suture theory with practice in this dark and dangerous realm of theatrical re-production. What is laid before us, upon a discursive slab, is the abject body of performance itself, loosened from the confines of a framed stage, slippery as mercury, spilling out matter in the forms of bodies and sounds, held in darkness and isolated in light. The empty space whilst presenting a poverty of matter also represents excess, that evasive, embracing mat(t)er which threatens to consume.

Crisis and revolt

The black-box theatre arose out of crisis around the turn of last century. The de-centred post-modern subject had already been established at this time and confirmed through the writings of Nietzsche, Marx and Freud. The latter particularly, as Elizabeth Grosz (1990) points out, challenged the Cartesian subject’s status as the foundation and source of knowledge (p. 2). Neither the earth nor consciousness was considered the centre of the universe, and absolute certainty could no longer be relied upon. Freud’s theoretical language suggested a plurality of subject, knowledge and institutions whilst language was posited as only one way to organise the real. This led to a profound fragmentation of the real itself and a terror in the face of ‘differences’. This fin-de-siecle dilemma in perception was accompanied by a crisis in vision where people ‘no longer believed their eyes’. A rupture had occurred with the ancien scopic regime of Cartesian perspectivalism, heralding a modern, heterogeneous regime of vision. As the century advanced technological warfare allowed mass destruction to occur on a scale that was hitherto unperceivable, furthering the crisis of body, language and visuality.
As Manfredo Tafuri (1980) pointed out, in this new century the theatre became the means for the recovery of a collective catharsis – ‘for the recovery of a portion of unalienated space’ (p. 96). Theatre allowed an ‘entering into’ or a collective ‘projecting into’ a space that had no reference to precise circumstance; ‘the ‘festival of life and art’ finds in the stage not only a point of caesura, but of suspension as well’ (p. 97). The body, isolated against a limit, was itself also considered a limit. Drama was considered possible without words, sounds, sets and costumes, focusing on the primacy of the human body. Tafuri therefore contended; ‘This means that the true drama, the true provocation is the body limit hurling itself against its own boundaries in extreme solitude; in this struggle, in this forced expression, the Seele [the soul] is called upon to reveal itself’ (p. 97). Adolphe Appia and Edward Gordon Craig sought such a stage, which married body and spirit, ‘with or without spectators’. As Appia proclaimed ‘no theatre, no stage, only a bare and empty room’ (cited by Carlson, 1989, p. 196). Subsequent 20th century ‘theatricians’, such as Meyerhold, Artaud, Brecht, Piscator, Schlemmer, Reinhardt and Grotowski, sought to eradicate the totalising proscenium arch and disrupt the boundaries between actor and spectator, exterior and interior, street and stage, intensifying the experience as an engaging and hallucinatory event. This was achieved through a systematic purging of well-established architectural elements in theatres, such as proscenium arch, box seating, galleries, chandeliers, décor, stage, auditorium and eventually eradicating any definition of the building itself. A systematic emptying of theatre architecture opened up an empty space of limitless potentiality. As Artaud (1958) wrote in his treatise ‘The Theatre of Cruelty’: ‘Our petrified idea of the theatre is connected with our petrified idea of a culture without shadows, where, no matter which way it turns, our mind (esprit) encounters only emptiness, though space is full’ (p. 12).

By 1968 Peter Brook had written his treatise ‘The Empty Space’ which began; ‘I can take an empty space and call it a bare stage. A man walks across this empty space whilst someone else is watching him and this is all that is needed for an act of theatre to be engaged’ (p. 11). And, although Brook (1968) was by no means referring to the black-box, it had lodged itself as ‘empty space’ into the status quo of small-scale and experimental theatre environments.

The black-box came to represent the void, an immaterial space out of which performance materialised. Its emptiness as a spatio-temporal phenomenon was the interval, the pause, silence and suspension. Within its shadows emptiness did not represent a lack, but rather the void; an overwhelming excess of meaning.
Cyborg-womb

Out of the dark, the black-box emerges as a stage-machine. Technology, rather than architecture, defines its boundaries. Removing the proscenium and fixed stage collapsed the space of audience and actors into a single room that could be technologically manipulated to configure any number of formats. Under the guise of ‘flexibility’, this space was perceived as infinitely adjustable so as to fit all the requirements of scripts and staging. Considered an economical form, it minimised the initial costs in establishing a performance space, relying on (sometimes costly) equipment and labour to move the space around. It was championed by technologists such as American theatre planner George Izenour, who set up the ‘Electro Mechanical Laboratory’ at Yale University Drama School in 1939; a research facility devoted to engineering development in theatre technology; switching systems, control consoles, preset panels, seating, grid and lift systems. Izenour (1977) defined the black-box as an ‘uncommitted space’ that ‘rejects architecture entirely in favour of an experimental ‘of-the-moment’ approach to space by the artist (stage director-designer-producer) and can be variously circumscribed by a combination of kinetic systems including seating, walls, lifts and lighting’ (p. 103). He described his Experimental Theater at Yale as ‘a very special type of theater – not as architecture, but as a functioning machine in relation to theater production technique’ (p. 106). Here we see the fascination with technology take over. Yet this technological allure conjoins the hallucinatory darkness with scientific instrumentation, conjuring up the ghost within the machine. As Peggy Phelan (1997) contended, ‘the phantasmatic is always operative within the codes of the rational’ (p. 17).

Technology became a means of extending the relationship between the performing body and space, most acutely played out in avant-garde theatre. Maria Luisa Palumbo (2000), in New Wombs: Electronic Bodies and Architectural Disorders, wrote that with a newly extensible body ‘…its extreme possibilities of dislocation in time and space result in the explosion of the box…’ (p. 22). This is evident in the black-box theatre that, through its blackness, dissolves its walls and corners. The body as a measure of excess, capable of surpassing its physical limitations required a seemingly dislocated space within which to extend.

Often cited as a ‘theatre laboratory’ the black-box was a machine operating on the collective body it contained. The theatre for the staging of dramatic arts becomes troubled by the phantasmatic presence of two other theatres; the operating theatre and the anatomical theatre. The apparatus, inserted into the phantom-womb, operates like a speculum; revealing the fragmented body collective lost-in-space within its confines. Technology, regulating the space of the phantom womb, grounds it into the cyborg-womb, helping to regulate the abyss.
Machinery forms a prosthetic supplement to the wall-less space of the black-box, containing it within a technological receptacle. This allows the fluid unstable im-matter of dramatic space (Phelan, 1997), once precariously housed behind the proscenium, to spill out and around performers and spectators without annihilating them in its excess. Technology disciplines the empty space. This need for discipline controlled the ‘visual nihilism’ that arose in the 19th century as a new autonomy and abstraction of vision, under the rubric of ‘modernity’. As Jonathan Crary (1999) wrote in Techniques of the Observer, the ‘real world’ was no longer stabilised by the camera obscura, a once judicial model of perception. This gave rise to the ‘newly discovered territory of the fully embodied viewer’ (pp. 138-145) resulting in a new destabilised vision, now residing in the immediaclty of the observer’s body, belonging ‘to time, to flux, to death’ (p. 124).

As the camera obscura was cast aside, a rupturing occurred on the surface of vision and, with it, a disturbance in the surface of the theatre’s perspectively constructed fourth-wall. The stage was no longer a viewing machine into which the audience gazed. It was a machine within which they were implicated and their vision disrupted.

As a space for representing, the real the black-box becomes a vertiginous hyper-space of the real, where the all-seeing-I is no longer privileged. The all-seeing-eye is literally ruptured, as in Bunuel and Dali’s surrealist film Un Chien Andalou (1929), where a woman’s eye is slit open, constituting a defining moment in ‘the crisis of ocularcentrism’. Martin Jay (1994) pointed out in his essay ‘The Disenchantment of the Eye’; that this act has been variously interpreted, amongst other things, as a simulacrum of sexual cruelty against women, a symbol of male castration anxiety, and the conception of an infant’ (p. 192). These three interpretations are also bound up in the black-box theatre; a site of cruelty, anxiety and pro-creation.

As the eye is slit, the hole of the vanishing point opens up, gaping into a void. Deeply interior space is penetrated by the eye, which is, in turn, subsumed by a darkness once constituted by a pinpoint of signification.

**Black as void**

Darkness shrouds the definitive form of the black-box theatre, which developed over the 20th century into a simple rectangular volume, with all technology in view, painted black. Black for absorbing shadows is also the black of the negative, the black of night and nightmares, the black of grief.

This connection between black and mourning forces us to consider the relationship between theatre and mourning. As Phelan (1997) contended, in Mourning Sex, ‘it may well be that
theatre and performance respond to a psychic need to rehearse loss, and especially for death’ (p. 3). The black-box therefore constitutes a living memorial, a ‘mausoleum, a space designed to summon the phantasmatical charge of the immaterial’ (p. 2), negotiating between the gathered community and their deepest held fears.

Modern architecture denies the presence of black, which obliterates its forms exiling them to the shadows. It is therefore no surprise that architecture plays no official part in the black-box theatre. White, in all its crispness, is the defining ‘colour’ of the modern movement, representing cleanliness, neutrality and an attempt to keep the nightmare of decay and mortality returning to its surfaces. Mark Wigley (1995) in White Walls, Designer Dresses, discussed this at length. Whereas the white wall brackets the body against its surface, the black-ness of theatre space threatens to devour the body it envelops, materialising and dematerialising it with light. Unlike the white wall’s ‘sophisticated use of the representational system of the surface…used to announce the absence of representation’ (Wigley, 1995, p. 361), the black-box signifies an excess of representation, conjuring up the nightmares the white wall seeks to cover over. The walls of the black-box are phantasmatic borders, denying surface and suggesting infinite depth. They are veils of the widow, evoking mystery, mourning and the charge of an erotic allure. Pronouncing a melancholic foreclosure, they renounce the possibilities of a lived/bodily space. Unlike the skin of the white wall they attempt to be impenetrable, like the ‘mystery of femininity – that black-box, strong box, earth abyss …’ (Irigaray, 1990, p. 20).

**Chora**

As a representational womb-space and void-space, the black-box can be linked, in both architectural and theatrical discourse, to Plato’s concept of *chora*; as set out in *Timaeus* and taken up by Elizabeth Grosz (2002) in her essay ‘Woman, Chora, Dwelling’ and by Alberto Perez-Gomez (1994) in his essay Chora: ‘The Space of Architectural Representation’. *Timaeus* constituted the philosopher’s systemisation of the universe within which chora is an essential form yet ‘difficult and obscure to talk about in general terms’ (Plato, 1997 p. 66). Plato described it as the ‘receptacle… the nurse of all becoming and change’, using the metaphor of birth. As an ‘imprint bearer’ he compared it to a mass of neutral and endlessly mouldable plastic material (Plato, 1997 p. 66). Here, as *prima materia*, the maternal is collapsed onto the material, reinforced by Grosz’s reading of it as ‘a kind of womb for material existence’ (2000, p. 212). Yet the receptacle is also invisible and formless, an impossible space, which lies beyond the realm of the senses and is apprehended in a kind of dream. It is also defined as a space of chaos, interpreted by Perez-Gomez (1994) as a primordial gap, opening or abyss.
Perez-Gomez (1994) formed connections between Plato’s chora and the chorus in ancient Greek Theatre, which Vitruvius considered the paradigmatic cosmic place. As a dance platform bridging audience and actors, the chorus formed a liminal space within the field of performance; ‘both a space of contemplation and a space of participation… a place for poetic mobility’ (Perez-Gomez, 1994, p. 10). In the ritual origins of this circular space, defined by a central altar, no distinction was made between performer and spectators, all were included as participants within its domain.

Like the generic black-box theatre, chora is quality-less, permeable and infinitely transformable, functioning as ‘an incubator to insure the transmission or rather the copying of forms to produce matter that resembles them’ (Grosz, 2000, p. 212). For Perez-Gomez (the architect) chora, used as a metaphor of birth and compared to the receptacle of the mother, is interpreted as ‘androgyneous space’. It is ‘both cosmic place and abstract space’ (Perez-Gomez, 1994, p. 9), linked historically to the theatron: a place in Ancient Greek theatre for seeing through distant contemplation, as well as participation. Grosz (the philosopher) is not so enthusiastic. She maintains that chora is yet another space, gendered feminine and appropriated by the masculine dominant, which actively engenders forms within the passive receptacle. It lacks self-possession and self-identity, rendered always the same ‘because it never alters its characteristics’ (Grosz, 2000, p. 69). Like a tabula rasa it remains in service to the active creator/producer merely as passive storer/incubator. This recalls the ubiquitous black-box, rendered the same and denied both surface and identity by a negative architecture.

As Grosz (2000) contended, chora is constructed on a phallocentric logic, replete with features culturally bestowed on women, particularly the biological function of gestation: ‘Though she brings being into becoming she has neither being nor the possibility of becoming; both of mother of all things and yet without ontological status, she designates less a positivity than an abyss, a crease, perhaps a pure difference, between being and becoming, the space which produces their separation and thus enables their co-existence and interchange’ (p. 214).

Both chora and the black-box are troubled by an ancient connection between the material place of reproduction and the vertiginous space of the void. This enduring association between the maternal body and the abyss is inescapably gendered. Woman, associated with interiority, underground, darkness and death, presents a distinct threat to the phallic signifier through her conspicuous loss and the supplemental space created by that loss. She is linked to both fertility and decay, simultaneously fecund and fetid she braces herself against the tyranny of time and physical collapse.
Chora as chorus, the ancient space-place for performance, was in existence well before the architectural apparatus of the *theatron* with its *cavea*, *skene* and *deus ex machina*. It was the original site within which all participated in the spectacle, a material place for the participatory event, where dancing feet defined space through attrition, it was the ground for the dance and the space of the leap in the ancient dithyramb, where a bodily participation within a prescribed landscape allowed for a contemplation of life and death. This is the in-between, the interval, the aerated form. Permeable and transformable, it is still corporeal, visceral and abject.

The black-box, like chora, needs radical revision if it is to be re-configured as an essential and active space of theatrical production. It need not be Plato’s ‘eternal and indestructible’ no-place and every place, but rather a place of substance. A space that breathes, swells, sweats, bleeds and breaks; garnering traces from past inhabitation; a material place in motion. Achieving this may be as simple as refusing to paint it black.

**Conclusion**

Architecture has always been perceived as an object to be looked at, inhabited by the eye of a detached viewer. Held within a scopic regime that privileges the stability of matter, it is often feminised beneath the spectatorial gaze. In disturbing the black veil that shrouds the black-box theatre we move into an interior realm that is no less feminised, yet resists an ocular overview. This paper has attempted to reveal a more fleshy and visceral phenomenon present in the shadows of its denied walls. Presencing a more embodied spatiality, allows us to re-see the black-box, not for what it reveals but for what it conceals.

The black-box theatre, conventionally considered a passive receptacle for the ever-changing parade of productions it nurtures, has been examined here to reveal complex elements that encapsulate the perceptual body and social psyche in crisis, denying a relationship between the fabric of the existing building and the fictional world created in performance. No material resistance is offered to the theatre artist and no common ground is given to the spectator.

Maria Luisa Palumbo (2000) has referred to the ‘womb’ as a 20th century architectural paradigm, which as ‘formless matter’ opposed the aesthetics of the cool modernist box ‘with the sensual, protective and dark visceral nature of the cave’ (p. 19). She then realigned it as paradigmatic of our contemporary postorganic condition, ‘characterised by an unprecedented continuity between exterior and interior’ (p. 5). Facilitated by artificial sight it allows us to navigate the organic universe of our body and the mechanical universe of technology. This suggests that the black-box theatre was a precursor to a contemporary alignment of virtual
space with the visceral, mediating between the codes of both the body and technology. However a return to the very matter of built form allows architecture to play a role within this mediation.

Whilst theatrical re-production continues to be played out as an act of procreation in the black and empty space of modern theatre, bound up within this remains the masculine fear of the female pro-creator, evinced not only through silencing and shadowing but through a terror of the abyss; in the words of Luce Irigaray (1990) …’As obscure, as black, perhaps, as the dark continent of femininity?’ (p. 19).

**References**


The Nourishing Art

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Abstract: Cooking is regarded as one of the most basic characteristics of civilised existence, almost as critical as shelter in defining and reading the human condition. Frascari (2002) used cooking as an analogy for design suggesting that ‘to build and cook are a necessity, but to build and cook intelligently is the chief obligation of architecture and cuisine’ (p. 3). What is it about this ordinary activity that invites comparison? Is it that the everyday acts of cooking are primary generators of spatial practices and material culture? Or is it that the production of food bears numerous parallels with the production of built space – each following a recipe or plan to manipulate elements into an entity definitively judged by the physical senses?

This paper builds upon a companion work titled, ‘Eating Australian Architecture’ (Hurst & Lawrence, 2003), which investigated a pedagogical approach based on parallels between food and design for teaching first year architectural students. In this paper, the focus is on a detailed application of this method to typological analyses of contemporary domestic architecture. It uses three examples of influential Australian design practices, selecting from each a paradigm with which they are associated. Food metaphors of raw, medium and well-done are used to explore emergent characteristics and experiential qualities within the current architectural climate. The apparent extremes between raw and cooked, like those between excess and austerity, are re-evaluated not as simple oppositions or measures of success, but as equally rich modes of approach to design. The argument is made for gastronomy as a persuasive interrogatory tool for the sensory and holistic examination of the built environment.

Keywords: food and design; Australian domestic Interior Architecture; design pedagogy.

Introduction

In her introduction to the anthology Food and Architecture, Helen Castle (2002) suggested that ‘the art of the chef and the architect both exceed human requirements and are to be enjoyed and savoured – very often conspicuously so’ (p. 4). The collection of essays that follow the introduction is an exploration of urbane eating spaces, state of the art interior design, and the composed aesthetics of the plated food of haute cuisine. It makes apparent the sophisticated levels reached in contemporary culture in relation to interior space and gastronomy, where the pleasures of the table (Brillat-Savarin, 1949, p. 3) are elegantly set between cultivated appreciation and sensory indulgence. This careful positioning of the
excesses of consumption amidst the conscious austerity of much contemporary interior architecture is one reading of how food and space can be related.

Elsewhere in the book, Sarah Wigglesworth (2002) stated ‘architects, like chefs, turn the raw into the cooked, transforming basic material into the end product…synthesising them into a product greater than the sum of the individual parts…in cooking we call this a meal, in architecture, a building’ (p. 102). Here, Wigglesworth is drawing on Levi-Strauss’ (1970) seminal work that used food practices and beliefs as the basis for sociological inquiry. Levi-Strauss (1970) identified as a primary binary opposition ‘nature’ and ‘culture’, and further suggested this as analogous to raw and cooked, and food and non-food. According to Levi-Strauss, cooked food is the cultural transformation of the raw and ‘the ways in which this transformation is carried out as part of everyday life serve to define cultures’ (Lupton, 1996, p. 9).

Italian architect and academic, Marco Frascari used cooking to discuss ‘the undisciplined discipline of architecture’ (Frascari, 2002, p. 3). He argued that architecture, like cooking, needs to engage with a certain sensuality in the process of making in order to conceive works (or dishes) properly. This suggests that ‘The art of architecture, as with the arts of alchemy and cuisine is thinking with things rather than thinking about things (Frascari, 2001, p. 1). de Certeau et al (1998) also used the process of cooking, rather than its products, to observe and describe the subversive spatial practices of everyday life. In an analysis that looks at the gestures of cooking, the laying of the table and the recipe, they commented on ‘doing-cooking’ (p. 151–153) as both a repository of knowledge and site of resistance to the more visible societal structures.

Although gastronomic associations have been explored to a limited degree in the area of spatial research, they have rarely been exploited pedagogically. This paper describes an innovative technique for teaching first year design studio in Australia that uses the analogy of food as a starting point to think about design. It is critical for novice students to acquire a vocabulary or typology of tectonic and spatial responses, and the methodology discussed here recognises this by embedding within it typological analyses of contemporary Australian interior design. The paper will outline the overall nature of this teaching practice and as a demonstration of its application focus on three influential directions in Australian residential design which are paralleled with gastronomic analogies. The examples chosen represent a predominant typology in contemporary Australian design; that being the beach house or rural haven. This building type is significant as a demonstration of the predilection to ‘get away’, to retreat from the excesses of urban life to an austere idyll. These places intensify the act of
domestic dwelling. The paper will conclude with a discussion of how the use of the selected metaphors of raw, medium and well done are analogous with ideas of excess and austerity, including the fact that they are not mutually exclusive states of being.

**Food as a metaphor**

The use of metaphors, or borrowings from other spheres of cultural expression in the description, conception and teaching of design is a common and well-documented tactic. Architectural theorists have analysed this strategy and observed how an alliance between the design process and an analogous entity informs and shapes design discourse (Snodgrass et al, 1994, p. 113–125); that is, how the choice of metaphor influences the nature of the solution.

Food, unlike many other metaphors, conveys an indisputable inclusiveness, being central to the everyday life of most people. To use it therefore as a parallel field of inquiry with interior architecture tacitly foregrounds issues of communality, cultural heritage, ritual and the everyday, site and climate, commodity and comfort. Furthermore, the history of food *ab ovo* and its indispensable role in human existence, mean that it operates as both a vehicle for, and demonstration of, sociological, economical, political and environmental constructs.

Associations can be made quite effortlessly between architecture/place and food/place. Climate, available materials, technology, human needs and cultural expression are obvious factors in what can be built – and also in what can be grown and eaten. Perceptual characteristics of light, texture, colour, austerity and economy easily correlate to gastronomic qualities – such as taste, pungency, excess and balance. In addition, the alchemic processes associated with food and cooking can be paralleled to materials and building. A further productive analogy can be made between typological readings of gastronomy and design, as exercises in frugality or luxury. Just as there are many universal dishes based on essentially the same ingredients and processes, (eg. consider the various interpretations of the omelette/tortilla/frittata which paradoxically relate not only to a country but specifically to a region), there are also recurrent design responses to material and place.

**dine®: A first year project**

These gastronomic analogies informed a first year project called dine® which used food types to help students design a compact residence and eating-place by the sea. To operate as metaphors underpinning the students’ proposals, initial connections were made between types of food and types of places. In particular, students were asked to use these links to consider the experience of place and cultural identity. The class of over a hundred students was divided into five groups with each adopting a particular food type, which they used
firstly to create a compositional model, secondly to study contemporary examples of idiosyncratically designed Australian houses, and finally to conceive and resolve their own schemes for a similarly scaled residence. For example, fast food can suggest places of instant gratification and immediate sensory stimulation, whereas one-pot meals can readily be paralleled to multi-culturalism and diversity. Regional cuisine was used as an analogy for the search for an Australian design identity, while delicacies were likened to the intense and rich elements in design. Students were able to relate easily to these analogies and were intrigued by the connections. They were made aware that things they instinctively understand about food, its sensory quality, its everydayness, its communality and its cultural significance, are quite obvious starting points for thinking about design. Students explored their schemes principally through making and modelling in a series of four courses, reinforcing a sense of play, experimentation and investigation. In aligning food and design, the process became more comprehensible to students and enabled them to overcome the particular difficulty novices have in finding a comfortable starting point from which to proceed.

**Typologies**

In the typological component, specific examples were discussed in terms of food types to make tangible to students the way design and food deals with similar concerns. An overarching analogy employed to contextualise diverse approaches to place, aesthetic quality, manner of production and use, was the notion of raw, medium and well-done. This analogy differs from that used by Levi-Strauss (1970) in that it does not imply a sequential state of development or sophistication from the raw to the cooked, but instead examines different states of material and spatial expression. Because Australia is a vast continent with extreme variations in climate, topography and demographics, contemporary Australian design demonstrates a potentially bewildering array of approaches and manifestations. This richness can be exploited and commented on via grouping these into three basic gastronomic types. It is a means of classifying that gives experiential accessibility to underlying themes, yet because of the looseness of this typing and the extensive and open-ended nature of the referent, does not oversimplify possibilities.

For example, raw food can be considered as the most direct and unprocessed nourishment, highly linked to the temporal and regional. Raw can also refer to food that is in the process of preparation, incomplete in its evolution or journey to the table. It carries connotations of simplicity and wholesomeness but can concurrently be a sophisticated and refined composition of elements. It appears in cuisines around the globe, often, but not exclusively, as a response to hot climates or seasons.
The Kangaroo Valley Pavilion (1998) in rural New South Wales designed by Stutchbury and Pape, illustrates a pared back design aesthetic that might be described as raw for its use of expressive structure, lightweight construction of ostensibly unadulterated materials. The house – or ‘rural shed’ (Goad, 2001, p. 193) – typifies their search for simple solutions which are ‘without fuss and subservient to the bush room it occupies’ (Architecture Australia, 1999, p. 50). It is characteristic of the most recognised direction in contemporary Australian architecture ‘which touches the earth lightly’ (Drew, 1985, p. 54), and arguably in danger of becoming stereotypical.

The informal openness of spatial planning in the Kangaroo Valley Pavilion encourages ambiguous occupation and activities. Interior spaces are defined broadly for sleeping or sitting separated only by the hearth, while the amenities form the backbone of what is essentially a single outdoor room. The house is more veranda and transitional space than conventional containment, and has direct connection with the environment and seasonal change. Like a well-composed salad, which uses raw and fresh ingredients, it suggests immediacy and simplicity, both of materials and assemblage. There are no hidden elements or processes and the success of the whole relies on its clarity and ‘matter of fact materials palette’ (Goad, 2001, p. 193). In the making of both, the cook and the designer create as they go, recognising their conceptions are dependent upon a technical understanding exercised with a light handed sensibility. The appeal lies in the fabrication of the detail for example, the method employed in manipulating the elements; the angle and thickness of the cut edge, the fineness of the julienne and the piquancy of the dressing are critical to the final composition. Essential qualities textures and ingredients make up the classic salad, however recipes for them are typically loose in prescriptive direction, open to adaptation and are generally assembled last minute. One of Australia’s great contemporary cooks, Stephanie Alexander, composes salads ‘with a definite artist’s eye. I decide on my background first…I next decide on the crunch…the next important part is the ‘fat’ in the salad…I then move on to consider the juices…The shape, the skeleton must come first and then the delicate touches’ (Alexander, 1985, p. 211–212). They should be characterised with ‘lightness and a certain air of spontaneity’ (p. 213). The approach bears comparison with that of Peter Stutchbury who has been described as a lyrical technologist. He invents while building (Goad, 2001, p. 194), aiming to design places that are occupied with the same sense of impromptu and temporality.
Principally the ground plane of the stepped timber floor, and the hinged overhead plane of the roof, flexed as if to take flight, define the spaces in the Kangaroo Valley Pavilion. These ‘platforms + parasols’ (Goad, 2001, p. 194), liberate the spaces within and to the surrounding terrain and umbrella sky. Similarly salads can be a liberation from more processed food, both in the making for the cook, and for the diner in the way it evokes close connections with nature’s garden. In contemporary food culture, and in an increasingly health conscious society, the salad is gradually altering its status from a side dish or accompaniment to a stand-alone course. The Kangaroo Valley Pavilion, in a similar manner has its origins in the primitive hut, but through intellectual refinement has been elevated to a built entity that is no way peripheral or subservient. Each is characterised by an austerity of means.

In gastronomy, the term *medium* clearly refers to the state between raw and well-done, but also to a moderate or average condition, for example, of heat, size or viscosity; a constant and predictable condition with minor variation. Additionally, *medium* can also refer to a matrix that carries more intense flavours. In design terms, this notion of *medium* is almost pejorative in a realm where designers seek continually to create the extraordinary. Yet as an evocation of a balance between two extremes, it has currency for designs which are attempting to respond to the typical binaries of inside/outside, private/public, tradition/innovation and simplicity/complexity.

*medium*: John Wardle

The work of John Wardle Architects, an innovative and award winning Melbourne based practice, serves as a persuasive illustration of this middle ground. Wardle’s architecture exploits opportunities to exalt the everyday. He laces spatial devices frequently borrowed from civic scaled and monumental precedents with highly crafted details and meticulous joinery elements in the way antipasto dishes incorporate varied concentrated ingredients into the base of many of its components.

The considered composition of the parts allows each to be enjoyed as separate works, or cumulatively as a whole. Like abundant platters of antipasto, each element has its own appeal and genesis, which provides distinct texture and taste. Gathered in a single conception however, they acquire additional potency as an array of contrasting flavours, which can be sampled and selected to heighten sensory pleasure. ‘…it’s always the little things’ (Oliver, 2001, p. 91) that Wardle agonises over. In the houses he designs, each part or fragment is a separate entity with its own layers of meaning. Like an appetiser, the detached asymmetrical concrete steps marking the entrance to the Isaacson/Davis House (1997) in Balmarring Victoria, were ‘modelled on an unrealised non-residential commission for the same client’
The extensive use of folding and packing in both the detail and the whole, is an intentional reference to the occasional nature of the weekender which in the architect's words 'can be unpacked on arrival and repacked on departure' (p. 43). Apart from the exquisite mechanics of the interior elements which pivot, fold and sheath to accommodate, the entire space appears as a pulling apart of opposites, and coming together of activities. In the constructed elements of an antipasto platter the food is presented as a play of section, layer and surface. It elicits comparison with the stratified sectioning of frittata; the folding and wrapping of vine leaves to form dolmades, and the textured surface of wood fired bread, all of which are consciously composed and assembled to heighten sensual experience. John Wardle crafts and manipulates joinery and building elements in a similarly expressive array of material and structure.

Usually the term 'well-done' fundamentally praises, however in gastronomy its use can be more ambiguous. Many fresh ingredients, such as meat, fish and vegetables, are valued for their closeness to the natural state. To cook them thoroughly is to overcook them and risk detracting from their texture and taste. In choosing something be 'well-done', an acquired taste is suggested, a preference for food that is well removed from its raw origins and been substantially changed through the process of cooking. As an analogy for interior architecture, one might question whether a 'well-done' building can be seen as 'overcooked'. Undeniably though, there are directions in architecture and design, which rely on highly processed materials and methods to achieve their ends, where the finished work is sophisticated, technologically dependent and far removed from basic notions of shelter. Another productive reading of the term 'well-done' provides associations with time-consuming processes that transform very ordinary ingredients, refining them into a concentrated state. A good example is the making of stock, where the outcome of an intensely flavoured liquid is realised through reduction, distilling many different components into one new homogenous state. The apparent simplicity belies the complexity of the production. This basic ingredient forms the foundation of many dishes, and can be used as a conspicuous flourish or as an invisible foundation.

**well-done: Nik Karalis**

In Australian contemporary design there is an identifiable group of designers whose work demonstrates similar tendencies of technical refinement and austere aesthetic. Nik Karalis' background in award winning corporate interior design and urban practice typifies a neo-modernist attitude, which aspires to intellectual as well as physical sustenance.
In the Karalis Beach House (2000) on the Mornington Peninsular, Nik Karalis has created a weekend retreat that employs a rectilinear and spartan aesthetic. Almost ‘schizophrenic’ (Australian Style, 2000, p. 61) in external appearance, one side is a robust timber box backing onto rugged sand dunes, while the other is a glazed curtain facing seaward reflecting the surroundings and disappearing into the environment. ‘The concept was that it mirrored the landscape and the clouds, so that the house didn’t have a presence at all on the south’ (p. 63). Like a great cooking stock, it succeeds by blending and dissolving rather than by being conspicuous. It elicits comparisons with Karalis’ cultivated approach to design – the distillation of many into one new state, the foundation of various dishes. The creation of stock is a time consuming process resulting in a homogenous product that has come from enduring and fundamental ingredients, essentialising, and elevating the status of basic components. Like the modernist interiors he produces, it is reductionist in its nature and its apparent simplicity belies the complexity of its production. A basic stock’s definitive status in the realms of gastronomy also has parallels with Karalis’ clear debt to the iconic houses of the twentieth century. While there are obvious visual allusions to the pavilions, pilotis and ramps of Le Corbusier and Mies van der Rohe, the more profound aspiration is to continue their work as a redefinition of daily life by stripping away the superfluous in pursuit of the ideal.

The design of the house is schizophrenic in more than one way. Its relationship to the landscape is both confronting and comforting. Karalis described this effect as one that makes ‘you feel quite close and vulnerable to the environment…it’s like you’re camping amongst nature in a glass pavilion’ (Australian Style, 2000, p. 61). However the connection to the outside world is in fact highly controlled, possessed through the filter of an ultimately sophisticated house. The appropriation of this landscape bears similarities with modern commercial food production – the scientifically engineered practices that produce genetically perfect food, or the cultivated agricultural environments modified by demand.

‘The kitchen is designed to look like a non-kitchen, in the sense of a separate room’ (p. 63). Appliances are hidden behind seamlessly detailed fittings fused into the space. The intention is that the kitchen is part of a general living area where events happen, rather than a separately housed activity. The living spaces are amalgamated into one realm that ubiquitously supports a variety of activities. Similarly stock supports other dishes, but is rarely offered as a separate entity. It forms the basis of historical, contemporary and cultural dishes which are produced in a similar way, amalgamating the stock while framing separate ingredients, for example, stock is infused into the dishes of osso bucco, bouillabaisse, and risotto which bolsters the key ingredients.
Like his experiences in designing controlled corporate interiors, the Karalis Beach House employs a minimal palette of high quality materials in a polished composition of glass, marble, stainless steel, and contrasting walls of panelled timber and seamless white plasterboard. The effect is refulgent, almost transcendental, and in its control of the normal clutter of everyday life and careful arrangement of signature pieces of furniture, suggests a meditative and disembodied version of domesticity, ‘a sophisticated escape from sophistication’ (p. 63). It is a contemplative comment on the act of retreat, ethereal nourishment rather than comfort food.

It would be misleading to suggest that Australian architecture and design be categorised into these three discrete areas. If one broadens the gastronomic reading, blurring the boundaries set up by this selective analogy of raw, medium and well-done, one can make wider design comparisons. For example, the recurrent ‘staple’ of the outdoor room, from the precipitous platform of the Kangaroo Valley Pavilion House to the ‘carved’ deck of the Isaacson/Davis House and the urbane ‘central loggia’ of the Karalis Beach House, the indoor/outdoor room seems to be a defining characteristic of Australian domestic architecture. The significant finishing touches that flavour each of these examples – the dual profiled corrugated steel claddings of the Kangaroo Valley Pavilion House, the articulate plywood joinery of the Isaacson/Davis House, and the masculine marble bench top of the Karalis House – are composed to be intense and memorable ‘garnishes’. One could speculate what might be revealed in each of these studies if another food analogy is included – the entrée, main course and dessert – where the sequential nature of patterns of consumption are paralleled with spatial journeys.

**Indulging in the metaphor**

As there is no clear or singular picture of Australian architecture, the gastronomic analogy offers a useful way for beginning design students to get a better understanding of how multiple endeavours can coexist. While students in their daily lives are used to an array of food and choose quite spontaneously whether to eat modern Australian cuisine, East-West fusion, Chinese or McDonalds, they often cannot exercise the same uncomplicated decision making when faced with the multiplicity of design directions they perceive to be on offer. The food analogy provides a way through, giving an anchor in the sensory appreciation of experience, a connection to the everyday and an accessible vocabulary to analyse and address design, regardless of cultural or demographic backgrounds. It works because the unexpectedness of the alliance is provocative and invites comment, and also because it teases out associations and memories of time and place in a Proustian manner. Frascari (2001)
advocated that ‘Architectural as culinary thinking makes thinking ‘begin to live’ by shaping and regulating conceptual development where the illusory impressions of subjective qualities are as important as the objective qualities such as size, shape, temperature and weight’ (Frascari, 2002, p. 3).

Parallels can be made between the recipe and the plan. Like a recipe which is continually adjusted, recontextualised or appropriated, so too can students consider and apply multiple variations, subtleties and infusions into plans. Furthermore they can distinguish how conventional means of communication and description, whether verbal or written recipes or orthographic drawings, are open to interpretation and can themselves be expressive condensers of much more than basic assembly instructions. The degree of resolution in both can be anything from notional and conceptual to highly detailed and prescriptive, depending on the experience and skills of the recipients.

For novice students there can be a disparity between the excesses of choice and an austerity of means. The use of metaphors to infuse their designs can only be mined to the depths of one’s knowledge of it as a referent. For those who are apathetic or unsophisticated in their cooking and eating habits, the metaphor is limited. Yet it still operates with a predictable universality and adaptability where other metaphorical analogies, such as music and literature, tend to rely on specialist knowledge.

Although the formulaic processes of cooking and designing may appear to be at the root of the coupling between recipe and plan, it is the use and transformation of material, and its testing ground of physical bodily sensation, which is the essence of this methodology. In gastronomy, the experience is ultimately participatory and unreplicatable, stimulated through the other senses but remaining intensely personal. The act of eating is often impossible to convey verbally – witness the difficulty describing taste and smell except as self-referential extensions of other tastes and smells. It involves, as built space does, an exterior/interior dynamic that is undeniably physical. Material and space are transformed; when one eats one is shifting space. This association is continually reinforced through each stage of the studio, from the analytical and observational through to the generation of creative ideas and manner of assembly. The alchemic example of cooking is used as a tangible reference for the transformation of raw material into something other, in this case, built form. This succeeds in reinforcing the sensory and dynamic aspects of space, as well as demonstrating the potential to transcend the ordinary while using everyday means. The realm of food, like design, is laced with the power to tempt and sustain both the body and the intellect, to taste the physical world extrinsically and intrinsically. It offers a pedagogically persuasive device where the
culinary process from raw to cooked can be revisited as an intellectual transformation as well as a physical one.

References
Glue and Gumption

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Abstract: Between austerity and excess lies the caravan. This paper looks at a recent project by Auckland designer Katy Wallace. Wallace’s mission was to rethink the interior of that ultimately austere space – the caravan. Firstly, the paper positions Wallace’s project within the historical context of the modern caravan. Secondly, it looks at how Wallace has responded to the dual needs of the contemporary interior and those of confined spaces of an existing caravan. Finally, the paper examines the caravan in the wider context of recent New Zealand holiday location architecture. In a period in which a new breed of holiday houses strives for austerity and seemingly achieves only excess, this paper questions whether the caravan will ever again find a place at the twenty first century beach.

Keywords: caravan; design; beach architecture

Introduction

In 2002, Katy Wallace, a leading New Zealand furniture and lighting designer, turned her attention to the re-design of a caravan interior. The project, which explored notions of storage, assemblage and transportability, was, as the designer saw it, a natural extension of her work thus far. To Wallace, a caravan provided a logical next step – a box into which to place her ideas. Other connections could also be made between Wallace’s recent work and the traditions of caravan design. Like many contemporary designers Wallace’s work was full of references to the recent, modernist, past. There had also been a certain material commonality between Wallace’s previous work and the traditional building materials of caravans – plywood, folded metal, laminates and applied decorative vinyl.

The logic of the shift was less obvious to the design community. The New Zealand caravan industry is neither large nor innovative. Where there is design input at all, it follows the ‘international’ model. In this, opportunities for designers are identified as limited by the extreme maturity of technology used, and by production methods that have not changed substantially for many years. In New Zealand, as elsewhere in the caravan industry, the design process is ‘incremental and customer-led’ (Davis, 1993, p. 376).

At the same time, the New Zealand caravan industry is in decline, and has been for decades. The beginning of this decline is usually traced to the Muldoon government’s (1975–84) decision to tax new caravan production. This, combined with the rise in world oil prices in the later 1970s, contributed to a dramatic fall in the sale of caravans. At the time many caravan manufactures collapsed. Among those that survived there was a significant decline in
research and development, already at minimal levels. As a result, the caravan, at least in the public imagination, failed to progress past a technical, social and aesthetic highpoint – the late 1970s. It was into this climate that Wallace launched the Katy Wallace Caravan Project (KWCP).

**Historical background**

The modern caravan, as we know it, emerged in America in the 1920s. These first generation vehicles were called auto-campers and ‘tended to be jerry built home made contraptions – often part car, part tent’ (Busch, 1995, p. 115). By the 1930s however, the appeal of auto-camping was becoming evident and caravans began to be mass-produced. A new caravan (trailer – in American English) industry saw the caravan transformed from ‘scrap heap assemblage to technical object’ (Wallis, 1991, p. 15). In Britain, the caravan followed a similar developmental trajectory and where, after 1995, the design and manufacture of caravans became highly industrialised.

A number of caravan manufacturers were active in New Zealand and Australia in the post war period. However, in both of these countries caravan development varied somewhat from American and British models. In both Australia and New Zealand, the post war caravan retained strong connections to its homemade roots. Caravan building and design remained a popular pursuit for do-it-yourself home handy men. The role of the amateur in the dissemination of new ideas in caravan design was widely recognised by caravan professionals. Ted Palmer, ‘one of Australia’s most experienced caravan builders,’ wrote in 1962: ‘There are no special tools needed for making this caravan, but if you are inexperienced in building, redraw all the details to familiarise yourself with measurements and fitting in. Use plenty of glue and gumption … There is always room for improvement in all things’ (Winser, 1962, p. 23).

Professionals like Palmer both manufactured readymade caravans and sold plans to amateur builders. Similarly, in New Zealand, professional caravan builders, such as Bruce Webster, the original designer and maker of the *Lilliput Caravan* (on which Wallace’s KWCP was modeled), launched themselves into the industry after making home made prototypes in their garages. Often these manufacturers proceeded to build runs of caravans in those garages until such time that the business was able to expand into bigger premises.

**The existing formula**

Ted Palmer’s 1962 10ft *Pleasure Van* was an update of his earlier 8ft *Glamour Van*. The floor plan of both employed the typical layout found in most post war caravans. A single door was positioned to the front of the left wheel. This opened onto an arrangement of table, partnered on either side, by a banquet seating arrangement. This could, at night, double
as a third berth – by removing or lowering the table. Immediately in front of the open door was a kitchen sink and stove. A small bench space was provided. At the tail end of the caravan, under a panoramic window, a sliding lounge bed provided both a daytime couch and a double bed. The remaining space, on the door wall featured a pantry cupboard and a wardrobe. In most cases a ceiling hatch ventilated the interior. Although the caravan would expand in size, throughout the 1960s and 1970s variations to this basic plan were unusual.

The austerity of caravan planning is seldom replicated in the furnishing of caravan interiors, which closely replicate the excesses of the suburban home. Gillian Horn in her essay ‘Everyday in the Life of a Caravan,’ suggested that caravan: ‘Interiors are the stage sets of home, with images of homelessness veneered onto every surface. There is a discernable formula behind the caravan interior founded on iconic images of the home, which are grafted together to form a ready-made house-set, a distillation of the domestic suburban interior’ (Horn, 1998, p. 28).

Ted Palmer, caravan designer extraordinaire, had recognised the importance of such allusions when he advised would be caravan builders to include two additional features – venetian blinds and a mirror. Palmer described the mirror in particular as ‘really important in the decorative set-up’. He wrote: ‘colourful flowers in front of the mirror are doubled in reflection. On the shelf in front of the mirror complete the picture of a home. Important indeed, believe me, when touring under adverse conditions’ (Winser, 1962, p. 24). Caravans were not suburban homes but they had to feel like them. The provision of a mirror and a vase implied the existence of the missing mantelpiece and fireplace that provided the focus for the domestic interior of the day.

The Glamour Van and the Pleasure Van were by the 1960s essentially ‘classics’ of caravan design – their ovoid silhouettes and plywood construction had been common since the 1940s. As the decade progressed other, more rectangular forms, were emerging that offered occupants more space. Models like the Interstate and the Beachcomber both reflected the newer external forms of the sixties and ‘seventies caravan, however the interior layout of the caravan remained close to that of earlier designs.

Even as the Winser Handbook, in which Ted Palmer’s designs featured extensively, reached its ninth edition, caravan culture was beginning to see the emergence of changes that would later have a major effect on the caravanning world. Already there was a trend towards camper vans – in which the accommodation and the vehicle are the same. These physical changes were however minor in comparison to the issues of status that would increasingly affect caravans through the 1960s and 1970s.
Even as caravans experienced their first increase in numbers they were, somewhat ironically, beginning to have image problems. In Britain, representatives of the caravan manufacturing industry, concerned with the declining status of the caravan, gifted *The Royal Caravan* to Princess Anne and Prince Charles as a playroom, in the hope of reversing the trend away from caravans. In the United States the establishment of trailer parks, initially envisioned as retirement communities, increasingly gained a poor reputation. The caravan, or trailer, became symbolic of the lowest level of social status. Furthermore the middle class family of the 1950s, who had enjoyed the mobility that the caravan had given them, had by the 1970s and 1980s discovered a new international mobility brought about by cheap international air travel and budget accommodation.

The caravan, it seemed, succeeded with the wider public so long as the idea of home evolved slowly and the ambitions of homeowners remained relatively egalitarian; that is, before the age of a high degree of individualism came to dominate the design of domestic interior spaces and holiday destinations became linked to status. The caravan, which had ‘been founded on iconic images of the home, grafted together to form a ready made house-set: a distillation of the domestic suburban interior’ (Horn, 1998, p. 29), began to represent something (the suburb) that the middle class were keen to escape. The caravan began to be seen as ‘unaspiring, unglamorous and unwelcome in our upwardly mobile communities’ (Horn, 1998, p. 28).

**The redesign project**

The tasks Katy Wallace faced, in attempting to re-design a caravan for a contemporary audience, were multiple and complicated. A contemporary caravan had to reflect current ideas about the interior, while at the same time dealing with issues surrounding the decreased status of the caravan form itself. Given this, Wallace’s choice of a 1966 *Lilliput Caravan* as the starting point for her re-design was potentially problematic. The reasons for Wallace’s choice were two-fold. The resources available to the designer did not make the design of a new caravan from the ground up possible. The notion of sustainability entered the equation. If a new caravan can be rebuilt from an existing largely redundant shell then an undervalued resource can be reused. Elements of the caravan were recycled. Similarly other elements of the caravan’s original fittings were re-used, the stove and fridge for example. Secondly, by using the recognisable form of the *Lilliput caravan* Wallace was able to reference the more desirable aspects of caravan iconography.

The discovery that the recent past, or history, can where needs be, be carefully managed to the designer’s advantage, is a characteristic of much contemporary design. It matters little
how the 1960s or 1970s actually occurred in New Zealand, or Australia, it matters only to what extent remnants of those decades can be remade into the current idea of the 1960s or 1970s. Wallace's use of the existing caravan brought with it a familiarity that guaranteed a wider audience.

Wallace started by stripping the interior down to the bare shell. The components that were removed from the caravan became part of an exhibition at Lopdell House Gallery in Auckland, (the site for the eventual debut of the completed caravan). In this exhibition, Wallace rearranged components such as cupboard doors, drawer fronts, and a folding table on the wall of the gallery in such a way that the outlines of the arrangements duplicated the cross sectional form of the caravan. Each of these components remained functional – opening a door or cupboard revealed a different section of applied pattern adhered to the gallery wall. On the floor of the gallery the floor plan of a Lilliput Caravan was laid out in white tape. Together the two components of this exhibition served to remind viewers of the traditional form of the caravan and to signal the designer's intension to make changes.

With the caravan reduced to a skeleton superstructure a rethinking of the interior spaces could begin. The first problem was to bring about a closer relationship between interior and exterior forms of the caravan. Although the traditional caravan interior is directly modeled on the generic suburban home, the caravan exterior makes no similar gesture. To a contemporary audience the most desirable aspect of caravan iconography is of course its exterior profile.

Wallace began with the windows. Traditionally caravan designers had chosen to maximise window area to provide an additional sense of space. Over time, new glass technologies allowed for more and more expansive areas of glass. With its under-seat banquette, the large caravan window replicated the bay window of the suburban home. As Horn states: ‘the interior layout of the caravan is arranged under the orthodox principle that separates private sleeping and washing areas from the more public cooking dining and socializing areas’ (Horn, 1998, p. 29). The positioning of the caravan with a park, however, radically departs from the suburban conventions that ensure privacy. With the physical boundaries of site, essentially ending at the caravan perimeter, the result is that the caravan's occupants become over exposed. The desire for privacy within the park had, paradoxically, led to extensive curtaining of the interior space and further extending its references to the suburban home.

Creating an interior space in which the occupant felt in control of views (both in and out) presented the designer with her first problem. Wallace dealt with this by removing one wall
of windows from the caravan, thus reducing the penetrability of the interior. At the same time this provided a solid wall around which to rearrange the interior functions. The reduction in light brought about by these changes was compensated for by the addition of two doors to the left hand side of the caravan. The first door replicated the scale and form of traditional caravan door – although not the half and half stable door recommended by many traditional caravan designers. The second door was a wider door that occupies a third of the elevation. The use of a large window in this door brought a new vertical orientation to the view from the caravan. At the same time the dramatic sweep of this door in the process of opening, created a screen that, used in tandem with the other door, acted to define, and co-opt, an outdoor space for the caravan.

The introduction of a solid side to the caravan helped redefine the spatial schematic of the project. In implementing her changes, Wallace adopted a bay structure in the caravan scheme. This was drawn from the very location that the caravan might eventually find itself. As Wallace put it ‘there is always one view on a holiday you don’t want’ (Lloyd-Jenkins & Wallace, 2003). The bay, or cove form, provides dwellers with both protection and a clear point of approach or welcome. It is a typology suited to the caravan. The protecting wall

Figure 1: Exterior Katy Wallace Caravan Project (2003) (Photography: Katy Wallace)
of the caravan becomes home of storage and supplies. The element of nurturing provided by the sheltering headlands of a bay, are here employed as a storage unit. The use of strips of red neoprene rubber, in what is a bandage-like effect, enforces the idea of nurturing. However the use of red rubber also introduces colour into the caravan. This dramatic use of colour provides the key motif through which the interior of the caravan can be individualised to suit different clients.

The solid wall, referred to by Wallace as ‘the activity wall’, gave the designer the opportunity to rethink the distribution of interior functions throughout the remainder of the caravan. Traditionally, the caravan has placed eating and entertainment functions and sleeping functions at opposite ends of the interior, and cooking at a central point in the caravan (possibly to take advantage of greater head height). Wallace regroups these functions – placing the sleeping and kitchen quarters at opposite ends of the caravan. Utilising a recessed floor plan courtesy of the original designer of the Lilliput solved the potential problem of headroom.

The activity wall includes a series of slots into which are slotted a series of wooden planks. These can be arranged into different functional groupings as required. Four identically sized and shaped wooden components, act as a small shelf when in the closed position parallel to the wall, can also be rearranged to provide seating at a table – for between one and four people. An alternative arrangement provides a small desk used in relationship to either bed or couch. The same arrangement at the other end of the room provides an additional bench space – or as the designer puts it, perhaps somewhat hopefully – ‘a cocktail bar’.

In the Katy Wallace Caravan Project, the kitchen has been accorded a greater status than with traditional caravan design. This position offers the person cooking increased bench space. This responds to changed notions of the idea of the kitchen and cooking that have impacted significantly on the design of house and apartments. Cooking is now a spectator event. Whereas in the old caravan the table was made to double as kitchen preparation space – dining and preparation are now two distinct areas of activity. The cook must be able to work – thus bench space but must also be observed – thus the arrangement of bench seating and flexible activity wall at the other end of the space.

**On the road**

With the caravan completed, the initial gallery exhibition was followed by a tour of museums and galleries throughout the North Island. The tour attracted national publicity most notably on the six o’clock news broadcast. Early publicity surrounding the caravan described it as
‘retro’. Similarly, writing on the caravan identified it as ‘new design’ but the idea of the caravan itself was presented, particularly by television, as nostalgic.

Nostalgia is an understandable reaction, given that the caravan is intimately linked, in the public imagination, to the past. Wallace’s interior refit of the caravan might connect both caravan exterior and interior together but to link the caravan with the wider community – as a desirable, and contemporary, design commodity – might be altogether more difficult.

As we have established, the traditional caravan took its references from the suburban house. In turn, the caravan park took its references from the wider suburb. In the parks, residents ‘lived out what is considered to be a nostalgic ideal of community: friendly connected and informal’ (Horn, 1998, p. 30). However, today the suburban ideal that produced the caravan is itself in taters. With the middle class obsessed with the acquisition of assets, the caravan has failed to establish itself in the hierarchy of appreciating assets. The caravan has lost status when compared to the caravan’s primary rival as holiday accommodation – the bach.

The bach is a small basic shelter built by New Zealanders at key beach, lake or mountain locations. Although traditionally seldom more than a couple of rooms covered with a sloping corrugated iron roof, the constant references made to the bach by architects, filmmakers and other icon makers has seen the bach grown in status since the 1970s. To this should be
added the knowledge that the handmade nature of the bach meant that the interiors were usually highly individualised. On the whole, bach structures are seen as ‘big on personality’ and reflecting a ‘certain way of life, a more primitive existence’ (Male, 2001, p. 9).

The success of the idea of the bach lies in its placement on a plot of land. More than that, the bach is connected to that highly desirable commodity beachfront property. This has brought about a rapid change in the bach. Indeed the ‘humble’ bach is disappearing in favor of beachfront holiday homes that mimic the original form of the bach although at a vastly increased scale. The appearance of these architect-designed homes characterised by the phrase popular in interior magazines to denote a lack of pretension: ‘keep it simple I said to my architect’, has brought about a change in the nature of beachfront locations. Whereas the bach had humble beginnings and an egalitarian agenda, increased property values and expensive homes have seen the introduction of security fences, burglar alarms and trespass notices.

If the beach is becoming rapidly less egalitarian, rapidly less middle class to the point that even its permanent resident the bach is disappearing, what then of its uninspiring unglamorous, unwelcome and essentially transient visitor – the caravan? Wallace’s re-design of the caravan could be seen to satisfy the demand of a newer generation of design conscious urbanites who demand a certain standard of design in their interior spaces – even on holiday.

**Conclusion**

It waits to be seen whether the Katy Wallace Caravan Project will succeed; it is a prototype after all. Yet, it is worth recalling here that from the beginning Wallace’s project made overtures to a seemingly moribund industry uninterested in design. Success of a project like the Katy Wallace Caravan Project is difficult to measure. However at least one thing is sure, the contemporary beach has less place for the caravan than ever; with camping grounds and caravan parks being subdivided and sold up for individual housing, even apartments. Wallace may have been able to turn the old caravan into something new but it remains to be seen whether a fleet of caravans, even with cocktail bars as standard fittings, can make a foothold in the space of the new New Zealand beach.
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Raising Understanding of Indigenous Australian Culture through Creative Production in Interior Architecture

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Abstract: The search of displaced peoples for ways to connect with their culture underlines the need to explore the role of Interior Architecture in cultural rebuilding and communication. This paper demonstrates a way of applying cross-cultural design processes to the built environment within a tertiary educational context. It will be of interest to Interior Design educators and researchers involved in teaching processes concerned with the conjunction of culture and meaning. The paper illustrates some of the processes currently being explored to engage students in culturally specific design enquiry and production. Examples of student outcomes are presented, and the broader impact of the initiatives on research and writing is discussed. These teaching/research initiatives are in a very early stage, there is much to learn, and there are very exciting possibilities. This paper is intended to present a tentative position for critique and feed back.

Keywords: culture and place; built environment; indigenous studies; Interior Architecture.

Introduction: A small unit with growing impact

This paper demonstrates how the conceptualisation of student learning around Indigenous Australian perspectives fosters student interest in exploring the topic further. Globally, the application of Eurocentric theories is being challenged as displaced peoples seek ways to connect with their culture through the built environment and through other avenues. ‘However, design education is dominated by Eurocentric cultures’ (Asojo, 2001, p. 46). This signals the need for new approaches to design. In North America, the Foundation for Interior Design Education Research requires interior design programs to provide ‘learning experiences to develop consciousness of alternate points of view and appreciation of cultural diversity’ (FIDER, 2000, p. 15).

With respect to Aboriginal Australia, there is limited literature on the meaning and application of culture and place in the built environment. Even less is written in the discipline of Interior Architecture. These issues underline the need for Interior Architecture education in Australia to explore its role in cross-cultural connectedness and communication. This paper illustrates some of the processes currently used to engage students in culturally specific design enquiry and production. Examples of how students have understood Aboriginal culture, what they learned about cross-cultural design, and the larger impact this has had on research and writing in the Department of Architecture and Interior Architecture are discussed. As these
teaching/research initiatives are in a very early stage, it is the hope of this researcher through discussion to foster further research through cross-institutional enquiry in the area.

**Cultural communication and rebuilding through the built environment**

This project is set in a highly charged political climate, at a time when Aboriginal people are attempting to come to grips with their past and build a future. Self-governing organisations like the Aboriginal and Torres Strait Islanders Commission have initiated political actions, and assumed leadership positions using their experience with the dominant culture to develop strategies for the preservation of Indigenous life. From polices of self-determination the acknowledgement of a separate historical and cultural status has emerged. The strong association with the place and the land in Aboriginal cultural approaches to celebration and ritual is expressed in traditional cultural objects, ceremony and artwork. Issues of self-determination and reconciliation have raised the interest of Australians in the culture, history and spirituality of indigenous Australia.

Aboriginal people point out that they have been interacting with and intermarrying other indigenous tribes, and European and Asian immigrants for two hundred years. Therefore the various indigenous cultures have adapted in significant ways to patterns introduced to them or imposed on them. As Jim Morrison said in the *Ways of Working Workshop*, ‘No Aboriginal today maintains an unaltered indigenous culture from European settlement time. No culture remains static, and Aboriginal culture is continuing, however altered from its pre-contact form. Aboriginals are similar to other non-Aboriginal Australians, wanting a good life for their families and themselves, with connections to, and pride in their roots’ (2001).

The built environment can recognise as well as aid in the redefinition and development of indigenous self-determination. Atkin & Krinsky (1996) wrote, ‘The apparent decline of universalising ideas in architecture…has brought forward the idea of cultural diversity and place identity as generating principles in architecture…The post-modern emphasis on specificity of design is now taken for granted…. Indigenous North American peoples are among those in recent decades who have commissioned culturally expressive museum buildings. … Native Americans hope to foster ‘group pride, intercultural understanding, and a positive self-image. These museums serve an important psychological need and provide stability and security (cited from Hansen,1980, pp. 44-51). ‘…Tribal members expect the museum to examine their past and to present a modern identity for themselves and the non-Indian public’ (p. 238). These views are reflected in Aboriginal Australia. Nancia Guivarra (Indigenous series producer ABC online) wrote, ‘Aboriginal people live in urban places, yet those places contain no trace of us or the things we hold dear. So often we are alienated from our built environment’ (Guivarra, 2002, p. 1).
In Australia there is an emergence of research groups, educational initiatives and built environment designers working in the area. For example the Merrima Aboriginal Design unit of NSW public works, headed by Aboriginal architect Dennis Kombumerri, provides consultation and design services for indigenous communities throughout Australia. ‘Merrima is fully staffed by indigenous people and is committed to the struggle for self-determination through cultural expression in the built environment’ (DPWS, 2003, p. 1). Projects using landscape architecture, interior design and architecture to create spaces supporting Aboriginal cultural expression include: The Googar Creative Work Centre for indigenous inmates at the Bathurst Correctional Centre and the Wilcannia Health Service, both in NSW. Of special note is indigenous team member Alison Page, an interior designer with a broad range of project experience. ‘Alison’s work explores links between cultural identity, art and the built environment’ (PAHC, 2003, p. 3). In Western Australia Blacket Smith Architects, environmental scientist Dr. Martin Anda, and Landscape architect Grant Revell, all non-indigenous, have collaborated with Noongar communities in the development of culturally sensitive buildings, wetlands and infrastructure for the Wheatbelt Aboriginal Corporation.

The Faculty of the Built Environment at the University of New South Wales has recently introduced a Built Environment Preparatory Program (BEPP) for indigenous students. BEPP is an intensive seven-day Summer School program intended to introduce indigenous secondary students to career possibilities in the Built Environment. The program explores the importance of the built environment in indigenous life and aims to foster educational pathways. During BEPP students are introduced to indigenous practitioners and projects.

These projects and others like it form an important basis for further study of appropriate cross-cultural design. However, many of the projects are not documented, which is problematic; as Asojo (2001) has stated, ‘Many educators have attributed noninclusion of cultural diversity in design education to a lack of precedents and nondocumentation’ (p. 48). This lack of project description needs to be acknowledged, but it must not deter us from exploring new pathways in cross-cultural communication and design.

The furniture studio

From this context the idea of exploring furniture as a cultural conveyor has emerged. Writings by Williams-Bohle, Kalviainen and Prown support the concept that ‘…[furniture] can be the provider of a multiplicity of meanings. It can be conceptual and embody abstract ideas, it can provide interaction and surprise that builds emotional and intellectual involvement…it offers possibilities for imagination and stories’ (Kalviainen, 2000, p. 9). ‘As material culture, furniture analysis is based on the assumption that culture is encoded in objects’ (Prown,
1982 in Williams-Bohle & Caughey, 1996, p. 45). The development of designs expressing indigenous culture are limited in Australia, and as such, there is a need to find strategies in these areas and ways to expose young designers to these issues.

**Intentions**

The fourteen week Furniture Studio begins with a careful study of an element of material culture, and concludes with the design and making of a full-scale prototype of a piece of furniture. This second year studio of primarily non-indigenous students introduces a vehicle to understand Aboriginal culture, helps the students develop a process for exploring cross-cultural perspectives, and then encourages the translation of chosen aspects of this research into pieces of furniture.

**Presentations, visits and readings**

The 2002 Studio began with a narrative by Sandra Hill, Noongar woman, artist and Curtin Director of the Aboriginal Arts Program. Sandra told an intensely personal story of her family that covered the brutality of events resulting from the 1906 Act, which has lead to two stolen generations. Most students had no knowledge of the Act and the resulting events. Her story had a profound effect on the students and made them appreciate the seriousness and significance of the design project. Discussion of the results of European inhabitation and polices of assimilation and segregation of Aboriginal people, leads to the exploration of various forms, material and uses of objects that may tell that story and/or offer hope for the future.

To give students an informed starting point, context and guidelines for working with Aboriginal culture, the design brief identifies appropriate problems for student research and cultural design application in the following ways:

- Presentations at the Western Australian Museum Katta Djinoog Gallery (Aboriginal Gallery) and the Noongar artefacts collection to explain meanings in art and artefacts relating to Aboriginal culture.
- Assigned reading and discussion of Indigenous perspectives.
- Examination, comparison and critical analysis of designed precedents in the representation of Indigenous perspectives in the built environment.
- Introduction to the resources at the Curtin Centre for Aboriginal Studies resource library.
Intensive workshops and collaborative feedback

The first six weeks are devoted to intensive research, ideation and concept development through workshops and guest tutors. Through the students’ own research, specific design exercises and the development of a cultural understanding the students create their design pieces. At the end of the six weeks the students build a half-scale model of their piece in the intended materials.

According to Williams-Bohle & Caughey (1996) ‘…models of artefact analysis…goes beyond exploring the artefact itself, establishing the cultural context as a basic motivator for the development, design, and use of the artefact. This model encourages students and professionals to integrate and explore the tacit and explicit cultural meanings of artefacts’ (p. 49). The students are given the following brief: ‘Select and illustrate an element of Aboriginal (preferably Noongar) culture that intrigues you. This can be an artefact, a piece of art, a dance or a ceremony. It can be traditional or contemporary. Instead of looking at the artifact itself investigate the processes that produced it. How did the Aboriginals come up with the vocabularies, forms and techniques? What processes did they use to abstract the landscape and social patterns of survival into their material culture and paintings? Through drawings, diagrams, keywords and text describe your analysis of your selected piece of culture’.

In the eight weeks following, the students produce design development drawings, finalise fixings and refine the piece before making the full-scale prototype. The project culminates with an exhibition of the furniture. The students’ prototype is accompanied with a communication panel, describing the process, design meaning, function, material and construction.

Student processes and ideation

The inclusion of a written panel, outlining the narrative of the piece has proved to be an essential tool, providing a link between the furniture and it’s cultural significance. This allows the viewer to understand the intent of the piece and the student to reflect on the process and meaning.

Kara developed her project through her analysis of artwork, writings and a narrative of the work of Aboriginal artist Peter Wood. Through the translation of form, colour and function the student designer created a piece of furniture that reflected the story, as she understood it. As this was a student exercise she did not have access to collaborate or consult with the artist, which would have been ideal.
‘When two parts conglomerate in an Aboriginal painting by Peter Woods my personal understanding is grasped. Two creatures meet – they touch – against a backdrop of melded, flesh-like tones as if to describe the ever occurring cycle of rebirth and reproduction. The form of my piece is an expression of my reading (Figure 1). Two contrasting timbers melt into one another to form a new skeletal whole’ (Pinakis, 2002, exhibition panel).

![Figure 1: Functional object with a cultural story interpreted by designer: Woods Meeting Stool (Project: Kara Pinakis, Photography: Chris Geoghegan)](image)

Melanie developed her project through her interpretations of the narratives of a community of weavers, their materials, processes and productions and the functional use of weaving in their lifestyle. This analysis was translated through her preliminary drawings and models into a design embodying these stories through form, material, detailing and use.

‘Close-woven twilled baskets, meriam epei, were used by the Eastern Torres Strait Islanders for collection and storage. Weaving was commonly carried out in groups and was a time when stories and cultural knowledge was shared. Often mother and daughter would weave together and thus techniques were passed down the generations. The people were highly dependent on each other to acquire knowledge. The design of the Epei Shelf (Figure 2) reflects these concepts through its form and function. It is used for the storage of books – a contemporary source of knowledge, and each circular component is dependent on the next in order for it to stand. A weaving effect is achieved by the way in which the individual components interlock, and the use of round forms with square voids is similarly inspired by the basket. Epei Shelf also employs the idea of repeating simple elements to create a dynamic, functional object’ (Masel, 2002, exhibition panel).
Examination of colonisation, cultural objects, ritual and initiation ceremonies has led some students to see the parallels in their own cultures. Victoria Tan, a young designer of Maori decent, researched and presented parallel stories of colonisation. Victoria wrote, ‘I was surprised at the parallels between my people and the Aboriginal people, and wanted to build a piece of furniture that embodied hope for both our cultures. The value of having the opportunity to study Aboriginal culture then using my culture, Maori, to influence my design gave me an insight into myself’ (Victoria Tan, 2002, cross-cultural entry). Her cross-cultural exploration (Figures 3 and 4) resulted in two awards.
Figures 3 and 4: Functional object with a cultural story: Toi Ora Chair: Spiritual protector
(Project: Victoria Tan, Photography: Chris Geoghegan)

At the conclusion of the Furniture Workshop, we hold a public exhibition that is juried. This dissemination to a larger audience generates a greater interest in cross-cultural design and Indigenous perspectives. The jury includes indigenous members who provide invaluable feedback to staff and students. One Aboriginal jury-member commented ‘I was surprised to find the distinct lack of obvious applied ornamentation. When you invited me I thought ‘dot furniture’ would abound and am pleasantly surprised to find not one piece in sight’ (Jury comment, 2000). This illustrates the importance of exposing how the interior can foster a
meaningful cultural connection beyond ‘such literal applications as dot painting on generic western objects’ (Yabuka, 2001, p. 99).

Reflections

After the 2000 workshop we used an interpretative approach to gauge the effectiveness of the program to meet the objectives of exposing students to indigenous cultural and appropriate processes of cross-cultural design. We recorded authors’ reflections as teacher and learner, developed a questionnaire, and held a focus group session with a sample of students. The process and the outcomes of the studio were reflected on with Aboriginal educators and non-indigenous people experienced with working with Aboriginals and translating the culture into a built form. Their comments were insightful and changes were incorporated into the second workshop in 2002.

With 30 students in the studio, each exploring different aspects of the culture, it is problematic that students do not have direct access to indigenous persons to consult on their project. This was addressed in the second workshop in 2002, where I incorporated changes in response to reflections on the 2001 studio which were to narrow the investigation to a specific cultural group, region or artist and have a representative available to answer the students’ questions as they arose. In consultation with Sandra Hill, I focused the second workshop on Noongar culture in the immediate vicinity of Perth. However, a series of events out of my control led to difficulties in accessing the materials and people for consultation i.e. the Noongar Museum collection unexpectedly closed, and as a result, several students directed their investigations beyond the Noongar culture.

There was a mixed reaction to the process of using cross-cultural study using indigenous issues as a starting point. Most of the students’ experiences and attitudes were positive but largely uninformed, and some were negative. Initially many of the students were reluctant to delve into the culture for fear of offence, due to the charged political atmosphere and lack of clarity about boundaries.

Alternatively there were a small number of students who initially had no apprehension about undertaking Indigenous issues. One student writes ‘Initially I was not worried about offending anyone. It wasn’t till I started discussing my ideas and do more research that I started to modify my design, making sure it was appropriate’ (Lommerse & McRobb, 2001).

Students learnt there are many groups of Aboriginal people, and each one has significant stories they are custodians of, and by individually researching a small component gained insight. Another student said, ‘There is no textbook with all the answers on how to translate
culture to a material object, the process requires an eagerness to research, and a willingness to embrace’ (Lommerse & McRobb, 2001).

In both years examination of the furniture pieces, and the descriptive panels, which accompany them, showed how much was learnt by the student. The depth of research undertaken appeared to be reflected in the built object. Those students who closely examined the cultural aspects of Aboriginal Australians appeared to get the most out of the unit. Their pieces showed underlying layers of meaning, considered and applied on many levels. On the other hand, those students who simply chose the environment as their key, or had a preconceived idea of what they intended to make, appeared to have a somewhat more literal design. There was a lack of depth to their narrative. This is not to say that the pieces themselves were not well-crafted interesting pieces of furniture, but for those who really pushed the boundaries, the level of research and consequent translation into built form, produced pieces which were rich in cultural context and narrative.

The reviewers’ observation was that the student’s bond with this project was very strong – there was a palatable synergy illustrated by the dedication to the projects and the meanings they were trying to communicate through their designs. For those that looked deeply into the background, there was utmost respect for the creators of the original cultural objects.

**Emerging interests in cross-cultural research and creative production**

Following the initial furniture projects, interest emerged from Honours students. These research/creative projects span two semesters, allowing for appropriate and ongoing consultation with the indigenous people who are interested in the creative production. Oliver Davis wrote about his work in progress; work titled: *Culturally Specific Indigenous Australian Housing: Creating a Home for the Guŋdharrar family of The Yolŋu People*. He said, ‘The Guŋdharrar family is a contemporary Yolŋu family in transition. Family holidays are spent on their tribal land in the Wessel Islands where they participate in traditional activities. The rest of their time is spent in Darwin where they lead a more Western lifestyle. However, their culture remains strongly evident in their daily activities. These issues will greatly influence the design process undertaken in creating a family home for the Guŋdharras. The significance of this project for me will be in gaining a greater understanding of Yolŋu culture and how a design can be developed to meet its needs. I would also hope that the final design could be used as a helpful prototype for future dwellings for the community’ (Davis, 2003, Research proposal).

Other research dissertations and creative projects investigating Australian Indigenous culture and the built environment are noted as follows:

Fego, Cristina. (2001). *Aboriginal Painting + Design + Environment = Cultural Education*: the ideas behind two Aboriginal painters work was used to create interior space for an art education and gallery facility, located in a culturally sensitive site.

Nguyen, Diana. (2001). *Rhythm and Beat: Deconstructing and reconstructing the music and dance of indigenous Australian culture*: the design of a performance venue in an attempt to ‘represent’ Aboriginal performance in a way that can be appreciated by all cultures.


A second emerging interest is student/lecturer research and writing partnerships – stimulating confidence in independent writing and increasing exposure of the cultural awareness projects. McRobb, then a 3rd year student, reflected on being involved in the process, ‘Being involved in critically reviewing our student work beyond its conception gave me a different perspective. I was able to see how cultural issues and political conflicts impacted on student design decisions’ (2001). After initial guidance, the student team developed a professionally prepared article for publication (Figure 5).

**Conclusions**

The value of education in dispelling myths and innuendo and providing a forum for active learning has been shown through the Furniture Design Workshop. Students confirm that by building and publicly presenting a manifestation of their research they gain a deeper understanding of the culture. Williams-Bohle & Caughey (1996) concluded that, ‘The cultural perspective adds a dimension of complexity that professionals cannot only consider, but also incorporate, in the design of meaningful interior environments’ (p. 49).

This is only a beginning, as cross-cultural communication goes both ways. I started from my access point within the institution of the university. Although this may not be ideal from a politically correct perspective, because of concerns of cultural pilfering, it is necessary to start somewhere as, ‘Aboriginal Australia desires that all Australians have some understanding of where indigenous peoples’ ancestral roots lie as well as their history since white settlement, in order to make sense of the present and move to the future’ (Ways of Working Workshop, 2001).
Teaching non-Aboriginals about cross-cultural issues is, however, only half of the equation. The next steps are to create a pathway for work with Aboriginal designers to assist them to express their culture and stories, and to get non-indigenous and indigenous students working together to create a truly cross-cultural experience. The longer-term objective is to engage with the aims and aspirations of indigenous communities, to bring together indigenous
knowledge, and to bring professional design skills and research from the university to the communities.

References


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Design, the Decoration of Culture?

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Abstract: Interior designers have tended, like architects, to determine three-dimensional space using geometry by manipulating representations of material substances or building work. Geometry without substance is of thought only and only has one quantity; number. As such design becomes the manipulation of representations with the traditions of geometry. One of those traditions is the understanding of geometry as pure static Cartesian abstraction impurely expressed in substance. Design has tended to do this for a number of reasons, one of which is to engage more fully with the design of built form and another is to distance itself from decoration. This paper explores the issue and asks three questions:

Is the repetition of Enlightenment geometry a necessary condition for architecture and design?

If it is, does material substance become merely an excessive characteristic of pure concepts conceived as pure abstract geometry?

Is culture becoming so dependent on geometry that to make geometry a pure abstraction is to understand material substance as excessive?

These questions are reformulated through the investigative process of the paper and are asked in a different form as a conclusion.

Keywords: design; decoration; design theory

Introduction, the awful truth

In the development of design during the 20th century, its emergent practical reliance on geometry has been long. What is not so well studied is the way that geometry has been used to separate design itself from other divisions of practice such as decoration.

Geometrical determination of form has been the way that design of many kinds has established a difference, and at the same time, an authority in practice, apart from its role as ‘drawing’. The blurring of the difference between geometry as the determinant of form and geometry's attachment to intellectual status is the basis of this distinction. It is indeed in abstract space that geometry takes on the role of indicating or signifying authority. In appealing to abstract geometry for authority at the same time as using it to determine form, there is an equally definite but implicit denial of matter, substance or material that transfers itself from the intellectual status of geometry to the design itself. And so design tends, in the
desire for intellectual authority from abstract geometry, towards disenfranchising itself from the material substance it is intended to inhabit.

At the same time and perhaps in parallel, western European thought is dominated by mathematical metaphors about space. This is convincingly explained and argued in a philosophical way by David Lachterman (1989) in the *Ethics of Geometry, The Genealogy of Modernity*. Lachterman (1989) argued that modern thinking about being and knowing has been mostly carried out with metaphors taken from mathematics, in particular geometry. He also argued that it is through the development of an understanding of the self-constructed, that the modern self-as-mind is formed in these metaphors.

Geometry is a way of thinking that has been a characteristic of western thought as long as attention has been paid to the question of thinking. There may indeed be physiological reasons for this, as some authors have asserted. Donald Hoffman (1998), for example, in *Visual Intelligence, How We Create What We See*, argued that it is through abstraction that the brain forms structures by which it uses memory to recognise the world, thus enabling action. In this model, abstraction requires an ordering principle, or, in their broadest sense, linguistic acts, which primarily use comparison or metaphor, in order to assemble abstractions.

Science, too, has come to rely heavily on geometry for the structure of its discoveries, theories and models. Biology uses geometry to understand genetic modelling. Physics and chemistry too have used geometry as the basis for understanding and philosophy has used geometric analogies, as have all humanities fields, for understanding being and knowing. In most academic disciplines geometric metaphors are used because they can give a clear critical distance in relation to a subject. The geometry of the structures of science takes a metaphoric quality in the same way that words have metaphoric meaning even when this is not the focus of the use of a word or sentence. Spatial metaphors for example (‘high’, ‘deep’, ‘far’, etc) become disguised by use, as does the ontological significance of the geometric structures of science, such as the geometry of organic chemistry.

Geometry, used as a metaphor, can determine concepts in all areas of study because it is deeply ingrained in western thought. It is through this ingraining that the effects of geometrical metaphors can also become ingrained and often invisible, even sometimes becoming invisible as a metaphor by taking on an iconic quality such as the ‘double helix’ of the human genome.
Geometry is also used to determine form in disciplines such as art, music and architecture and of course interior design and interior architecture. Instead of a metaphorical use though, geometry is used in building design, as a formal structure through which substances are organised, arranged and determined. In short, in design, geometry is the determinant of form: shapes are organised geometrically with lines that represent geometrical arrangements of material substance. The geometry of grids, squares, triangles, circles, domes, spheres and the perennial ‘Bucky Dome’, are represented, arranged and manipulated in drawings.

But it also seems that modern design has come under the influence of philosophers such as René Descartes (1596–1650), Gottfried Wilhelm Leibniz (1646–1716), Baruch (or Benedict) Spinoza (1632–1677), Immanuel Kant (1724–1804), Georg Wilhelm Friedrich Hegel (1770–1831) and many others not least notably including Jeremy Bentham (1748–1832). In this mode of practice, architecture uses geometry as an abstraction in regard to philosophical theories about such concepts as the metaphysical subject-object and the mechanical world of Isaac Newton (1642–1727). Bentham’s Panopticon for example is an expression of the relationship between the seeing ‘subject’ and the passive ‘object’ of early enlightenment metaphysics. Even the suggestively symbolic work of French architect Claude Nicholas Ledoux (1736–1806) is a metaphorical use of geometry.

In the 20th century, there has been a highly sophisticated critique of this thinking but seemingly little effective practice in the ‘creative arts’ to reflect it. The ambiguity of the role of philosopher Jacques Derrida (1997) with respect to the design for the Parc de LaVillette project and the continuing adherence of architects to avant-gardist modes of practice are typical examples of the apparent inability of architecture and design to take up philosophy other than that of the Enlightenment.

Building design seems fixed in a repetition of the abstraction of Enlightenment mathematical sublime (Kant, 1987) of the Baroque, while philosophy, from which this concept came, has moved away. This is not to suggest that there have been no efforts by architecture to address contemporary philosophical issues. It is merely to say that there is a necessity in the determination of form in design due to its having a certain kind of ‘being’, that apparently necessitates a determinant use of geometry.

The questions in this paper are:

Is the repetition of Enlightenment geometry a necessary condition for architecture and design?
If it is, does material substance become merely an excessive characteristic of pure concepts conceived as pure abstract geometry?

Is culture becoming so dependent on geometry that to make geometry a pure abstraction is to understand material substance as excessive?

**Architecture, design, decoration and status due to geometry**

It has been the job of architects and related professional groups, such as interior designers, interior decorators, drafters and so on, to deal with the representation of building design by using geometric techniques. This has been the case at least since Vitruvius (1960), who in *The Ten Books on Architecture* urged the teaching of geometry to architects. Building design is done by forming the geometric relations of building parts (materials included) and the organisation of the building work, in conjunction with other ‘professionals’ such as engineers. This is done by representing the geometric relationship of material substances, in drawings or models, in a range of ‘media’ including hand and ruled drawings and electronic digital media.

Within this process, varying degrees of reflective, critical and theoretical practice are also taken up. Critical thinking about design of all kinds increases the rigour of the process and forms an intersection between geometric metaphor of reflective critique (‘critical distance’) and determinate geometry of practice. The qualities of this intersection are revealed as ‘authority’ in the design, with architects at the top, interior designers below and interior decorators on the bottom, according to the degree as well as its kind, to which the conventions for practice in each design category make use of geometry.

Interior decorators conventionally tend to deal with surfaces and predetermined objects placed in predetermined space by others. Their main form of activity is selection and purchase, according to assemblies of taste. Geometry is manifest as a mysteriously determined context into which decorators insert selected things. This insertion may even exhibit a two dimensional geometry in the form of pattern.

Interior designers determine three-dimensional space using geometry by manipulating representations of material substances or ‘building work’. At the same time, interior designers use sample boards to represent materials as part of the representation of their design, often to a ‘client’. This causes a certain degree of connection to interior decoration at the same time as to architecture. When this twofold practice is dominated by a concentration in abstract geometry, a distance is implied between interior design and interior decoration. This domination then brings with it the abstract geometric metaphors of reflective critical and theoretical practices, especially the concept of critical distance. The emergence of ethics for
example, depends largely on the rigour with which critical distance is established in relation to practice.

Interior design remains in a state of hybridity against which these conflicting trajectories are balanced and within the needs of practice and education. The subject divisions within educational institutions reflect that conflict, as does the language in describing interior design. The following is an example of the distancing that institutions express:

How does your course differ from that offered by other leading Institutes and Universities in NSW?

[...]  
• the course is about interior design, not interior decoration

[...] (UTS website)

It is through the correlation between geometrical metaphors and geometry as determinant of form, that architecture and design maintain their distance from decoration.

The cause

Throughout the European Enlightenment, geometry is both a metaphor for thought, especially about being, and an approach to architectural design. Its discovery as a pure extensive abstraction was a radical change in the way that space was thought. As Michel Foucault (1926–1984) reminded us in ‘The Limits of Representation’: ‘The last years of the eighteenth century were broken by a discontinuity similar to that which destroyed Renaissance thought at the beginning of the seventeenth; then, the great circular forms in which similitude was enclosed were dislocated and opened so the table of identities could be unfolded; and that table about to be destroyed in turn, while knowledge takes up residence in a new space - a discontinuity as enigmatic in its principle, in its original rupture, as that which separated the Paracelsian circles from the Cartesian order’ (Foucault, 1970, p. 235).

This special, ‘Baroque’ characteristic of space is conceived as an infinite-in-number and that to reach this number is to reach an enlightened sensibility, or the ‘sublime’, as Kant (1987) described it in *Critique of Judgment* (pp. 103–114). Until the seventeenth century, geometry had been, as a general principle, within philosophy, the determination of the qualities of substance: length, breadth and depth. In this old, substantial version of geometry, its magnitude is still tied to the scale of substance, its number. In the ‘Paracelsian circles’ of time however, geometry is beyond matter and belongs to an outside-of-the-world, or to God.
In the Baroque, this outside-ness or insubstantial space moves from a space of faith to one of argument. In doing so it is parallel to the many attempts in enlightenment philosophy to argue for the existence of God as a matter of rationality rather than a matter of faith (see Descartes, 1998, pp. 26–27, p. 65.)

Geometry takes over the insubstantial abstract world in order that it can be inhabited by thought; a geometry of the mind: Res Cognitans (Descartes, 1998, pp. 57–70). This sets up a means of exchange between thought, now claiming the insubstantial and the natural world. So the interiority of the mind to which we have no access other than to our own, could be made present in the world through the attachment of thought to geometry on one hand and substance to geometry on the other.

Design, in this sense appears as thought represented in substance and is a process of self-constitution.

The special Baroque characteristic of geometricised outside space is the attachment of number to pure extension, as in Cartesian coordinate geometry. Descartes had separated substance from extension in its pure form and given it number as measure. Number could now be a thing in itself, not by necessity attached to the substantial manifestation of extension, the ‘object’ in the world of extension.

Geometry without substance is of thought only and only has one quantity, number. It has number according to the arbitrary location of an origin from which space is determined according to straight lines, known as the Cartesian coordinate axes; ‘X’, ‘Y’ and ‘Z’; each at 90 degrees to the others, along which the number is marked at geometrically equal moments.

Number in a substantial sense has a dual meaning as both a location on a scale, with each number representing a successive position or order. Number, also in this substantial sense, has a volume in a single direction, in which consecutive numbers have consecutively more volume in one direction. When pure extensive geometry is formulated, the quantitative aspect of the meaning of number becomes one without substance. Position along an axis becomes predominant, and objects become determined firstly according to the position of their features located in relation to axes.

Substance and substantial qualities of number become secondary to the geometrical abstraction of the object as an assembly of locations (‘contours’, as they are known in several fields including digital media), as indicated by the image (Figure 1), the form has gone from one of substance to one of the geometry by which it has been described.
Of course, pure extensive geometry is a concept to be *conceived* rather than *perceived* and can only be known paradoxically through representation in a ‘medium’. Architecture or design that focuses on an appeal to *concept* rather than to percept relies on a medium to *represent* it instead of needing the built form in which it is *presented*. Through representational media, such as drawing, the concept to which architecture appeals can be known. Thus paper architecture is born and the vexing question of design medium shifts between building work and drawings and thence between geometric metaphor and formally determinant abstract geometry.
Cartesian geometry is the finding of a measure for representation of objects. Cartesian geometry offers assuredly and reliably, as F. D. K. Ching and others (see Ching, 1987, 1996; Ching & Juroszek, 1998; Gill, 1973, 1979; Laseau, 2001) have demonstrated in texts on architectural and design representation, a critical distance. Within a pure extensive abstraction can be found the pure extensive object, so it seems. In fact, it seems that pure extensive object can only be reflected upon in a representation: an image to one's self as an object of thought, as a constructed representation in a ‘drawing’ and the consideration of the built design as a kind of drawing.

Even in text, the Cartesian axes and objects within them are a representation. In any case, the object is one that is a representation, by necessity. It is also one that intuitively is a structure of translatable data, set as a critical distance, established as accurate ‘perspective’ or ‘orthographically’, for clarity, as shown in Figure 3.

This idea really took hold in the 17th century, ensuring the primacy of Cartesian geometry of building design in the shift from Renaissance thinking to the Enlightenment in Europe. By representing an object as pure geometry and thereby at an accurate critical distance, its truth could be determined. The truth of space becomes a void in which objects are located, by their own geometric virtue and not by God’s grace, despite Descartes’ ‘ancient belief’ and all other disciplines that involve an examination of composite things are indeed doubtful; but that arithmetic, geometry, and other such that discuss only very simple and general things, and are not concerned with whether or not they exist in nature, contain a certain something that is certain and beyond doubt. For whether I am awake or asleep, two and three may be added together to make five and a quadrilateral has no more than four sides. It seems
impossible that one could ever suspect that such clear truths are false. However, there is an ancient belief somehow fixed in my mind that God can do everything and that I was created by him…” (Descartes, 1998, p. 20).

It is through Cartesian representation that the focus of philosophical enquiry shifted from the question of faith to the question of being. This being is the being of things as found in geometric representations. This establishes a cultural shift that depends on the geometric representation for the rigour of its critical distance.

With the addition of the Transcendental Subject, abstract universal time and the concept of progress, the possibility of a discovered rather than a revealed universe emerges. When Newton and Leibniz apparently almost simultaneously invented calculus, it was a universe of geometry in motion, or in a more mechanical metaphor, a clockwork universe that they made possible. God was relegated to a surveillance role as the ultimate subject and the great clockmaker, despite the best efforts of philosophers to guard against this possibly heretical idea.

‘Substance’, in this scenario, is a thing of the past and the old scholastic philosophers of the medieval ‘schools’, thus giving modernism a way of finding its pure geometry; by breaking with substance and later, the past as the place in which that substance resides. The modern
man of the future (of the Enlightenment) was to be one of mind rather than one of body, one that acts upon and controls the body and its world through buildings such as the Panopticon, in which the geometrically metaphorical and the geometrically formal intersect.

**Conceptualism, the retribution**

Instead of a world measured, measurement had become the world. ‘Disciplines’ of surveying and engineering could appear as abstract manipulations compared with the old fashioned ‘engineer’ who operated ‘mechanisms’ such as locks, levers, gates and the engines of trains. These new professions in the 17th and 18th century could dominate the manifestation of form due to their ability to use calculations; thought could become matter. New, pure plastic materials such as industrially produced iron, steel and eventually the universally named ‘plastic’ offered ways that translatable data of pure geometrically defined objects could appear in the world. These new ‘modern’ materials could embody the calculations of mechanical thought, becoming the mechanism itself.

The old materials, stone and timber become reminders of the natural world, tied to gravity and the uncivilised chaotic. Pursuits such as ‘craft’ separate themselves from poesis and take on a certain naivety that tries to deny the conceptual in work within art and design. The ‘concept’ is elevated to the Duchampian state it achieves in the 20th century and to which even the humblest design student must attend.

The concept or thought goes in search of a ‘selection’ or a transferable ‘geometry’, and it finds one in response to a function, a thought about nature. Thus the world of critical creative practice as an event becomes a discipline called interior design. But the critical concept is one in which critique is formed within a geometric metaphor, a bride stripped bare of her substantial bachelors. As Marcel Duchamp once said of himself in an interview, he can now ‘out doubt’ Descartes (Ades et al, 1999, p. 61). By ‘out doubt’, Duchamp is indicating that he can strip away more of the stuff that leads to doubt: substance.

It is ‘disinterest’, that Duchamp embodies so melodramatically, that pollutes the concept. This is entirely in line with the Kantian concept of disinterestedness, in which the substance of a body introduces distorting material interest, or desires, into the subjective judgment. Duchamp has equated visuality (‘retinal shudder’) with physical interestedness (Ades et al, 1999, p. 71).

The drive to exclude this polluting effect of the body-world of chaotic natural flesh from the purity of disinterested pure extensive geometry is vested in the drive to purify the expression of that geometry. In architecture and design this takes on a less neurotic form
than Duchamp’s retinal shudder, with the stripping away of ornament, as in the saying, ‘no noodles’ attributed to Mies van der Rohe (Hughes, 1996) and ‘ornament is crime’, Adolf Loos (Conrads, 1964). In the late 20th and early 21st centuries, these have resurfaced in design due to a resurgence of Cartesian representation along with the enlightenment metaphors of being, in electronic digital representational technology.

As a consequence of the reductionist urge in search of disinterestedness, the question emerges as one of finding a way to express pure geometry. Issues of materials, colours, resolution of details become ones of reduction to geometry and the exclusion of the excesses of substance. In modern thinking, any substance bound in the final state of the object pollutes or obscures that geometry. The exclusion of this polluting effect becomes the messianic mission of 20th century artists (grids as shown by Krauss (1995)), architects (Bauhausian modernism), designers (Bauhaus again) and especially their teachers, who dispersed the approach through migration to the USA (Whitford, 1995). Substance is reduced to the rectilinearity of the Cartesian axes, excluding the fleshy, natural flows and distortions of uncivilised ‘chaos’.

**The problem**

The problem with pure extensive geometry is that even in the strictures of rectilinearity, under the electronically mechanised wing of great architecture, substance still pollutes and obscures the purity of the geometry, either as metaphor or as form. This appears, as an example, in the perennial problem of the resolution of joints in the working drawings of architects and engineers. Joint resolution is the adapting of the qualities of substance to the infinitely non-extensive intersection of the grid lines, in a representation. Substantial matter always undoes the pure intersection by needing to be actually joined.

Thus even the most resolute detailer cannot rid geometry of the intersection of matter, opting instead for the pursuit of elegant material formalism. From the point of view of the pure modern geometer, the ‘concept’ is ineluctably undone by the presence of the excessive material.

Thus the geometric detailer desecrates the geometric intersection with matter. In a drive to find the pure geometry of a concept, design becomes an act of desecration.

**In reality**

In reality, though, noone actually thinks like a pure geometer, do they? It is apparent to all designers and indeed most artists after the 1960s that they are actually dealing with the characteristics of substance as a matter of concept. The institutional character of divisions
of practice is not practice itself, nor is it the practice of discourse. The geometry of interior design, interior decoration and that of architecture really do overlap. It is only in the rigid representation of institutional geometry that they do not.

So, substantial material remains a central aspect of all practice in art, architecture and design. In some cases, especially in interior design, it is the sensuality of materials that actually underpins the drive to the minimal formalism of the late 20th century. In making art, Mark Rothko (1903–1970) asserted the primacy of the experience of for example, colour, as a necessity: ‘The picture must be […], a revelation, an unexpected and unprecedented resolution of an eternally familiar need’ (Rothko, 1947, p. 561). Sol LeWitt (b.1928) even offers an undoing of pure extensive geometry, in his comments on ‘Wall Paintings’ of 2001: ‘Architecture and three-dimensional art are of completely opposite natures’ (LeWitt, 1967, p. 386).

It seems that substance, the qualities of materials such as hardness, softness, colour and so on, is saved from a modern perspective as the decoration of pure geometry by the unpalatability of such a lonely concept for Being as the Cartesian Res Cogitans. Humanity is inherently a part of nature, it seems.

**The twist**

However, digital iterative technology (computing) has been able to model Cartesian space for building designers, as a perfect field of data, from which precise representations can be made. Modelling Cartesian Geometry has enabled the evolution in this space, of Enlightenment concepts of Being at an extremely fast rate, to the perfect mirror of nature. The mechanical attraction of gravity, time, light and many other qualities are now precisely modelled in computing and from these are made representations of designs. A precise pure substance is now possible as a representation in the modelling of architecture. In the computer, substance can meet at the perfect joint of the intersection of grid lines, but still only as a representation. The drive then is to make a *virtual* representation, one that is more real than real.

This will lead, if it has not already, to the tendency to regard virtual representation as more satisfying than the built form of the design. The culture of the computer is becoming a more effective medium for concepts than extended substance itself!

This signifies the completion of the institutional character of design (the distinct triangle) at the expense of the cyclical character of practice (the overlapping cycles).
The pain

The three questions put at the beginning of the paper can now become reinterpreted as:

Do digital electronic media mean that all art, architecture and design will become the imperfect substantial version of pure extensive geometry?

Will design become a selection and assembly process of virtual objects through the Internet?

Will art, architecture and design suffer the fate to which decoration has been relegated?

In the resurgence of the Cartesian metaphor of subject and object inherent in the development of electronic digital representation, the design of buildings is done as if it were solely in the abstract geometry of the modern mind. Design is, in this way placed outside the world, in the interior space of metaphors and representation. It is conceived rather than perceived and as such any material substance is an excessive and imperfect version of its virtual conceptual form, which can never be found except through the specular stage-like window of the computer. Practice can then become one of selection, rather than arrangement, and the perceptual skills of design will also be excessive, decorative and expensive.

As long as geometry forms the basis of the language of building design and one in which concepts can be known then design will tend to become the decoration of culture, virtually.

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Maori Time: Notions of Space, Time and Building Form in the South Pacific

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Abstract: This paper investigates how Western notions of space, time and terrestrial reality may affect the perception of building form in other cultures, and have constrained our understanding of the indigenous architecture of the South Pacific. Maori concepts of space and time are explored to add a further dimension to understanding the Meeting House, which is widely considered to be the primary building of Maori architecture. This paper argues that Maori architecture may not conform to the Western model of the three dimensional object in space, and could also be understood as existing in time rather than space.

Keywords: Architecture; time; Maori

Introduction

This paper investigates how Western notions of space, time and terrestrial reality may affect the perception of building form in other cultures, and have constrained our understanding of the indigenous architecture of the South Pacific. Maori concepts of space and time are explored to add a further dimension to understanding the Meeting House, which is widely considered to be the primary building of Maori architecture. This paper argues that Maori architecture may not conform to the Western model of the three dimensional object in space, and could also be understood as existing in time rather than space.

In August 1982, New Zealand Prime Minister Rob Muldoon found himself running behind the day’s schedule of events. On his arrival at a function for Australian schoolchildren he commented that ‘Maori time’ was the reason for his late arrival, as he had just come from a conference of Maori elders (Auckland Star, 1982). ‘Maori time’ is a well known saying in New Zealand, referring to the Maori people’s supposed lack of regard for time and timetables. It is a pejorative term in that it implies laziness and unreliability; that Maori are never ‘on time’. The comment provoked two complaints to the Race Relations Conciliator who found the Prime Minister had not breached the Race Relations Act. The event prompted well known Maori academic and commentator, Ranginui Walker, to write a commentary ‘A lot to learn about time’ in his regular Maori issues column ‘Korero’ in the New Zealand Listener magazine. Walker commented on the Maori conception of time and space and noted Maori time had a positive meaning to Maori, which few Pakeha understood: ‘All people who live in urban industrial societies have their lives regulated by measured time’... ‘On the marae, the
authentic setting for Maori culture, these ideas, central to Maori time, slow down the rhythm of life. Measured time becomes meaningless as the values of relating to people, discussion and the arrival of consensus take over’ (Walker, 1982, pp. 59–60).

This paper explores Maori concepts of space and time, and how an understanding of them may affect the perception of Maori architecture. We are all well aware of the issues and problems of cultural values and biases in the perception of other cultures, but very little has been written on time and architecture in relation to the cultures of the South Pacific. This paper aims to contribute to a wider reassessment of architecture’s role that focuses on the haptic senses, the experiential, and the conception of time, space and building beyond the end of Modernism. It is fair to say that the Western perception of architecture is primarily visual and the building is seen as an object sitting in space. Levin (1993) has written on the dominance of the sense of vision and the ocular bias in Western culture, particularly in relation to Modernism, while Montagu (1986) and others have explored the possibilities of a haptic architecture involving the whole body and all senses in the experience of architecture, and this is often couched in terms of a return to the qualities of traditional or pre-industrial architecture.

Architecture is frequently described as three dimensional and Western architectural thought has usually focused on materiality: space, form, materials and decoration – indeed this conference’s theme implies Interior Design exists on a continuum between an excess and austerity of materiality. Until the invention of film and the more recent shift to conceiving architecture in a digital medium, architecture has always been represented by the static point of view, in the static medium of paper. Architecture schools happily teach an appreciation of architectural history through the pictorial. Books, museums and Historical Societies preserve buildings frozen in a particular moment in time. But in recent years writers have begun to explore time in relation to architecture. As Harries (1982) wrote: ‘Architecture is not only about domesticating space, it is also a deep defence against the terror of time. The language of beauty is essentially the language of timeless reality’ (p. 19); and Pallasmaa (2000): ‘Architecture’s task to provide us with our domicile in space is recognised by most architects, but its second task in mediating our relation with the frighteningly ephemeral dimension of time is usually disregarded’ (np).

We will argue that this abhorrence of time is part of a Western architectural bias, that other cultures of the South Pacific accept time and the processes of time as part of building, they accept mortality as part of architecture. Mostafavi and Leatherbarrow (1993) in their discussion of the effects of time – weathering, erosion, decay – showed that these are not
usually considered as positive elements in Western design; time and the elements are the
enemies of building, the architectural artifact wishes to exist in a timeless space, an artificial
condition separated from time. As Pallasmaa (2000) said: ‘The architecture of the modern
era aspires to evoke an air of ageless youth and of a perpetual present’ (np). As will be
seen, this attitude is the antithesis of some enormously important Maori cultural values such
as a respect for age, the importance of a connection with the past, and the importance
of connection with the land and the physical world. This paper’s interest is in the cultural
differences in the perception of time and space between Maori and European, and how they
may affect the idea of architecture.

Space
The Maori conception of global space can seem diametrically opposed to the European. Earth
is conventionally represented with north at the top, a relic of Western civilisation’s European
origins, as the universe has no up or down. Europeans refer to the north of New Zealand
as the top, the south as the bottom. But the Maori word for north is ‘raro’, also meaning
down or below or bottom (Williams, 1971). The word for south is ‘runga’, also meaning top
or upwards or above (Williams, 1971). This is an inversion of the Western point of view, and
derives from the arrival of Maori in New Zealand at the north of the country, then a steady
settlement moving towards the south. So from the Maori point of view, as they faced this
new land, where they had come from was behind them (the north), where they were going
to was ahead of them (the south). This is a subjective orientation that is based on the point
of reference of the people and their movement, rather than a supposedly external, objective
Cartesian point of view.

Maps by Maori, such as Tuki-Tahua’s map of New Zealand (drawn on the floor of a Norfolk
Island house in 1793, then transcribed on paper) (Maling, 1999, p. 54), show a subjective
distortion of scale favouring the authors’ local area, Northland in this case, and the South
Island diminishes into the distance. Interestingly Tuki-Tahua also shows a single highway
running the length of the land – this turns out to be the path souls or spirits take, in Maori
belief, to Cape Reinga at death. A map of the South Island drawn by ‘a Maori’ about
1841 for E.S. Halswell and published in 1894 (Maling, 1999, p. 55), again focuses on the
qualitative, the experiential, rather than the quantitative and objective. As Johannes Anderson
wrote in 1916: ‘Two places would probably be shewn (sic) on a sketch as close together if
the journey between them could be made quickly, or far apart if the journey were difficult or
occupied a lengthy space of time. Again, a good harbour would be shewn larger than a poor
one, their relative importance rather than their relative size being indicated’ (Maling, 1999,
p. 132).
This also illustrates the primacy of experienced time in traversal of the landscape rather than the objectification of space. The New Zealand Historical Atlas (1997), a recent New Zealand Government project, uses aerial perspectives, centred over particular regions, to portray Maori tribal areas (Bateman, 1997, p. 23). This is intended to indicate Maori’s more intimate relationship with the land through the tribe’s detailed knowledge of the immediate local area and the importance of local mountains and other landscape features in both a physical and spiritual sense. The drawings are saturated with bush, rivers, hills, streams and one can sense both distance and space, but also time, for example one can imagine how long it would take to walk through the landscape portrayed. As Anderson noted, this notion of the importance of time in the representation of landscape is important. Western maps show distance that can be scaled and measured but as a non-literate people Maori would have communicated geographical knowledge orally and from experience – how long the journey was, how hard it was, what you saw, whether it was worth it. This is a focus on subjective points of significance and topographical texture rather than an accurate objective picture of the breadth and dimension of land. The Atlas’s Te Ao Maori (The Maori World) maps acknowledge the concept that it is an iwi’s (tribe’s) relationship with the land that is crucial, rather than the strict demarcation of spatial boundaries that we are familiar with from the Western political map. We can argue that this notion can be extended to Maori appreciation of architecture – that as with the land, architecture exists primarily in its relationship to the person moving through it, the way it is seen and experienced, the meaning of the building to the inhabitant, and that this is all based in time, more than it is in space.

A drawing from the Alexander Turnbull Library (Wellington), by an unknown Maori c.1860, portrays a landscape, but not in the form of a picture that we are familiar with from Western perspective, a framed window on the world. This drawing has no up or down; it is like a map or plan and relates its four sides to the horizon – with the observer’s point of view at the centre and the edges of the drawing extending to four quarters of the world. Other drawings of the 1860’s, by Aporo (in the Alexander Turnbull Library), and an unidentified Maori (‘Ua Rongopai’, in the Auckland Central Library), show a perception of architectural objects such as niu poles and flags, that is focused on the symbolic, that which communicates meaning, rather than the purely physical dimensions of form and space.

The South Pacific attitude to space in terms of sea can also be contrasted to that of the European. Western voyagers navigate in relation to fixed points – the sun at noon, a Cartesian grid of latitude and longitude, or the continuous coastline of a land mass. The sea is perceived as largely empty of land and people – there is nothing there. Indeed for centuries
Europeans believed that Polynesians, lacking scientific knowledge and instruments, were unable to accurately navigate and that Polynesian settlement of the Pacific region was largely accidental. However, to the people of the South Pacific the sea is richly textured and readable. Pacific navigators such as those of Micronesia used charts of stick and shell to record the interference patterns of waves intersecting with islands and navigated in a haptic sense, feeling out the rhythm of these patterns through the change in ocean chop and swell. All pacific voyagers detect the immanence of an island through changes such as the appearance of coastal birds, cloud, driftwood in water – evidence of the influence of an island on the sea. Westerners see the Pacific Ocean as blank space speckled with objects called islands. The people of the Pacific see it as a multitude of islands connected by short journeys, in a field of cross currents, wave patterns, shifting breezes, and flotsam; rich in bird and sea life, all laid out under a series of rotating constellations, whose intersection with the horizon easily marks one’s place on the trail between islands (Lewis, 1978). They see and understand this world as a series of inter-relationships.

**Time**

Westerners conceive our planet Earth as an object in space – but space can be considered an illusion. We think we look across space and see the moon or sun, but we actually see the light that left the moon a quarter second ago, and the light that left the sun eight minutes ago. There is physical distance between these objects, but what we see is actually the past, we see the sun as it was eight minutes ago. When we look at the nearest star we look back in time four years, when we look across the universe we do not see it as it is in space, we look millions of years back in time. Astronomers now represent large-scale space as a disk rather than a sphere, acknowledging the preeminence of the dimension of time over three-dimensional space and the inescapability of our location in time affecting our perception of the universe. We are familiar with Einsteinian notions of the inter-relation of time and space, time dilation etc, but it has yet to affect our perception of the world and we maintain a Newtonian sense of a primarily three dimensional world of objects in space and the constant stream of time passing by. We will argue that we could begin to see architecture as a phenomenon primarily located and appreciated in time rather than space, and that this may indeed be the way some other cultures, particularly in the South Pacific, see it.

The conception of time needs to be differentiated from the perception of it. As individuals we may sense the rate at which time passes to change in relation to our emotional state, such as boredom or excitement, or we may feel time seems to pass faster as we grow older. But the conception of time can be different with culture. The Maori word for the past is ‘mua’,
also meaning in front (Williams, 1971). As Ranginui Walker (1982) wrote: ‘So the Maori faces the present and the past which are in front of him. In this time-frame he has before him the living, their forebears, the dead, the founding ancestors, the cultural heroes of mythology and the gods back to the primeval pair Ranginui and Papatuanuku. This time-frame is the basis of marae protocol...’ (pp. 59–60).

Apart from showing an attitude to time diametrically opposed to the Western, this implies the primacy of both relationships and links in time, as opposed to the purely physical or spatial, in Maori thought. This is also demonstrated in how these different cultures define themselves as groups. In the West people define their nationality spatially through their location within a bounded region – a country. In the Pacific the indigenous people define themselves tribally, to whom they are related, rather than to the region they happen to be born in. The Maori word for future is ‘muri’, also meaning behind, because it cannot be seen (Williams, 1971). Walker wrote of Parihaka: ‘...for Maori, what happened at Parihaka a hundred years ago is as real as if it happened just yesterday. Parihaka of course is an episode in history that the Pakeha would prefer to forget, and his conception of time helps to erase its memory. The Pakeha orientation of time is towards the future. The present is now and the future is in front of him. The past of course is behind, hence it is easy for the Pakeha to exhort the Maori who has lost so much to “forget the past” ’ (Walker, 1982, p. 60).

Maori, it would seem, are constantly aware of history, living deeply in time, so that everything in the physical world provokes remembering – rather than focusing on the immediate spatial world and its possibilities. The implication is that, in contrast, Pakeha live more out of time, removed from history, easily forgetting, putting it behind them, living in a purely physical and spatial world.

Donna Awatere (1984) in her book ‘Maori Sovereignty’, wrote on the concepts underlying ‘white culture’s’ conflict with Maori values and remarked on the West’s conception of time as a colonial tool: ‘Spatialisation of Time: In this concept the present is all important. The dimensions of time have been collapsed into space. This occurred when time began to be measured and quantified. It was no longer tied to the cyclic rhythm of nature and to the ancestor’s rhythm of life and death’ (p. 61).

So Maori are not just physically separated from their land under Colonialism, the Western concept of time serves as a mechanism to dislocate Maori from their culture as well. Awatere (1984) went on to state: ‘...the intimate, mimetic reciprocal relationship between the human being, nature and the living past of the ancestors, was replaced by a time experienced
as space and mediated by a history ‘frozen’ into a mechanically measured dimension by genealogically unrelated people’ (p. 61).

The land ‘lost its spiritual meaning’, crucial for its transfer to Pakeha and the beginning of industrialization (Awatere, 1984, pp. 61–62). ‘The squeezing of time into the spatial present’ also leads to a devaluing of the past, knowledge of the past, and experience, then consequently a devaluing of old people, of old ways, and of old things, and finally (as we know from critiques of Capitalism) a devaluation of the human being into a temporary source of labour (Awatere, 1984, p. 63). We will now consider how these cultural concepts of space and time can be related to a consideration of architecture.

**Time and Maori architecture**

There has been a great deal of writing on the Maori Meeting House, which has become the primary architectural site of cultural representation of the Maori people. For those unfamiliar with the Meeting House it is a structure that has evolved from earlier chiefs’ houses during European settlement of New Zealand and is a communal building set on the marae for a hapu to gather in. Known as ‘whare nui’ or ‘whare whakairo’, the Meeting House is a structure consisting of one large space entered through a gabled porch. This internal space is often highly decorated with few if any windows. Here description of the architecture for those unfamiliar with it, easily slips into a Western focus on construction, materials, decoration and craft, which has historically characterised most texts on this subject. The House is nearly always named after an ancestor, and many of the carvings or illustrations within depict ancestors. The house is also often metaphorically a body, the personification of an ancestor, with the ridge beam and rafters often seen as spine and ribs for instance. The house is often directly acknowledged by Maori, in the same way one would address a person – it is not simply a building, a container for human activity.

It is clear that the house does what Pallasmaa finds other architecture does not – it provides us with both our domicile in space and it mediates our relation with time, it remembers, it acknowledges and iterates a connection with the past.

Walker’s and Awatere’s comments on Maori time noted a cyclic sense of time. Certainly we are well aware of the notion that agricultural, hunting, gathering societies are more attuned to the rhythms of the tides and seasons. Some argue that a cyclic sense of time can be discerned in the swirling motifs of kowhaiwhai (painted rafter patterns) and Maori carving, as opposed to the Western focus on progress and development. The industrialised society’s sense of divorce from the natural world is well known, but we still tend to read ‘Maori time’
more as an affinity with the natural world, rather than, as Maori say, a deeper engagement
with time than space. Westerners think of their location in time as similar to a stream, backs
turned to the past, poised in the present, facing the future, being carried relentlessly into
the future, but never arriving. The Maori space-time construct can be thought of more like
a constellation with the past and the people of the past always felt in the present, like the
constellations of the sky to the voyager – enmeshing, surrounding, always before you, always
behind, forming patterns that can be interpreted in various ways.

Our intention here is not to explain some new ‘meaning’ or ‘purpose’ of the Meeting House.
We would like to suggest another possible dimension to this building. Given the importance
of time, relationships, the subjective and the experiential in the Maori world, we suggest
that Western notions of terrestrial reality distort our appreciation of the architecture of other
cultures. Westerners privilege the solid and permanent, and see architecture as primarily a
physical object in space that can be quite happily reduced, but still quite well represented,
in the form of a single, still photograph, frozen in time, uninhabited, unable to be entered
by the viewer, on the pages of a magazine or book. We are not suggesting that this is all
Western architecture is, but when reduced to its essence, this is what remains – a primary
concern with form and space.

The Meeting House could be understood as existing in time rather than space. No one in New
Zealand accepts that one can understand the Meeting House without visiting the building
and having it explained by Maori, from the inside out. And it is not possible to make a casual
visit to a marae to visit a House. Even if one knows all about the Meeting House, marae
protocol involves a well-known series of events – which take time. The Meeting House is not
intended to be seen as an object in the round. One does not walk around it and admire the
sides and the rear. The Meeting House has a facade, a face, and is often metaphorically a
body, the personification of ancestors. It is experienced through a series of approaching steps.
Having been invited, and having had a welcome arranged, visitors approach the marae and
wait outside. They are invited, challenged and welcomed on to the marae. Through a series
of steps one approaches the Meeting House, crosses the threshold (‘paepae’), passes through
the porch, then goes inside. Adherence to proper protocol involves visitors eating with the
hosts (in a different building, the ‘whare kai’) and staying the night in the Meeting House.

All of this is primarily experienced in time rather than space. Again, through protocol, one’s
progression is linear, towards the face or facade of the house. But even after the welcome,
one does not walk around the house and look at the sides and rear; it is not intended to be
seen as an object in space. This was even understood by the early New Zealand museums,
which often acquired Meeting Houses for display. In the example of the Meeting House Hotunui, which was acquired whole by the Auckland Museum in the 1890s, we can see how the Meeting House has been partially demolished and buried in the body and walls of the museum, with the interior intact and only the front face projecting, like a cave or stage. This emphasis on facade and interior, rather than exterior has often been interpreted by Western culture (who privilege the three dimensional object) as a crudity of form, but it should be understood in the same way we greet a fellow human being – we address the face rather than the body or rear. This was well understood by the Victorian and Edwardian museum builders whose own architecture displays an emphasis on the public face of a building or facade. Even contemporary Meeting House designers have constructed houses whose rears disappear into the ground. This has previously been interpreted as a desire for ultimate spatial enclosure or a closer relationship with the earth or land, but we would suggest that it is because the external rear of the building does not matter – it can disappear. We argue that this is not a two dimensional approach to architecture, rather it is a temporal understanding of architecture – we experience it in the same way as we experience the land or fellow people, through a series of steps in time. Our engagement with people and buildings exists more in time than in space.

The Maori word for threshold is ‘paepae’ and this has sometimes been used as a concept for understanding the Maori world and the Meeting House. The word for step is ‘pae’, and so are the words for any transverse beam, any perch or rest, the horizontal ridges of hills and the horizon (Williams, 1971). This notion of a series of steps in one’s view of the architectural and topographical world can easily be pictured as a spatial one, but only if one takes the objective point of view and places oneself outside the world. To Maori, engagement, experience and relationships are important, therefore one finds oneself within the picture and then one’s engagement with these steps is no longer purely spatial, it is temporal, it takes time to negotiate them.

To understand the Meeting House as existing primarily in time, rather than space, does not seem to conform to the Western model – it would seem to collapse Western notions of architecture as the three dimensional object in space. Indeed the Meeting House, other Maori architecture such as Ratana churches for instance, and much of the architecture of other cultures are frequently characterised as ‘thin’ and ‘flat’ by Westerners and categorised as folk art. Again we argue this is because these buildings are not to be perceived in any one moment as buildings in the round, rather they are to be seen as a series of paepae – steps, portals or gateways on the way through the world. The architectural object is subsumed into
experience and architecture becomes a skin or threshold between the inside and the outside worlds, those two profound poles of human existence. This is also the way we experience much of architecture in the contemporary world, particularly the urban environment, the main street or the mall, in an increasingly post-object society – a walk through the city now becomes a series or constellation of relationships experienced in time, rather than a parade of buildings in space. Indeed it can be speculated that Post-Modern interest in time and architecture can be seen as a response to new ways of experiencing the world such as cinema and television, through new technology, through the prevalence of new architectural forms such as motorway and mall, or the frenetic pace of post-modern, post-industrial life.

Previous mention has been made of cyclical or seasonal time in agricultural societies. Many early Maori structures were occupied seasonally, to accommodate hunters or gatherers, and rebuilt annually. Natural materials decay; buildings are frequently renovated and rebuilt. What has not been fully explored is the effect of recycling materials on the architectural logic of a building. A recycled ridge beam for instance may contain old notches irrelevant to its new use – this weakens a functional reading of the structure and builds up layers of contradiction that as Pallasmaa (2000) has written ‘wipes away the layers of utility, rational logic and detail articulation’ (np). To Westerners, this is often read as a lack of skill or craft, and the structures become characterised as mere buildings rather than architecture. It has been the fate of much Maori architecture to be categorised as folk art rather than ‘authentic’ Maori architecture and this has been explored in previous papers (McKay, 2002).

One other aspect of a consideration of time in Maori architecture is the mutability of building form. Western society prefers its buildings to be permanent, durable and lasting and the epitome of this is our preservation of ‘historic’ buildings, where Western society removes the inhabitants and freezes a building at a certain moment in time. There are numerous examples world wide of this mummification of architecture. Much of the architecture of the South Pacific shows a transience of form and materials that has been commented on by writers such as Mike Austin, Jeremy Treadwell and Sarah Treadwell. The Samoan ‘fale’ for instance is designed to allow a cyclone to strip its thatch, then it is repaired. Sarah Treadwell (2002), writing on digital film architecture, found a parallel between a time-based approach to design and Pacific architecture: ‘Architecture of the Pacific is premised on mobility, lightly fabricated and impermanent. Foundational security, traditionally at the heart of architecture’s enterprises and already doubtful in New Zealand, is offset by tendencies to movement and lightness. The permeability of architecture in the Pacific, its flexibility and responsiveness to weather, can be seen as a foregrounding of the virtual nature of space as a dimension of the real’ (p. 24).
Meeting Houses are often allowed to age and decay, as human beings do, then are adapted or rebuilt by a new generation, in a different form, reflecting the needs and concerns of that generation. In previous papers (McKay, 2002), we have discussed this surprising fluidity of form through change and transformation. Meeting Houses, such as Te Tokanganui a Noho and buildings of the Ratana movement seem to constantly change and transform – they are a series of incarnations rather than one building, and it has proved difficult for Western scholarship to pin their facts down in time. On one occasion it was explained that the three fingers of a Maori carving represented the Christian Holy Trinity. This carving predated the arrival of Christianity in New Zealand so to a Westerner this explanation would seem incorrect, but to Maori that interpretation was still meaningful.

In the West we are only beginning to question our conception of time, both scientifically and metaphysically. An examination of Maori architecture and the buildings of the South Pacific should not aim to take and incorporate Maori architecture and art into the body of Western knowledge or conventional notions of architecture. Rather this architecture can influence and transform Western ideas of architecture, time, space and our methodology, open up the possibilities of new architectural form and enrich our understanding of how one can live in the world of the South Pacific.

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Absolute Zero – Revealing the Void

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Abstract: Which comes first, the walls or the space? The discussion in this paper explores the significance of the void in the development of innovative architectural space. It challenges the traditional perception that only ‘positive’ elements, such as walls, generate meaningful form; the void being diminished in the role of resultant ‘negative’ space. If our design process concentrates on the object as the generator of interior space, then, as is proposed in the paper, our ability to develop and communicate our ideas is limited by the inherent meaning of that object. If, however, we come to accept the symbolic language of materiality, then, as interior architects, we will invert this process and explore the subject meaning of our ideas before defining their form. This proposal is illustrated with reference to Daniel Libeskind, Coop Himmelb(l)au, Michaelangelo, the vanishing point, the blank page, and the absent North Pole. Oppositional relationships are noted as existing within the symbiotic framework of the void; a place where we strip away preconceived meaning in order to find the zero-point of our ideas. In so doing, the negative is inverted and the void becomes a meaningful generator of architectural form, in a design process that enables us to define our intentions beyond the inherent influence of the tangible object.

Keywords: Architecture; void; zerocube

Introduction

‘Clay is formed into a vessel.
It is because of its emptiness that the vessel is useful.
Cut doors and windows to make a room.
It is because of its emptiness that the room is useful.
Therefore, what is present is used for profit.

But it is in absence that there is usefulness.’ (Lao Tze, 640 BC).

This paper will demonstrate that the void is not only significant as a meaningful source of architectural form; it is also a critical component in an innovative design process.

The discussion begins with the significance of objects in the cultivation of our sense of self, and creates a link with the traditional concept that positive elements, such as walls and floors, are the generators of architectural space. The problem with an object-centred design process is that we are limited in our ability to develop form and communicate our ideas by the inherent meaning projected by the object.
The discussion continues with a focus on the significance of the void within the design process. Examples are presented where the void is seen to possess both organisational and symbolic properties that are as tangible as any solid wall. Excess/austerity; positive/negative; interior/exterior are all understood to exist within the symbiotic framework of the ultimate void, zero, the infinite mid-point between opposing states.

It is suggested that an innovative design process will benefit from an exploration of this zero-point between solid and void. Flexibility in the development of form can derive from our ability to focus on what is not, and by concentrating on the intangible we can reveal the complete form of our intent before we define the skin. In other words, we are free to develop and communicate our ideas without interference from the inherent influence of the tangible.

Where do we start in an exploration of nothing? Perhaps, to come to terms with the intangible, we must first examine our fascination with things.

**The meaning of things** [The problem with stuff]

‘The things of the world have the function of stabilizing human life, and their objectivity lies in the fact that... men [sic], their ever-changing nature notwithstanding, can retrieve their sameness, that is, their identity, by being related to the chair and the same table. In other words, against the subjectivity of men [sic] stands the objectivity of the man-made world rather than the sublime indifference of an untouched nature’ (Arendt in Csikszentmihalyi & Rochberg-Halton, 1981).

The object or ‘touchstone’ reminds us of who we believe we are, and connects us to others who share a common perception. In their book, *The Meaning of Things*, Csikszentmihalyi & Rochberg-Halton (1981) suggested that self is not a state of being, it is a dynamic process of becoming; a place where the self is, to a large extent, a reflection of the things with which we interact. The relationship between the person and the object is viewed as a transaction between two parties: we invest meaning in the object, and in turn, the object helps define our sense of self (Csikszentmihalyi & Rochberg-Halton, 1981, p. 3). The authors argued that a Cartesian approach aimed at discovering the so called ‘real me’ or the original self inside, ignores the significant idea of cultivation, an activity that is only possible because of the human ability to focus attention in the pursuit of goals. We use objects to cultivate our intentions and without these intentions we would have no meaningful interaction with our environment. We would not learn. We would not evolve (Csikszentmihalyi & Rochberg-Halton, 1981, p. 6).
As a result of this relationship objects and materials also develop an inherent meaning, a symbolic language of their own. An artifact from an ancient people, for example, can still convey an image of the ideas of that culture, even though there may be no record of how those people spoke or what they believed.

If the tangible elements of architecture possess an ability to convey meaning through their own inherent qualities, it follows that the choice of materiality and form is critical to the communication of our conceptual intent. If, in our design process, we concentrate on the object as the generator of interior form, then our ability to develop and communicate our ideas is actually limited by the inherent meaning of the object itself. However, if the object is not the source of meaning, it is merely the container, and as interior architects, the contained is our subject matter. In the search for form we must turn our attention to the formless. We must look to infinity and the void.

**Something from nothing [A useful absence]**

About three years ago I was talking with a friend about her postgraduate research on the subject of light. Her intention was to explore the characteristics of natural light from five distinctly different locations around Australia, and then transfer her findings to a central location – in this case Melbourne. Her dilemma was that the tangible qualities of natural light are obviously reliant on their context, making any transfer of the experience impossible. Given the significance of context, I suggested that she might fabricate a series of identical, opaque vessels that could be ritually exposed in each of the five locations. The vessels could then be transported to the location of her display where the contents could be clearly identified according to the origin of each sample. The participant is asked to accept that through the process of ritual the light has been contained and, if they engage with this concept, then we do not bring the light to the participant we bring the participant to the light.

As has happened many times since, I was greeted with a raised eyebrow, a tilt of the head and a quizzical look that suggested I should go away. I did, but I have not been able to shake the idea since.

Although similar to the work of artists such as Roslyn Piggott – who has collected samples of air in test tubes – the significant difference here is that we encourage the container to communicate an idea of the contained. From an external perspective the vessel can be hollow or solid without affecting the basic transaction between it and us. We objectively experience the presence of the invested meaning. The vessel is both the void and the uncarved block. The void is as significant and as tangible as the material that defines it. There are only two problems.
First, the object must work on the premise that it communicates only the meaning that we intend for it. The object itself must be free of inherent meaning. Second, the object must be capable of containing multiple or new meanings without any trace of the previous. We call this idea the zero cube and it represents the start in our search for architectural form. It is not where we begin; it is the beginning that we must find if we are to create new and meaningful work. Zero cube is not an object; it is a process.

In the transition between objective exterior form and subjective interior space, the transaction between the object and the participant is completely altered. This idea informed the central thinking behind our competition entry for the Martin Luther King Jr. Memorial. The brief required a design that communicated three ideas about the man, the message and the movement. We discovered that these ideas were in fact one; that the human rights issue was personified in the man – Dr Martin Luther King Jr. History allows us the luxury of perceiving connections from an objective distance, where previously fractured ideas become unified at a single point in time. During the event, these moments often go unnoticed. The young reverend Dr Martin Luther King Jr was asked to speak to a small gathering because nobody else could. From this point on, everything changed. Our design response was born from the need to focus attention on this unnoticed but significant point of convergence. Our singularity was suspended in the tension that we created between two substantial, converging glass forms (Figure 1). In this contained space the participant can reflect on the powerful fragility of an instant, a point where movements are born and history is irrevocably altered. From this point of departure, the entire form grew. For the participant, the significance of the memorial was not predetermined, but was wholly dependent on the individual’s ability to thoughtfully occupy space.

Figure 1: Details from a design for the Martin Luther King Jr. Memorial
(Drawing: Author)
For the design of the Jewish Museum in Berlin, Daniel Libeskind struggled with the challenge to communicate the potentially indescribable impact of the holocaust, not just on the Jewish culture, but on all of humanity. His response was to present the holocaust as a complete erasure, to be experienced as an absence in the centre of the museum. To achieve this end it was necessary to create an organisational framework that enabled the participant to experience not only the void itself, but also the presence of the void (Libeskind, 1991, p. 87).

‘The void and the invisible are the structural features that have been gathered in the space of Berlin and exposed in an architecture in which the unnamed remains in the names which keep still.... this void is something which every participant in the museum will experience as his or her absent presence.... a new type of organization which really is organized around a centre which is not, the void, around what is not visible. And what is not visible is the collection of this Jewish Museum, which is reducible to archival and archeological material since its physicality has disappeared’ (Libeskind, 1991, p. 87).

In the holocaust void, meaning cannot be bound up in the object, as there is nothing to display. History was literally incinerated (Libeskind, 1991, p. 87). The space stands in stark contrast to the fabric of its surroundings both horizontally and vertically, however the experience differs at each intersection. On some levels, the void is discovered as an interior space; it becomes subjective and the participant is invited into the experience of the victim. On other levels, the participant is excluded from the void, as it has been enclosed in the envelope of its event. This is the objective distance of history, a place where the presence of the void enables us to consider the infinite implications of the holocaust, and we are irrevocably bound to it through time.

Libeskind’s work gives us insight into the nature of the void and helps us to understand how others can perceive the meaning behind our work. Programmatically, this void becomes as tangible as any wall or surface. The difference is that meaning is contained within the void and the materiality of the void becomes a resultant as the envelope is only designed to reflect the intended meaning. In the context of interior architecture, the void can be both a personal experience and can bring profound meaning to the perception of an object. In either case, it is the contained that defines the container and not the other way round.

The National Gallery in Canberra contains a void that delivers diffused, natural light to the sculpture niches on the ground floor. The void is approximately 30 metres long and 1 metre wide and separates art gallery from office space on the upper levels. This organisational element would be little more than a service duct if it were not for some additional features. The long walls of this space are solid but it is open-ended. We cannot enter, but for one brief
moment the art is gently separated from its administrative support as we experience the flash created by thirty, uninterrupted, metres of reflected light.

But what design process takes the void as its object? Are we to conjure invisible forms by manipulating intangible elements? In the eyes of the public, it may sometimes seem that this is indeed what we do, but the process often requires more sweat than it does magic. We must be clear now that the void is more than the absence of substance, the opposite of form, it is the starting point that we must find; it is the place without surface, the uncarved block, the blank page. This place is revealed through an open process that owes as much to destruction as it does to creation. To explore the void is to pare away the recognisable in our search for the familiar. We find the intangible by stripping away the tangible. This design process is not concerned with the polar edges of an oppositional state; it is concerned with the formless meaning of the threshold, the grey uncharted territory of zero, a place where we are free to explore.

**The presence of nothing** [Feeling the edge of the void]

Seife (2000) suggested that, in ancient Greece, zero was not a number it was a terrifying place. Zero and the void were one and the same and so the existence of zero was denied (p. 19). The followers of Pythagoras had no place for the intangible. Only chaos came from the void and the Pythagorean universe was designed to impose order on chaos, to rationalise the irrational. For the Universe to make sense, everything had to relate to a nice, neat proportion. Part of the problem was the tyranny of geometry in their number system, after all what was the shape of nothing? How can you have a square of zero height and zero width? Even if there was a number for zero, it could never be included in a ratio, as it would always consume the other number (Seife, 2000, p. 27). This view of the universe became so influential in the development of western philosophy that our object-centred culture is still suspicious of the intangible, after all, how do we deal with nothing?

Without knowing it, Archimedes came close to understanding the nature of the void. Mathematicians had never been able to determine the area of a parabola but Archimedes came up with the idea of using triangles to solve the problem. After first inscribing a triangle inside the parabola, he inscribed another in each of the two gaps left over and then another in the four gaps, and so on (Seife, 2000, p. 110). Although it would take an infinite amount of triangles – and there would always be gaps – Archimedes was able to approach the sum of the areas of the triangles, to determine the area of the parabola. The problem is that Archimedes’ resulting form was not a parabola it was an approximate parabola (Figure 2). His process had created a new multi-facetted form; he just did not see it.
Michaelangelo was well aware of the infinite potential of the void. In his fresco, ‘The Creation of Adam’, the significance of the work lies not in the rendition of the figures but in the tiny space contained between the languid fingers of God and man. All of infinity is condensed into this measurable space where Michaelangelo often found his inspiration. When questioned about his sculpting process for example, he allegedly replied that when carving a horse he simply cut away the pieces of stone that were not a horse. Supporting evidence for this statement lies in the images of his incomplete work, where intact figures appear as found form in the incarcerating stone.

The idea of infinity is difficult to grasp, particularly when it is contained within a single point. A point, after all, is a zero-dimensional object – it has no length width or height – and in 1425 when Brunelleschi placed just such a point in the centre of a drawing our perception of space changed forever. This zero-dimensional object, the vanishing point, is a spot infinitely far away from the viewer. Brunelleschi realised that as objects recede into the distance in the drawing, they get closer and closer to the vanishing point. Everything sufficiently distant – people, trees, buildings – eventually disappears (Seife, 2000, p. 86). The three dimensional properties of height, width and length appear to shrink, and through a process of projection, the zero-point in the centre of the drawing contains an infinity of space. Scientifically, this point is known as a singularity and although it is often approached, it can never be reached.

During recent expeditions to the Arctic Pole, explorers using GPS have found that they are incapable of measuring beyond 89°59’ north. Having come so far, they are reduced to defining a circle of approximately 7400mm in diameter. They shrug their shoulders and blame the limitations of technology, and in one sense they have a point; enhanced technology will enable us to reduce the diameter of this circle, but a trek to the pole is also analogous to converging on a singularity. Mathematically at least, it can be said that it is impossible to actually reach the pole. So, if the pole is not a point in space, perhaps it is a space; and if all of infinity exists in that space, perhaps that is where we will find our ideas.
The above examples may bring to mind our own professional void, something we are all too familiar with, the *blank page*. If the potential variations on interior space are infinite, if there are unlimited combinations of materials, forms and meanings, then where do we start? The answer may lie in how we develop our intentions. We can start where we like, but we must find the beginning.

**Much ado about nothing** [With apologies to William Shakespeare]

‘Through our belief in the objectivity of technology and science, when something is measured, it becomes tangible – even those things that resist measurement’ (Lindsey, 2001, p. 70).

Frank Gehry is a self-confessed illiterate when it comes to computers; he is suspicious of their accuracy and prefers hand drawings that cut through the paper in a *frantic search* for his buildings. For him the drawing provokes movement from one stage of the process to another (Lindsey, 2001, p. 23). Ironically, through a successful integration of computer aided design and manufacturing, Gehry has been able to extend the gestural quality of his hand drawing even further, confident that the increasingly elaborate forms are achievable. The accuracy of the digital model is balanced by the possibility for greater fluidity in the completed building (Lindsey, 2001, p. 54). Through the use of process models, Gehry is able to test the formal, spatial, and material implications of his gestural drawings, and as hundreds of these models are made for each project, the process is less about form making and more about finding the familiar. In other words, Gehry is forming the void.

Coop Himmelbau start experimenting with rough, large scale models. The designs evolve from the inside out and the exterior skin is stretched beyond its limits. Horizontal and vertical slabs intersect, collide with each other, and rotate on their axes. The intense first sketches are part of a process of projecting a visceral response that attempts to purge every bit of architectural baggage, in order to plunge down to a *zero point of pre-architectural sensibility*. This process of exploration produces an emotionally charged result that retains all the energy of the void that is present in the first drawings. The work is not translated into recognisable form; the process drawing is literally built (Werner, 2000).

Architect and sculptor, Maya Lin, begins by imagining her work verbally and tries to describe in writing what the project is trying to do. ‘I need to understand the work without giving it a specific materiality or solid form; I try not to find the form too soon. Instead I try to think about it as an idea without a shape’ (Lin, 2000, p. 3:05).
Different methods are employed here in the search for form. Although each will eventually use all three means of communication, one starts with drawings, another with rough models, and another with words. What they share is the desire to find the formless centre of the work, before they fix on the form itself. If, as in these examples, we also reject the preconceived form of our ideas then we discover unforeseen intentions contained within the possibilities of the void. We do not impose a solution; we reveal it to ourselves.

Conclusion

When a design process is focussed on the tangible elements of space, it is limited by the inherent meaning of the objects that we employ to define that space. At best, we can attempt to balance a montage of intentions derived from a recognisable palette of preconceived forms. The results will invariably contain conflicting messages that obscure our intentions, confuse the participant, and prevent us from discovering the full potential of our ideas.

If, however, as Daniel Libeskind (2001) suggested, architecture ‘forever discloses its own openings but never sees its own end’ (p. 17), then we need to find the unkempt form of our intent, before we define the skin. When we accept the edge of the void as the rightful focus of our attention, it guides a process that is open to the possibilities of the intangible, and to the discovery of new forms, new materiality, and new meaning. Our exploration is not concerned with the well-charted edge but with the uncharted threshold, across which we move backwards and forwards between solid and void, inside and outside, even excess and austerity.

This design process is a trek to the pole. With experience and intent we approach the zero-point of our ideas, a finite distance that can take an infinite number of steps to reach. The process is not about the achievement of our intentions, it is about the attempt, the journey that we undertake in our search for forms that we could never imagine at the start. Unlike Archimedes, we can come to see what we have, in our pursuit of what we want, or to paraphrase Louis Kahn; we reach a place where we can discover what the building wants to be.
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An Interpretive and Contextual Approach to Interior Design Education: A Study about Integrating Theory and Practice

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Abstract: The teaching and learning of interior design processes are collaborative exercises situated in experience in the phenomenological sense. Researchers interested in evolving interior design philosophies need to understand the underlying values inherent in existing theories and the contradictions that occur when these theories oppose actual interior design processes as they are taught and explored in the studio environment.

This paper is organised along three streams. First, the rationale situates the dichotomies that currently exist in design theory production and pedagogy. Second, the study methodology and data analysis are described. Finally, consideration is given to how design pedagogies could be restructured in light of these findings and how theory and practice can be viewed as symbiotic parts of a whole rather than as theoretical opposites.

Keywords: Interior Design pedagogy; phenomenology; theory and practice

Introduction

What do we do as interior designers and how do we do it? What values underlie what we teach and how we practice? How are these values transmitted in the design studio? These are some of the questions that I explore as I examine the conflict between the inherent dichotomies of theory and practice. These oppositions occur between the teaching of interior design and the actual framework within which it is explored as a phenomenological experience in the design studio. The theories that are taught are often borrowed from disciplines such as industrial design or architecture (Molnar & Vodvarka, 1992) because there are few constructs situated specifically in interior design. The profession, by not engaging in its own critical discourse, has evolved from a pragmatic rather than a philosophical stance (Abercrombie, 1990; Guerin & Martin, 2001). This stance tends to be grounded in issues of physical form and aesthetic symbol, rather than in broader values that shape human endeavour, such as social values, psychological factors, social-psychological needs and direct lived experiences (Grosz, 1995; Ainley, 1998; Kaukas, 2000; Turpin, 2001; Hildebrandt, 2001). These constructs are assumed to support interior design thinking; however, implicit value assumptions occur that, in fact, negate the more dynamic and collaborative nature of interior design processes. As an example, we often teach interior design history as an outgrowth of architecture, yet in doing so we negate the role that women have played in the evolution of
interior design's own history, philosophy and knowledge production (Spain, 1992; Rothschild, 1999; Turpin, 2001; Kaukas, 2000). These theoretical constructs form implicit hierarchical frameworks that promote certain values above others, including those of gender or social stance.

**The actual practice of interior design**

By contrast, the actual practice of interior design is a complex, multi-dimensional discipline situated in a context of time, space and dimension that is driven by contemporary ways of living and constant change (Therrien, 2001; Rengel, 2003). Interior design is considered to be both an art and a science (Pye, 1978, p. 93). However, this changing and evolving discipline is also situated in the collaborative experience that occurs between the designer and the client (Franz, 2000). Interior designers need to simultaneously solve problems situated in the pragmatic parameters of space and in complex personal, social, cultural and dynamic relationships (Spain, 1992; Grosz, 1995; Ainley, 1998).

**What happens in an interior design class?**

In discussing the complexities of interior design knowledge production, it is vital to explore what actually happens in an interior design class. Whose voice we use when we explore design meanings is as important as our philosophical stance. I present the example of my dissertation study, where I investigate the teaching and learning experiences of teachers and students in the first year design studio of a three-year bachelor program. I investigate the current epistemological underpinnings of interior design theory, how it is transferred into the studio, and the inherent problems that emerge when theoretical ideas oppose the actual acts of designing.

**Contextualising the discussion: About theoretical oppositions**

Interior design has a long history of trying to locate its philosophy and theory, and as a discipline is still struggling to find a balance somewhere amongst opposing philosophies, all of which encounter an interface between object, user, interior environment and building structure (Molnar & Vodvarka, 1992; Rengel, 2003). Compounding this problem is the issue that we practice with insecure assumptions about what we do and how we do it. We wrestle with our own past, and with what Henry Hildebrandt (2001) noted is ‘…an ambiguously defined theoretical knowledge base…’(p. 75). There are different and opposing views of what constitutes critical interior design. Historically, North American interior design research has leaned towards the pragmatic and has tended to concern itself with practical problems as opposed to philosophical ones (Abercrombie, 1990; Guerin & Martin, 2001). In education
for example, some teachers believe that aesthetic categories are paramount and that human function is secondary, while others believe that human need and user experience must drive design thinking. Philosophical constructs used in design education often place these concepts in hierarchical opposition (Mitchell, 1993; Vaikla-Poldma, 2003). There is much philosophical debate in architecture, industrial design and the visual arts about these issues (Mitchell, 1993; Rothschild, 1999) but far less in interior design, particularly in Canada.

There is a disparity between the theories used to teach interior design and the actual act of designing. Some of these theories are ascribed as objectivist and absolute truths (Mitchell, 1993; Kruft, 1994). Notions of truth, beauty and values embedded in assumptions about what constitutes design in general, and interior design in particular, are often taken for granted (Ainley, 1998; Vaikla-Poldma, 2003). For example, design history education is often influenced by Modernism, which advocates the use of aesthetic categories and constructs that situate the architect as the visionary who determines a building vocation through the aesthetic categories of symbol and form (Molnar & Vodvarka, 1992; Mitchell, 1993). The unquestioned acceptance of these aesthetic categories as part of an interior design stance does not take into account the role of humans as subjective entities in interior spatial environmental designs (Ardener, 1981; Ainley, 1998). Rarely is the interior designer given carte-blanche to be a visionary in the Modernist sense, and design problems tend to be solved by understanding the complex social dynamics and personal needs of the users within a physical framework that is not static (Vaikla-Poldma, 2003, p.19).

**The philosophical basis for this study**

I turn to an alternative means to understand the philosophical values that might be considered in interior design knowledge production. Everyday experiences help us as humans to formulate a philosophical understanding of the theoretical basis of the values and knowledge (Shusterman, 1997, p.18). In our society, we are all users of space and of the places that we inhabit (Heidigger in Molnar & Vodvarka, 1992, p. 278), and therefore we all bring our values to the design of spaces. If value production is composed of multiple constructed knowledges (Code, 1991; Peters & Lankshear in Giroux et al, 1996), then this implies recognition of the subjective differences of humans in how meaning is constructed. The uniqueness of interior design processes demands a framework that is at once philosophical and pragmatic, and that expands beyond the limitations of modernist thought and objectivist absolute truths (Shusterman, 1997). Occupied interior space is at once personal, physical, and psychological, experienced in a subjective personal sense.
Students in the design studio

It is in the first year of most interior design bachelor programs that the foundations of design thinking are laid for future problem-solving. The learning environment frames the meaning making that we will engage in later on with our clients (Franz, 2000). In first year, a vital part of student development is the design of projects that encourage both cognitive and affective responses (Arnheim in Margolin & Buchanan, 2000), skills that are developed through theory but honed in the design studio. The programs that I have studied in North America use the design studio project as the means of engagement (IIDA, 1998). Studio project content is usually structured in one of two ways. One is to promote the design project as an aesthetic problem, where the teacher is the all-knowing informing the student as the empty vessel recipient (Findeli in Margolin & Buchanan, 2000). The alternative is the project that simulates practical experiences in the profession (IIDA, 1998; Findeli in Margolin & Buchanan, 2000). When alternative ways of exploring design processes include collaborative dynamics, and when these run up against theoretical constructs promoting individualistic and artistic visions, the collaboration between the teacher and the student is harder to support. By this I refer to the teacher who transforms design problem solving into a stimulating exchange that promotes student learning (Canestaro & Carter, 1992; McNiff, 1993). I conduct my study within this arena in order to understand how these dynamics and relationships occur.

The framework for the methodology – grounding the study

Many research studies in interior design explore teacher activities and student behaviour (Canestaro & Carter, 1992; Watson & Thompson, 2001), but far fewer study the direct narrative of students and the dynamic relationships that occur in teacher-student conversations. In looking at ways to underpin this study theoretically, I explored examples in critical educational and post-modern theory. Critical educational theory offers a means to ground the study in terms of both teacher and student stance, and to create the ethical structures necessary to study students and their experiences as a researcher/teacher (Carr & Kemmis, 1986; McNiff, 1993; Giroux et al, 1996; Hernandez, 1997). The teacher’s stance must at once be reflexive and reflective, ready to think about the phenomena without a priori assumptions (McNiff, 1993; Ely et al, 1997). For example, if the object of the design problem is a work environment, post-modernism might offer a different perspective on how questions about the nature of work are asked. Lankshear and Peters (in Giroux et al, 1996) suggested that this framework allows the student to be seen differently by the teacher, not as an empty vessel, but rather as someone engaged in understanding the meaning of work in the modern world. This opposes modernist principles, as they explained: ‘...rather than accepting the
modernist assumption that schools should train students for specific work tasks, it makes more sense in the present historical moment to educate students to theorize differently about the meaning of work in a post-modern world. Indeterminancy, and not order, should become the guiding principle in which multiple views, possibilities, and differences are opened up as part of an attempt to read the future contingently instead of form the perspective of a master narrative that assumes rather than problematizes specific notions about work, progress and agency’ (p. 67). In this sense, the interior designer thus becomes an agent of problem solving in a cultural and political world (Vaikla-Poldma, 2003, p. 110).

The study

The study is composed of three components. First, I investigate the first year teaching and learning processes using action research, and record on video the studio activities as they occur. I keep on-the-spot hand-written journals and follow up with reflective and analytic memos; a qualitative recording tool (Charmaz, 1988; Ely et al, 1997; Davis & Butler-Kisber, 1999). Second, I analyse the collected data by studying the transcribed narrative, using reflective practices such as narrative, and creating visual concept maps (Clandinin & Connolly, 2000; Davis & Butler-Kisber, 1999). This type of layered analysis is at once contextual and contiguous in nature (Ely et al, 1997; Price, 1999; Davis & Butler-Kisber, 1999), and moves from descriptive to in-depth analysis where deeper meanings emerge. The perspective reflectively shifts from the teacher/researcher to the student and back again.

Finally, I analyse the emerging issues by collecting additional data to verify the ideas and concepts. In the ensuing 18 months I discuss the students’ perspectives individually and in focus groups. For example, although I begin the initial data analysis by considering the entire group, I later focus on the meanings and messages of four of the students in the group, in order to delve into emerging issues in greater depth. This theoretical sampling is done in the third phase of the study as a means to ground the theories that emerged during the analysis (Charmaz, 1988; Strauss & Corbin, 1991; Price, 1999). Some examples of emerging issues include the different ways that students discover and search for the design concept and their discomfort with formal critique processes.

The findings

The analysis of the data reveals new meanings that bear consideration about the dynamics, personal experiences, and social processes in the design studio.

Several issues emerge about student perceptions and the subsequent relative success or failure of their projects. One issue is the complexity of the many messages that design
students must negotiate. Conversations reveal that the dynamics of the teacher-student learning processes are situated in making meaning and in learning how to exercise critical and informed judgement. Making meaning varies from student to student and is difficult for some to negotiate. Design meanings are held within a social and political construction of aesthetics and difference, situated in varied forms of design thinking. These depend on the particular social, gender, or cultural background of the student and support the possibility that design is not neutral. For example, the gender issue emerges in several of the student conversations and actions. Not only do men and women explore spatial design differently, but the social dynamics of the studio influence how they perform during both informal and formal critiques.

Second, the emerging conversations of the four students show how meaning develops differently for each one. While teachers and students construct meaning together, it is both the construction and clarification of it that constitutes part of the student learning process. How and why certain issues become meaningful depends on the problem, the client, the parameters, and the situations within which students find themselves.

Third, there are difficulties with making meaning, as meanings are open to challenge. As mentioned earlier, formal aesthetic categories do run up against process-oriented approaches, and these oppositions imply hierarchies that the student must choose to negotiate. For example, some of the students in the group elect to apply aesthetic categories into the space and ignore the user altogether.

Fourth, students must learn to judge their ideas in several ways; these may include aesthetic categories, aesthetic meanings, subjective user ideas, universal truths, peer pressure and their own sense of self. Who judges becomes an important component in the relative success or failure of a student’s idea.

**Discussion: Towards a conceptual framework**

The messages that are uncovered reveal the complexity of what constitutes interior design knowledge production. In essence, the making of meaning and the clarification of this meaning for both teachers and students are situated within the learning and teaching processes in the studio. These processes are supported by what it is to be a good teacher and how students come to define their own meanings in interior design. What emerges is not meant to be a model, but rather a potential conceptual framework for understanding and building philosophy constructed in interior design studio practices.
I suggest this conceptual framework with five secondary sub-categories. First, students have a personal subjective experience of the design problem. The design act is an individual one, experienced as a phenomenological act first and as a rational act second. Second, time and space affect student experiences, and student development is a long-term, evolving process. Third, cognitive and affective aspects of designing are not part of student memories and experiences in first year. Students need to develop both a critical and visual means to evaluate ideas and nurture thinking that promotes confidence of expression while instilling critical judgement. Fourth, social relationships are affected by the design studio milieu, and this changes one's personal and visual experience of interior space. Finally, design teaching affects knowledge production, particularly when it is situated in the formal critique process. For example, in the study, the critique is examined in terms of both formal and informal structures. When judged formally, the tendency is for the design problem to become an aesthetic one, rather than one rooted in critical perspectives of social or cultural processes.

**Conclusion**

The phenomenological study of students in the design studio environment is as much about actual lived experiences as it is about knowledge. This type of study opens up new possibilities for understanding interior design students as gendered social beings, as negotiators with their teachers and as peers of a profession in evolution. Questions can be formulated about the broad and complex nature of the design act, with its inherent subjective and inter-subjective perspectives. However, these constructs must also effectively support the evaluative aspects of design and its transfer into the tangible reality of the public domain. The study and analysis that I have described uncovers issues of values that underpin what we learn, how we learn it, and what we subsequently teach as truth and knowledge.

I suggested earlier that part of the epistemological framework is critical educational theory. This infers a movement beyond the mere act of teaching. By combining phenomenological description, grounded theory and interpretive analytic techniques, I have attempted to provide interior design with a philosophical approach that is rigorous and reflective, and opens the door to an engagement of theory with practice. Adriana Hernandez (1997) has suggested that: ‘...The need to develop a theory by theorizing the practice, what Giroux would refer to as a theory emerging in concrete settings, although not collapsing in them, in order to analyse them critically.... the use of concepts, such as voice and dialogue...to deconstruct and reconstruct the terrain of everyday life....’(p. 14). In advocating an understanding of the actual lived experiences of students within the design studio milieu, theories can be constructed in the concrete settings that Hernandez mentioned and need
not be held in opposition with practice. Teachers themselves need to understand the critical and dialectical nature of interior design as a process, and the transformation of theory into practice. This includes evolving philosophical and phenomenological questions that situate the student within the design process, and developing theoretical constructs that bring the user experiences into the direct realm of student learning.

Ultimately, what we hope to do is explore oppositional ideas in dialogue, and create the basis for a philosophically pragmatic knowledge for interior design as an evolving discipline.

References


Shifting between Economy and Cladding

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Abstract: This paper probes interior lining, specifically column cladding, in light of expansive definitions of economy. A student design project foregrounds the discussion in order to reveal prevailing design attitudes on ornament and structure. Those attitudes are reconsidered by the introduction of new fabrication technology. As these works supersede dichotomous relations between excess and austere, their formation suggests new working parameters for interior design in relation to ornament, craft and technology.

Keywords: economy; column cladding; ornament; structure

Middle ground: Shaft

Originally occupied by the university library, Vol Walker Hall currently houses the University of Arkansas, School of Architecture. This inhabitation shift exposes poignant situations particular to the building’s structure and spatial definition. A small annex sits on the back face of Vol Walker previously serving as dense book storage. Structure to carry the dead load weight of book volumes is provided in the form of industrial steel section columns formerly doubling as the uprights for shelving.

Despite considerable issues of safe egress, ventilation, lighting and heat, these stack areas are the current sites for a myriad of activities: offices, computer labs, media centre and storage for archives and outdated equipment. Since the horizontal element of the shelving system has been removed, each of these activities exists amongst a field of columns approximately 1800 mm on centre in either direction. Inhabitation is a function of negotiating an obstacle course. It is challenging to furnish these spaces. It is difficult to romanticise or wax poetically on consequences of industrialised members regulating a space so severely. However, students and staff often collide, run into, or simply crash into the columns while working in these spaces. It appears that the column spacing is at such a frequency to challenge or disturb our body’s navigational radar. And yet, as the School of Architecture grows in enrolment and need for accommodating new staff, students and equipment, these under-utilised spaces are frequently eyed to be colonised, tamed and returned to purposeful status. Therein lays this paper’s introduction to economy’s role in interior design: ‘the administration of the concerns and resources of any community or establishment with a view to orderly conduct and productiveness; the art or science of administration’ (OED Online, 2003).
These very real parameters formed the context for a student design project housed in an elective paper dedicated to investigating historical and contemporary attitudes towards ornament. Seven upper level undergraduate architecture students and one art student attended this elective paper. Students’ workshop and digital skills ran the full gamut. The list of architects included: Horta, Furness, Violett le-Duc, Voysey, Gaudi, Sullivan and Perret. While this author is conscious of the debate over using historical precedents for design inspiration, the assignment sought reference to historical works and philosophy in the spirit identified by Teyssot: ‘The origin is not something that stands as an already given absolute, situated behind us in history; the origin…is the place where something is made to arise, with a ‘leap’ or ‘spring’ (Sprung)’ (Teyssott, 1987, p. 96).

Students investigated the philosophy of a notable architect practicing at the cusp between the Arts and Crafts Movement and the Modern Movement. At the same time they received instruction on how to operate the school’s new fabrication tool, a 2 X 3.5 m bed CNC (computer numerically controlled) machine. These four territories – capitalising useable square footage, steel column sections, historic values on ornament, and an industrial routing machine – framed a pedagogical exercise. The students’ effort informed my own research questions about the role and presence of ornament in contemporary architectural and interior design. While they addressed local conditions of column cladding, I was seeking evidence on how technological fabrication processes could assist to redirect pragmatic design concerns without deferring craft, ornament or material expression.

Students practised this speculative intent by designing new claddings for existing steel columns in a small exhibition gallery. Two rows of columns framed the narrow room. Like the fields of columns previously described, this room is difficult to inhabit because of the spacing and location of the columns. They are spatial antagonists.

**Fluting: Tack welds**

The first cladding mock-ups for the gallery columns identified a critical misjudgement about structural steel elements: students assumed that if they measured one column and one bay they could save time drawing the site. Economy in this sense refers to ‘an instance or a means of saving or thrift with reference to immaterial things such as time, personal ability, labour, …’(OED Online, 2003). Though their intentions to share information collectively were admirable, their assumption lingered until the moment of installation when a post-rationalised tolerance detail was required. Height varied nearly four centimetres amongst the ten columns. Whereas the students drew and thought about the columns as singular cross-shaped extrusions, each column proved in fact, to be a hybrid of welded flat bars. What was
assumed to be a high-end industrialised product turned out to be a series of one-off items with tremendous deviation along a single column length. Bay size was no less erratic. In a heated and heart-stricken moment when claddings proved to not fit, the students’ underlying question was, ‘What led us to make such foolish assumptions?’ In defence of intelligence they recalled ways in which their architectural education introduced them to standard steel sections. Every drawing and reference they could find presented those ‘hot, fast and heavy lines’ as perfect and unadulterated by hand-craft or blemish of wear (Nonas, 1998).

The work of Mies van der Rohe yields the best lesson on this matter. Edward Ford gives credit to this architect’s professional persona by reading the work through its material detail and what Ford saw as the designer’s struggle to deal with revealing the intent of the work tacitly via its material circumstance (Ford, 1994). This observation arises from analysis of Barcelona Pavilion where the column is clad with chrome plated stainless steel and then in Mies’ later work in America where steel sections are literally applied to the face of the building as extraneous to structure. In order to elevate the section to icon or ornament, the raw steel was ground and welded repeatedly to remove the blemishes of common steel production. In the end, these measures were both additive, excessive in order to express austerity. The narratives and innuendoes about Mies’ allegiance to honest use of materials, ala Pugin, unravel as Ford exposes the degree to which Mies layers steel sections with hand-crafted labour and non-industrialised materials. Mies not only took advantage of industrial economy by working within its own system but he also formed a critique of industry’s inability to form a work of art on its own accord. Mies understood that a free-standing column was an abstract formal element, more than a load-bearing element. So while steel mills could produce a multitude of sections based on engineering principles, the figure of the section, the profile and its material surface required further rendering in order to distinguish its relation to economy: to either pull the section towards a profane sense of craft and dwelling or closer to a classical sense of ideal. Wavering between dispensation and stewardship, this form of economy measures and weights the specifics of a particular situation and acts upon them as a community of factors (OED Online, 2003).

At the same time that Mies was working through means of fusing representation and intention, the Chicago Frame was liberating weight and mass of load-bearing walls. Economy quickly acquired an edge of efficiency whereby time, labour and materials became the motto of modern industrial production, especially in the context of American capitalist society. This characteristic of economy binds the process of making and the product or service. In other terms, the means coincides with the output. Economy-sized is an attribute ‘designating
consumer products, services, etc, which are designed to be cheaper or more efficient for the
customer’ (OED Online, 2003). Such cost saving is in extreme cases referred to parsimoniously
or niggardly and is most likely the single most powerful vehicle by which we culturally
understand notions of austerity in design.

Students verified this notion when more than half of them declared huge reluctance and
resistance to clad the existing steel columns despite their raw and crude surfaces, their
mean intervention into the room and their neglect to meet fire code regulations. They so
much wanted to embrace these strands of inert material and romanticise them as emblems
of Modern or High-tech architectural design that they could not or would not, recognise
the disparity between reality and what they subconsciously yearned for: contemporary
translation. Even after goading them to grind an existing column into metal dust to test
its formal and structural properties, they wanted to believe in Alberti’s ‘pulchritude et
ornamentum,’ beauty and ornament, which has been reconfigured over the centuries to rally
against excess or necessary redundancy (Rykwert et al, 1989, p. 420).

The other portion of the student group insisted on working within ancient metaphor whereby
building and body are analogous parallel entities. To this extent they were asking why
the columns were naked/nude or without body. Despite efforts to steer this question into
contemporary discourse about corporeal, virtual and formless bodies, historical reference
to figural body could not be thwarted. The students, who embraced this mode of thinking,
produced a large quantity of physical work simply because they had ready access to a referent
form. The act of cladding easily lead to issues of modesty, dressing, concealing – all those
fashionable ideas wafting through design studios in recent years. Such conceptual strategies
alleviated the stigma of cladding as un-purposeful, useless or excessive in the derogatory
sense of decoration.

The moment in history that architecture differentiated between that which was skeletal
or structural and that which was skin, enclosure or surface a disparity occurred in spatial
expression of the interior. In the masonry load-bearing walls of Gothic architecture, one finds
structure and ornament at mutual coincidence with the production of space. In the curtain
walls of contemporary architecture, the freedom to resolve physical form need not have any
relation to structure – the structure is merely a frame from which to hang a technological
textile. While Semper’s writings on the primacy of textiles in architecture suggest a radical
shift in the relation of structure to enclosure and surface pattern, this theoretical ground has
yet to fully translate into the practice of building construction economy. With exception of a
few very recent built works primarily realised with the aid of digital design, communication
and industrial fabrication, the structural frame stubbornly resists or dominates the three-dimensional profiles of interior lining.

Even Louis Sullivan grappled with this dilemma. While his buildings are noted for their transcendence of structure and ornament, the interior spatial expression is undifferentiated by deviations in the structural system except in the cases where it impacted the psychological expressiveness of the façade. Colin Rowe criticised the Chicago architects working at the turn century; Sullivan included: ‘…they limited themselves to producing buildings which should be no more than logical instruments of investment. In other words, being in no position to make manifestos in the cause of rationalism, they were simply obliged – and within the strictest terms – to be as rational as they might’ (Rowe, 1985, pp. 98–102). In these terms we witness the allegiance between that which is economical and that which is rational, a union that in contemporary design practice is difficult to untangle or work outside of. Instead of embracing ‘rational’ as meaning expenditure of value or worth, or ‘rational’ as support of logic and thoughtful intent, ‘rational’ is automatically coupled and exclusively hinged to monetary cost.

With an economic imperative to save money and material, it is easy to understand why that which was absolutely necessary to hold a building up became primary and objectified. A very specific strain of economy infiltrated the domain of spatial interior. Thin material surfaces are wrapped around anaemic yet precise structural points. Design of interior space is in constant reference, reverence or friction with its own structural accommodation. Evidence of this shift can be found in the method by which architectural and interior design programs all over the world teach structural design. The structural design process as implicitly taught generally seeks the most efficient structural system, which typically results in stacked columns and floor plates subsequently stuffed with internal programmatic functions. While this may be harsh criticism, the structural frame, better known as the structural grid, over-rides spatial conception or material interface with spatial manipulation. Spatial presence can only exist in reference and in resistance to the dominance of that which technically makes it possible. But instead of finding structure celebrated, structural columns are just barely imbedded in walls, shoved in corners or disguised out in the middle of the space as ‘features,’ ‘structural cadence’ or ‘rhythmic articulation of the structural frame.’ These phrases were lifted from notes I recorded as a design studio guest critic at several schools of architecture and design in the United States and New Zealand.
**Line to mass**

In the basement of Vol Walker Hall there lives an industrial monster, fondly nicknamed SOW. Having twelve nipples (maintenance lubrication spots), she is an alternative university mascot – a large three-axis CNC routing machine typically used for sign art but fitted to interface with architectural fabrication. At the time, University of Arkansas was one of only three architecture schools in the USA exploring the design potential in such industrial machines so the pressure to exploit the machine as a prototype design tool was significant in order to justify the cost. ‘It is important to note that while this is a relatively new development in academic institutions and architectural practices, the use of these machines in material and commercial industry dates back to US military research in 1950, a fact detecting the notable lag in our ability to engage our own production!’ (Callicot, 2001, pp. 3–20).

Files generated from CAD programs or other line art software are translated by interface software into ‘ready-files’ (.rdy), which in turn feed the routing machine with specific instructions on how to run ‘the job’. Unlike conventional habits of using CAD software to draw graphically, this tool requires that students input data always in reference to fabrication: the material, the tool, and the sequence. As I established a machine training workshop for students, I started to witness the profound way in which CAD drawing software has infiltrated design methodology and altered the logic of describing, designing and producing physical environments. While a CAD drawing allows our drafting to look precise and did not falter if lines are unclosed, a CNC program reads unclosed figures as corrupt. This is a technical yet philosophical error message – a solid three-dimensional figure, a mass of material, is not abstract but has a body with closed parameters. At the same time, the interface software allowed us to replicate, layout, mirror and reverse figures to meet underlying anxieties about perfection: multiple identical copies through mass construction. The process of setting up a file became a process of analysing the intuitive/experiential method of routing in slow motion: reaching for the tool, selecting the bit, turning on the machine, cutting inside pieces, then outside pieces – ad infinitum.

‘Many software designers believe that the tool metaphor appeals not only to ingrained outlooks about work, but also to deeper fundamentals of human psychology. Research proceedings on human-computer interaction include numerous works on cognition, mental mapping, psychological loads and psychomotor skills’ (McCullough, 1996, p. 80).

As the machine is designed to handle high-level fabrication such as O-rings for NASA shuttles, it is necessary to set tool operations not by sight or by graphic calculation, but by
mathematical coordinates. Instructions and parameters are written in an industry language known as G-code. Students struggled with a new level of building and procedural tolerance, or rather, intolerance the machine had for their lazy habits. And because the machine did not come with a manual or an expert technician, our efforts were mostly trial and error. The percentage of error seemed to escalate whenever our designs neglected the pragmatics of making. Therefore claddings were far simpler than their initial ideas. We witnessed the complicity between economy and compromise.

Section profile

Two works from this class succinctly illustrate the issues presented in this paper. The first one, designed and built by David Schmidt and Philip Rusk, is ground in body metaphor and research into the works of Frank Furness and C. F. A. Voysey. The existing column was regarded as a skeleton requiring mass or flesh. Literal rendering became a sculptural exercise requiring use of three-dimensional modelling software. Their design evolved from observing students leaning, hanging or propping themselves against the existing columns in the computer labs while they wait endless hours for printing access or hardware to complete tasks. Their proposal sought to increase this spatial practice by cladding the columns with protrusions that promote climbing through and amongst the field of columns. They wished to multiply the accessibility of three-dimensional space. The project ultimately rejected the minimal and economic face of the steel column as having any expressive architectural value.

A landscape topographical form was carved out of laminations of high-grade plywood. This act in itself was almost the students’ undoing. While the CNC machine operates in three axes, the coarseness of each pass is determined by feed speed, rpm speed, tool diameter and material density. After fifteen hours of constant routing, David and Philip found they had another fifteen hours of hand-sanding to achieve a smooth fluid surface. The detail of binding the cladding to the steel upright with rope was influenced by George Hersey’s discussion of column bases representing the bound feet of ancient Greek sacrificial bodies (Hersey, 1995, pp. 11–45). In this case, column cladding is the supplement of mass and figure, perhaps a critical restorative act that diminishes the existing column’s minimal and abstract nature (see Figures 1, 2, 3 and 4).

Iova Dineva and Nan Kessler fabricated a column cladding that drew from their investigations on Victor Horta and Viollet le-Duc. Their design rendered the column visible via a shroud of vegetal pattern. They wrote, ‘The emphasis of pattern in architecture, starting during the twentieth century, is expressed in the qualities of form, rather than familiar ideas through symbols, shapes and qualities derived from earlier structural prototypes. Specifically, while
Figure 1: Carved virtual model  
(Photography: Author)

Figure 2: Cladding sketch plan  
(Photography: Author)

Figure 3: Column cladding photo  
(Photography: Author)
ornament in the Art Nouveau movement was based on floral and other organic forms, it consciously veered away from ornament as imitation. Contemporary materials and processes were used to translate botanical forms into patterns that respond to functional and structural requirements’ (Dineva & Kessler, 2001).

Their final installation was a box of small acrylic parts that snapped together like a scale-model airplane kit to form a translucent wrapping. This was an exercise of exhaustive and excessive repetition that took full advantage of the CNC machine’s power to make hundreds of delicate parts. Unlike the previous cladding that developed complexity from program software, this project had a simple cookie-cutter file that produced many two-dimensional pieces. All shapes and edges were devoted to developing an overall floral form.

In the end, the cladding illuminates the steel section in minimal scaffolding. The column is exposed but veiled. Gevork Hartoonian wrote: ‘Horta’s columns are not classical, nor do they anticipate the modern perception of a column, a non-figurative white cylinder. Yet like Frank Furness, Horta connotes the idea of ‘beginning’: He sees and constructs the column according to the structural and formal potentials of iron. One might speculate that Horta conceived of architecture through the haze…surrounding the life of the industrial city and the perceptual domain offered by new technologies’ (Hartoonian, 1997, p. 126). This is confirmation of the students’ success to translate their research into design. A level of abstraction is maintained yet the column is visually and physically more fragile (see Figures 5, 6, 7, and 8).

Both projects disturbed the students’ sense of economy. Their working equations towards time, money, material and labour were far from efficient. Instead, expenditure became relative to the goal and the process of making and designing simultaneously.
Figure 5: Small acrylic parts
(Photography: Author)

Figure 6: Column cladding photo
(Photography: Author)

Figure 7: Flat, floral and yet three dimensional
(Photography: Author)
Entasis and consequences of G-code

‘The desire to realise unique objects and constructs continues to be shared by designers and manufacturers alike. Our desires to customise the environments and products of our world is a human one; so perhaps the techniques that realise this ought not to be classed simply as industrial tools, but rather as an extension of an existing medium of expression. By striking at the previous limiting conditions of standardised mass production, computer-aided manufacture allies the idiosyncrasies and surprises of design tantalisingly close to the realities of production’ (Callicort, 2001, p. 20).

Albeit ambitious in scope, the student project to design column claddings in Vol Walker Hall tested each student, their education and their cultural environment. In truth, none of the columns fully addressed the problem of inhabiting the column-filled spaces of the building.
However, the findings are not relative or murky. New working parameters for interior design in relation to ornament, craft and technology are implied:

a. We were able to ascertain that conditions of ornament through pattern, embellishment, and accessory are alive within creative speculation. They are not disparate to the forces of industry. Material and theoretical notions of surface even as smooth, homogenous products of modern technology readily offer a site for ornament to spawn.

b. As well, historic positions regarding industrial processes of mass production were reconsidered. While uneconomical in terms of labour, the students’ integration of the CNC machine with the design process reveals significant promise for hand-craft to merge or become hybridised with machine fabrication. ‘Tightening this loop between conception and execution has the potential to reconcile some of the separation of design and fabrication that industrialisation had previously imposed on craft’ (McCullough, 1996, p. 178). We realised that this tool, as well as other CAD-CAM equipment, helped us to confront profound issues of communication, representation and fabrication across and within our discipline of design and construction as well as between our own hands and intentions.

This paper vacillates between structure and ornament, hand and machine, and material and process. In doing so, it does not come to any particular conclusions or truths about these issues but points to a shifty or shifting economy in contemporary interior design. Fabrication is relieved from nostalgic perspectives of historic origin and preyed loose from the strong-hold of industrial imperatives. These observations are not curious or unusual. The provocative notion is found in the students’ design work. Their design and fabrication of cladding structural columns uncovered historical architectural underpinnings regarding industrialised processes, craft and conceptual expression. Through their own digital means, virtual and hand, these students traversed complex territory about technology and ornament, a conversation that continues to preoccupy design theory and practice. These small steel sections provoked a working discourse about economy. Lurking in the margins of these findings is the ever so demanding condition of economy. It is not as simple as abiding to dictums of ‘Less is more,’ or ‘More is less.’ Not always found in the output, economy can often be located in the planning and preparation for something to occur. Economy is not solely monetary expenditure but an environmental assessment of community. This is ever so relevant to the spatial interior.
References
Between-ness: Theory and Practice within the Margins of Excess

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Abstract: In this paper, a theoretical framework developed in a doctoral program of research concerned with connecting philosophies of between-ness with design practice is described. The theory of ‘spatial excess’ as defined by Elizabeth Grosz is shown to be particularly useful in reconceptualising design practice. Central to this is an understanding of spatial excess in relation to anti-deterministic space, the search for different spatial inhabitations, and ephemeral people-space relations; dimensions developed further in the doctoral program through two spatial practices that exist outside conventional architecture and design – site specific installation art and experimental making. These are outlined in the paper together with findings that suggest that practices of spatial excess might be most potent in sites that are conceptually and physically interior, and that these practices should happen in everyday contexts and environments where they can be initiated by their occupants.

Keywords: spatial excess; installation art; experimental making

Introduction

For many years I have been attracted to theories of the in-between, the marginal, and the liminal. As both an interior designer and architect, I also exist in the blurring of two disciplinary boundaries. In this paper, I describe how I use the theory of excess to explore this situation in a way that offers alternatives for design practice and that responds to the question: what might an excessive design process be?

In her book, Architecture from the Outside: Essays on Virtual and Real Space, Elizabeth Grosz developed her theory of spatial excess informed by the work of Georges Bataille and Luce Irigaray. Bataille and Irigaray are interested in the excremental and marginal in architecture (Irigaray, 1999; Grosz, 2001, p. 153). These theorists of excess seek alternative ideas about our relationships with space; particularly those that are repressed in dominant architectural representations – for example, patriarchal philosophies of space that deny or downplay the existence of the feminine (Irigaray, 1999, pp. 96–97; Grosz, 2001, p. 151). In these theories, architecture is synonymous with dominance, order, monumental objects and forms that create boundary conditions such as the binary of inside and outside. To respond to the binary dilemma, we can extend the theoretical ground of excess to include the notion of conceptual between-ness; that which is neither one state nor the other but a zone of blurring in-between. An example of between-ness might be the rite of passage between child and
adult (Bullock, Stallybrass & Trombley, 1988, pp. 748–749), or a transformative experience provoked by an artwork (Bhabha, 1996b, p. 10). The concept of between-ness in literature appears under the guise of the terms marginal, liminal and others, all of which refer to a transformative, transitional state of being (Bennett, 1993; Greenblatt, 1995; Bhabha, 1996a; Bhabha, 1996b; Titchkosky, 1996; Heidegger, 1997; Hill, 1998b; Tschumi, 1999; Inwood, 2000; Schaetti et al, 2000). Between-ness also refers to people’s interrelationship with space or their ‘coming to understand human relations to place’ (Titchkosky, 1996, p. 222). This is particularly relevant for reconceptualising the ways in which people might inhabit and interact with space. Tanya Titchkosky (1996) also believed art practice expresses the state of locating the self in the world, a process of moving ‘between the “outside” and the “mainstream” ’ (p. v). The spatial and social dimensions of between-ness therefore parallel the concerns of spatial excess, and in this paper, I use the terms interchangeably.

Spatial excess and between-ness deal with philosophical and political issues, not simple questions about exterior and interior built form. Consequently, instead of considering the characteristics of actual physical spaces, it is more relevant to consider the approaches to space embedded in the design process. Architectural excess defies the systematic order of space (Grosz, 2001, p. 153). Western architects and designers conceptualise the built environment through drawings: the ideas must be realised by builders without significant deviation from the plans. Many theorists believe this ordered sense of architecture fails to account for the reality of how people live in space. They criticise how the built work is generally viewed as a finished object that does not accommodate how people actually inhabit space over time (Brand, 1994, p. 3; Hill, 1998b, p. 143; Brand, 2000; Grosz, 2001, p. 137). An excessive design process would therefore defy pre-determined ideas about space.

Revisiting the theoretical ground: Spatial excess and inhabitation

Grosz’s theory of spatial excess – that is, how she relates the concept of excess to the concept of space – has three main dimensions relevant to my research and its discussion in this paper. Excess in architecture is understood as that which exceeds the notion of functionality, or the idea that the way spaces are occupied can be pre-determined (Grosz, 2001, p. 151). Theories of functionalism in architecture arose in the early twentieth century and reflect the view that inhabitants respond passively, rather than unpredictably, to architect-determined built form (Hill, 1998b, p. 143). Although philosophies of determinism are outdated, many contemporary spatial theorists like Elizabeth Grosz (2001), Jonathan Hill (1998b; 1998a), C. Thomas Mitchell (1993) and Daniel Willis (1999) have challenged the prevailing legacy of this paradigm in architectural theory and practice. They would suggest that we need to think...
about how spaces might exceed current modes of inhabitation, and in particular, become more relevant to different kinds of people and communities. This is the second dimension of spatial excess: the capacity of spaces to be inhabited or occupied differently. Finally, theories of spatial excess have a temporal dimension in that they project different possibilities of being in space in the future. However, how can we use theories of spatial excess in design practice, and how do designers and architects incorporate this approach into their design process?

**Between-ness as practice: Site-specific installation art**

Elizabeth Grosz (2001) has stated that we need to open up the discourse of architecture. To do this, we must create a ‘thirdspace’ (Grosz, 2001, p. xv) or space of blurring between the architectural discipline and alternative spatial ideas. In response, I have considered two spatial practices that I believe reflect the characteristics of spatial excess/between-ness and which exist beyond conventional understandings of architecture and interior design. The first practice is site-specific installation. I use the term site-specific installation to differentiate between art that responds to and is constructed in a specific location, and art that is merely placed or installed in a space (Reiss, 1999, p. xix & 149; Kwon, 2002, p. 1). Installation art is a broad term for an artistic genre in which the entire space is an integral part of an artwork. In an effort to make their work more accessible to the public, artists originally located their installation art in alternative spaces to mainstream galleries and museums (Reiss, 1999, p. 15). Artists believe that meaning does not reside in the artwork; rather, the artistic experience arises in the interaction between people and the art space (Papararo, 1998; Reiss, 1999). Installation art is therefore associated with site-specificity and audience participation (de Oliveira, 1998; Papararo, 1998; Reiss, 1999). Participation ranges from placing objects in the audience’s path through a space, to encouraging people to change a work physically, as in Kaprow’s *Words* artwork of 1962 (Reiss, 1999, p. 5). In this work, participants could rearrange words on paper rolls that hung in the space. Site-specific installation also arose as a critique of the art spaces and contexts in which it was sited by encouraging audience interaction in a context where this was normally discouraged (Papararo, 1998; Reiss, 1999, p. 145).

Theories of site-specific installation parallel the conceptual concerns of between-ness. For example, Steven Greenblatt (Greenblatt, 1995), Homi Bhabha (Bhabha, 1996b) and Jonathan Hill (Hill, 1998b) have each described the experience of particular art space as liminal, in that it invokes a transformative or transitional experience in the audience. Julie Reiss (1999) defined installation art in terms of its marginality to mainstream art. In the above critiques, installation art is understood to exceed and problematise the established order of its spatial
context, particularly the norms of using and experiencing a gallery. Installation's artistic polemic thus exists between the art and its spatial context, between people and the art space, and between the alternative and mainstream art spaces it challenges.

Theories about site-specific installation art as a practice support the three main dimensions of spatial excess introduced earlier in this paper. These are: anti-deterministic space; the search for different spatial inhabitations; and ephemeral people-space relations. In terms of the first dimension, theories of installation reflect the view that people control or determine their own artistic experiences. Consequently, the art work should allow the audience to define the form of the work in some way (Reiss, 1999, p. 149). On a philosophical level, people and space are seen as interdependent entities rather than passive recipients of a space. Art forms such as painting and sculpture were traditionally conceived as independent objects the artistic intent of which is embedded in the work (Bearn, 1997). In contrast, installation artists conceptualise an artwork as incomplete without audience interaction or interpretation (Reiss, 1999, p. 14). Each site-specific installation is seen as a framework or proposition about how audiences might interact with space. It is also accepted that the form of this interaction and interpretation is largely unpredictable or indeterminable. Therefore, to some degree, the art work is open-ended, reinforcing the view that people's interactions with space cannot be completely controlled by physical environments (Mitchell, 1993, p. 87; Hill, 1998b, pp. 146–147).

The second dimension of spatial excess is a concern for inhabiting space differently. Similarly, site-specific installation artists express a concern for people-space interaction, or the different ways in which people interact with the art space. Each installation becomes an experiment in people-space interaction within the framework of a particular artwork. Finally, as an ephemeral entity (the third dimension), the artwork is explicitly a proposition about how space might be inhabited, and the differences in the actual inhabitation comprise the art experience.

Several architectural theorists are drawn to installation art as an exemplar for a more dynamic architectural practice (Mitchell, 1993, p. 116; Smith, 1996, pp. 34–35; Hill, 1998b, p. 147; Willis, 1999, p. 103; Smith, 2002). These theorists believe in an interdependent conception of space: architecture is seen as the interrelationship between people with, and in, space rather than in and with physical form alone. All these theorists are critical of the primacy of building aesthetic and form in the design process, particularly where it is of detriment to those inhabiting the building. By prioritising the ephemeral people-space relations characteristic of site-specific installation art, these theorists hope architects can adopt a less deterministic
design process. This concern reflects a sense of between-ness, whereby participation in the making of space transforms people’s relationship to space. Between-ness also informs these theorists’ views of the ‘interdisciplinary’. Architecture is not defined by its media, such as the making of exterior form; rather, it is defined as ‘a particular relation between a subject and an object, in which the former occupies the later’ (Hill, 1998b, p. 147). Consequently, these theorists extend their understanding of architecture through the conceptual between-ness found in the space of blurring between design, architecture and contemporary art. Through conceptualisations of space found beyond the discipline, we can challenge all design theory and practice.

To develop my theoretical understanding of installation as a practice of between-ness or spatial excess, I experimented with and produced a series of installations. My speculations on installation have emerged through my own experience of practice overlaid and connected with existing theory. My concern here is not to focus on specific details or outcomes, but rather to use the installations as illustrations of theory. These installations occurred at: the West End Street Festival in Boundary St. (Smith, 2000a); Architect’s Art Exhibition at the Brisbane Royal Institute of Architects (Smith, 1999; Smith & Rasmussen, 2001); and at the QUT Art Museum (Smith, 2000b). In the lineage of artist Allan Kaprow (Reiss, 1999, p. 10), I felt the best way to encourage user participation and site-specificity in installations was to make works that people could physically touch and move (Figure 1). I define architecture as people-space interaction and, as such, felt compelled to involve other people in the design process. I did this in two ways: by involving people in the development of the work; and by encouraging the audience to change the works when they were installed in a site. For example, the festival installation was developed with other artists who used elements of it as props for their performances (Figure 2).

This research connects theories of between-ness and spatial excess to theories of practice and design process. Although it is constrained by the limitations of descriptions of practice by critics and artists, it reflects the realities of installation art practice. Literature about site-specific art reinforces the idea that images and text about an artwork cannot be substitutes for our direct experience of an artwork. Nevertheless, many people cannot directly experience most installations because the works are specific to a location and a particular time. This means that most people access the work through catalogues and critiques (Reiss, 1999, p. xiv). To explore the correlation between site-specific installation and spatial excess is therefore to explore conceptions or theories of practice in relation to philosophical ideas. My original research adds to theories of practice through my own insights as researcher and through the insights of project participants/collaborators.
Speculations on installation as between-ness

My research into installation has highlighted two main issues in relation to philosophies of between-ness and spatial excess. My first concern for installation as a practice of spatial excess is related to its tendency to become a spectacle isolated from everyday environmental contexts. While some artworks are placed in everyday public spheres, the artwork has impact because it differs from the context in which it is sited. That is, the installation draws our attention to those spaces and issues that ordinarily form the background to our everyday
lives and which we take for granted (Smith, 1996, p. 74). We can explain installation in terms of the ideas of spectacle and presence found in architect Glen Hill's (2002) critique of architectural, phenomenological theories of place. As a resident, we encounter place through everyday rituals that become the background to our lives. This enables us to form rich and deep attachments to a place. In contrast, a tourist experiences a place through superficial contact with the everyday, so that things residents may take for granted become novel and 'present’. This is an experience of spectacle, where everything exists in the foreground. Art works can also be described in terms of spectacle and presence. Hill (2002) has noted that art’s intent is to bring ‘the unnoticed everyday world (our place) into presence’ (Hill, 2002, p. 9).

The people-space interaction of all my installations reflects this conceptual play between foreground/presence and background/absence. The audience voluntarily and readily appropriated elements of the artworks which resembled the scale and use of everyday, taken-for-granted, ‘absent’ interior objects and rituals: boxes became children’s toys and adults’ seats in the festival (Figure 3); the blackboard became a place for comments and graffiti in the exhibition/museum context (Figure 1); and edible cakes and stickers were highly popular aspects of the Dress/Incubator installation (Figure 4). These interactive elements appear in the background of everyday domestic interiors, yet in the art space context, exist in contrast to adjacent exhibitions. For the audience’s experience to be integral with the artwork, it must be contrasted or brought to the foreground of the museum/gallery/art space. It is an installation's capacity to be present and to exceed the boundaries of conventional art spaces that makes it effective as an art form. The question is, therefore, what types of practices of spatial excess can occur in more everyday environments without necessarily compromising a sense of presence/spectacle?

My second concern with installation is how it embraces alternative or marginal communities, a key issue for theorists of spatial excess (Grosz, 2001, p. 152). Marginality, the state of existing between social or cultural states, may also be described as between-ness (Titchkosky, 1996, p. 38). One example of making spaces that address social marginality is the creation of queer spaces such as in Sydney's Oxford Street (Grosz, 2001, p. 9). The content of individual installations may also address themes of transition and marginality, and might be located in more everyday spaces than mainstream galleries, like shop fronts or festivals. Nevertheless, the genre as a whole does not propose how spaces might be inhabited differently by fringe communities beyond the reach of the art audience/context. I therefore believe practices of spatial excess must be both situated in, and initiated by those who inhabit everyday spaces.
Figure 3: Children interacting with the Behind the Boundary installation at the West End Street Festival, Brisbane, 2000. (Photography: Author)

Figure 4: Details of the Incubator / Dress installation at the Architect’s Art Exhibition, Brisbane, 2001 (collaboration between Cathy Smith and Tamara Rasmussen) (Photography: Author)
Between-ness as practice: Experimental making

One of the key issues, which arose during my installation research, was the practice of making. Architectural theorist Daniel Willis (1999) proposed that Christo’s installation artworks are successful because ‘[M]aking and meaning are inextricably bound together’ (p. 112); Christo’s wrapping projects involve the community in the ritual of assembling the work. I believe a second design practice, which I term experimental making, provides a stronger example of spatial excess as it incorporates both a sense of presence/spectacle and the everyday. Experimental making, has not been directly associated with theories of between-ness, nor the practice of installation art. I use the term experimental making to explain design testing through full-scale construction without conventional, pre-determined plans. This experimental making is uncharacteristic of mainstream design and building and is more commonly referred to as DIY (Do-It-Yourself) building and squatting. These practices occur in everyday contexts and environments, and are initiated by the occupants of a space rather than an artist ‘outsider’.

Experimental making is an example of spatial excess as it: proceeds without pre-determined plans; is characterised by continuous change; and is sited in everyday contexts, which are nevertheless marginal to mainstream design. Experimental making responds to the needs of the occupants as they arise, happening without drawings that pre-determine the design outcome. Paradoxically, this process reflects the origins of architecture where the architect was the builder and the design evolved on site during construction (Robbins, 1994, p. 15; Willis, 1999, p. 115). Experimental making initiated by home dwellers and squatters also exceeds what might be considered architecture by professional architects: it is by definition executed by those who inhabit a space, who may or may not be architecturally trained (Rendell, 1998, p. 232). Experimental making has an explicit political concern with making architecture more accessible to occupants than architect-designed environments, whilst retaining the characteristics of change or spectacle, which make installation a practice of spatial excess.

Experimental making at Avebury Street

I would now like to discuss experimental making using a project that I have been involved with throughout the duration of my research. This project involves the re-making of a small, dilapidated house in inner city Brisbane (Figure 5). While I initiated the Avebury St. project with my fellow resident partner, this is a collaborative project involving conceptual and physical contributions by designers and non-designers. Unlike conventional architectural design, this project proceeds by making full-scale experiments rather than scaled drawings.
The physical interventions might be retained or discarded dependent on our changing needs as inhabitants. We also alter the space in response to suggestions by friends and/or visitors who inevitably become both friends and designers through the making process. This collegiate process differs from more conventional community collaborative projects where the architect is still the primary designer in the design process and where construction is separate from design. Although my partner and I ‘occupy’ the space on a more permanent basis, we consider all participants as occupants with insightful ideas about our interrelationships with them in, and with the space. As described by muf, ‘in order to make the thing the collaboration has to be about the making of the relationship rather than the object’ (muf, 2001, p. 29).

We also describe Avebury St. as maintenance rather than new building work. This is because the project does not involve alterations or extensions to the building shell, and is limited structurally to the re-making of termite-eaten or rotten structure. With our work limited to fitout and cladding materials, we can adopt a more experimental and participatory design process, and work beyond the constraints of town planners and building approval.

**Speculations on experimental making**

As part of my research into the experimental making design process, I spoke to the project participants/collaborators about their perceptions and experiences of Avebury St. The participants reinforced the sense of spectacle of the project, expecting the space to change for each visit. The design process also created a positive collaborative environment. As we have no fixed plans, people have been comfortable with making suggestions about what my partner and I might do to the space to inhabit it differently. One example of this was William’s collaboration on the design and making of the loft stair. William works with my partner Matthew as a furniture maker, resolving how to construct other peoples’ designs. At Avebury St., William contributed many suggestions about the design of the stair – especially materials and details – and participated in the physical making (Figure 6). William enjoyed ‘working on the design parameters’ (McMahon, 2003) whilst simultaneously resolving construction issues. The design evolved both *through* the construction process, and *through* our changing occupation of the internal spaces. While the spatial ephemerality of the project is both characteristic of the spectacle of site-specific installation art and the idea of spatial excess, the project participants also experienced the space as friends and participated in everyday rituals other than building; rituals such as eating dinner after design/making sessions, drinking coffee, and for myself and my partner, everyday residency. Consequently, the participants’ understanding of the project as spectacle was tempered by their everyday occupation of the home.
In the 1960s, some architects and designers became critical of the limitations of planned environments, adopting a ‘Non-Plan’ (Barker, 2000, p. 2) approach to design. Simultaneously, squatting became a radical, more accessible way of living (Franks, 2000, p. 41). Manuals described how squatters could adapt space to suit their needs, making squatting a participatory and everyday spatial practice. Squatting is the most political form of experimental making as it involves the illegitimate occupation, and often alteration, of a space. Most of these alterations occur inside buildings. Squatting provides a conceptual parallel to the Avebury St. project; a project which is undertaken from the inside-out. Avebury St. also exists in the blurred zone between legitimate building and interior maintenance. This process of making without plans and preconceptions is incongruent with legislation that uses plans as a basis of building work approval. Construction work requiring approval must also be executed by a registered builder. The extent to which architectural design process can occur in an evolving and responsive way is in many ways thwarted by legislation and professional dogma. This paper is not an argument for the removal of legislation that controls standards of building; rather it is recognition of the sites for alternative theory and practice. For example, the interior and in particular, its furniture and occupation, do not require building approval when defined as ‘maintenance work’ on an existing building. Consequently, the interior provides the most potent site for the theorising and practice of between-ness.

Figure 5: Edge space at Avebury St., 2002. (Photography: Matthew Dixon, project collaborator)

Figure 6: William and the stair at Avebury St., 2002. (Photography: Author)
Summary: The interior as a site of spatial excess

While the practices of installation art and experimental building exist beyond the boundaries of the professional disciplines of design and architecture, they do, as I have illustrated in this paper, suggest possibilities for realising theories of spatial excess in design practice. As designers, we need to look beyond the primacy of physical form and challenge a static design process disconnected from the process of making. Most importantly, we must recognise that occupants need to be involved in the process of making and appropriating space, for space to become meaningful to them (Willis, 1999, p. 112). Legislative parameters may restrict the sites of experimental making to the interior and its furnishings; nevertheless, this makes the interior a potent political ground which exceeds conventional architectural frameworks.

References


The NetWorkPlaceTM© Phenomenon: Connecting the Space of Place and the Space of Flows

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Abstract: This paper presents an issue related to interior architectural environments, which is currently being investigated through an empirical research program entitled the NetWorkPlaceTM© study. It is delivered from a speculative standpoint which invites consideration and feedback. The radical structuralist conception of Castells’ network society is adopted as the position from which to explore the experience of being-at-work in contemporary organisations. This brings into proximity the experience of the space of place and the space of flows as the new expression of sociability in networked organisations. This juxtapositioning, of what appear to be competing terms, provides the research space for investigating both a contemporary commercial phenomenon and in parallel, for postulating the ideological foundations of interior design. The speculative position, on which this discussion is based, anticipates that the proposed research framework and the experience of the investigative process are ones that also provide an ethical and rigorous foundation for establishing at least one perspective on the formulation of a design ethos.

Keywords: network; workplace design; place.

Introduction

Changing social and economic conditions together with advances in information technology are enabling time and space to be utilised in more creative ways. The 21st century presents a new paradigm of work. As a consequence, the place of work, its location, duration, character, quality, and management are changing dramatically. The emergence of inter-organisational contexts has enabled the identification of a gap in the knowledge related to workplace design. The literature and research available indicate that there has always been a singular or mono-organisational focus in relation to the implementation of workplace design strategies. The exploration of workplace design across inter-organisational contexts has yet to be investigated and provides the point of departure for the NetWorkPlaceTM© study. This phenomenon is investigated through a case study approach, situated within a commercially functioning network enterprise in the form of a supply chain of collaborative strategic partner organisations. This presents an opportunity to study a case of interaction within and between networked inter-organisational communities. The aim is to extract an understanding of the resultant implications for a sense-of-place which social actors experience through the everyday activity of being-at-work within the duality of what Castells (1996; 2000a; 2001) termed the space of place and the space of flows.
The purpose in this paper is to briefly discuss the current status of workplace design, to identify the context within which many organisations now operate, to speculate on what implications this has for individual members’ sense-of-place, and to describe the exploratory process by which this can become known. A conceptual framework is established and the parameters of accepted social science methodology extended in order to undertake this study. The study is a work in progress, and by metaphorically making a connection between the space of place and the space of flows, it is anticipated that a contribution towards the development of an ethos for workplace design can emerge.

The starting point: A duality of space

Lipnick and Stamps (1997) have confirmed that contemporary networked organisations are comprised of communities with their own specific social dynamics. These require new interpretations of place (permanent and temporary physical settings together with virtual venues) and the meaning these places take on depends on the interaction within the various networks. What has become a changing paradigm due to the inter-organisational context is a shift from the spatial boundary of physicality as the source of sociability to now include the spatial expanses of the network community as a new and additional expression of social organisation. ‘Connection through cyberspace [however] does not relieve the need for people to be involved in some form of more tangible community’ (Caruthers & Heath, 2001, p. 51). Human values and needs, interaction and familiarity with others, being connected to a physical place in a way that technology cannot accommodate, are all qualities that can be supported by the physical workplace environment.

The facilitator of ubiquitous communication and connectivity is the Internet or the world-wide-web. ‘From an architect’s viewpoint, electronically mediated places are not uniform, dimensionless nodes, as they rather misleadingly appear on the abstract network diagrams made by telecommunications engineers’ (Mitchell, 1999a, p. 31). They each have particular physical contexts and they are inhabited and used by people who have their own local customs and cultures. Castells (2001) noted that the ‘space of flows is a new form of space, characteristic of the information age, but it is not place-less, it links places by telecommunicated computer networks ... It redefines distance but does not cancel geography’ (p. 207). Gustavo Cardoso claimed ‘we are in the presence of a new notion of space, where physical and virtual influence each other’ (Castells, 2001, p. 131). Within organisational settings, this redefines the intellectual and professional agenda of architects and designers (Mitchell, 1996). Network structures have created a duality of space. The challenge for architects and interior designers is the need to consider this hybrid of space – the ‘space of place’ and the ‘space of flows’.
Spatial logic

From a social theory perspective, space is the material support of time-sharing, simultaneous social practices. This space was traditionally provided by territorial contiguity. ‘Social practices can now be simultaneous without being physically contiguous ... this is the space of flows’ (Castells, 1996, p. 200). What has emerged is a new spatial logic, embodied in a new organisation of power, contained within the space of flows. The essence of Castells’ ideas provides a sound conceptual basis upon which the NetWorkPlaceTM© study can further investigate the phenomenon in context. One of the premises essential to Castells’ (2000a) theory is that space is not a reflection of society, but an expression of society. More specifically, the social practices that organise the forces of production and the interests of the dominant classes also organise the realisation of built space in everyday life (Rauen, 2001).

Essentially, cyberspace is nothing but countless bits stored at the nodes of a worldwide computer network. At the user interface level however, it redefines the complex relationship between body and architecture, that which we call inhabitation. Lunenfeld (1999) discussed how the world-wide-web has supplanted place by reconfiguring the body's social and architectural contexts. Until recently, real estate had no real competition. ‘With increasing subtlety and expressive power, and on a rapidly growing scale, virtual places now do much of real estate’s traditional job’ (Mitchell, 1999b, p. 127). But as Mitchell concluded, the power of physical place will still prevail with physical settings and virtual venues functioning interdependently.

The space of flows is built on a network of electronic circuits. These connect certain functions, which are concentrated spatially in physical places. The space of place and the space of flows are therefore mutually dependent on each other. Castells (1996; 2000a) argued that we are moving toward a form of social organisation expressed through this spatial process, in which the power of flows is substituting for the usual centers of power. By this he is inferring that power is embodied in the information and knowledge, which is processed and transferred through the space of flows.

The network enterprise

The global economy, characterised by an almost instantaneous flow and exchange of information and capital, is referred to in this discussion as a means of providing a view of society that represents the overall context of the NetWorkPlaceTM© study. Within this structure, firms and economic units of all kinds have undergone a metamorphic change, resulting in a new kind of organisation and management hierarchy termed the network
enterprise (Castells, 1997; 2000b; Rauen, 2001). This has transformed business management into networks of cooperation. Based on Castells (2000a) theories then, what is important today for workplace designers is not so much the independent corporations themselves, but rather that corporations are organised together through networks or alliances. The network society provides a description of the overall context within which the interpretations of participants are investigated. It is however, how the organisational actors in localised sites view their world and construct their own social order within this broader context which is the prime focus of the NetWorkPlaceTM© study.

A balanced view through paradigm interplay

Reliance on a solitary research paradigm can inhibit a full understanding of and appreciation for the multifaceted reality of today's world. This study suggests an alternative paradigmatic position as a way to move towards a more balanced research outcome. A growing number of scholars argue that the dominance of a single perspective results in a narrow view that does not fully reflect the multifaceted nature of social, organisational, and phenomenological reality. Proponents of this viewpoint (Goles & Hirschheim, 2000) argued that an exclusive view is always only a partial view. Methodological pluralism, multi-paradigm perspectives, and paradigm interplay, encompassing a diversity of methods, theories, and even philosophies, are suggested as ways to provide a more balanced understanding and such approaches are gaining greater acceptance across the research community. Giddens (1984) for one rejected the objective/subjective dichotomy, arguing that subjects (people) and objects (structure) do not constitute separate realities, but rather a duality within the same reality.

This dualistic reasoning can be justified if we are willing to acknowledge that the human activities of social construction, which help create organisational structure are in turn influenced by the objective characteristics of the very structure thus created. The belief that reality is multifaceted, and forged from the interpretations and interactions of individual actors has consolidated interpretivism as a valid research position. Thus, within the context described by the radical structuralist views of Castells in his descriptions of the network society and how the phenomenon of ubiquitous connectivity has influenced organisational relationships, interpretivism stands out as the appropriate research position for the NetWorkPlaceTM© study.

Paradigm interplay (Goles & Hirschheim, 2000) simultaneously acknowledges both differences and similarities between paradigms. It permits the researcher to take advantage of cross-fertilisation between paradigms by transposing contributions from studies in one paradigm into the theoretical frameworks of another. Such transposition allows the findings of one
paradigm to be recontextualised and reinterpreted in such a way that they inform the research conducted within a different paradigm (Schultz & Hatch, 1996). ‘Paradigm interplay utilizes a mindset of both–and instead of either–or to produce a new state of awareness’ (Goles & Hirschhiem, 2000, p.557).

Theorists such as Castells, located within the radical structuralist paradigm, whilst sharing an approach to science, which has many similarities with that of functionalist theory, advocate a sociology of radical change from an objectivist position. Common to this view is that ‘contemporary society is characterized by fundamental conflicts which generate radical change, most often through political and economic crises’ (Burrell & Morgan, 1979, p.34). This is the standpoint from which Castells has formulated his concepts of the network society. In mere pragmatic terms however, despite one’s paradigmatic orientation, the existence of contemporary commercial enterprises dominated by their networked characteristics cannot be denied. It is proposed that adopting an interpretivist perspective to investigate this phenomenon further is an appropriate way for researchers to build upon previous work in an attempt to gain a richer understanding.

Positivism embraces a particular ontological position, postulating that the universe is comprised of objectively given, immutable objects and structures. It encompasses an epistemology, which seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements. Based on Burrell and Morgan’s (1979) notion of paradigms for the analysis of social and organisational theory, the interpretivist orientation seeks explanation within the realm of individual consciousness and subjectivity, framed by the perspective that ‘social roles and institutions exist as an expression of the meanings which men [sic] attach to their world’ (p. 134).

It is suggested that the strategies available in qualitative research, the first-hand encounters with or within a specific context, are most able to describe the experience of how people in their situations make sense of their environment and their actions. It acknowledges the role of interpretation in the lived experiences and also in the collection and presentation of research data. Qualitative methods applied in this way, seek to describe or explain social and physical phenomena within complex contexts, and seek to consider the relevant phenomena in a holistic manner (Miles & Huberman, 1994). Research and practice in this sense then become co-dependent, each being informed by users’ experience of something uniquely inherent to them or their situation.
The vehicle: Workplace design

The future direction of workplace design is seen now as being focused much more on enabling business dynamics, in parallel with the traditional crafting of office aesthetics. The transition to a knowledge-based economy has resulted in the emergence of fundamentally different types of organisations. This phenomenon demands not only different types of workers but also different types of workplaces (Myerson & Ross, 1999; Henderson, 1998; Raymond & Cunliffe, 1997; Drucker, 1997). Business success in our changing world means transforming the way we work, where we work, and the environments we work in (Robertson, 2000). More and more people are becoming members of networks linked to each other through information technology. The approach to office design must be adapted to the way organisations are being transformed, towards the creation of strategic management and people friendly environments that support dynamic business performance (Worthington, 1997; Week, 2002).

Hartman’s (2002) research highlighted that an organisation’s physical environment is an often overlooked and under-utilised intangible asset. Buildings both set limits and offer opportunities for various behaviors to occur. Nevertheless, the pattern of relationships between workers and the characteristics of work settings is still not well understood (Brill et al, 2000; Ilozer et al, 2002). The linear world that many have found so comfortable is vanishing and fundamental beliefs about the way work is structured, including where and when it is done, are in the process of becoming irrelevant. Martins and Terblanche (2003) conceded that there is a need for more empirical research in relation to the office environment to support theoretical findings. Pugsley and Haynes (2002) reported the need to undertake detailed studies of individual workgroups to thoroughly understand their working methods, and their need for different workplace settings as an essential part of the design process. Further, they held that importing designs and standards from elsewhere is unlikely to be successful, and in larger organisations, different approaches are likely to be needed for each workgroup depending on their business and operational needs. This becomes even more critical where the network entity crosses organisational boundaries. Such a state of the art presents an opportunity and it has been suggested by Duffy (2000), a research need. He suggested that had architecture been a more research based profession, programmes of research using comparative data from cumulative case studies could have been initiated to demonstrate the effectiveness, as well as the efficiency, of using the design of the working environment to achieve strategic business purposes.
A major philosophical change in the approach to office design has been witnessed throughout the 1990’s, illustrated most notably by design strategies aimed at achieving business goals through the application of a total organisation ecology framework to guide design decisions. These approaches have been restricted however to single organisational settings. An investigation of workplace design across inter-organisational contexts has yet to be explored. The NetWorkPlaceTM© study extends the singular or mono-organisational context to encompass the inter-organisational network phenomenon. This attempts to increase the level of empirical understanding in the field and to build upon the strategies and methodologies developed by Duffy (1997; Duffy et al, 1998) in the UK, Becker and Steele (1995) in the USA, and in Australia by David Week (2002).

The implication for a sense of place

The idyllic nature of a community as a tightly bounded, spatially defined, culturally supportive group has been expanded through the possibilities of network connections. Prior to the introduction of the digital era and the wide-spread use of new communication technologies wherein cyberspace is an accepted meeting place, it was taken for granted that all forms of community required some sort of articulation of a persistent sense of location. Such a sense of location, or sense of place, has previously been resolved by physical proximity. Spatial boundaries have traditionally supported and defined social interactions and the development of social networks. The notion of a space of place and a space of flows has introduced a significantly different dimension into the conception of spatial boundaries. ‘Seemingly unconstrained by temporal or spatial limits, the rapid and continuing emergence of technologies, networks, and services brings with it entirely new dimensions of electronically mediated experience and communication’ (Horan, 2000, p.5). In the past, designers have used space and physical layout to help both shape and reinforce social groups and conventions. The design dimensions of the new form of organisational entity stress the need for coherence between real and virtual worlds as well as the challenges of migrating social practices from the physical world to virtual worlds.

The importance of place

McIntosh (2001) discussed how some would-be forecasters predicted that the information revolution would make location of workplaces irrelevant because people would be working from home, or using their offices for tele-conferences. The emergent pattern of interaction however, indicates that physical and virtual meeting places share a codependence with each other. Mitchell (1999a) pointed out that the biggest paradox of the electronic communication revolution is that by enabling people to work almost anywhere, it has made places more important than ever. The outcome is that as long as people matter, place will too.
Hasell et al (1993) argued that the ordering of space in buildings is really about the ordering of relations between people. ‘At its fundamental level architecture does not deal in abstractions, but with life as it is lived, and its fundamental power is to identify place’ (Unwin, 1997, p. 16). Sense of place connotes the myriad values, beliefs, feelings, hopes, and fears that human beings attach both individually and collectively to certain locations. Canter’s (1977) theory of place proposed that three parameters: locality, activity, and assigned meaning frame the understanding of and provide the essence for a sense of place. Schneekloth and Shibley (1993) claimed that the designer’s approach to placemaking must ‘assume the legitimacy of every person’s experience of living’ (p. 123). This equates to what Heidegger (1962) would have termed, ‘being-in-the-world’. Chastain (1999) suggested that ‘the essence of a place resides not in the physical setting of the place but in the practices of producing and inhabiting it’ (p. 6). The work of architects in this sense might best be understood as enabling and facilitating others in the various acts of placemaking. ‘Norberg-Schulz … advocates that architecture should aim to concretise economic, social, political and cultural intentions in a way that captures the ‘genius loci’ or ‘sense of place’ of an environment’ (Franz, 1997, p. 80). Many people today spend more of their waking time in their offices, or ‘being-at-work’ wherever that may be, rather than in their homes. The processes of place-making in organisations then, presents special opportunities for collaboration between professional place-makers and professional place-users.

The journey towards a design ethos

The research paradigm

Architectural discourse has traditionally revolved around debates involving questions of style, form, and function but as Leach (1997) argued, ‘architecture is the product of a way of thinking … attention needs to be focused on the thinking and considerations that inform its production’ (p. xv). At a fundamental level then, designers must commit to a philosophy that engages with the human condition. Phenomenology offers such insight by asserting the primacy of the lived-world of everyday experience (Dovey, 1993; 1999; Coates & Seamon, 1993). Within the phenomenological tradition, the interpretivist position in qualitative research dictates that explanation and understanding are sought through the realm of individual consciousness and subjectivity, with the frame of reference being that of the participant (Burrell & Morgan, 1979). The focus on subjective reality is one of understanding the way in which the individual creates, modifies or interprets the world in which they exist. The epistemological assumptions of this research strategy regard social scientific knowledge as only being able to be derived from the everyday concepts and meanings, from the socially constructed mutual knowledge of the members of the community under investigation.
An indication of the growing body of research, which has come to be known as ‘workplace studies’ is provided by Bolzoni and Heath’s (1997) study, which focused on the socio-interactional organisation of workplace activities. They reported that much of this research draws in various ways from an ethnomethodological approach which places the in situ accomplished and socially organised character of practical action at the forefront of the analytical agenda. It is appropriate then that investigative and analytical techniques developed by theorists of the interaction order, principally Erving Goffman (1967; 1970; 1981) and Harold Garfinkel (1967; 1986), and consistent with an ethnomethodological orientation are being utilised to inform the NetWorkPlaceTM© study.

A multi-disciplinary approach

‘An ever-increasing proportion of architectural practice involves unfamiliar circumstances beyond the experience of individual practitioners, and beyond the conventional wisdom of the profession as a whole’ (Groat & Wang, 2002, p. 8). The NetWorkPlaceTM© study posits that no single disciplinary approach to either research or practice in the area of workplace design can suffice and strongly suggests that a multi-disciplinary, perhaps even a methodologically pluralist approach, is more appropriate. If it is accepted that the leading edge of workplace design practice is being driven by demand from a commercial world itself in the midst of rapid change, then the production of knowledge via research to underpin practice, must be closely tied to that of research in the field of business (Grimshaw & Cairns, 2000). The key feature of such a multi-disciplinary model is that research and practice need to be closely integrated and context specific (Tranfield & Starkey, 1998; Senge, 1997).

What is being proposed involves both the process and purpose of architecture. Thomsen (1996) suggested that ‘we can be as creative about the process [of architecture] as we are taught to be creative about the product’ (p. 88). Rowe (1996) reminded us that an education in architecture ‘as much as anything … concerns a way of thinking about the world and about architecture in an intellectual as well as a practical sense’ (p. 242) and suggested the first step is to get architects and non-architects to work together. This approach is intended not to diffuse the sense of authorship or responsibility, but rather to realign the source of creativity (Reis, 2000; Duffy, 2001). The job of architecture thus stated, depends upon contributions from many.

The process, which has come to be known as collaborative design, does not simply constitute the participation of users in the act of design. Nor is it collaboration solely among designers and other professionals. Rather, it is a means through which designers and non-designers alike participate as partners in the design process, shaping not only the outcomes but
the aims of designing as well. It involves the process of people’s experience, not physical objects alone, as the motive in design activity (Mitchell, 1993). In referring to design as a collaborative process, Groat (2002) proposed that the role of the designer is best understood by considering the architect-as-cultivator. This infers a shift away from the model of the architect as sole technician or artist towards a more interactive role.

The theoretical framework

As has been established, alliances between organisations are becoming increasingly important in the strategies through which supply chain cooperation attempts to secure competitive advantage within the knowledge economy. The NetWorkPlaceTM© study is embedded in a host project investigating this broader area of inter-organisational cooperation and collaboration. Research into supply chains over the past decade has shown a persistent bias in that there has been a distinct focus on the operational and technical aspects, the dominant research method employed has been overwhelmingly quantitative and positivist, and usually conducted from a single disciplinary perspective. Continuation of this research trend (Monczka & Morgan, 1997; Parker, 2000; Beckett et al, 2000; Bask, 2001; Kolluru & Meredith, 2001) is at odds with the findings that the approach has produced. Such findings make repeated reference to a need for better understanding of how human factors in a dynamic social system impact on supply chain performance. The host case study seeks to overcome identified biases by exploring a supply chain from a holistic perspective, utilising a multi-disciplinary perspective and adopting a qualitative approach. Importantly, this highlights the involvement of architects and interior designers in the overall research process, together with the relevance of the built environment as an organisational support system in the enabling of social practices.

The current research adopts a new theoretical model termed the STIION which has been formulated by combining two well-established schools of theory, that of socio-technical systems and inter-organisational networks. The latter has been expanded to include intra-organisational networks in large organisations where the size and complexity of activities demonstrate numerous similarities to inter-organisational relationships. This is seen as the way to overcome present conceptual weaknesses in being able to frame the area of study, provide academic rigour to the findings, and provide a platform for conducting future work. Such an approach is well suited to support a variety of research methodologies. This provides a solid basis for expanding the range and richness of understanding of the factors that are shaping and defining the interactions across networked organisations necessary to inform the workplace design process.
One particular case: The NetWorkPlaceTM© Study

The role of organisations has changed substantially. Mergers, acquisitions, and globalisation have resulted in organisations that transcend regional and even national boundaries. Inter-organisational relationships and networks further blur the lines between traditional organisations and today's entities. The boundaries of the field and the phenomena of interest are shifting and expanding (Stern & Barley, 1996). This is further evidenced by the nature of this particular research effort. The host project for the NetWorkPlaceTM© study involves the investigation of a supply chain which extends across Australia and includes manufacturing, through transportation, to assembly and installation. The research is concerned primarily with the social interaction, which enables the operational aspects of the chain. It is being conducted over a two-year period by a multi-disciplinary team comprising a collaborative partnership between industry practitioners and academic researchers from four different universities. The NetWorkPlaceTM© study is concerned with the investigation of approaches to the practical resolution of workplace design across networked organisational settings. This is being pursued through an understanding of the interactions between people; between people and technology; and between people and the built environment; underpinned by an exploration of how a sense of place influences the experience of being-at-work. The study's ultimate intention is to provide a basis for effective workplace design practice in this context, and the grounding of a theoretical platform for further research in the area. Being embedded in a multi-disciplinary approach provides the opportunity for drawing upon multiple views when exploring the fundamental issues, and also the opportunity to triangulate on a set of facts from several explanatory positions to test the intellectual coherence of alternative perspectives. This is a work in progress and no substantial findings from the field investigations are yet available. It is however, the research approach and the underlying philosophy of the study, which are considered more relevant to the current discussion.

Not the end of the journey

This paper makes a particular point of not signalling the end of the journey towards the formulation of a design ethos by providing a specific answer; the reason not least of which has something to do with this particular author's scepticism that such a singular description can be arrived at and agreed upon even through the collaboration of a design collective. Thus, the brief speculative discussion contained herein, certainly makes no claim to be able to provide a conclusive and all encompassing definition of such a complex and emotive issue. Perhaps the significant, distinctive, and delineating feature of designers is that they are all different, and yet in many ways all similar. This paper then, more appropriately
presents through a sensitive and ethical approach to a particular design context, some considerations which can be added to the collective melting pot to stimulate thought and discussion, and in so doing make a contribution to the formulation of an ethos for design by each of us individually. This ethos or spirit must however, embody a philosophy which brings us all together as design professionals, and yet at the same time provide the flexibility to set us apart from each other in the execution of our work. From the NetWorkPlace™ experience so far, it is postulated that this ethos must at the very least be based on human needs, embody the values held by both ourselves and others involved in the process, and be intrinsically tied to context.

Conclusion

In the scenario developed throughout this paper, it is the connection between all the units in the network that takes on particular significance. But as we are reminded by Castells and Mitchell, this is not the only logic of space with which we are confronted. Physical places with their human inhabitants and embedded cultures do still exist. The dialectics between the space of flows organising power, and the space of place facilitating experience, is at the centre of the process of transformation involving corporate entities and the phenomenon with which designers must grapple. It has been proposed from Castells’ theory that socio-spatial forms and processes are created and enacted within the dynamics of the overall structure provided by the network. Workplace design in the context proposed must therefore embody a social perspective, and thus space cannot be defined without reference to social practices and processes within case specific organisations and inter-organisational networks.

It remains to be seen how the members of networked organisations reconcile the historically rooted spatial organisation of our common experience, the space of place, with the space of flows, the dominant spatial manifestation of power and function. How this duality of space confronts the social tension and how it can be harmoniously integrated through the design process, also creates the context within which the development of a design ethos can be explored.

As designers this is a responsibility we have all accepted. ‘Our job is to look at humanity, to look at the environment in which humanity finds itself, and to find ways of reconciling the two. By becoming architects we have chosen to affect this reconciliation between the needs of those people and the environment through the medium of making buildings’ (Broadbent in Mitchell, 1993).
References


The Way of the Detail in Japanese Design
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Abstract: When considering the growing interest in the ideas of internationalisation and
globalisation, the phrase ‘Japanese Design’ has always captured the inspirational pulse of
designers. This paradoxical world of Japan provides the impetus for vast and varied design
outcomes. These outcomes range from the traditional design of tearooms, to the youth
fashion phenomena in Harajuku. Design in Japan demonstrates a controlled approach to the
subtle nuances that express the design spectrum between excess and austerity. This paper
explores the idea of the intricacy of Japanese design as not only being a clear expression of
their masterful handling of material and form, but also a demonstration of the amalgamation
of cultural paradigms displayed in these various design outcomes. This is no more clearly
expressed than in the examination of details used within Japanese design, in particular, the
details in traditional Japanese architecture.

The methodology involved with this research is mainly focussed on literature reviews of text
and journal articles, as well as, review of appropriate exhibitions. But the original journey
began years ago with my own education and exposure to the ideas of Japanese design
and architecture. Numerous travel tours and design tours to Japan helped to reinforce the
connection and unfold their paradoxical world.

Keywords: details; cultural symbolism; spatial impermanence

Introduction
The understanding of the physical and aesthetic properties of materials permits the designer
to have a clear design vocabulary, regardless of the discipline. A longstanding respect and
admiration for the natural world has led Japanese designers to express themselves with
a highly refined confidence in the use of materials. They demonstrate this confidence in
materiality through their skills in creating interior space, architectural space, landscaped
space, product, packaging, and fashion designs. Each discipline has champions that delineate
the subtle nuances of design ideas, and link these detailed parts to the whole design. This
is an evolutionary process that has allowed the Japanese designers, from the early period of
the Heian era, to the modern period of the Heisei era, to demonstrate design outcomes that
represent the ‘wisdom’ of design rather than just ‘knowledge’ of design.

The way of the detail
All designers need to balance the primary design principles of function, economy, form,
aesthetics, ritual, and meaning when they produce their work. These principles are expressed
in all design, but the more successful designs express this balance in the macro and micro levels. Clearly defined details are as much a part of Western design and architecture as it is in the east. Designers use details to establish continuity in their design; safely construct the design; and, explore the minutiae of their design scheme.

Stanley Abercrombie (1990) identified the two main categories of details as those being part of the building fabric, and those that are added to the space that can be removed without any damage. The Japanese would see that both are part of the whole and that neither should be secondary in nature. In his comprehensive study of the theoretical premise behind the idea of details, Marco Frascari (1996) described details as being: material joints, the connection between materials; and, formal joints, the connection between the interior and exterior. Here again, the Japanese designers would want the idea of ma, the Japanese principle of the space between, to be added, as Frascari only emphasised the positive space. A material is either there or another material is there, the sense of negative space is not considered in his basic definitions, but only the idea of connection. Tadao Ando (1991) came closer when he stated 'Architectural details are not just matters of technical treatment or arrangement. In designing, one begins with a search for an architectural logic that will permeate the whole, and eventually one always returns to that starting point. Within that cycle, one must consider the relationship between the whole and the parts, and between materials and forms’ (pp. 10-11). The paving pattern by Kuryo Akira at the entrance to the Byodo-in Museum represents a wonderful relationship of material joints, formal joints, and also the contemplative space of ma before one enters the museum (Figure 1).

Figure 1: Paving pattern at the Byodo-in Museum, Kyoto (Photography: Author)
The cultural and contextual relationship to Japanese detailing

Alejandro Zaera-Polo and Farshid Moussavi argued, in a recent issue of Japan Architect, that architecture is based on the engineering of material life and is not a plastic art. They include in their definition of material: ideas and effects; but they do not include planning and programming (Zaera-Polo & Moussavi, 2002). Equally so, others have focussed their efforts on just the architecture of ideas and negated any need to express these ideas in a tangible manner. This illustrates the polarisation that continues in the West where designers see architectural outcomes as either space versus form, or material versus program, or excess versus austerity. Separation of this kind has led to a fractured approach to spatial resolution, with the polar extremities honoured and the sense of betweenness discounted. In his discussion of place, J. Nicholas Entrikin described both centred and decentred approaches in cultural geography and highlights the space between. ‘Our awareness of the gap between the two perspectives is a part of the perceived crisis of modernity’ (Entrikin, 1991, p. 1). To work between is not to adorn the concept of the mediocre, but rather to see balance in a world and to draw equally from each pole. This symbiotic relationship of extremities allows for mutual definition of each other rather than conflict or opposition.

The binary opposition of excess versus austerity is discussed in Botond Bognar’s essay ‘The Japanese Order of Things’, and establishes a core foundation of ideas to be investigated in this paper. In this essay, Bognar (1988) briefly described the foundations of western metaphysics being based on the search for immutable laws that govern the universe that has led to western thought splitting the world into binary oppositions such as being versus nothingness. He then stated, that by contrast oriental cultures, in particular the Japanese, have been uninterested in this dichotomy, as the search for universal laws was largely deemed as being of little importance. Japanese culture has evolved to be simultaneously heterogeneous and homogeneous; and its seemingly contradictory, or more appropriately paradoxical, and complex approach to design stems from a number of well established factors. ‘The Japanese have become a culture of ‘both/and’, wherein old and new, native and foreign, traditional and modern are complementary aspects of the same thing’ (Bognar, 1988, p. 148).

The wisdom of design rather than the knowledge of design is best described by György Doczi in the Power of Limits: ‘the West seeks knowledge by taking things apart and looking at each separately, the East takes another approach which is to put things together to look for the holistic nature of design, The East seek wisdom instead of knowledge’ (Doczi, 1981, p. 127). This is not to say that one side is wise and the other is not, as the history of the world has clearly shown, but rather, that the inherent approach to the world is different.
As we review these thoughts in terms of design, and with particular emphasis to the world of Japanese design, we shall see that the relationship of the whole/part is carefully considered. The detailing explored within Japanese design clearly expresses the range of excessive and austere design outcomes. From the fashion ‘Fruits’ of Harajuku to the brutal minimalism of Tadao Ando, and from the traditional Shoin architecture to the exaggerated Kabuki faces, the complex world of Japanese design is undeterred by dealing with the extremities. To understand this control, one must look at the contextual issues that have had an effect on Japanese design.

**Effects of nature and religion on design**

The geography and climate of the numerous islands of Japan, located on the edge of the Eurasian continent, are central factors in much of Japan’s customs and relationship to nature. The rugged geography is that of uninhabitable mountainous regions covering 80% of the country, with the remaining land covered with plains and rivers that are scattered between these mountains and powerful cliff formations. The climate ranges from sub-tropical in the southern islands to semi-frigid in the north; causing a range of weather conditions from snow to high humidity, which are combined with earthquakes and typhoons (Thompson, 1985). These continual and uncontrollable natural upheavals occurring over thousands of years have left the Japanese with the utmost respect for natural phenomena. It has also left them with a lack of choice regarding their actions, as the entire environment is in a state of dramatic conditions. As this ability for the Japanese to clearly make a selection in their environment is deprived, they would then choose the non-physical state of imagination and symbolism to be explored. Since they felt that they had no choice in their environmental conditions, they moved away from the European dichotomy of ‘either/or’ to that of ‘this-and-that’ (Stierlin, 1977). Again, this fluidity of their ethos is essential to understand in relationship to their approach to design.

Shinto, the native religion of Japan, has a central theme of respect for nature in which divine beings or *kami* are honoured in public and private shrines. In Sherman Lee’s excellent compendium of Japanese Design he discussed the relationship between nature, religion, and design by stating: ‘The Shinto faith particularizes nature with its many thousands of *kami* personifying selected individual units – rocks, noble trees, streams…Rather than organizing all this into a grand design, the Japanese accept this uniqueness of individual units, the natural order of motifs. With this there is a respect of the motifs and for their composition’ (Lee, 1981, p. 11). However, this deeply embedded relationship to nature is not only focussed on the various entities honoured in nature, but also on the transitory relationship of continual
natural change. As an island people, basically isolated, the Japanese have continuously focused for over 2000 years on wood as a medium for design and construction, mostly for non-load bearing efforts. The Japanese in every aspect of their culture have exploited wood and paper, materials with a low thermal capacity, ideal for the warm and humid climate. ‘This indicates a deep-seated preference on the part of the Japanese for the living and the transitory, for the change of seasons, indeed for things in their raw state, as also is seen in Japanese cuisine’ (Nitschke, 2002, p. 15).

![Figure 2: An older Shinto shrine at Ise](Photography: Author)

**Influence from the Japanese concept of impermanence**

The transitory nature of the Japanese ethos is also embedded in their concepts of time. History in Japan is not noted in terms of the Gregorian calendar, but rather, as in medieval times, on the rule of the Shogun, or later, on the coronation of the present emperor. The Shinto religion also extends this sense of renewal, as witnessed through the continual disassembly and construction every 20 years of the Ise Shrine, one of the most sacred Shinto shrines (Figure 2). Also within the Shinto beliefs system, there is the reaffirmation of the passage of time with the movement through a Torii gate that symbolises an entry into a sacred precinct, which in turn symbolises a rebirth and renewal that connects both nature and society (Nitschke, 2002) (Figure 3).

This Japanese concept of impermanence is depicted in other areas of their culture. An examination of *kanji* characters, the Japanese writing system borrowed from the Chinese, convey the characters for house and other buildings as the topmost element, clearly
symbolising a roof structure (Yagi, 1992). This symbolism of a solid roof with space below is typical of Shoin architecture, and will be discussed later. However, the Japanese language is a complex system that often breaks its own rules, with various grammatical conventions not being retained in a sentence that could even see the subject or object, or even both, being omitted or just being implied in the context of the sentence (Bognar, 1988). This linguistic attitude is carried through to the popular haiku style of poetry. The haiku style demands that you engage in the poem and contemplate the spaces that could mean as much as the words. ‘The unique linguistic characteristic of the Japanese language lies in a non-structural approach in which words do not necessarily have a logical relationship to one another, but where the words spoken have a number of invisible meanings and ma or silent beat from which the listener is expected to extract and interpret the meaning intended by the speaker’ (Miyoshi, 1985, p. 101,103).

This notion of change that is part of the transitory nature of Japanese culture is rooted in their comprehension of cyclical natural changes, with the land and the building site being the only things that virtually have lasting value (Nitschke, 2002). Buddha sitting firmly on the ground under a Bodhi tree, in which the open canopy overhead protects but also permits a transitory space below can be seen as a strong symbolism of this spatial paradigm. The traditional Shoin house is a clear manifestation of Buddhist beliefs in which the house is seen as a temporary dwelling (Evans, 1991). In Buddhist philosophy, the term ma refers to the in-between realm, and has many spatial meanings such as room, space, place, interval or activated void (Nitschke, 2002). Michihiro Matsumoto described this pregnant pause used
in the Japanese art form called Haragei, ‘Ma is that moment unbridled by contradictions – contrast between part and whole; it is the moment that allows one to be aware of and part of his surroundings’ (Matsumoto, 1984, p. 38) (Figure 4).

Figure 4: Abbots’ residence and gravel garden in Koya-san
(Photography: Author)

In the golden age of the Azuchi-Momoyama era, this concept of awareness was clearly established. It was during this period that a Zen tea master and not a Buddhist teacher, was most influential. Sen-no-Rikyu was the cultural advisor to the samurai rulers Oda Nobunaga and Toyotomi Hideyoshi during these great cultural changes. Sen-no-Rikyu developed the simple natural tea ceremony, wabi-cha, and more importantly, managed to develop a refined meditation process based on everyday activities. This contemplative and mediative approach to everyday experiences is the foundation of the Japanese ethos that permeates all aspects of design and other cultural activities.

The concept of the symbolism used in kanji, and the open nature of Japanese architecture, has already been mentioned with reference to roof construction. The majority of Japanese architecture was focussed on the horizontal flow of spaces that used wood as the main building material. It was during the Muromachi era that Shoin architecture, and particularly Shoin interior design, developed different elements that would form the basis of what is commonly referred to as traditional Japanese architecture. The traditional roof construction consists of first constructing the roof on the ground, and then the entire roof is lifted and placed on top of columns (Figure 5). Walls are then used to fill in the spaces. This method of post and beam construction leads to the possibility of completely opening up the interior
space to the exterior, and establishing a redefinition of the hierarchy of spaces: interior, intermediate, and exterior. The traditional Shoin houses all had veranda spaces that acted as the intermediate zone between the interior and the exterior, a formal detail of Shoin architecture. The blurring of the edges and boundaries creates a sense of vagueness that is an ingrained approach to many aspects of the Japanese culture. ‘The ambiguity of boundaries as layered ‘envelopes’ (ma), is closely related to the ambiguity of a center (oku) in architecture, urbanism, and other cultural forms’ (Bognar, 1988, p. 152).

The space between

As it has been described as ‘the space between’, ma could easily be referred to as the gap between two phenomena and is as much shaped by the space as it shapes the space (Bognar, 1988). Japanese verandas best describe this relationship between two phenomena, in particular the relationship of the whole to the part, as expressed in the detailing (Figure 4).

‘Having spatial and temporal connotations, ma is one of the most significant features in Japanese culture, human awareness, and conduct; it is in this sense that Japanese art is the art of “invisible” boundaries. “Designing” in Japanese originally meant ma-dori, or the grasping, creating, activating of ma’ (Bognar, 1988, p. 150).

One of the most characteristic aspects of all periods of traditional Japanese architecture is the empty interior space without noticeable freestanding furniture. Most furniture was portable and often stored away. The other most characteristic element was the masterful demonstration of control of materials through the detailing of design elements (Figure 6 and
Figure 6). The relationship of space, or ma, has already been discussed, but the relationship of details to ma is also essential. This relationship can be seen in other aspects of design, from the asymmetrical layout of traditional flower arrangements, Ikebana, to the layout and placement of sushi on the plate; both small but elegant spatial compositions. Here the relationship of the part to the whole, or the space to the detail, is considered in the overall composition.

Figure 6: Warehouse interior in Oharai-Machi, Ise
(Photography: Author)

Figure 7: Post detail in the gardens of Nishi Hongan-ji
(Photography: Author)

Codes of aesthetics

As Japanese spatial compositions varied according to the natural environment, they became experts at dealing with the changes needed to deal with the site. This ability to detail subtle nuances of design, led them to consider details at all scales. In the effort to affirm their relationship with nature and comprehend their existence in society, various concepts developed over time, such as the notions of wabi, sabi, and iki. These combined with ma andoku provided essential elements in the Japanese cosmology. Wabi is the aesthetic sense. It is focussed on naturalness and reserve, and of simple quietude. It is the highly individual aesthetic of simplicity, and was originally promoted by the Zen tea master Sen-no-Rikyu. Sabi deals with simplicity, but of an aging simplicity. It is an imperfect and quiet sense of subdued taste. Iki deals with the worldly tastes, urban and often subversive. It is an aesthetic that favours decoration (Dunn, 2001). Lastly,oku is a spatial term, much like ma, but instead deals with the centre, the point that extends itself deep to the core of the entity (Bognar, 1988). Consideration of these elements is essential when discussing detailing. Besides
the high level of detailed dexterity and controlled restraint witnessed in a tea ceremony, nowhere else are the principles of *wabi-sabi* more evident than in gravel gardens, and in the horticultural craft of bonsai trees, in which nature is delicately controlled into a miniature composition (Figure 8).

![Gravel garden in Ginkaku-ji](Photography: Author)

The austere world of the Japanese Buddhists and Samurai warrior class followed strict rules to cultivate the mind and body. This self-discipline and rigid austerity by the warriors led to them enforcing these ideas upon other levels of society. This Zen code of aesthetics, called *Shibui*, maintained that ‘...objects intended for everyday use should reveal the nature of their materials, and their form should be dictated by their function. If the artefact fulfils these criteria and performs well, it is considered to be beautiful’ (Evans, 1991, p. 55). This code was able to be imposed by the establishment of the Sumptuary Edicts. With these edicts, the population was categorised into 216 different classes, with the rigid system dictating colours, forms, materials and food. However, within any caste system the individual would seek out the highest quality of the particular item available to them (Evans, 1991). As a consequence of the two hundred years of *Shibui* and Sumptuary Edicts, Japanese craftsmanship has developed and evolved the ability to handle design and detailing at a highly refined level.

**Conclusion**

When referring to the Sukiya style of architecture, Kazuo Nishi and Kazuo Hozumi stated, ‘Intimacy and caprice were the hallmarks of this type of Shoin…style’ (Nishi & Hozumi, 1985, p. 78). This range is also true for other forms of traditional and modern Japanese design that
exercise the ma between the extremes of excess and of austerity. Comprehending the depth of the contextual relationships helps to understand the many layers of symbolism tailored to produce a highly refined outcome in mass and detail (Figure 9). These details are mostly isolated elements that work with the ma to form a cohesive whole, and they stand in a grand sense of quietude on the building fabric, waiting patiently for the mindful observer.

Figure 9: Entrance detail in Kyoto
(Photography: Author)

References
Growing a Discipline: Evolving Learning Practices in Interior Design

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Abstract: A variety of competing pedagogical orientations have accompanied the evolution of university-based Interior Design teaching. A review of relevant literature indicates that a range of pedagogical models are available, each rooted in a distinct design discipline such as architecture and industrial design. A new undergraduate Interior Design program is described, in order to demonstrate an approach to integrating theory and practice. Diverse teaching influences on the development of a course of study in Interior Design in the context of an established multi-disciplinary design faculty are illustrated. The new program's pedagogical approach is demonstrated through an examination of the first and second year studio subjects. The paper concludes with a summary of the program's strengths and weaknesses, and suggestions are made to promote ways to integrate theory and practice through broadening the theoretical discourse that could allow Interior Design to be explored through other relevant and critical social disciplines.

Keywords: Interior Design; design pedagogy; design knowledge; design studio; theory; practice; social science

Introduction

Over the past few decades, Interior Design education in North America has evolved from various vocational design, decorative arts, or architectural specialty programs, into a largely autonomous, university-based discipline. In so doing, Interior Design has drawn from the visual arts and design disciplines — especially architecture and industrial design — in the formulation of its pedagogical approach. As a result, Interior Design has inherited divergent philosophies and practices, some of which have over time become more relevant and useful than others to Interior Design education. This paper investigates these influences on Interior Design education, and describes the shift from formal pedagogical practices based in the design disciplines, to more situated teaching in which design studio projects are embedded into student experiences of design problems (Saven-Baden, 2001). The paper suggests that pedagogy derived from established disciplines does not always support how design problems evolve in the Interior Design studio. The authors propose that a different type of learning practice is possible, which addresses the specific requirements of a new design discipline. To illustrate their arguments, they draw on the example of a relatively new Interior Design undergraduate program located in a faculty of environmental design and taught in
the context of four existing design departments. The authors conclude that the evolving Interior Design pedagogy is a function of blending certain established theoretical and design educational practices with more problem-based situated teaching and learning.

**Purpose and objectives**

In establishing Interior Design as a university-based discipline, questions must be asked about the nature of the educational values inherent in the formulation of design thinking and teaching. What is the disciplinary knowledge base for Interior Design? What pedagogical philosophies are evolving in universities to transfer this knowledge to future professionals and teachers? Among the many factors influencing the evolution of Interior Design education are those identified as follows.

In North American educational institutions, there are signs of a divergence between theory and practice: Interior Design pedagogical influences originating from different disciplines (for example, architecture, visual arts, industrial design) are trying to retain their own legitimacy at the expense of professional training in Interior Design. In Canada, several fundamentally different university training programs all promote Interior Design in a climate of uncertainty about what actually constitutes Interior Design (NDA, 1996). Different definitions of Interior Design circulate, thus compounding the problem of a critical perspective from which to define the profession.

Philosophical discourse is infrequently situated in Interior Design, as the discipline is clearly entrenched in pragmatic professional concerns; a recent critique of Interior Design education concluded that there is insufficient critical discussion of appropriate pedagogical approaches, including what underlies what we teach and how we teach it (Vaikla-Poldma, 1999). Ongoing debate about the nature and knowledge base of Interior Design is influenced by professional insecurity about what Interior Designers do and how they do it, and about the tendency of the Interior Design discipline to borrow theoretical and philosophical meanings from other disciplines when discussing fundamental knowledge, rather than cultivating its own critical discourse (Hildebrandt, 2001).

These weaknesses pose problems for philosophical problem-seeking in the design studio. Recent studies suggest that Interior Design, as is it commonly practiced, is a complex, multi-layered and human-driven activity that reaches beyond mere aesthetic categories of form and space. The goal of this paper is to outline the growing need for educational tools for Interior Design that are unique to the needs and requirements of its disciplinary base, and which go beyond borrowed knowledge. The unique knowledge base of Interior Design as a discipline
refers to the knowledge and competencies needed to interact with users and clients, as well as to the specifics of interior space problem-solving. In addition, a more dynamic philosophical debate is to be encouraged on how these knowledge areas, competencies, tools and skills are transmitted in the context of a university education.

**Methodology and framework**

The paper examines these questions, first by exploring pedagogical influences on Interior Design education from the more traditional design disciplines, and then by presenting the approach used in establishing a new three-year undergraduate program in Interior Design at a design faculty in a major university in Canada. As the new Interior Design program has unfolded over the past four years, strategies for structuring its pedagogical approach have included input, discussion and shared reflection on the part of the teaching staff (academic and professional) about the nature and needs of teaching design. Issues raised include the values being transmitted through studio projects, the tools and skills needed to communicate with students, and the appropriate pedagogical philosophy for university-based teaching of a pragmatic discipline such as Interior Design. These discussions underscored the need for both a philosophical discourse and a pragmatic approach that would be meaningfully communicated through the theoretical course content and in the design studio.

Using examples from this program of study, which the authors were partly responsible for developing, we will define the evolution of the program and its use of disciplinary-based material from Architecture, Landscape Architecture, Industrial Design and Urban Design. Courses from all these programs have contributed to the new Interior Design program, and in particular, courses in Architecture and Industrial Design.

By identifying the strengths and weaknesses of alternative pedagogical approaches relative to Interior Design teaching, it has been possible to define elements worth keeping and those needing to be replaced in order to ensure self-definition and self-sufficiency for Interior Design. For example, Architecture studios consume a disproportionate amount of teaching time for both students and teachers (12 class hours and 6+ ‘homework’ hours a week), thus limiting time available for other courses and activities. Interior Design, required at first to adopt this model, which is well-established and well-respected in the faculty, opted after four years for an alternative studio course structure of 6 class hours and 6+ ‘homework’ hours, using smaller-scale design problems with more realistic deadlines. As well as reducing course costs, this approach gives teachers more flexibility in setting design problems and deadlines, and the students have more time in their schedules to take optional courses. Optional courses
can include basic drawing and technical skills for those students (not all) who were using studio design problems to acquire them.

In another example, Architecture courses dealing with construction techniques and materials, building systems (mechanical and electrical) and lighting and acoustics have been kept, in spite of the resistance of some of the architecture professors to teaching Interior Design students. The future of both professions lies in good communication between the two disciplines and overlapping areas of knowledge. The pedagogical model on which this Interior Design program is based is shown in Figure 1.

Thus a philosophical approach to renewing Interior Design pedagogy in terms of its distinctness from existing design disciplines is evolving through the new program’s structure. The strong positive results being generated by the new program illustrate the evolution of a pedagogy uniquely tailored to the needs of this discipline. Requests for admission to the program have gone from 50 and 70 in the first 2 years to over 200 a year today, on a par with applications to the much larger and longer-established Industrial Design program. Two thirds of the permanent teaching staff have PhDs, which is a higher proportion than in three out of the other four schools in the environmental design faculty. And not only is an increasing proportion of graduates applying for higher degrees, but each year applicants to the undergraduate program are better-qualified, many with junior college degrees in Interior Design, some with other undergraduate degrees, and all meeting the increasingly high academic standards that are being imposed as criteria for admission.

**Review of the literature**

A study of post-secondary institutions teaching Interior Design in North America found that institutions tend to situate their mission and pedagogical approach as being ‘contemporary’ or ‘modernist’ in nature, as opposed to ‘decorative’ or ‘technical’ (Therrien & Dubois, 2000). These streams of Interior Design knowledge are generally treated as dichotomies, and inter-discipline relationships considered second-rate in terms of academic achievement. Some programs have been influenced by Charles and Ray Eames and the Cranbrook School of Design; others have used the New Bauhaus School vision of Moholy-Nagy in establishing pedagogical programs for design schools (Findeli, 2000), and still others have grown out of departments of home economics and textiles, or arts and crafts schools, such as those in numerous smaller U.S. universities (e.g. Michigan State, Oklahoma State) and art and architecture schools such as Emily Carr and Cooper Union.
A PROPOSAL FOR A PEDAGOGICAL MODEL OF CURRICULUM STRUCTURE AND CONTENT

PROPOSED PEDAGOGICAL GUIDELINES
THREE YEAR BACHELOR PROGRAM
Tiiu Poldma (November, 2000)

Figure 1: Theoretical model of undergraduate Interior Design program
(Drawing: Tiiu Poldma)
A recent IIDA publication outlines two characteristics that are inherent to most American design school pedagogies: 1) fundamental philosophical roots which locate abstract concepts centrally in the operation of the design studio; and 2) the tendency to stream schools either into vocational, process-oriented, or formalist pedagogical models (IIDA, 1998). Reflections about the philosophy of the design studio revolve around complex ideas about the definition of what exactly constitutes ‘design pedagogy’. There is a tendency in current Interior Design programs to promote either an abstract theoretical approach that uses abstract problem generation in an artificial setting, or a concrete ‘hands-on’ experience, involving the use of existing project situations that are more practical or vocational in nature and scope (Margolin & Buchanan, 2000; IIDA, 1998). But, as Findeli has stated in his critique of Moholy-Nagy and the design pedagogy used in the Chicago New Bauhaus school: ‘ … underlying model(s) of design … actually do exist but rarely, if ever, are they explicit or conscious’ (Findeli, 2000, p. 29). He suggested not only that models of pedagogical thinking in design only sometimes exist, but also that, when considering various pedagogical approaches, programs choose one or another approach in a mutually exclusive fashion.

Other writers have drawn attention to the tendency of Interior Design education to align the vocational or the process-oriented pedagogy with either a ‘formalist’ (abstract), ‘technical’, or ‘humanistic’ design approach (Molnar & Vodvarka, 1992; Margolin & Buchanan, 2000). Many design schools emphasise the modernist aesthetic and formalist abstract notions of design, as linked to aesthetic categories of form, symbol and shape (Molnar & Vodvarka, 1992; Findeli, 2000; Kruft, 1995). The implication is that this ‘way of designing’ is superior to more humanistic or more technical approaches. Such criticism creates a dichotomy between vocational training and process-oriented approaches on the one hand, and more formalistic pedagogical approaches on the other. It is clear that there is little to lose and much to gain by making underlying pedagogical models of university design teaching more explicit.

Program development: Evolution of design studios in a 3-year undergraduate program

The limitation of making such a choice becomes clear when the complex nature of the design process is explored in relation to the design studio. Design students must creatively solve problems of form and interior space while answering questions of function and the needs of users with contrasting living, working and social situations. Recent studies indicate that not only are there wide differences in student learning styles, but that there are as many educational approaches as there are teachers in the design studio (Watson & Thompson, 2001).
Formalist and/or technical and/or process-oriented pedagogies alone cannot respond to the dynamic and fast-paced situations that constitute Interior Design in North America today. The Interior Design program described here comprises a progressive and evolving curriculum in which elements of theory and practice are integrated into the learning activities of the design studio.

Structurally, the new program is primarily built around the design studio, supported by theoretical courses that explore four categories of design knowledge: history and theory, design creation, technical and professional skills, and visual communication. As the design studio comprises almost 70% of the total teacher-student contact time, this necessitates that philosophical and theoretical discourse be embedded in the design problem students are being asked to solve. Philosophical reflection forms part of the active engagement of students, and is used to create an environment where they seek out answers to questions, for example, about the philosophical values underlying the needs of users. Students are also encouraged to read design theory and to apply formal critique to the studio design problem as well as to their own work. The pragmatic aspects of Interior Design are also introduced through the studio projects, where students transform concepts and ideas into workable design solutions.

Projects in each of the design studios are situated in ‘real life’ scenarios, and are presented along with complex philosophical questions that explore psychology, social psychology, anthropology, semiotics and other disciplinary orientations. This approach to studio-based teaching obliges the new program to combine the philosophical rigour of aesthetics and an aesthetic understanding of space with the more pragmatic realities of getting a project realised, as well as situating design problem-solving as it might be experienced in the profession.

Two examples of design projects illustrate this point: the first and second year design studio. Teachers work in collaborative teams to promote both individual and collaborative learning in each year, depending on the skills and concepts being investigated and the educational goals of the particular studio topic. The first year design studio consists of an exploration of evolving and changing lifestyles and approaches to living in a complex, technologically charged and socially mutating world. This urban exploration of social issues in design is explored on three levels, including the homeless, socially challenging neighbourhoods, and the design of interior spaces for families with ‘real scenarios’ of living. As an ‘ice-breaker’ introductory exercise, students went into impoverished neighbourhoods and studied homelessness in order to design a shelter for transients. Examples of two drawings (Figures 2 and 3) illustrate the student’s identification with users, placing herself inside the body of the occupant.
Figure 2: Student sketch showing occupant perspective of room

Figure 3: Student sketch showing room plan and elevation
In this exercise, the link between social values, moral issues and design decisions was explored. In previous years, students explored more conceptual problems, such as designing their own homes or making a loft out of a 60m$^2$ cube. These design activities, although interesting aesthetically, did not challenge the students’ value structure.

In second year, studio design problems are presented in the context of moral and social dilemmas related to the delivery of health and social services. Examples include a palliative care environment for dealing with death, a birthing centre, upgrading buildings frequented by the frail elderly to help them be more independent for longer, and residential environments for delivering services to drug and alcohol addicts, battered women, and the poor. In order to ensure that social questions and philosophical discussion form part of studio learning, questions such as the role of society (and the responsibility of its professionals) towards its weakest members, whether birth and death belong in hospitals, and how environments built for a specific social group reflect society’s values and attitudes towards that group (e.g., battered women) are raised and discussed.

In both first and second year, the students are encouraged to read literature outside, as well as within, design disciplines relevant to their topic, to question their own assumptions and prejudices about users by visiting existing places and meeting people in these societal categories, to think about the role of the designer in confronting social problems, and to critique their own projects in terms both of design approach and design solution (Vaikla-Poldma, 2003). In addition, the partial integration of theory courses from other disciplines offers an inter-disciplinary and multi-disciplinary exchange of ideas and broadens the students’ Interior Design knowledge base.

**Discussion**

This approach to Interior Design pedagogy is in its first experimental stages as the new undergraduate program grows and evolves. Although the program is exciting and stimulating, problems occur when courses must work within the more traditional framework of the institutional setting within which it is situated. For example, Interior Design students in the Industrial Design studio have been told by their teachers to focus on product design, exclusive of both users and context. Architecture studios combining both Architecture and Interior Design students tend to set complex problems of interior space with no interior space pedagogy attached, relying on old-style architectural preoccupations with site, form and construction. These and other similar experiences only emphasise the unique needs of Interior Design and the need for its own pedagogic approach, in spite of the value and enrichment from other design disciplines that collaborative courses and studios can provide.
Efforts are now being made to fine-tune the Interior Design program within the context of the more traditional pedagogical ‘theory as course’/‘practice as studio’ framework as it exists in the faculty. This implies and requires an understanding of the pedagogical influences of the educational tools situated in this framework, and how this program must work around these limitations. For example, theory courses are framed within a fixed three hour ‘lecture hall’ framework, which does not lend itself well to courses exploring scenarios or project-situated examples of theory as ‘lived experience’. For the new approach to succeed, more fundamental changes are necessary in terms of finding ways to successfully integrate dynamic, experiential, process-based learning into the current institutional framework, for example, by re-structuring the studio courses into 6 hours a week rather than 12 hours a week time blocks.

Both academic and institutional pressures exist to evaluate the new program. First, it is scrutinised in terms of its capacity to succeed in creating legitimate academic preparation for the profession as well as for graduate studies and research. This goal is considered important for legitimising Interior Design as a university discipline. The new program must create both potential researchers and pragmatic professionals by forming conceptual and critical thinkers able to problem-solve in a wide range of situations. Secondly, as a new program, Interior Design is under pressure to merge with one of the other, better-established departments. This may be for pragmatic reasons – office and classroom space, administrative support – as well as for academic reasons such as combined research teams, joint studios and shared theory courses. Interior Design needs to strike a careful balance between cross-disciplinary collaboration and exchange, and a distinct Interior Design identity, disciplinary content and course structure.

As Interior Design evolves as an academic discipline, its educational philosophy will be increasingly oriented to integrating theory and practice in the design studio. The future of university-based Interior Design education lies in integrating formerly opposed pedagogical models of teaching design, in terms of choice of teaching philosophy, communicating social values, with a pedagogy oriented both to theory and practice modeled, in part, on the ‘reflective practitioner’ (Schon, 1984).

**Conclusions**

The new Interior Design program outlined above aims to create a stimulating learning environment that combines social and psychological theory with pragmatic, ‘lived’ experiences of users in designed spaces. The studio examples presented reflect this bringing
together of theory and practice. The issues that need to be addressed in designing a university-based Interior Design training program include recognition of the need to make explicit the theoretical underpinnings of both the teaching and the practice of Interior Design. In addition, courses must be designed to respect the pragmatic nature of the Interior Design discipline as it exists in the practitioner environment, while at the same time preparing graduates for careers in research and teaching. There is currently a deep void in the research and development aspects of Interior Design, and all university programs need to consider how their graduates will have opportunities to rectify this imbalance in years to come.

The evolution of the curriculum of the new program is based in part on providing a variety of ways for students to ask critical and philosophical questions about what constitutes Interior Design, the role of Interior Designers in society, and the impact of design decisions on the social and political structures that form the framework of our society. Areas of knowledge that are seldom explored in more traditional design departments – such as semiotics, sociology and psychology, feminist epistemologies and values studies, and critical educational research – are potential areas in which Interior Design research activities could and should be carried out.

Experiences with the new program have led us to conclude that the Interior Design ‘process’ should be an integral part of Interior Design teaching, with an emphasis on performance objectives, teacher-student relations, and the interactive design process at an experiential humanistic level. As Lovejoy (2003) has pointed out, ‘In the light of each term, the other can allow an examination of the conditions within which design occurs, in other words, its ethos’ (p. 2). By including aesthetic meaning and interior spatial composition and function, this integration of oppositions ensures theory and practice are combined in realistic terms in the studio environment in order to ensure an appropriate transfer of knowledge at the university level. In exploring both theory and practice in the design studio, the dynamic and changing nature of Interior Design is promoted and explored as the integral and dynamic process that it actually is when the designer and the client collaborate in creating interior space.

References


