

Interior Design/Interior Architecture Educators Association

IDEA

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IDEA

Charter

IDEA was formed to encourage and support excellence in Interior Design/Interior Architecture education and research and be the regional authority on, and advocate for, Interior Design/Interior Architecture education and research.

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The objectives of IDEA are to:

- act as an advocate for interior design/interior architecture undergraduate and postgraduate degree programs;
- support the diversity of degree programs;
- provide recognition for excellence through refereed citations awarded to academic staff of the above programs;
- publish and disseminate results of research and refereed work carried out in member Institutions;
- foster and encourage collaboration within and beyond the membership of IDEA;
- foster an attitude of lifelong learning; and
- encourage academic exchange within the membership of IDEA.

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IDEA Journal 2006

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Published at

Queensland University of Technology

Brisbane, Australia

Registered at the National Library of Australia. ISSN 1445/5412

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3. Outcomes are identified and there is evidence of scholarly reflection on their significance.
4. The work has not been previously published or is in the process of being refereed for another publication.

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Infected Interiors: Remodelling Contaminated Buildings

Graeme Brooker, Manchester Metropolitan University, U.K.

Abstract: *Remodelling existing buildings is the process of significantly changing a host building or structure to accommodate new use. It differs to practices such as preservation and conservation in that it is the process of substantially altering an existing building. Remodelling could be described as a process that encourages a continuous approach to the adaptation of an enclosure or a site. The transformation of an existing structure is a procedure that initially consists of reading the site: a course of action that ensures solid or concealed matter such as the structure or the narrative of the building can be exposed and then developed as potential generators for the modification process - a course of action that Rodolfo Machado describes as: '... a process of providing a balance between the past and the future' (Machado, 1976, p. 27).*

This is a paper about the transformation of existing buildings where the history or narrative of the place that is to be reused is complicated by political, ideological, or an odious previous function. A site or building is described as contaminated when its past is dominated by a previous use that is disagreeable or objectionable. The edification or censorship of these infections is a complex matter for the designer to consider in the remodelling process. This paper examines three case studies where the designer has analysed and used the contamination of the building as a generator for remodelling. It suggests that there are three general approaches when using contamination as a starting point when significantly altering the interiors of infected existing buildings.

Keywords: *remodelling, contamination, interior architecture.*

Introduction

The name of a city's streets and squares, the gaps in its very plan and physical form, its local monuments and celebrations, remain as traces and ruins of their former selves. They are tokens or hieroglyphs from the past to be literally re-read, re-analysed, and reworked over time (Boyer, 1994, p. 332).

Remodelling existing buildings is a process that advocates a continuous approach to the adaptation of a place. The transformation of an existing building is a procedure that initially consists of reading the place. This is a course of action that involves the study of structural and physical elements and also the analysis of concealed matter such as memories, values, narratives and traditions. The reading of the host ensures that site-specific conditions can

be exposed and then used as potential generators of ideas for the modification process. In the essay 'Old Buildings as Palimpsest' Rodolfo Machado likens this process to uncovering or exposing layers of history in order to design new interior space. He suggests that:

Remodelling is a process of providing a balance between the past and the future. In the process of remodelling the past takes on a greater significance because it, itself, is the material to be altered and reshaped. The past provides the already written, the marked 'canvas' on which each successive remodelling will find its own place. Thus the past becomes a 'package of sense' of built up meaning to be accepted (maintained), transformed or suppressed (refused) (Machado, 1976, p. 27).

What might happen if the history or narrative of the existing building that is to be remodelled is tainted by its former function or by its past associations? This is a paper that examines the remodelling of existing buildings that are contaminated. Contamination is used to describe a variety of possible infections of a host building. This paper suggests that there are three types of contamination. Firstly a host building could be politically or ideologically contaminated and is therefore subjugated by its past. This type of infection consists of a host that is dominated by the propagandistic role that it once contained and subsequently is therefore corrupted by the associations and memories of its previous purpose. A second type of contamination may involve a building that was designed to house an unpleasant function. This infection is due to the specificity of its previous use; a former life that consists of an unwholesome past. Finally a building could be perceived as infected due to the institution that it houses and the political or corporate connections that this establishment has come to represent. This type of contamination could be described as an infection of both the building and the institution that it houses. The censorship or re-edification of these contaminations is a complex matter for consideration in the design and remodelling process. As Machado suggests:

When the alterations in the building's content are of such a type that the buildings original or latest function is changed; then the building is refunctionalized, a different story is born, a new plot is composed out of the old words, a new interpretation has taken place (Machado, 1976, p. 27).

This paper will explore three examples of the remodelling of contaminated buildings.

Strategies for re-use

Site conditioned / determined. Here the sculptural response draws all of its cues (reasons for being) from its surroundings. This requires the process to begin with an intimate hands-on reading of the site... (Irwin in Stiles & Sels, 1996, p. 573).

Reading a building or place ensures that site-specific adaptation strategies can be used to either emphasise or suppress the memory of the place. As well as examining three types of contaminated building this paper will suggest that there are three strategies or approaches available when remodelling existing buildings or contaminated sites. These are intervention, insertion and installation.

Intervention is a process that activates the potential or repressed meaning of a specific place through a process of uncovering, clarification and interpretation. Intervention can be destructive as much as it can be constructive. When a contaminated building is intervened upon it is usually a process of clarifying or translating the infection, a surgical procedure using robust measures to stitch together the old with the new use.

Insertion is a process that establishes an intense relationship between the original building and its adaptation and yet allows the character of each to exist in a strong independent manner. When new elements are inserted alongside old buildings the contrast between the previous use and the new function could be described as a process of 'cleaning' or 'healing' contaminated spaces.

Installation heightens the awareness of an existing building and successfully combines the new and old without compromising or interfering with each other. Installation can be used to make a short sharp shocking statement in the form of a powerful comment on the contamination of a host space.

The visible presence of even a troubled past can be a valuable tool in the transformation of an existing building. Rather than act as a constraining factor it can be an instrument of liberation creating buildings that consist of a composite of meaning and consequence; a complexity that is impossible to replicate in a new building.

Infected interiors: Case Study 1

In 1933 Nuremberg, Germany, was officially designated the 'City of Congresses', a privilege that entitled the city to host the greatest gatherings of the National Socialist Party. The German architect Albert Speer was responsible for the planning and development of a series of 'set piece' structures to host the party gatherings. There was a stadium designed to hold four hundred thousand people, parade grounds, zeppelin fields, halls, barracks and other structures to house these spectacular shows. The site was linked to the centre of the town by an avenue two kilometres long. At the centre of the master plan was the enormous Kongresshalle designed by Ludwig Ruff and his son Franz. It was a massive horseshoe shaped auditorium intended to house fifty thousand party officials. Measuring more than two

hundred and seventy five metres wide by two hundred and sixty five deep, the colossal size and shape was meant to form a monumental backdrop for the huge rallies that were to be held there.

The hall was never completed and the project was abandoned in 1943. Raw materials were diverted to other projects as was the slave labour used to build it. Its massive size and weight ensured that from the start of its construction it suffered from structural problems caused by the marshy ground that it was built upon. No structural solution for the roof ever existed and it was never covered over leaving it open to the elements and further erosion. The building has been vacant since 1945. A number of different uses were considered, some more ludicrous than others; a sports stadium, rehearsal rooms for the Nuremberg Orchestra, an exhibition and trade fair site and even a shopping centre. It was declared a national monument in 1973.

In 1998 the Austrian architect Gunther Domenig won the competition to remodel the Kongresshalle to accommodate the National Socialist Documentation Centre. The centre was designed to contain exhibitions, lecture rooms, film studios and workshops, the purpose of which were to provide a documentation of the history of the Third Reich.

Domenig made a direct statement of intent which symbolised the new use and which directly counter-pointed the contaminated history and old associations connected to the building. The building's previous function, a monument to Nazi ideology and propaganda, provided a site-specific narrative that could be used as a generator for the proposed reconfiguration. Domenig intervened upon the building by incising a dynamic diagonal directly against the grain of the original orthogonal building. The shard slices through the building, opening it up with surgical precision. It begins as an entrance in the most northerly corner of the structure (Figure 1), cuts through the rooms and the courtyard and emerges into the massive open space in the centre of the horseshoe building (Figure 2). This blade like element lacerates the space to create a circulation route through the building linking the exhibition spaces together, a viral-like occupation of the massive structure.

The contaminated history of the old building is directly counter pointed by the placement of the new element. This is a bold statement on the history of the building and its relationship with the new function. The blade of steel and glass pierces the heavy masonry of the fabric of the Kongresshalle. The point of the shard opens out to form an entrance point for the archive. Inside it links a series of rooms which were originally intended as the meeting chambers and offices of the party. They are now the exhibition spaces and the documentation

archive. The 130 metres by 1.8 metre wide corridor is inclined, and it rises through the space until it shoots out of the back of the building into the main arena of what was intended to be the covered main hall. Here the objective of the original architects becomes apparent, as the enormity of the hall impresses itself upon the viewer. Domenig's intentions were to counteract, heighten and expose the existing building:

I used oblique lines against the existing symmetry and its ideological significance. To contrast the heaviness of the concrete, brick and granite I turned to lighter materials: glass, steel and aluminium. The historic walls are left in their original state without ever being touched by the new work (Domenig, 2002, p. 28).



Figure 1: View from exterior as the shard emerges to form the new entrance.
(Photography: Author)

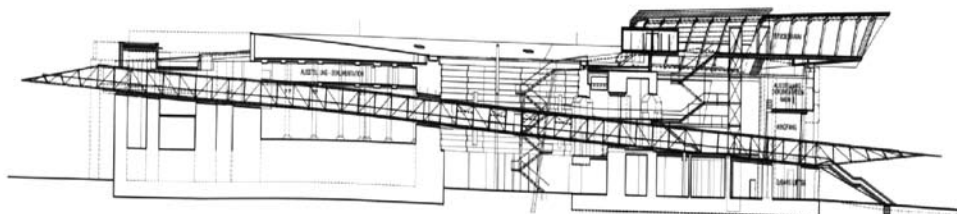


Figure 2: Section through the building.
(Image supplied courtesy of Gunther Domenig Architects)

The scale and the orthogonal geometry of the existing building were extremely significant; Domenig undermines these with a direct and dynamic slice through the very body of the structure. This is a very symbolic event in a notorious building. In this building Domenig uses the strategy of Intervention in order to activate the potential or repressed meaning of a specific place. The architectural response draws all its cues from the existing building. Domenig regards the building as a narrative, as a story to be discovered and retold through a process of uncovering, clarification and interpretation.

The original building provides the impetus for change; Domenig's localised and highly specific reading of the place dictates the appropriate moves. The modifications to the Kongresshalle act in an extremely intrusive manner with the new elements imposing themselves directly upon the existing structure. The new circulation slices through the building and out of the front and back of the host. The new elements relate completely to the original building as they are inspired by it, but the language used is usually completely at odds with the host. This approach could be described as analogous; the creation of a new design that has connections with the past but is endowed with new meaning, both forcefully implied and suggestive. Ignasi De Sola Morales describes this type of process as an analogical procedure. He states:

... the analogical procedure is not based on the visible synchronism of interdependent forms, but on the association made by the observer over the course of time. By this means situations of affinity are produced and, thanks to the connotative capacity of the languages evoked in the intervention, relations or links are established between the historic building – real and/or imaginary – and the elements of design that serve to make the building effectively dependent (Ignasi De Sola-Morales, 1985, p. 42).

The distinctive qualities of the building are explored, the story is read, and it is altered, reshaped and retold and often irretrievably changed. New or hidden meanings are revealed; the building becomes endowed with significance often greater than the value of the new use. In this instance intervention is used as a strategy that reactivates the narrative of the contaminated place.

Infected interiors: Case Study 2

A simple resolution to the reuse of a difficult site, one that is contaminated by its former unwholesome function, is complete demolition. Yet the contrast between a previous use of a building, the role it was specifically designed for, and a proposed new function can provide a powerful counterpoint between old and new and the stimulus for radical change. Sometimes

from such adversity comes an interesting contrast between past and future uses, a contrast that is impossible to recreate in a new building.

The old slaughterhouse in the centre of Landau was once a notable landmark celebrated for its vast size and operational prowess. The main buildings date from the late nineteenth century and were constructed mostly of sandstone and brick. The site was once the home for the rearing, holding and then slaughtering of thousands of livestock per day. This gruesome process took place in and around the main halls of the abattoir – two large adjacent sandstone buildings. The costly renovation and improvements demanded by the European Union regulations of 1989, combined with the lack of maintenance, meant that it was cheaper and easier to build a new abattoir elsewhere and shut the complex down. The building was then left to its fate, falling into ruin and dereliction.

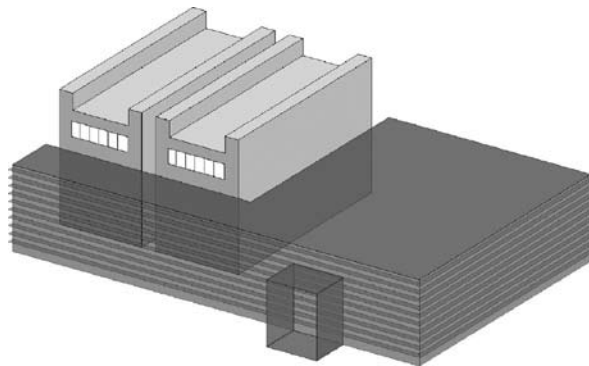
In 1999, the town council organised a design competition and Lamott Architect's winning submission proposed a mixed-use urban arrangement that included a new town square, the first phase of which was the construction of the public library. Lamott's strategy was to remove any late additions and unworthy buildings from the site and then work with what remained. The listed buildings, the two halls, were too small to accommodate the requirements of a modern library and were deemed structurally unable to support the addition of any new mezzanine floors. Therefore the solution was for the old halls to be wrapped by a contrasting new structure, which would organize the building and provide the necessary extra space and the environmental control for the library.

The old slaughterhouse buildings were treated as found objects on the site (Figure 3). The new modern surrounding building unifies the both old and new. It is constructed from a steel frame that supports a glass curtain wall and positioned in front of these, on all sides are fixed large-scale laminated plywood louvres. These brise-soleil cover only the top three quarters of the building accentuating the horizontal emphasis of the whole composition. At ground level the front and the adjacent walls of the original buildings have been removed. This promotes transparency, eases movement and provides a much greater area for the storage of the 75,000 books. The retained sidewalls act as a baffle separating the noisy and hectic entrance and cafe areas in the new areas from the quiet reading rooms in the old.

The old abattoir buildings have been 'repaired' by the new insertion. The previously contaminated buildings have been cleansed of most of their old associations and now host the book stacks and quiet reading rooms of the library. Insertion is a practice that establishes an intense relationship between the original building and the remodelling and yet allows the

character of each to exist in an incredibly strong and independent manner. The mass, volumes and composition of the sandstone halls are still intact but the previous unpleasant uses of the space are now dramatically different. Instead of the unwholesome rendering of livestock, the halls house quiet study and contemplation amongst the shelves of books and magazines.

Insertion concerns the introduction of a new element into, between or beside an existing structure. The inserted object can often be seen as independent and confrontational, a single large powerful element that establishes surprising dialogues between itself and the existing structure or volume. It is at its best when the clearest possible distinction between the crisp new contemporary work and the crumbling remains of the existing is established and therefore the style, the language, the materials and the character of each are different. In and around the halls the new light glass and steel structure contrasts their mass by wrapping and covering the old halls whilst still allowing the tops of the buildings to peek out above the low two storey façade (Figure 4).



*Figure 3: Landau Library the old sandstone halls are wrapped by the new library functions.
(Drawing by Wen Wei Chen, student MA Interior Design MMU)*



*Figure 4: Landau Library front façade and halls.
(Photography: Author)*

Although the insertion is independent, particular qualities are derived from the original building. This is inevitable because the insertion always has a direct architectural relationship with the absolute physical properties of the existing space. It is built to fit. The scale and the dimensions of the reading rooms, the proportions, the rhythm and the structural composition of the existing building influence the design of the new library wrapping the old halls. As Phillippe Robert states in *Adaptations. New Uses For Old Buildings*:

Out of the encounter between old envelope and new requirements and means, a unique object will be born – one which is no mere juxtaposition, but a synthesis from the point of view of both construction and architecture (Robert, 1989, p. 8).

When insertion is used as a strategy, it is necessary for the form of the old building to be sufficiently powerful in order to accommodate the addition of the new object so that it is not overawed. It is also important that the host building is relatively physically unaltered; that it retains its original integrity. Often it is necessary for the designer to do little more than address any structural or environmental problems although sometimes the complete restoration of the building to its original majesty may be required with the recognition of the distinction between the original building and the insertion being important. Equally, the new library must be sufficiently strong to sit easily within or around the old building, a counterpoint or balance must be realised. For a successful dialogue to be established the two components must be speaking with a similar magnitude of language. The new library and the old halls are both imbued with equal strength and qualities that creates a unique powerful contrast between the host and the new remodelling. The tension and the ambiguities in the relationship between the two can also strengthen and reinvigorate the existing building; it can be considered and examined in a new way; it is looked at afresh and it is almost as if new life has been drawn into it.

The insertion of the new library element not only provides a new 'clean' use for the old contaminated abattoir building but it also serves to heighten and intensify the host itself. The strong relationship of attracting opposites, each complementing and enhancing the other, generates a building of a new and greater worth.

Infected interiors: Case Study 3

The third type of contaminated site is less related to the past and more about the current or present use of a particular place. It is a site-specific response to a very particular institution or place that is still in use. It is an example of a site that becomes contaminated by its association with a particular institute and therefore tainted by its association with its present

function. It could be described as a status or identity contamination rather than the complete infection of the fabric of a building. It is a case study where the strategy of 'installation' is used to create a short sharp shocking statement; a probe that in the form of an invasive inhabitation provokes a commentary and response on the infected place.

In the late 1980's the New York based designers Diller and Scofidio were commissioned to make an installation in the Museum of Modern Art (MoMA) that would act primarily as an exhibition of their work. They decided to develop and then install a temporary exhibition called *Para-site* that on one hand acted as a descriptor for their practice but which also became a comment on the nature of the cultural role of the institution that was housing the installation.

Para-site is a site specific installation (which) takes up the theme of a filtered vision in the museum. As parasiting is by nature site-specific, a closer reading of the organism is unavoidable (Diller + Scofidio, 1994, p. 163).

A reading of the host site and more importantly the institution as it currently operated allowed them to create an installation that acted as a filter or a prism through which they could reflect on the role of the host.

As a didactic construct the museum narrative (the permanent collection) is determined by the rigid categories of modernist aesthetics and its chronology is modelled on the paradigm of the textbook. It is a complex economic construct – an institution which outbid other museums and private collectors in the seventy million dollar acquisition of a Van Gogh still-life on the one hand, and sold its air-rights to a fifty two storey condominium in order to fund its renovation on the other (Diller + Scofidio, 1994, p. 163).

The contradictory position of the host institution was not lost on the designers. On the one hand it tries to establish a domain in which art can be viewed and appreciated whilst simultaneously it has created one of the largest art retail spaces in Manhattan. Therefore this reading of the institution allowed the designers to respond in two ways. First of all they developed a strategy for reuse; an approach based on the reading of the host, and then they created an installation that contaminates the building. *Para-site* inhabited the interior of the gallery spaces; it occupied the stairs, the entrance lobby and resided within the galleries like an awkward unwanted guest. It was an infection of an already contaminated institution; its function was to serve as an indicator of the corrupted site.

'Para-site' inhabited the formal spaces such as the galleries, but its raw material, its contents, are derived from the institutions interstitial areas such as elevators, entrances and circulation routes. Cameras were positioned above the revolving door to the museum capturing people coming into the space. CCTV cameras monitored the escalators moving visitors between the different floors of the galleries and the sculpture court was filled by a series of convex security mirrors. These sites were chosen because they were the locations of the architectural elements of 'commerce and consumptive space'. The escalators, revolving doors, corridors and shop spaces are the standard elements of shopping malls and convenience stores; they are considered to be the design language of the retail park. Diller and Scofidio suggest that these were the sites of the infections, places where the language of commerce had been absorbed into this cultural institution and had then become standard features of the museum experience. *Para-site* was installed to comment on this infection of the institution by monitoring and recording these specific locations.

Diller and Scofidio suggest that the museum, in this case MoMA, is of an era which is defined by the supremacy of sight. All sorts of complex encoded constructs govern looking, in all of its complexities. *Para-site* is a reading of this situation. The strategically positioned cameras relay their views back to a series of monitors deployed throughout the museum galleries. The four revolving doors are fed into the first floor gallery where they are displayed on four monitors held by a timber and steel armature, a move that reinforces its invasive qualities (Figure 5). A chair is fixed to the skeleton that invites viewers to sit and monitor the other areas of the museum. The seat is embossed with a raised text that as the sitter stands up to leave is imprinted onto their rear, another invasive tactic.



Figure 5: *Para-site* exhibition at the Museum of Modern Art, New York, 1989.
(Image supplied courtesy of Diller + Scofidio Architects)

Live feeds of the elevators, escalators, doorways and garden relay the approaching viewers of the gallery back to the viewers of the gallery. This blurs the distinction between subject and object, viewer and viewed, content and the contents of the museum's collection. A surveillance mirror in the courtyard is wired to a camera that not only feeds back images of the reflection but also conversation into gallery one. Throughout the duration of the exhibition the parasite recorded and monitored the viewers and gallery goers, relaying them back to themselves in three zones of surveillance. It was assumed that most visitors went to see some art, some paintings maybe even shopping, conversely they became the exhibitions themselves a situation that obfuscated the normal rationale for visiting a gallery.

'Para-site' was designed to make a comment on the building that housed it. It was used as a filter, watching, relaying and conveying a reflection of the visitor and the museum back to itself (Diller + Scofidio, 1994, p. 163).

Conclusion

Moving beyond traditional conservation and preservation strategies and theories, designers can remodel existing buildings using a process that values unusual site-specific narratives and occurrences. These stories can provide a generator or rationale for the revisions or modifications to the building or site reuse. When remodelling contaminated buildings' unusual histories, uses or readings of identities can provoke the designer. This may influence their ideas and force them to confront difficult decisions, sometimes with a moral or political dimension, about the method and consequence of reuse. In an interview in 1992 Giancarlo De Carlo stated:

I believe a lot in the revelatory capacity of reading... if one is able to interpret the meaning of what is engraved, not only does one come to understand when this mark was made and what the motivation behind it was, but one also becomes conscious of how the various events that have left their mark have become layered, how they relate to one another and how, through time, they have set of other events and have woven together our history (Giancarlo De Carlo, 1992, p. 167).

Whatever shape or form a contamination has taken, during reuse the censorship or re-edification of these memories, values, and narratives is a complex matter for consideration in the design process. This leads to interior architecture and spaces that are a composite of meaning and memories; a complexity that is impossible to replicate in new build architecture.

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[un]disciplined¹

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Abstract: *Despite significant variation in regional approaches to interior design² nomenclature, regulation accreditation and research, there is global agreement about the contested and problematic nature of the identity of interior design. Even the name of the discipline's peak international body, IFI, displays the difficulties of identity offering a selection of options in its title – International Federation of Interior Architects/Designers – and struggles to represent the diverse characteristics of its regional member institutions. In recognition of this, IFI initiated a Roundtable discussion to initiate an international discussion on the identity of interior design. The paradigms presented at the Roundtable provide an opportunity to position interior design in Australia in an international context. The Roundtable discussions also provide a useful basis for analysis of interior design as a 'field' encompassing professional practice, education and academic theory and research in Australia at the current time.*

Keywords: *interior design, interior architecture, discipline*

The grace of time

Interior design is evolving as a discipline. In relation to other established creative fields such as architecture or visual art, interior design is only just emerging. Recent thinking about both theoretical and practice-based concepts of the discipline (Attiwill, 2004 and Zamberlan, 2006) indicates that interior design is in a formative state. In her discussion of what a history of interior design might be Attiwill proposes that 'An interior history is, at this stage, a concept that is in the process of taking shape' (p. 1) and in relation to practice, Zamberlan makes reference to '...the recent professionalisation of the interior design discipline...' (p. 6). Yet the identity and substance of the interior discipline or field encompassing the profession and education; its practice and theory, do not appear to be developing in accord across the globe. Possibly in acknowledgement of these differences, which are in some cases fundamental, the peak representative body, The International Federation of Interior Architects/Designers (IFI), hosted an international *Roundtable* discussion in June 2006 to consider '...the state of the profession as it is perceived today...and to formulate a directive opinion to fuel the world-wide debate on the position of the profession' (Lester, 2006). Invited speakers and participants at the Roundtable included representatives from the various professional and educational organisations that comprise IFI's membership³.

IFI selected a paper entitled *Interspace* by Norwegian academic Ellen Klingenberg (2005) as the positioning paper for the *Roundtable*. In her paper, Klingenberg identifies the need to consider interior architecture⁴ as a field of study – not as discreet entities of academia or practice. ‘The professional interior architects’ definition of their field tells us what the interior architects **can do**...but not what interior architecture **is**...I see a strong need for this distinction, in order to investigate the field of interior architecture as such, not as a synonym for the profession’ (p. 4). Apart from exposing one of the reasons for the lack of identity of interior design, Klingenberg’s observation also foreshadows the professional blight that has affected some established disciplines whereby the definition of a professional field is little more than a list of the functional characteristics of the particular occupation itself. In terms of her discussion of professional identity, Klingenberg’s paper aligns with the seminal work of Johnson (1972), *Professions and Power*, and his rejection of professional models that offer lists of descriptive characteristics and proposes an alternative model which allows for the differing cultures of professions that may take into account theoretical and conceptual knowledge as contributors to the identity of a particular field.

At the *Roundtable*, invited speakers were asked to respond to Klingenberg’s paper from the perspective of their own region. These regional accounts of the interior discipline were as varied conceptually as they were geographically. The broad range of positions represented at the *Roundtable* exposed the complex intersections of issues that dominate the discipline, with unsurprising yet revealing emphasis on identity, nomenclature, practice, education, research and theory. Possibly the only consistency that linked the speaker presentations was the constant reference to interior design as a ‘new’ or ‘emerging’ field. As noted by one participant, ‘We are young as a discipline and that is why we are struggling to define it. It will only be through the grace of time that we can see these issues clearly’⁵. The international paradigms presented at the *Roundtable* provide an important context for analysis of interior design in Australia in its current stage and can assist in proposing the future of the discipline – as a profession and field of study – in this country.

Restrictive practice and expansive thinking

Regional positions represented at the *Roundtable* ranged from the long established and highly regulatory condition of North America where use of the title ‘interior designer’ is extensively protected by title and practice legislation acts; through to the expansive proposition from the Korean speaker from KOSID who suggested a new name and identity for the discipline ‘inter_space design’.

In the United States and Canada, 40 states and provinces have some form of regulation, most commonly in the form of title acts which restrict the use of title to those who have fulfilled the requirements to be registered to use the title and licensed to practice (American Society of Interior Designers, 2006, p. 2). At the *Roundtable*, speakers and delegates from the American Society of Interior Designers (ASID), and the International Interior Designers Association (IIDA), described the criteria that must be met for interior design registration and licensing including completion of an accredited tertiary interior design program, with the responsibility for accreditation largely attributed to the Council for Interior Design Accreditation (previously FIDER) which sets educational standards for interior design degree programs. Approximately half of the degree programs in North America that are eligible for accreditation (minimum 4 year degree programs) have been accredited by the Council for Interior Design Accreditation (or its antecedent organisation, FIDER) (Hansen, 2006, p. 15). These accreditation standards include detailed, prescriptive content for interior design curricula and the required demonstrable student outcomes. Upon graduation and a minimum amount of graduate practice experience, registration and licensing may be achieved by successful completion of a practice examination; a process administered by the National Council for Interior Design Qualification (NCIDQ). Despite this established tradition of regulation that has existed in the US since the 1960s, the ASID representative, Sashi Caan described the rise of the problem of illegal practice which has created what is perceived as a significant threat to the discipline (and the public) from unqualified practitioners. In addition, Caan characterised the interior design profession in the US as having '...an identity crisis...a severe lack of esteem' (Caan, 2006, p. 41). The North American speakers also described their recognised body of interior design theory and research, a jointly funded project of the five North American professional and education organisations⁶. The project was undertaken by Martin and Guerin, academics from the University of Minnesota, who have formalised *The Interior Design Profession's Body of Knowledge* (IDBOK) (2005) with an extensive literature search of publications within and related to interior design. The listing is predominantly comprised of quantitative scientific and behavioural research publications that justify the public importance of interior design as a regulated and protected profession. Not surprisingly, this document is contentious amongst interior design academics in North America.

The *Roundtable's* invited speaker from the Asia Pacific Space Designers Association (APSDA), Ronnie Choong, described a move towards professional legislation that is currently taking place in Malaysia. It is interesting that interior design in Malaysia appears to be following North America's regulatory example in an attempt to solve the same problem that interior design in North America is now suffering from. 'Over the years due to the

non-regulation by the government, the interior design profession has acquired a poor reputation due to poor practices by people who, without proper training or education in Interior Design, are misleading the public by posing as Interior Designers' (Choong, 2006, p. 47). Incomprehensibly, the perceived solution is one initiated not by the profession's own organisation, the Malaysian Society of Interior Designers (MSID), but a proposal for the legislation of the interior design profession by the Board of Architects of Malaysia (LAM). Further, it was revealed that 'There was no dialogue covering this proposed legislation and to date MSID is not sure how this legislation will affect the industry and to what extent it will benefit Interior Designers' (Choong, 2006, p. 48).

In contrast to these two highly regulatory paradigms, the Korean speaker representing the Korean Society of Interior Designers (KOSID), Joo Yun Kim, presented an expansive attempt to identify what interior design is as a discipline and in doing so, proposed an alternative identity for the field that moved beyond descriptions of occupational function and towards a spatial concept he described as 'inter_space design'. Kim began his presentation by showing images of the work of international designers who were invited to design hotel room interiors for exhibition at the 2002 Milan Furniture Fair. None of the invited practitioners were interior designers, but were mostly architects and industrial designers.⁷ In response, Kim asked the question: 'Where are the interior designers?' The question was provocative and was devised to lead into his discussion of 'What is interior design?' Which, in direct reference to Klingenberg's *Interspace* paper, he expanded beyond interior space to '...an enormous circle able to include new hybrid space related design fields that may appear in the future' (Kim, 2006, p. 29).

Philosophically located between these oppositional paradigms of restrictive and expansive practice at the *Roundtable*, was Klingenberg's presentation of her positioning paper *Interspace*. Klingenberg's paper is one of a number of recent publications (for example Attiwill, 2004 and O'Brien, 2003) that identify interior architecture as occupying a position that extends beyond the boundaries of physical architectural enclosure. Like Kim, Klingenberg explains interior architecture as 'space design' (2005, p. 1) and claims that it '...is about more than the physical environment – it concerns storytelling and ceremonies that take place inside the architecture' (p. 2). She further extrapolates to propose two fundamental considerations for the field – one which relates to the physical space; and the other which relates to '...the abstract space – the storytelling, or the action space, the undefinable aspects that deal with the user's perceptions of the environment' (p. 3).

Having established the need to regard interior architecture as a field in its practical and conceptual entirety, Klingenberg calls for the development and dissemination of theory for

the discipline that is generated by, and applicable to, both academia and practice alike. Klingenberg identifies that much of the knowledge that does exist in the field is 'silent'; undocumented, unwritten and unpublished (p. 5). Again, Klingenberg's argument may be aligned with Johnson's professional typologies (1972, p. 45) in which he identifies professions under the control of patronage as those in which knowledge development is aligned with the competitive advantage of the client (or patron) and not always disseminated within, or regarded as a contribution to, the field, thus reducing significance in the importance of research communication. For Klingenberg, the development of interior design knowledge is necessary and inextricably linked to the development of the field itself. 'Knowledge of the field – both theoretical and in practice – is fundamental...If the theory has been written/ formulated, the knowledge can be more precise and it gives the interior architect a better tool for deeper understanding of and reflection. Deeper reflection opens up for debate and important criticism, which in turn builds a stronger basis for our field' (p. 5). The type of discussion and debate called for by Klingenberg philosophically, conceptually and territorially extends beyond the content of IDBOK, identified in North America as the research and theoretical collateral of the field.

As convenor of the *Roundtable*, IFI provided the setting for what has possibly been the most expansive and candid discussion of interior design amongst practitioners and educators from around the world. Conscious perhaps of its own mandate as representative of interior designers world-wide; its board composition of both academic and practitioner members; the non-specific nomenclature of its organisational title (interior architects/designers); and its formal definition of interior architecture/design as a description of function (what interior designers **do**), rather than a description of the field (what interior design **is**), IFI took the initiative to open dialogue that was bound to include complex and possibly irreconcilable concepts of nomenclature, identity, regulation and the seemingly eternal disconnection between theory and practice.

All of these issues were debated, although not necessarily with any final consensus, at the *Roundtable*. If nothing else, however, analysis of the varying paradigms presented does allow us to position the development of interior design in Australia in an international context and consider its future direction.

Silence and invisibility

In Australia, interior design practice is unregulated and interior design education is unaccredited. A result of this is unique acceptance of dual terminology within the country (interior architecture and interior design) to describe the field. This appears to be peculiar to

Australia, unlike the regional specificity of titles elsewhere, such as *interior architecture* in Europe and interior design in North America⁸. Over the last decade, interior architecture has become accepted nomenclature despite Architects Act legislation in most States of Australia rendering it illegal for anyone other than a Registered Architect to use the title Architect or its derivatives (including architecture and architectural). The gradual adoption of the term interior architecture has been encouraged by some tertiary institutions who, in an attempt to distinguish their programs from interior decoration and design qualifications offered by the TAFE sector, have either established new Bachelor Degree programs in Interior Architecture (for example, University of New South Wales and Monash University) or have changed their previously named Bachelor of Interior Design degrees to Bachelor of Interior Architecture (for example, Curtin University and University of South Australia). In 2006, four of the nine university programs in the country use the term interior architecture in the title of their degree and five use interior design. Seemingly satisfied with the universities' assurances that prospective and enrolled students are clearly informed of the restrictions on use of title legislated by Architects Act and that completion of an Interior Architecture degree does not confer qualifications in Architecture, the state-based Architects Registration Boards have left the education providers to their own devices and appear content to pursue unregistered practitioners who advertise themselves under the 'architects' section of the yellow pages telephone directory⁹. Both professional organisations, the Design Institute of Australia (the professional body that represents interior designers) and the Royal Australian Institute of Architects (RAIA) have been silent on the issue of nomenclature. The RAIA's silence is not surprising considering the Productivity Commission's 2000 *Review of Legislation Regulating the Architectural Profession* recommendations to repeal the Architects Act legislation in each state, a recommendation that to date remains unimplemented.

In her proposed approach to the history of the field, 'Towards an interior history', Australian academic Suzie Attiwill (2004) views the issue of nomenclature as integral to her consideration of what the field is (and *what* a history of the field might be – a history that she identifies as 'inter-story'). For her, 'The use of the term 'interior design' is deliberate and not interchangeable with interior architecture. A distinction is made here to indicate that the design of interiors is not to be limited to inside the built form. This is vital to the ability to apprehend emerging forces' (2004, p. 3). By making this distinction, it could be interpreted that Attiwill is referring the term 'architecture' as a legislated title, to describe the activity of Registered Architects, a discipline concerned only with built enclosure and not as the *illegal* form that is increasingly being adopted by various fields to describe deliberate creation. Attiwill further extends the position of the field beyond architectural enclosure and suggests

that 'In many ways, temporality is emerging as a defining element of current practice...this offers much to consider and rather than interior as always already inside something – inside a container – it suggests an interior as produced through the specialisation of matter by time: an event' (p. 6). This expansion may be aligned with the thinking (and practice) of another Australian academic Darragh O'Brien (2003) who considers the potency of the void as a spatial design generator (albeit of architectural space) over tangible elements. The work of both Attiwill and O'Brien can also be associated internationally with Klingenberg's concept of the abstract or action space (2005, p. 3) and also with Kim's hybrid space design (2006, p. 29).

The notion of moving beyond the discipline has also been considered by Australian academics Franz and Lehmann in the education context of their collaborative interior design and architecture undergraduate studio teaching where they employed Nicolescu's concept of 'transdisciplinary' practice as being '...at once *between* the disciplines, across the disciplines, and *beyond* all discipline' (Nicolescu, 1997 cited in Franz & Lehmann, 2004). Moving *beyond* discipline is an attractive option for interior design, a field that is overshadowed by the rigorously disciplined discipline of architecture. Linder suggests a possible reason when he explains transdisciplinarity as a '...move of survival...[involving]...the formulation of knowledges that require our disciplinary scholarship and technique but demand that we abandon disciplinary mastery and surveillance' (2005, p. 13).

Another view of the identity of the discipline is presented by Zamberlan who, like Klingenberg, attempts to include consideration of academia and practice as equally fundamental components of the field. Rather than looking out (or forward) towards emerging forces, Zamberlan concentrates her study on what she perceives as missing from theoretical and researched discussion of interior design. Locating interior design practice '...at the intersection between the volumetric manipulation of a space and the articulation of the surfaces within' (2006, p.1), Zamberlan asserts that one undeniable aspect of interior design practice is the creation of 'fashionable' outcomes, an aspect that has been largely ignored within 'the education or the academic discourse within the discipline... The notion of appearances in the design industry, the built environment in particular still refers to the adornment of a functional object as a separate component, an after thought, to the design process' (pp. 4–5). While Zamberlan explains this lack of practice-focussed publication as a result of interior design's existence 'in a critical no man's land between architectural catch up and maintaining a high moral ground with regard to decoration' (2006, p. 8), it is undeniable that there has been a severe lack of academic publication relating to interior design practice.

In Australia there is one academic journal for interior design¹⁰, the *IDEA Journal*, published annually by IDEA. A survey of the sixty-one articles published in the journal's six issues to date reveal only one reference to the work of an interior designer¹¹. Academia's often expressed frustration with the stylistic and fashion-driven outcomes of interior design practice is not helped by the fact that the majority of academics are not actually *from* the discipline and as a result, may have no fundamental professional allegiance to it, no personal practice experience of it and no personal educational experience within it. On another level, the increasing research-focus of the tertiary education sector and the scientific bias it has taken to date does not recognise professional journals¹² as forums for academic research publication. Unfortunately these are exactly the types of publications where practice-based or practice-led discussion is most likely to take place. This is an unhelpful situation for any field that is in emergence, let alone a visual, creative discipline such as interior design.

Following his recent call for expressions of interest to write on the area of current commercial workplace design, the editor of one professional interior architecture and design journal was surprised to receive responses from a number of architectural academics, but no response from interior design academics. This prompted the editor to question the relationship between interior design theory and practice and ask 'Is interior design being taught as it is being practiced?' (Bruhn, 2006) or indeed, perhaps a more important question to ask from an academic point of view would be 'Is it being practiced as it is being taught?'

Of the full-time continuing academics who teach and research in eight of the nine university interior design programs in Australia that are members of the Interior Design/Interior Architecture Educators Association (IDEA)¹³, less than half (39%) have qualifications in interior design. 50% have qualifications in architecture and the remaining 11% have qualifications in other disciplines, predominantly industrial design and the visual arts (Interior Design/Interior Architecture Educators Association, 2006). Charles Rice who is arguably Australia's most published and respected academic in the field of interiors has undergraduate and postgraduate qualifications in architecture, a position in the architecture department at UTS and an important body of work that focuses on the significance of the domestic interior in the 19th Century. In *Constructing the Interior – Introduction*, Rice and his co-author, Barbara Penner, propose '...a new field of enquiry into the interior, one that is of particular relevance to historians, theorists and architects concerned with the positioning of domesticity within contemporary culture' (2004, p. 5). Who the authors consider their work relevant to reveals the continuing dominance of the architecture discipline and its resulting impact on the development of interior design. When considered in relation to Attiwill's expansive positioning

of the interior design discipline, it is no wonder that interior design's desire for identity, gravity and relevance is taking it outside of its enclosing architectural realm.

Loaded

And what of practice? At what stage is the development of interior design practice in Australia? What is the profession's contribution to the field of interior design, and therefore to the body of theory for the discipline? Is it grounded, creative and experimental enough to contribute to an expansive and cultural discourse of the field as identified by Klingenberg?

One way of identifying examples of interior design work for discussion that best represents the direction of contemporary practice in Australia is to look to Australia's annual Interior Design Awards program (IDA). In his survey and account of the re-judging of the Victorian RAlA awards, Philip Goad, although recognising that the reading of such a history is 'loaded' (2003, p. 49), justifies the significance of the record of peer judged professional awards. 'Instead of a history written long after the fact, the awards, when collected together as a document, form an instantaneous record of contemporary peer recognition. They tell us what, at a particular moment in time, a certain group of people believed might embody excellence...' (p.11). The DIA's, peer judged Australian Interior Design Awards were established in 2004 and include a variety of categories for commercial and residential interior design. As well as awards bestowed in each category, there is an annual overall award for 'Excellence and Innovation' that is selected by the judges from the award recipients in each of the primary categories. The projects receiving the overall 'Excellence and Innovation' award from the 2005 and 2006 IDA programs have been selected for discussion here as well as the awarded practice for the 2006 'Emerging Interior Design Practice' category which provides a controversial and revealing case study.

In 2006, architectural practice Terroir received the IDA award for 'Emerging Interior Design Practice' on the strength of a suite of their projects. Terroir describe their work as covering '...all aspects of architectural practice including teaching, writing, architectural, urban and interior design and project management and procurement' (Terroir, 2006). Across all of the IDA categories, entry of interior projects by architectural practices who, like Terroir, regard interior design as an aspect of architectural practice is not uncommon. In these cases, although the IDA entry form requires entrants to identify the project's interior designer by name, this section of the form is typically left blank or filled with the name of an architect in the practice. IDA judging is conducted anonymously so judges do not know the authorship of entered projects. From one point of view, Terroir's award for 'Emerging Interior Design Practice' may be questioned in line with Kim's suggested invisibility of interior designers in

contemporary design practice. From another position, the award can be seen as an overall strength of a professional award program that (uniquely) allows recognition of excellence in the design of interior space, regardless of authorship. This award result in many ways encapsulates the problematic nature of the identity of the interior design field.

In 2005, Multiplicity in association with Mel Ogden received the IDA's overall award for 'Excellence and Innovation', following their award in the 'Residential Design' category for their *Church Conversion* project. Again, the openness of the awards entry criteria is significant as interior design practice Multiplicity and landscape sculptor Mel Ogden were able to enter the IDAs as equal co-authors of the project. The strong transdisciplinary nature of the project resulted in an unconventional and highly experimental residential conversion. Multi-disciplinary collaboration between Multiplicity's interior design and architect team members and Mel Ogden moved the authors beyond their own disciplines into a space where they were influenced by the creative thinking of their collaborators; possibly into an 'inter' space.

The IDA 2006 award for 'Excellence and Innovation' was awarded to the *Solivoid* project by the Monash University Faculty of Art & Design Spatial Research Group. *Solivoid* was a temporary hospitality space designed for the 2005 DesignEX interior design exhibition at the Melbourne Exhibition Centre. *Solivoid* incorporated inflatable, digital and multi-media technologies to create an exhibitory installation that questions the role of the interior environment and the boundaries between inside and outside (O'Brien, 2006, p. 1). One of the designers from the Spatial Research Group, Darragh O'Brien is the author of 'Absolute zero – revealing the void', previously referenced in this paper. The connection between practice and theory in this project is indivisible and undoubtedly one of the reasons for its success as a provocative and experimental work that challenges conventional understanding of interior space. *Solivoid* is a potent example of expansive practice that, importantly, was selected by a panel of practitioners as representing excellence and innovation in the discipline.

Inter[ior]

Despite the ever present dominance of architecture, or perhaps because of it, interior design in Australia is more closely aligned with a European conceptual view (as presented by Klingenberg at the IFI Roundtable) of what interior design is as a discipline. If understanding of the discipline is taken to necessarily include practice and academia, which in an ideal situation intermesh and enrich each other to the benefit of the entire culture of the field, then interior design in Australia is indeed still very much in development.

It could be argued that interior design has always been an outward looking, expansive discipline, one that emerged in the first place from transdisciplinary desire and unconventional spatial opportunity. In both practice and research, interior design in Australia demonstrates a need to escape, or move beyond, the dominance of architecture that permeates practice, just as it does academia, and move on to a space where perhaps 'inter' becomes the potent prefix, rather than interior. Perhaps the two, still quite discreet, components of the field are equally advanced in this regard, but appear to have not yet connected in a significant or continuous way where each can inform the other.

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Endnotes

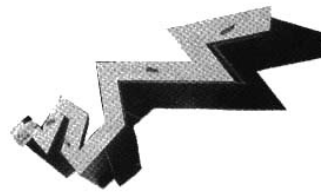
- ¹ The author acknowledges the theme of a recent issue of the Berlage Institute's *Hunch* publication as influence for the title of this paper.
- ² The term interior design is used generally by the author throughout this paper as the name for the discipline that is referred to as interior design or interior architecture in different parts of the world. When regionally specific positions are discussed, the author uses the relevant term for that region.
- ³ Professional organisations represented at the roundtable included the US International Interior Design Association (IIDA), American Society of Interior Designers (ASID), European Council of Interior Architects (ECIA), Asia Pacific Space Designers Association (APSDA), Korean Society of Interior Architects/Designers (KOSID) and the Design Institute of Australia (DIA). Educational institutions represented included the National Academy of Arts Oslo Norway, University of South Australia, Hong IK University Seoul, Design Centre Johannesburg South Africa, Interior Design/Interior Architecture Educators Association (IDEA) Australia and New Zealand, Temesek Polytechnic Singapore and CEPT College of Interior Design India.
- ⁴ *Interior architecture* is recognised Norwegian nomenclature for the discipline that is the topic of this paper.
- ⁵ Zamberlan, L. comment made at the IFI Roundtable, June 24, 2006, Singapore.
- ⁶ The five organisations are ASID, IIDA, NCIDQ, Interior Designers of Canada (IDC) and the Foundation for Interior Design Education Research (FIDER).
- ⁷ The images shown included interiors by industrial designer Ron Arad, furniture designer Gelano Pesce and architects Zaha Hadid and Toyo Ito.
- ⁸ In North America, the term Interior Architect '...whilst not forbidden is not a popular title that is used.' (Hansen, 2006, p. 15).
- ⁹ It is revealing that the Architects Registration Boards also ignore the use of the title architect in employment advertisements for positions such as 'information architect', 'web architect' and 'Java architect'.
- ¹⁰ To the author's knowledge, there are in fact only two academic journals for interior design worldwide, the other being the *Journal of Interior Design*, published by the North American Interior Design Educator's Council (IDEC).
- ¹¹ This was an analysis of a domestic space by Australian interior designer Nik Karalis in Lawrence, J. & Hurst, R. (2003) *The Nourishing Art*. *IDEA Journal*, 2003, 35–46. It is of significance that Karalis, arguably one of Australia's leading interior designers, became a registered Architect in 2006 through the Architects Accreditation Council of Australia (AACA) National Program of Assessment. To explain his reasons for doing this, Karalis stated 'I had several buildings built without being registered and, in order to be taken seriously by the profession, I felt formal registration was a necessity.' (Karalis, 2006, p. 69). Although Karalis does not mention which profession he is referring to, one can only assume that he means the *architecture* profession.
- ¹² Professional Australian interior design journals include *Artichoke*, *Indesign* and *(inside)*.
- ¹³ These universities are Curtin, Monash, RMIT, Swinburne, UniSA, UNSW, QUT and UTS.

Jewish Museum of Berlin: Dancing Between the Lines

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Abstract: *Architecture provides the site for this exploration of the relationship between museums and performance, which focuses on the Jewish Museum of Berlin. Between 1999 and 2001 the Jewish Museum operated solely as a venue for architectural tours. Rather than housing static objects it became a location where the experiential body on the move was central to its existence. This was particularly apparent in June 1999 when the Sasha Waltz Dance Company performed 'Dialogue '99 II' within the museum as a response to, and exploration of, the provocative and haunting interior architecture of Daniel Libeskind. This paper examines the interiority of the museum as a performative site activated by dancing and spectatorial bodies. It posits that its 'emptiness' held a greater plenitude for memorialising, constituting a radical moment for museum architecture.*

Keywords: *architecture and dance, museum, interior design*



Once...

All art is rooted in memory...

nothing new can arise without recollection and retrospect (Pieper, 1995).

In a public presentation at New York University, entitled 'No art no history', (19 October, 1999), Professor Donald Preziosi suggested that the modern museum has had its day and that performativity may be a new way of thinking about and presenting our history. Preziosi saw the museum as a machine for the productions of certain effects, orchestrating a theatrical experience and confronting truth; the greatest link between fiction and theatre¹. For Preziosi, museums are inextricably bound up in architecture, not as built artifacts but as forms of theatre.

Interior architecture is the principle site for this exploration of the relationship between the museum and theatre. In discussions surrounding art-galleries and museums, the interior tends to be absorbed into the amorphous concept of 'space', its edges blurred into a uniform whiteness and relegated to the background as a, preferably neutral, container of the objects it houses. However, it has a greater part to play in the discourse and, in taking center-stage as

a revolutionary element, is capable of changing the role of the contemporary museum. The example focused on here is a conspicuous work-of-art in itself with distinctly sharp edges. Daniel Libeskind's Jewish Museum of Berlin has been widely discussed and photographed since it was completed and opened to the public in February 1999. However, before it housed the collections and exhibits for which it was built, it was solely a spectacle in itself; a site for architectural tours. In June 1999 it provided a venue for performance in Sasha Waltz Dance Company's *Dialogue* project, as part of the Berlin Festival *City as Stage* (images from which are utilised in the text, from a performance video made by the company and used with their permission).

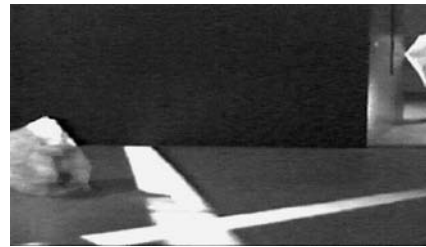


Dialogue

Dialogue, as a conversation between two or more people, is particularly associated with a theatrical script or a scholastic exercise. This paper endeavors to discuss how architecture and the performing body converse within the particular confines of the museum, by focusing on the architecture of the Jewish Museum and the Sasha Waltz dance piece that took place within it. Waltz and her dancers worked for four weeks in the building to develop a promenade performance where the audience was lead by the choreographer herself through the fractured architecture of Daniel Libeskind. The performance posited a new way of approaching the museum as a place of exchange where the built form and the bodies moving within it take precedence over objects on display.

The *line* played a significant role in both Libeskind and Waltz's projects. For the architect, lines were the conceptual, historical, geographical and graphical generators of his building. Libeskind has titled the Jewish Museum 'Between the Lines'... 'because it is a project about two lines of thinking and organisation and about relationship. One is a straight line, but broken into many fragments; the other is a tortuous line but continuing indefinitely' (Libeskind 1996, p. 6). Sasha Waltz and her dancers then worked with these lines to generate the performance. Her project is a dialogue with the architecture; a dialogue between the lines, between the dancing body and the built form.

The line of my argument negotiates between the architecture and the performance, endeavoring to capture the dialogues they establish. Like Libeskind's architecture, which presents a discontinuous spatial script, it traces an irregular path, zig-zagging between idea and artifact, memory and experience. It establishes architecture as a storyteller and the museum as a performative site. In the end this is neither the telling of a museum, of a building, nor of a performance, but rather the telling of experience itself. Our guide is *Mnemosyne*, goddess of memory and mother of the Muses. It is her thread of remembering that leads us metaphorically through the labyrinth of my argument and literally through the fragmented labyrinth of the Jewish Museum.



Storyteller

The storyteller is the first performer we experience, whose narration captures things, shifting them from one space to another. Stories related to us as children are both performed and told, through the body enacting all their forces, characters and movements. The child becomes witness to the tale, through the language of the body. These stories are then remembered through play, infiltrating the space of the child who encounters obscure places within which the stories are then re-enacted.

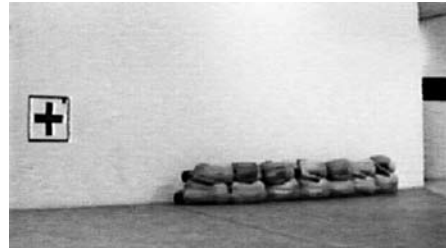
Architecture, linked to memory, has its own stories to tell.

The origins of the museum lie in a peripatetic architectural experience, where memory was inscribed into the building, spatially locating knowledge in the architecture itself. Architecture therefore provided an aid for memory, which was experienced by a body on the move.

The building itself acts as a storyteller.

Walter Benjamin considered telling stories as an exchange of experience rather than information. Passed on from mouth to mouth, from the performing body of the storyteller to the receiving body of the listener, it is neither linear nor does it neatly frame the account. Plausibility is not the issue. The 'spirit of storytelling' is where 'the psychological connection of the events is not forced on the reader. It is left up to him [sic] to interpret things the way he

[sic] understands them and thus the narrative achieves an amplitude that information lacks' (Benjamin, p. 89). For Benjamin the value of information does not even survive the moment, whereas a story expands itself, preserving and concentrating a strength, which it continues to release into the future (p. 90).



The end of the museum

This paper suggests that the museum, as a place of performance, provides a site where memory is activated through storytelling, rather than information. Interpretation has precedence over accuracy, and time as the fourth dimension ruptures the Cartesian perspectival. Objects and viewers are no longer hermetically sealed within the vitrine, the diorama, the frame and the constructed homogeneity of museum space.

Within the epic and tragic story of Berlin and its Jewish inhabitants, the Jewish Museum is an event in itself, to which Sasha Waltz and her dancers responded and established a dialogue. Bernard Tschumi asserts that architecture is as much about the events that take place in spaces as the spaces themselves. This 'event dimension' replaces static notions of form and function by 'attention to the actions that occur inside and around buildings - to the movement of bodies, to activities, to aspirations; in short to the properly social and political dimension of architecture' (Tschumi, p. 103).

The museum becomes a place between the lines; dancing between the boundaries that demarcate museology, art, architecture, and performance. This interstitial turn suggests a reworking of both the museum as we know it and the built environment as we perceive it. It favors the experiential, positing architecture as a space within which we act and which acts upon us. In order to locate the reader and set the scene for Sasha Waltz's dialogue, a walk through the building is necessary; an architectural tour of Berlin's Jewish Museum.



The architectural tour

The difference between the standard models of the theatre and the museum is that in the former the spectator is traditionally seated, and accordingly static, whereas the latter concerns the body moving through scripted space. A building is therefore 'known' through a bodily experience and a spatial narrative of the architecture.

The Jewish Museum was formally inaugurated as an independent institution in January 1999, over a decade after Libeskind won the international competition for the new wing to the Museum of Berlin. His 'radical' entry, offering a 'quite extraordinary, completely autonomous solution' (Spens, p. 41), was physically separated from the Baroque Courthouse-turned-Museum to which it was a proposed 'extension'. It therefore pre-empted and encouraged the subsequent administrative separation of the institutions.

Following this commission in 1989, the wall was breached and preparations began for Berlin to resume its role as the Capital City of a unified Germany. Once more Berlin's landscape was devastated, this time with a program of rebuilding rather than its previous destruction through war. Potsdamer Platz became, according to Michael Spens, a commercial center of 'tamed block plans and disingenuous facades', against which 'the Jewish museum stands out as a miraculous intervention' (p. 41). For Libeskind it was no longer the time of the façade; 'It is a different time and while the word façade might still be around, I don't think anyone is looking at them, even if the architects of Berlin are still constructing them' (1999, p. 35). Instead he was concerned with the museum as a container for sharing historical objects and meanings on a range of differing levels.

The internal experience was therefore paramount in the design of this curious object located in the haphazard bricolage of Kreuzberg's bomb-scarred neighborhood. Recalling the cinematic landscapes of 1920s German expressionism, this angular and fractured architecture allows for an internal sequential route for visitors, whilst disorientating them within the zig-zag of its corridors and exhibition spaces. It is experienced as both a processional series of spaces and a curious labyrinth within which to make discoveries.

Libeskind's primary goal was for the Museum to express the complex history of Jews in Berlin in architectural form, making that story relevant to the present. He chose to focus on the exile and execution of Berlin's Jewry in the 1930s and 1940s. 'Absence' therefore became the central metaphor in the architecture, expressed through a series of voids around which the entire building is staged. What follows is a description of the journey within the built artifact that first served as a site for architectural tours alone.

Although standing apart from, and in sharp contrast to, the municipal museum, the new building must nevertheless be entered via the older institution. The harmony and clarity of the Baroque building is shed by the visitor in the descent of a black slate staircase, which leads to an underground tunnel connecting the buildings. In his LA Times' article 'The pain and the hope live on', architectural critic Nicolai Ouroussoff wrote: 'The deflected entry is a subtle psychological ploy; by temporarily drawing you away from the Jewish Museum and anchoring the entry in a building devoted to Berlin's history, it reminds you of the abandonment that made the Holocaust possible. It is as easy to ignore the truth here as it is to confront it' (p. 80). You are then faced with a series of pathways leading to the E. T. Hoffman Garden of Exile and Emigration, the Holocaust Tower, or the stairs redirecting one upward into the museum proper where the ground is once more sighted. This junction of underground passages establishes the labyrinth as a significant spatial experience, serving to destabilise the visitor from the outset; an experience continually reinforced by networks of converging and diverging lines in the floors, walls and ceilings.

The inclined ground further undermines the body as do tilting forms in the underground garden, representing the 'nausea of instability' faced by the German Jews who escaped into exile. A sign outside the Holocaust Tower advises visitors to enter individually, allowing a heavy steel door to shut behind them. As light enters in from the upper reaches of this raw, concrete space the experience tends to be profound. Ouroussoff writes of its 'chilling effect' and one's awareness of 'sudden helplessness' (p. 80). Michael Wise writes that it 'induces feelings of claustrophobia and despair...' (p. 128), whilst Anthony Lewis, of the NY Times, experienced it as 'oppressive' and 'suffocating'. These emotive reactions (by critics who took the 'tour') are based on a combination of the architecture itself and the stories that each visitor brings to this space; stories which may be deeply personal or conveyed as 'history' by history, education and the media.

The ascent back to ground level is described by Ouroussoff as a 'painful reawakening', as you rise up the main staircase with its walls braced by skewed concrete beams. Glimpses caught through cross-shaped and slicing apertures in the skin of the buildings reconnect you with the

site and its surroundings. The ensuing journey is a pathway through subdued white-walled galleries linked across the voids by spatial intervals, signified by the dark graphite surfaces. Here, the pervading tension and melancholy are more subdued than in the claustrophobic underground spaces. However shards of light, cutting through walls and spaces, as well as glimpses into dark, inaccessible voids, assure these sensations are never dispelled.

The journey threads through a *seeming* labyrinth, crossing back and forth across the five voids which interrupt, and are interrupted by, the zig-zagging form of the building. This maze-like quality is reinforced by dead ends, acute corners and tilting ramps and walls. Black bridges, which cross the voids, highlight the sense of disorientation as you find yourself doubling back upon your pathway. Slots in the walls, stairwells and lift towers provide a visual layering and create further spaces through which to squeeze or find oneself at an impasse.

This is not the architecture of order or reason, but rather one that deliberately confounds, disorients and threatens the mind and body of the viewer. It is laden with stories and meanings, some immediately apparent, some suggestive and some forever elusive. As Bruno Cadorini, an architect who guided visitors through the museum, explained to Michael Wise; 'This building invites associations and a search for meaning' (p. 128). In his tours Cadorini referred to the architect's intentions whilst finding additional resonances and connections of his own. Museum visitors also have their own readings, many of which relate to the Holocaust. Sasha Waltz and her dancers worked with this layering of meaning and interpretation in their 'dialogue' with the building. Such open-endedness in architectural interpretation derives from a conceptual complexity, forming a deliberate departure from the closed scripts and spatial homogeneity of conventional museum and gallery architecture.



The end of space

The architecture of Libeskind's Jewish Museum signifies the end of a constructed view of space; the end of a body's particular position and relationship in space; the end of scenography. 'Scenography' is a word that belonged to 'art', 'architecture' and 'theatre', spatially and representationally. Etymologically it is the writing of the stage and, since the

16th century, has become inscribed into our ways of seeing and experiencing space as a disembodied perspectival view. By the end of the nineteenth century this was completely, and literally, encapsulated in the proscenium arch; a framed two-dimensional construction of a three-dimensional phenomenon that simultaneously distances and centralizes the viewer in the event. As object/event it is ordered and removed from the body of the subject/viewer. However in theatre, at the turn of the 20th Century, a revolution occurred that questioned and threatened this construct. Reflected in avant-garde art that was detonated by the World Wars, it exploded Cartesian space with the force that shook the foundations of space-time perception, undermining the very way we perceive ourselves. Whilst space was realigned the body was de-centralised, becoming both the viewer and the viewed, suggesting a more refracted fragmented and heterogeneous space. Some would suggest this was ***the end of space***.

This spatial revolution is captured in Brian O'Doherty's 'Gallery as Gesture' where he writes: 'the pedestal melted away leaving the spectator waist deep in wall-to-wall space. As the frame dropped off space slides across the wall, creating turbulence in the corners. Collage flopped out of the picture and settled on the floor as easily as the bag lady. The new god, extensive homogeneous space, flowed easily into every part of the gallery. All impediments except art were removed' (p. 246). Such a vignette of action, where the static gallery space is animated, metamorphosing into a live and gestural space, is at the heart of the major paradigm shift, which has occurred in 'art', 'theatre' and, more recently, 'architecture'. I would therefore challenge O'Doherty's suggestion of 'homogeneous' space collapsing out of the picture frame, positing instead that as it spilled, dispersed and fractured it rendered itself into a multiplicity, made evident by the de-centralised viewer. Multiple viewpoints become confounded without a frame to restrict and control it.

Daniel Libeskind captured this major paradigm shift when discussing theatre in an interview entitled 'The end of space': 'Space is not one, but space is plural, space is a plurality, a heterogeneity, a difference. That would make us look at spacing differently. We would not be looking for one' (1992, p. 86). The museum, as architecture and artifact, was threatened by this refracted and decentralised space and confronted by work demanding a more active participation. Space around the viewers is activated by the object, implicating them in the work and subject-ing them to the experience. The viewer, neither distanced nor central, is no longer passive, but implicated involuntarily, an active participant. In the Jewish Museum of Berlin, the building itself is an artifact within which the spectator moves; a spatiotemporal artifact generated from complex lines (both physical and conceptual) between which the architecture is formed.



Between the lines

According to Michel Foucault museums, theatres, cemeteries, libraries and fairs are 'heterotopias', set apart from everyday activity, production and consumption, creating illusory spaces that stage and project an alternative world. This was explored at the 1985 Venice Biennale, by Daniel Libeskind, whose Memory Machine was based on Camillo's Theatre of Memory. His shifting structure of fragments, texts, maps and mechanisms was neither functional nor stable, forming what Aaron Betsky refers to as '*the theatrum mundi*, a theatre of a new world inherent in ours, requiring an architect's performance' (p. 73). Libeskind was therefore aware of the notion of memory and a scripted architecture.

Before winning the Jewish Museum competition, which was his first commission for built work², Daniel Libeskind explored notions of chaos and disorder, seeking new orders and architectural forms. His architectural teacher and mentor, John Hejduk, musing on Libeskind's work writes: 'There is an explosion... into space...soundless. The debris is floating in a universe devoid of an ending; but with a difference. Each particle; each element; each sign; each figure; each shape; each plan; each thought is still intact precise' (Libeskind, 1981). For Juhani Pallasmaa 'these architectonic visions interpreted a multi-dimensional space-time experience' (Libeskind, 1981). This is architecture as performance and architect as performer. Libeskind's dance of cacophonous geometries is the work of both architect and musician; one who understands the dynamic possibilities of performative spatial gesture.

Issues of memory and a 3-dimensional tracery of lines have therefore been played out conceptually by Libeskind prior to the built architecture of his Jewish Museum, *Between the Lines*, for which he began his process with the act of inscribing marks into the surface of Berlin's complex and devastated landscape. In order to reveal the Jewish dimension of Berlin's history the architect created a map of imaginary lines connecting the site with addresses of significant figures in the Jewish cultural history of Berlin (such as Kleist, Heine, Arendt, Van der Rohe, Varmhagen, Benjamin and Shoenberg). These lines without beginnings or ends intersect to create a distorted Star of David across the city. Out of this invisible topography

'dynamic bodies' 'were extracted, defining space, configuring mass and projecting structure. The resulting architectural form zig-zags across the site like a serpent struck by a thunderbolt

The shattered form is the result of a forceful explosion, displacing the ground and bringing deeper layers to the surface as the crust of the earth opens up. As Kurt Forster (1992) writes; 'The folio of the earth, folded and refolded, and guttered by immense mechanics opens as a book written in the manner of creation itself; the faults and folds of Libeskind's Museum relate to natural history only like a tattoo to the skin, as a painful engraving of disembodied events on the memory of the living' (p. 22). This analogy to inscriptions on skin is reinforced by the cut and folded walls. The lighting slits created from the displaced topographical lines on the site, and folded up into the elevation, inscribe absence onto the surface of the building's corpus.

The jagged body of the building is dissected by a straight cut, forming an interrupted line, referred to as the void from deep within which is inscribed with the names of all the deported and murdered 'that silent litany at once beseeching and stonewalling the visitor' (Forster, 1992 p. 20). *Der Leere, The Void*; a discontinuous empty space, representing an absent presence, is the structural rib and the organising element. Yet it is not part of the museum. It is the uninhabitable corridor into which glimpses are caught through cuts in the architecture. It is the broken backbone of a society. Neither heated nor air conditioned it gathers dust and, although inaccessible, is constantly encountered within the narrative journey of the interior. It refers to the unrepresentable of the Jewish history of Berlin...the books, artifacts and humans burnt – 'humanity reduced to ashes' (Libeskind, 1999, p. 30).

So as the completed Museum deconstructs space and forms into a heterogeneity of intent and interpretation it was passed into the hands and bodies of others. Upon opening (without the collections, objects and displays it was designed to house) it remained principally a site for architectural tours before exhibits were installed and it reopened as a themed museum in 2001. Whilst 'empty' it was also made available to Sasha Waltz (and the guests she invited to co-create the work), another storyteller guiding us through this labyrinthine building.



Between the body and the built

As Benjamin (1968) posits; 'Memory creates the chain of tradition which passes a happening on from generation to generation' (p. 98). It does so through the story told which fashions the raw material of experience in a 'solid useful and unique way' (p. 108). This recalls the body of the storyteller, elaborating with gestures, movement and breath. Architecture, as a producer of memory, is completed by the physical presence of those who engage bodily with and within it. Libeskind insists that the Jewish Museum is neither monument nor memorial; '... it is a space for the encounter of history: a building and not a memorial'. As a site of encounter we have discussed how the building actively engages the body of the visitor in a perceptual way. This rich and complex experience is further theatricalised by performance itself; by an active dialogue between the body and the built.

Dialogue '99 II, as part of the 1999 Berlin Festival, continued Sasha Waltz's ongoing conversation with architecture as a generator of her work. Over the six-week rehearsal period the choreographer and her dancers explored the spaces of the Jewish Museum, whilst guided architectural tours happened around them. The rehearsal period therefore also became a form of performance.

Lisa Densem, who has danced with Sasha Waltz's company since 1999, described the rehearsal process as follows:

I think Sasha was overawed at first by what the Museum meant and was unsure of how she could approach a space that was speaking so much. Her solution was not to deal with the issues of the museum at all but to work in a completely abstracted way... The only instruction I remember was to respond to the space in some way and work with lines... But having said that I don't think she was oblivious to the fact that certain things, even if they came from an abstract place, would take on a resonance once they were placed in the museum. And I think that she chose to do certain things knowing how they would read, even if we hadn't originally intended them to be read that way. For instance we had

a shuffling line, a train, which came from simply tracing lines on the floor of the museum. But placing that before the body mountains, the piles of naked bodies, gave (of course) a whole new poignant and horrifying meaning in the space (Densem, 1999).

In this case the performers were responding to the space whilst bringing to the place the stories associated with the building.

This dialogue between body and building was referred to in the various reviews the show received. In one article entitled 'To speak and speak back' the reviewer writes of the murmuring architecture interrupted by the silence of the voids and how, without objects, the building speaks for itself until someone (the choreographer) speaks back. For critic Hammerthaler, the piece was at its most successful when the choreography spoke louder than the architecture and in a different language. In *Der Tagesspiegel's* review, 'Wavering on the precipice', Luzina (1999) writes of the challenge for dancers and spectators to explore the expressive and explosive building, suggesting that the museum was already a stage... 'Sasha Waltz, feeling the dispersed forms and interrupted lines, connecting the work to an architectonic archive of memories and significance, created space for her own associations'.

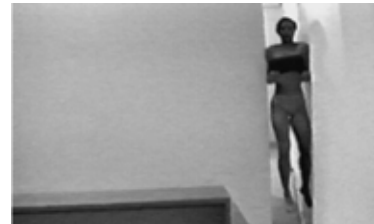
As a procession within the labyrinth the performance reconstructed the building through the experiences of both the visitor and the performer. The performers discover, interpret and represent the building. Through choreography they hold Ariadne's thread³; a perceptual strand that constitutes the most important line in this building-of-lines. Their way through is in the dance. Rather than the aerial photographs, interior images and architectural plans/sections by which we traditionally read and understand architecture, *Dialogue* is a discontinuous, interrupted journey of discovery, reinforcing the bodily mode of knowing built form; an architectural tour through movement, sound and light.

It begins at the beginning, the underground junction of corridors, and ends at this same point. The spectators are lead from space to space, by the choreographer, past rooms of dancers (three dancers facing an acute corner) and traces of where they once were (the damp outline of an absent body; sweat on concrete). A dancer, with pheasant feathers strapped to arms and legs, moves over a prone body in the goods lift. A naked man slaps his flesh onto the stone floor of the Holocaust Tower, the sound of which echoes in the concrete canyon. This scene is presided over by a face at the opening in the wall above. A dancer wedges herself in a slot, while another presents a flurry of limbs behind an inclined wall. A man turns to the visitor beside him and opens his mouth from which blooms a red rose. Women move in limp glassy cubes of organza, as if caught in collapsed showcases, whilst the audience

walks amongst them. Naked bodies rearrange themselves in endless piles of flesh. The journey is inherently linear but the performance is overlapping and simultaneously occurring throughout the building. The audience can follow from vignette to vignette or stray to encounter scraps of performance occurring on the periphery. Presence and absence is played out through sound, scent and flesh with the architecture, not as framed view but as an all-encompassing fractured spatial experience.

From the top of the great stair the audience looks down through the three exhibition levels of the building and into the basement. Bodies appear, disappear and reappear on the varying levels and finally move out of sight to complete the performance in the place where the performance began. The final image is of a large window in the corridor and in that window a diorama of moving bodies, trapped and unsmiling behind the glass, like so many specimens in a jar.

Here the disembodied eye of the spectator was replaced by the embodied I as the audience is absorbed into the performance, aware of itself as witness within an historic continuum. Memorialising is therefore engaged through the living.



(Re)presentation

All museums that aim to represent the past have to address issues of absence and presence but it is the extreme quality of the Holocaust that foregrounds the issue most profoundly in the Jewish Museum of Berlin.

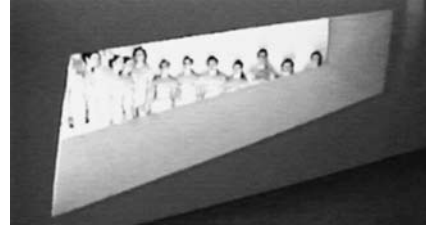
Vivian Patraka begins her book *Spectacular Suffering* by asking how can we represent the unrepresentable landscape of the Holocaust where the material history is so grounded in 'goneness':

Representation too, inevitably is about goneness...the way in which we continually mark a spectacular and invisible absence in order to remember who once was and what once happened (p. 4).

For Patraka, 'because performance is so heavily grounded in the presence of the bodies, it is a particularly useful site...' (p. 10). Referring to the museum, she speaks of multiple performances, which allow for multiple interpretations. This multiplicity creates a site for the performance interpretation to become performative (that is, inherently active). Harnessing the 'liveness' and the mutable relationship between the body and the building saves any museum from becoming a burial ground for artifacts.

In the Jewish Museum, the notion of absence is inscribed into the architecture and experienced by moving through it; past glimpses into the deep interiority of the void and out, through slivered views, to an exterior which folds back on itself. The building is storyteller. Writers and critics describing the building speak of the emotions triggered by the architecture in relation to the body. Violinist Isaac Stern commented: 'The forlornness and disorientation was so strong for me... this building says more than a thousand memorials, statues, pictures or screams' (cited by Wise, 1999, p. 128). For Libeskind it was not meant to be 'a fulfilling story' told by the architecture: 'It doesn't offer a catharsis, a kind of 'I've seen it, now I can go on and enjoy the rest of my trip'. It keeps everything in suspense, in tension' (Wise, 1999, p. 128). These comments emerge from connections made between the building and the Holocaust, witnessed in Waltz's response with moving trains of humanity, mountains of bodies and the vulnerable flesh in stark surroundings. Although the deputy director of the museum, Tom Freudenheim, insisted that this 'presence' of the Holocaust would be balanced by the exhibitions where 'we're looking at German-Jewish history and life here – and the vitality it had over time' (Wise, 1999, p. 128), Libeskind's building (where emptiness could be also read as a potentiality) acknowledges the historic eradication of Berlin's Jewry and the literal absence of a collection that had to be created especially for the subsequently installed exhibits.

Benjamin (1968) writes that 'storytelling is always the art of repeating stories and this art is lost when the stories are no longer retained' (p. 91). Like Patraka, he was concerned more with experience and interpretation than with the accuracy of the stories. Libeskind, through his architecture, has called into presence the absence caused by loss and destruction. The stories it re-presents are open to interpretation but are associated with a story of the Holocaust, which we all know well, one that is told and retold in varying forms. It is a story of unspeakable horror kept alive through the pervasive presence of absence, which also opens up a space of possibility.



The archetypal museum, through the muse of remembering, began as a sensual experience with the structured walk. The architect as orator placed images in the built fabric, creating a space of inspiration, re-activated by the organisation and movement of bodies within that space. This strategy was explicitly utilised by Daniel Libeskind whose museum, according to Ouroussoff; 'suggests a language closed to the uninitiated – one that is personal to Libeskind and extends through the city's entire fabric. To those willing to decipher that code, the building becomes a map to a silent landscape' (p. 80). Libeskind's ideas have been published widely on this building. These were then communicated on the architecture tours, to which further associations were added by the docents⁴. Whilst visitors bring their own stories and reactions to the building and its narrative, Sasha Waltz and her Company provided a further interpretation and series of stories in their performance dialogue.

The Jewish Museum of Berlin, in the moment when it was housing the dancers and spectators in performance, was presenting an alternative strategy for the contemporary museum. Waltz and her company called upon creative memory, transfixing and transforming the object of architecture. Along with architectural tours, an empty building inhabited by artists and performers presenting ephemeral exhibits and fleeting events, suggests a more radical and appropriate option to a museum housing permanent collections. Libeskind's building challenges the constructed homogeneity of space shattering it into a heterogeneity, which is further activated by spectators on the move. Here are the multiple overlapping spaces of interpretation of which Patraha speaks, situating and producing the spectator as historical subject, and reactivating the museum through a live and bodily 'dialogue'.

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Endnotes

- ¹ Preziosi was citing the John Soanes Museum in London.
- ² Libeskind was subsequently commissioned to design the Felix Nussbaum Museum (Osnabruck, Germany) completed prior to the Jewish Museum.
- ³ In Greek legend Ariadne, daughter of King Minos of Crete, gave Theseus a thread to navigate the labyrinth created by Daedalus, kill the Minotaur and find his way out safely.
- ⁴ A docent is a person who leads guided tours especially through a museum or art gallery.

A Design Workshop for Youth 'At Risk'

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Abstract: *This paper describes an award winning program offered to homeless youth in 2001. It details the key learning and teaching approaches that underpinned its success. In the description it highlights the potential of embracing 'design' as a framework for facilitating change in youth deemed 'at risk' of homelessness. Furthermore, it offers an opportunity to address the significance of design education in community programs.*

Keywords: *homeless youth, design education, homelessness*

Introduction

This paper outlines the design, delivery and outcomes of an educational design workshop provided for young people at risk of becoming homeless. It highlights the experiential and reflexive processes used to provide a particular student cohort with educational, personal development and living skills. This is achieved through a discussion of the pedagogical approach underpinning the program. A detailed description of a typical day of the workshop curriculum follows this discussion. Then an evaluation of the workshop and participant feedback is provided. Following this is a brief discussion of the potential design and delivery of similar workshops and ramifications for the education of youth 'at risk'.

The title of the workshop under discussion is, *A Design Workshop for Youth 'At Risk'*. It was delivered as a Queensland University of Technology community program and was initiated and facilitated by interior design lecturers in the School of Design. In 2001 it received a commendation from the Faculty of Built Environment and Engineering for *Innovation in Teaching and Learning*. The intention of this specialised program was to extend the educational experiences of a particular group of young people at risk of homelessness by providing a supportive learning environment conducive to meeting their needs and introducing them to new, relevant and challenging experiences. In this instance 'design' was used as a method to tease out as well as respond to the students' needs. This experiential and reflexive approach was important because it enabled the program to change as required and engaged all participants in the process.

The program, offered by the Queensland University of Technology, provided an opportunity for young people between the ages of fourteen to twenty-two years of age to participate in a series of activities over a four-day period. These activities were facilitated by academics

currently teaching in the interior design discipline. The young people who engaged with these activities were from a special school described as a 'Flexi-School'.

The School provides a supportive learning environment for young people who do not identify with or have 'dropped out' of mainstream schooling systems for varied reasons. It gives this population access to education whilst acting as an information centre for their needs including accommodation, financial support, health services and so forth. Currently, 'design' is not offered as part of the regular education program. The program discussed here offered an alternative educational and 'safe' environment for marginalised youth. The design workshop was seen to be complementary and supplementary to the current educational experiences of the students participating in the Flexi-School educational program.

The primary aims of the design program were to facilitate and nurture creativity, lateral thinking and problem solving skills, and to foster teamwork by exposing students to the discipline of design in a university environment with a support network of design educators. This approach occurred in recognition of and as a response to the educational framework of the Flexi-School and an understanding of the multiple needs of youth at risk of homelessness. In order to highlight the relevance of providing this kind of learning experience to this particular population this paper now turns to a brief discussion of homeless youth and education.

Background

Homeless youth and education

Homelessness can be short term, periodic or long term and it includes individuals from diverse backgrounds. Overall, these individuals do not identify or value 'norms of mainstream society' and 'lose touch with any sort of environment that offered a sense of security, identity and belonging' (Johnson & Wand in Reganick, 1997, p. 133). These individuals' experiences of entering into homelessness and/or experiencing homelessness can often affect them throughout their life. As a result this population is more likely to suffer victimisation from the wider society. Furthermore, their situations make them more vulnerable to problems associated with street life, such as depression, low self-esteem, alcohol and drug abuse, sexual abuse, physical and emotional violence, transmitted diseases such as HIV and other immune deficient illnesses (Kurtz et al. in Reganick, 1997, p. 134).

The category 'at risk' describes young people likely to 'fail to achieve the development in their adolescent years that would provide a sound basis for a satisfying and fulfilling adult life' (Batten & Russell, 1995, p. 15). Generally, young people 'at risk' of homelessness include

individuals who identify with or display characteristics that may potentially result in being homeless. The term posited by Batten & Russell (1995) recognises the diversity of the group in culture, race, gender and class, and acknowledges 'homeless' as a sub-culture. It also embraces the general understanding that young people 'at risk' of homelessness have a general disposition of resistance to the dominant culture. Furthermore, this term recognises that homelessness is not only a physical condition, it also manifests in the psychological and social whereby it can become a form of identity for youth that have been left with little choice but to reject dominant cultural practices in order to manage everyday life (Camenzuli & Jerome, 2001).

The aim of the four-day workshop was to give youth 'at risk' a safe environment while providing educational, personal development and living skills through the medium of design. In this instance the concept of 'shelter' was used throughout the program – with each daily exercise teasing out different ways of understanding the notion of shelter in order to demonstrate different ways of engaging with the world. The exercises progressively required students to draw upon their own experiences and then others in order to resolve the design task. This experiential and reflexive approach became greater in scope as each day progressed – requiring the continual development of problem solving skills, critical and creative thinking, interpersonal skills, and self -development.

Homeless youth and the Flexi-School

The educational program of the Flexi-School was established in part to give young people 'at risk' an opportunity to engage with the incidental mainstream socialisation most students learn through interacting with large peer groups and adults in regular schools. It was also developed to give this population access to a range of experiential programs generally made available through mainstream schools. Furthermore, another of its goals was to establish strategic relationships with service providers and to link these with experiential learning opportunities. The development of the design workshop occurred in recognition of and as a response to these aforementioned goals.

Specialised community programs have been identified as a significant strategy to support and assist youth in their education and personal development. The workshop discussed here sought to meet the needs of its participants by valuing as its intrinsic foundation the prior knowledge and input the students provided. It scaffolded learning experiences based on these student understandings. Each day's activities were built on the concepts and processes generated during the previous day, and it was through this pedagogy that students were able to connect to their prior conceptions and develop a sense of ownership of the learning

process. Almost twenty years ago Wood, Bruner & Ross (1976) introduced the metaphor of 'scaffolding' in relation to tutorial interactions between an adult and individual children. The development of this notion was designed to explore the nature of support that an adult provides in 'supporting a child to learn how to perform a task that, alone, the child could not master' (Wood & Wood, 1996, p. 6). There are clear parallels between this notion and Vygotsky's (1978) more general concept of the 'zone of proximal development' (Wood et al, 1996). The facilitators' willingness to be responsive to and encourage this specific pedagogical approach provided the students with a positive learning experience.

The program assisted these young people 'at risk' to familiarise themselves with a new, diverse and challenging environment. It provided a learning environment that enabled students to experience new and thought-provoking activities which focused on making the familiar *unfamiliar* in order to comprehend different ways of experiencing everyday activities and the world. This paper now outlines the development of this program.

The workshop and the workshop program

The workshop was initiated, developed and coordinated by Dr Kristine Jerome, an interior design lecturer, with assistance from other experienced educators, namely Dr Jill Franz and Dr Dianne Smith, also from the discipline of interior design. The program was conducted as a pilot study and funded through the Queensland University of Technology's Community Grants Scheme, 2001. Students from the Flexi-School were invited to participate in this workshop because the Flexi-school had previous successful relationships with projects associated with the University under the Community Grants Scheme. The local council and state government further championed this kind of relationship.

The Design Workshop addressed the complexities of young people 'at risk' and the absence of the 'design experience' in a constructive way. It did this by addressing the many issues in service delivery to homeless youth highlighted by Terrell in Davies (2001). These included:

- readily available food and shelter
- program counsellors who are trustworthy and stick to their word
- programs that treat homeless youth as humans instead of as prisoners
- positive role models
- a program that delivers services to those young who are unable to receive services elsewhere
- flexible programs tailored to meet the needs of individuals

- promotion of self confidence and the building of self esteem
- operation from a harm minimisation philosophy (p. 11).

These components were embraced as a collective and used to identify the task of guidance and collaboration that promotes development. Scaffolding is one method of addressing this task (Wood & Wood, 1996).

The specific absence of a design experience was also addressed throughout the four day program. In this instance 'design' was used as a way to specify what was learned during the course of the four day program and teacher/learner interaction. This timeline and the various activities underpinned by the scaffolding model of teaching were used to develop a fluidity and connection between the day's different learning experiences and to reinforce a positive relationship between the student, the facilitators and the university. In all, the program aimed to:

- expose students to the discipline of design
- facilitate 'hands-on' projects which develop problem solving skills and teamwork
- nurture creativity, lateral thinking skills and different ways of engaging with the world
- provide an environment of support in a design studio in a university environment
- provide young people 'at risk' with another medium for expression
- provide young people with a support network of design educators who are committed to life long learning and the dissemination of knowledge and life experiences
- introduce young people 'at risk' to the educational, vocational or employment opportunities facilitated by design (Jerome, 2001, p. 3).

In order to assist students from the Flexi-School to eventually participate in a diverse and challenging cultural landscape, the Design Workshop provided flexible programs and educators in a sensitive learning environment. The inclusion of this particular educational program exposed students who often have 'low impulse control, are afraid of further failure and rejection, are low risk takers and find it difficult to work independently' (Booker, 1999, p. 14) to experiences missing from previous and existing school curricula. In this instance, the educators served as a bridge between the learner's existing knowledge and skills and the demands of each new assignment. They provided instruction, aid and structure to support the student's problem solving. This guided participation ensured that each member of the program actively participated in the successful solution of problems and assumed responsibility for the set tasks (Woods & Woods, 1996, p. 7). These techniques of 'guided

participation' (Rogoff, 1990) are drawn from the 'scaffolding pedagogy' (Wood, Bruner & Ross, 1976) previously mentioned. The following discussion of the first day of the workshop program is typical of the way the complexities of young people 'at risk' and the absence of the 'design experience', along with the scaffolding pedagogy, underpinned the tasks assigned to each day.

Exploring the workshop: describing day one

The formal program of each day began after the participants were transported from the Flexi-School to the University. The daily schedule of the workshop was printed and distributed amongst the students. In this way participants were aware of the organisation of each day and were prepared for the content and types of activities they would encounter. At the conclusion of each day, students were transported back to their initial pick up point if required. Food and drinks were provided during the course of each day, which commenced at 9am and concluded at 4pm. The inclusion of transport, food and beverages and the supply of materials and resources required for the students to undertake their individual, group or pair work activities alleviated some of the financial strain young people 'at risk' encounter (Jerome, 2001, p. 5).

On commencement of day one students were oriented to their environment around the university in order for them to actively engage with the unfamiliar setting. Tours of the facilities and amenities along with introductions to relevant personnel of the campus occurred as part of an introductory way-finding exercise. Following an informal morning tea the formal program commenced in a designated studio with an exploration of 'the pebble story' from De Bono (1970). This was used as a vehicle to set the scene and investigate the notion of 'shelter'. The segment also provided an opportunity to introduce lateral thinking and different approaches to engaging with everyday life. Typically, the students were involved in constructing, deconstructing and reconstructing the notion of 'shelter' and required to make links to everyday occurrences of aspects of this notion - making the familiar unfamiliar and vice versa as the concepts were unpacked. This process of 'unpacking' or 'deconstructing' the notion of 'shelter' used devices such as: critical questions; group work; prior knowledge; and narratives.

Following individual explorations of the notion of 'shelter' students were then asked to compare their understandings with peers with the intention of shifting ways of looking at the world and the objects in it. Specifically, students embarked on the following way-finding activity to do this:

Now that you have explored the possibilities of what constitutes shelter you are asked to explore this campus and encounter different spaces that might provide shelter. Consider the following questions in relation to four sites that you are asked to visit and explore:

- *How do you feel about this space?*
- *Can you describe why you feel like this?*
- *Do you think this space provides shelter?*
- *Is this space a shelter?*
- *What does it shelter?*

Undertake these questions individually and then as a group. Collect and document your experiences and answers in your sketch pad. Take photographs with your disposable cameras to capture shelter. Remember that there is no right or wrong answer. The intention is to consider the possibilities of shelter.

Sites

- *The Food Outlet [11.30am]*
- *The Library [11.40am]*
- *The Concourse [11.50am]*
- *The Museum [12.00pm]*

Importantly, these questions encouraged participants to consider their conceptions as well as new conceptions and knowledge.

The way-finding example highlights how particular questions were used to stimulate conversations and group interaction as well as explore concepts such as 'shelter'. By engaging in this process students were required to draw on their own experiences and relate them to shelter and sites encountered. Students were concurrently immersed in design meta-language such as *site*, *shelter* and *space*, being guided to unpack the concepts associated with this language. This exercise, like others in the workshop, was open ended. The outcomes were not controlled and there were no right or wrong answers.

Following this experience students were then asked to apply their lateral thinking skills in relation to an American Cheyenne legend concerning a tortoise traveling in the High Plains region of Oklahoma. Here, students were requested to contemplate the shell of the tortoise – offering protection, projecting mystery, harnessing power, and demonstrating an identity.

Specifically, the narrative of *The Cheyenne Legend* allowed participants to think further about the notion of 'shelter' when the concept of the shell – offering 'shelter' to the tortoise – was discussed. Characteristics of the shell as shelter, providing safety through its camouflage and protection through its strength, emerged from this discussion. This exercise set the scene for the later development of a scroll capturing the meaning of 'shelter'.

At this point it is important to highlight the significance of deep knowledge as the overarching unifier of the Design Workshop and the use of the narrative in a variety of forms as a key method by which to draw concepts, to draw relationships between students' narratives and textual narratives, and to set contexts and to stimulate responses. Through the use of specific narratives students become aware of cultural knowledge, beliefs, languages, practices and ways of knowing, histories, values and traditions and came to value their own understandings of everyday life (Department of Education, 2002).

Following the construction of individual scrolls students were then asked to present the meanings of their work to fellow participants. This provided an opportunity to facilitate a deeper level of intimacy among participants and introduce design elements. The process facilitated reflection and articulation of this activity in visual and verbal forms. It also provided an opportunity to expose students to design elements and introduce a language for use in the following days. To facilitate this, the program turned to an exploration of everyday settings, such as the bus stop, and the way design elements are embedded in everyday settings.

Following lunch the film *Dark City* was shown. This particular narrative was used as a vehicle to consider the relationship between shelter, everyday practice and place. Students were presented with ideas to consider overnight and asked to bring their reflections in a visual format to the workshop the following day. This process of contemplation and transference of existing knowledge and experiences into new scenarios was a continuing practice throughout the workshop program. Hence, the narrative became a valuable tool in activating deep understanding and was intrinsic to instructional design of the workshop model. The narratives also presented to the students various cultural and sub-cultural voices, endorsing their value in the stories that emerged and motivating students to become conscious of their own stories and share them confidently. Critical questions led to the students transforming meanings and synthesising information, deriving their own interpretations of the narratives and the concepts (Department of Education, 2001). These critical questions were put forward to encourage higher levels of thinking and the application and this vehicle proved

to be effective in also encouraging participants to seek their own conclusions (Camenzuli & Jerome, 2001).

Overview of the program: educational issues

The theme that underpinned the four-day design workshop was 'shelter' and learning activities explored aspects of this theme. Terrell in Davies (2001) notes that:

...the longer adolescents are on the streets, the more they become street smart and learn street survival skills. When professionals help these youths, they always should take this into consideration (p. 8).

Students were encouraged to use their street skills and knowledge to further develop and probe this concept in light of their own and others' circumstances.

There was consciousness of the diverse learning needs and learning styles of the participants and the teaching and learning environment responded to these particular needs. For example, each day engaged students in auditory, visual and kinaesthetic activities. They carried out these activities in a variety of ways, including individual, pair or team work. They were encouraged to use critical and creative problem solving strategies (including design strategies) to complete their tasks satisfactorily. The participants also utilised various tactile materials to produce task outcomes. The facilitators prompted students in decision-making and problem solving processes, handing responsibility for the decisions about process and outcome of the tasks to the students, promoting student confidence and esteem. Collectively, these provisions and educational considerations followed scaffolding pedagogy.

There was a constant effort to identify the kind of support and collaboration needed to promote development as well as a daily revision of what gets learned during the course of the program and the way the tutor/learner facilitates this. For example, instructional design worked with the idea of engaging of students by valuing the knowledge and skills they brought to the learning environment and then, in turn, building on these. This approach acknowledged that learning is a process and that part of this process is the acquisition of new knowledge through association. A further significant part of the process was the participation of students in worthwhile, real-life activities, which challenged them to critically examine social and cultural constructs through disciplinary or interdisciplinary frameworks. The workshop framed knowledge as problematic, where participants were encouraged to construct their own meanings and tease these out with their peers and tutors.

Ultimately, the success of the Design Workshop was grounded in its strong pedagogical design and delivery developed by the coordinating lecturer. In order to explore this workshop and its applied mode and responsive context a publication related to 'Productive Pedagogies' (Department of Education, 2002) is used to guide and evaluate the teaching and learning approaches. The design workshop comfortably incorporates the elements identified within its four dimensions:

- intellectual Quality
- connectedness
- supportive classroom environment
- recognition of difference.

These dimensions did not feature discretely in the workshop, but worked together, explicitly and implicitly.

The program was particularly strong in embedding all aspects of 'intellectual quality', and as a result tended to merge with other elements. For example, narratives were used as a stimulus for substantive conversation, facilitated by critical questions. Critical questions, which encouraged higher order thinking, were posed to focus groups. The teamwork discussions, in turn, engendered strong group identity and mutual respect. Hence the pedagogical design was complex and employed elements at various levels effectively. It could be proposed that the extended focus on the concept 'shelter' permitted students to develop a deep understanding of this and that the narratives, critical questions, group discussions, life-like and real life activities, helped develop the connections to the real world. Undertaken in a supportive environment, the student's own knowledges were challenged and extended in order that they broaden their perceptions and acquire new knowledge based on design theory (Camenzuli & Jerome, 2001).

The notion of 'shelter', pivotal to the workshop, formed the basis from which related concepts emerged and intrinsically performed several functions. Considering that the workshop was addressing homelessness, utilising shelter as a 'problem' (or significant issue) in a central and focused way was highly relevant. This is because 'connectedness' is established on two levels. Firstly, the notion is derived beyond the design studio and also links directly to the personal experiences of the participants. Secondly, it provides an extended focus for learning over the duration of the program, encouraging participants to explore the notion in depth. The acquisition of 'deep knowledge' requires significant time to be allocated to allow complex relationships to the key concept to emerge. Each day the students were challenged

to think about aspects or constructions of 'shelter' with the last day providing opportunities for reflection on what they had learned. The workshop structure also offered time for the nurturing of oneself and each other. This nurturing process occurred in part through the 'recognition of difference' – whereby each student's opinion and work was explored with interest and sensitivity and an examination of the similarity of difference was celebrated. In order to highlight this process, this paper now outlines segments of the daily programs of the workshop.

Discussion

Evaluating the program: student feedback

A focus group discussion was chosen to ascertain the participants' perceptions of the program and to evaluate whether the aims of the program had been met. The participants were familiar with the focus group approach and used it as an opportunity to constructively critique the workshop program. Eliciting student feedback was important to ascertain the appropriateness of the workshop to the client group (homeless youth) and its potential applications as a template for other workshops. Responses from the participants confirm that this collaborative program was very successful in meeting its aims.

It is important to note at this point that students were aware that a focus group discussion, facilitated by a research assistant would occur at the conclusion of the workshop. The Responsibilities Agreement signed prior to their attendance stated this and an example of transcribed data were provided for their perusal. The research assistant, who did not attend the workshop, facilitated the focus group.

Feedback about the program gathered during this focus group discussion clearly highlights the importance of providing this educational experience to other youth. Arguably, the extent of positive feedback was because of the kind of educational model delivered and the way it was managed on a daily basis. Educational staff members were very much aware that they needed to be familiar with research about the education of homeless youth and 'understand the conditions of homelessness and strive to counterbalance its negative aspects with positive school experiences' (Reganick in Jerome, 2001).

Feedback

For the purpose of this paper, feedback is considered in light of the aims of the program addressed earlier in this work. Each aim will be considered separately.

Aim One: To expose students to the discipline of design.

Students acquired some knowledge of the design discipline, particularly design language through the exploration of design elements, and concepts of shelter, space and place. They made personal connections with life experiences, prior understandings, and current perceptions.

The um Kris I think was saying that um you can see um the design stuff everywhere building and stuff. And walking here this morning like I just see it everywhere it like it seemed to stick out more that it usually would. Like usually I wouldn't take much notice of my surroundings. Yeah yeah I can see the repetition and yeah everything. Just everywhere it's good I like it (Student B).

From tapping into the students' prior knowledge, scaffolding of design concepts occurred. Students have shown through their comments that they have integrated and responded to new knowledge about design.

Aim Two: To facilitate 'hands-on' projects which develop problem solving skills and teamwork.

It was acknowledged that the participants of this program were transient, therefore this program ran for the duration of four days in order to increase the likelihood of *consistent participation* and the curriculum content of the Design Workshop varied from day to day. This format was strongly encouraged by staff from the Albert Park Flexi School. Feedback from the participants advocated the success of this teaching approach and the desire to run subsequent programs to build upon existing knowledge.

I thought it was really good how they balanced the theoretical work as well as the practical work. So it wasn't just a long day it was full of variety and stuff it was actually we learnt something and then do something with that knowledge. So everyday we were doing something and there was something that we achieved at the end of the day. I thought the four days were really good (Student C).

Although students admitted that they were not necessarily used to engaging in the types of activities undertaken in the workshop, they highlighted key strategies utilised which reflected the workshop's responsiveness to the needs of the group and encouraged their full participation, sometimes to their surprise. An understanding of the learner and learner needs with the context of a supportive and challenging environment was the key to productive participation. Lateral thinking was supported through devising probing and critical questions and strategies such as 'brainstorming'. Students learning styles were met by providing varied activities, ranging from conceptual to concrete. Students performed tasks which required

kinaesthetic constructions and materials were provided to facilitate these productions. Students freely performed tasks in an environment where behavioural and content expectations were made explicit.

Aim Three: To nurture creativity, lateral thinking skills and different ways of engaging with the world.

The students positively emphasised the teaching and learning experiences of the program in their feedback, suggesting that the teaching approaches and modes of delivery adequately addressed the complexities of the user group – namely young people ‘at risk’. As one student stated:

They introduced us to different ways of teaching us to do things. Like um like I know I learn by using my hands and by making things. And other people learn by reading or listening or other things and so they used both ways of teaching as well so that everyone got a fair go at it. Being able to work with teachers and stuff (Student E).

So it helps you see things more clearer. Well I hate working. But coming here and seeing what people do and seeing how you can use your mind in different ways, that vertical versus lateral thinking. Yeah I I spoke my opinion and it was virtually the same as the answer was. And it wasn't straight forward but you think clearer. Instead of taking a short cut out of a situation think of a different way to take (Student E).

In ‘productive pedagogies’, the importance of the occurrence of these ‘connections’ in providing valuable and relevant education, which includes and enhances different life experiences, is acknowledged. ‘Connectedness’ describes the extent to which the lesson has value and meaning beyond the instructional context, making a connection to the larger social context within which students live’ (Camenzuli & Jerome, 2001, p. 17).

Students identified the connections between the discipline of design and the community. The way students view the built world had changed through the effective acquisition of new knowledge. Through the use of narratives students also grasped ‘difference’ and embraced ‘difference’ especially in understanding that different cultures have different ways of doing and attributing validity to these. Students actively practised lateral thinking and have displayed that they had acquired this skill at a metacognitive level. The explicit teaching of these skills assisted in this development.

Aim Four: To provide an environment of support in a design studio in a university environment.

Students responded positively to the collegiality of the facilitators and their personalised and flexible approach.

A lot of interaction between us and the teachers. We got like one on one advice as well a variety of information. So their different directions are definitely helpful in learning. We were interpreting them as well as them interpreting us. There was a real balance. Yeah it was really good help. We talked and they answered our questions. It was there was a good personal level (Student C).

I have done a lot of different courses and this is the first one I've been to that has been so accepting, very patient cause I know how hard it is what to expect from alternate Eds. You treated us as equal, non-judgmental towards a different set of young people from various backgrounds you should be very commended on that!!! You all were so welcoming and it made me feel safe and comfortable to be there!!! That's the main thing that made me want to be there, all most of us are so used to been talked badly about and that we all should be locked up and I thank all the coordinators of this work shop for accepting our differences and not judging us from square one (Student F).

Recent directions in Education Queensland emphasise the importance of a supportive learning environment that allows 'intellectual risk taking' and creating an environment that enhances cooperation and mutual respect. This workshop was clearly successful in developing strong teacher/learner partnerships. Facilitators were physically accessible to students and were in the vicinity of students in order to maintain motivation and address concerns. Facilitators also valued the opportunity to share experiences and knowledge with the students to support depth of learning. Students clearly recognised that these interactions supported their learning.

Aim Five: To provide young people 'at risk' with another medium for expression.

Yeah we talked a lot about the design elements with Kris and things like that. We looked at colour and lines and repetition and things like. That's been really good to learn because they were talking about how if you look at an object in a certain way that you don't always know why you feel like that and you can analyse it they look at the reasons why you might feel like that about something and the thought process you go through. But now I know what we're going through that I can communicate to myself a bit better. Knowing what and why I know why that might work (Student C).

The participants were exposed to new terminologies and 'ways of seeing', which have assisted them in viewing the wider community and the constructs of their environment differently. They effectively accessed a meta-language through the explicit and implicit exposure to design theory. Students approached meaning making on a metacognitive level, consciously making sense of their reactions to the environment through the application of thinking skills and design concepts, producing in turn a broadening of their world view. They were guided to make connections between the concepts they were unpacking and their relationships to various cultural narratives, their own narratives and the community beyond the design studio.

Aim Six: To provide young people with a support network of design educators who are committed to life long learning and the dissemination of knowledge and life experiences.

Remarks made by the participants suggested an appreciation of the design educators sharing their knowledge and that this was highly valued. Students recognised that they were being challenged to broaden their perceptions and ways of doing, and responded positively to this challenge.

Overall I thought the course was great. The course helped me to look at a lot of different houses, apartments, units, etc. In a very large and different way because I'm in different peoples 'shelters' every day it has let me see how designers make different shelters and how a lot of the work is done with the clients imagination, emotion, psychology, etc. some of the stuff we did was different and fun compared to just sitting in a class room and getting told how its done and how its has to look like so you get my drift. The teaching was great (Student F).

The facilitators were empathetic to the needs of this particular group of students. The overall workshop design was tailored to meet the needs of homeless youth. Trust and supportiveness assisted in creating an environment where students had the courage to engage with content and participate in activities they had not experienced before.

Aim Seven: To introduce and encourage young people 'at risk' to consider the educational, vocational or employment opportunities facilitated by design.

I think it's worthwhile. Not a lot of young people get an opportunity to see things like this. Get to you know have hands on experience with them even though you're not sure of them but still learn about it. If I was in mainstream I'd probably never be able to do this. This would be really good for other youth services (Student C).

This four-day workshop supported the model of a specialised community program and was constructed to include teaching/learning strategies, which would connect with the life experiences of the participants and progressively build new experiences. The curriculum acknowledged prior learning and scaffolded new strategies, processes, skills and concepts. Students were encouraged to pursue their own learning paths through open-ended discussion and tasks that required lateral problem solving. The facilitators assisted students in this process by providing advice and guidance when requested. Participants were urged to form connections between what they knew about shelter and what they had learned about shelter in the design discipline.

Students were engaged in activities that introduced them to new concepts, skills and processes. The objectives of these activities were made explicit and clear frameworks were provided. Generally students worked from the known to the unknown; from the concrete to the concept. Their knowledge was valued and worked as a foundation for the acquisition of other information. Students were encouraged to become more conscious of their own learning styles and to meet their independent learning needs. Open-ended questions, inquiry based learning, and metacognitive strategies enhanced the possibilities for students to satisfy their particular learning requirements and reconstruct their knowledge.

Rowe (1991) asserts that 'learning is an adaptive process in which the learner's conceptual schemes are progressively reconstructed ... an active process ... over which the learner has some control' and that 'teaching proceeds most effectively when an adult mentor takes into account the student's framework and encourages and guides the student's inquiry and experimentation' (pp. 18–20). It would be reasonable to claim that the four-day program provided an effective learning environment that embraced Rowe's approach. Student feedback on the four-day design workshop reinforced this claim.

Conclusion

Lessons learnt and future potential

This pilot study reinforces much of the current literature on homeless youth, effective learning and teaching strategies and illuminates some areas for further consideration. Implications for the education of homeless youth include:

- findings from student feedback reinforce that this *Design Workshop for Youth 'At Risk'* is an invaluable education strategy. As an intensive workshop, it challenged students to explore themselves, their perceptions, new concepts and forge new relationships

- strategic community alliances were formed between organisations and community groups for the benefit of providing youth 'at risk' with an educational opportunity which embraced participants and valued their input and presence
- the teaching and learning strategies used were pivotal in supporting learning outcomes and were flexible enough to respond to the particular needs of this minority group. The workshop design, founded on sound educational research, could be used as a model for other short programs
- the strong support for this *Design Workshop for Youth 'At Risk'* voiced by the participants indicates that education services for youth at risk should include this type of program
- the workshop supported students in realising that there are alternatives to street life and offered opportunities for them to engage with other realities
- participants experienced a scaffolding pedagogy that demanded lateral thinking skills through the introduction of new and complex concepts and activities that challenged their normal modes within an initially unfamiliar but supportive environment. The success of this approach emphasises the strong educational foundation that underpins its design.

A Design Workshop for Youth 'At Risk' has provided a very successful community education partnership. It has extended the experiences and knowledge of young people 'at risk' of homelessness and offered participants new and positive ways of seeing and understanding that are highly relevant to their everyday lives.

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A Personal (Pro)position: Finding a Place in Design

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Abstract: *The paper will describe an Interior Architecture studio entitled 'South' that aimed to develop students' idiosyncratic design positions. The intention was to establish an individual and regional theoretical approach to underpin and influence a design methodology. This was achieved through a series of personalised design projects which focussed students' design response to the cultural, social and economic possibilities that characterise their home-state of South Australia. The paper will discuss how the unique projects responded to ethical, political, environmental, cultural and social considerations of occupation and place and resisted stylistic design responses that are often the result of globalisation.*

Keywords: *regional design identity, interior architecture studio pedagogy*

A reason to stay

Published discussions of spatial concepts as elements of regional identity have identified the contribution of geography, landscape and built form, and the social and economic activity they generate, to developing identity of place. To evaluate the contribution of spatial considerations, Larsen's study (2004) focuses on the characteristics of geography and landscape in resource-based regions of British Columbia and Gospodini (2004) discusses recent innovative architecture in European cities using Gehry's Guggenheim in Bilbao, Spain as a case study.

The theoretical position of both authors recognises the current paradigm shift away from, or reaction against, modernism and globalism. In identifying space as '...both a product and catalyst...' for the development of the identity of places, Larsen (2004, p. 947) further asserts that our sense of place results from '...the way we understand and experience social and economic change from a particular location and [is] the reason we continue to find meaning in our surroundings' in the contemporary world (p. 958). Concentrating his study on European cities, Gospodini (2004) cites migration and the rise of the European Union as key factors in the growing focus on regional identity and establishes an argument for the importance of new and innovative architecture and design, as opposed to built heritage, as a potent contributor to the identity of place.

The *South* studio project encouraged eighty second and third year interior architecture students to contextualise a personal position through consideration of what a regional

identity might be. It attempted to fine tune the focus of spatial contribution to place identity to the scale of interior space and elements that may occur within it such as furniture and exhibition.

We all experience architecture before we have even heard the word. The roots of architectural understanding lie in our architectural experience: our room, our house, our street, our village, our town, our landscape – we all experience them early on, unconsciously, and we subsequently compare them with the countryside, towns and houses that we experience later on. The roots of our understanding of architecture lie in our childhood, in our youth; they lie in our biography. Students have to learn to work consciously with their personal biographical experiences of architecture (Zumthor, 1998, p. 57).

In building upon what Zumthor describes as 'biographical experiences', the notion of regionality accords with current professional directions in developing a truly Australian architecture and design identity which has historically been culturally Eurocentric with often inappropriate conventional deference to western traditions. By gaining a better understanding of what constitutes identity, in a personal, local and global context, students are better equipped to consider ethical, environmental, cultural and social responsibilities of dwelling and place, thereby instilling an informed international perspective as both citizens and professionals.

In our studio teaching experience, students frequently source their design influences from images of stylised interiors in glossy publications heralding an abundant use of fashionable surface finishes and develop them using computer driven geometries employing highly expendable and processed materials to produce universally recognised environments. These could be best described as generically anonymous and not identifiable by culture, region, or in many cases, even by the hand of the designer. This approach is also reflected in practice. Research (Cys, 2004, p. 59) has revealed that although design practitioners can identify numerous means of continued learning and professional development in technical and management skills, they feel that there are few options available when it comes to developing and sustaining design creativity and inspiration and cite '...looking through design journals...and travel' as the most common means of seeking inspiration. As cynically argued by one architect at a public design debate in South Australia, 'We all know that design is nothing but *Wallpaper* and AutoCAD' (Bonato, 2001).

In an attempt to introduce students to an alternative, relevant and more sustainable approach to design, the *South* studio program asked students to demonstrate a specific and grounded knowledge of at least one unique and relatively unknown provenance of South Australian culture. This aspect of regional identity was to become inherent in all of their subsequent design outcomes.

In a series of five cumulative projects, students were required to research and analyse the personal, cultural, economic and physical characteristics of their place of origin in order to contextualise their design methodology. In acknowledgment of the diverse student population, those who came from outside of South Australia were encouraged to make comparisons between their homeland and South Australia. This analysis fuelled a passionate response to specific aspects of local or regional cultures which they individually identified from their own explorations and reminiscences. By harnessing personal responses to historic, cultural and environmental briefs based in South Australia, this studio deliberately aimed to resist the homogenising effects of globalisation and a common tendency to defer to other parts of the country and/or world as a frame of reference.

It has been a commonly held belief for students and graduates that South Australia holds limited possibilities for prosperous employment potential in comparison with the progressive and moneyed eastern state design practices and lure of working overseas. Consequently many South Australian students are dismissive of their state of origin and the future it can offer them. The exodus of these graduates may go towards explaining the dearth of good contemporary design in South Australia that is only now manifesting itself legitimately on a national basis. There is a commonly held view that the best way for South Australian designers to work on local projects is to relocate and work for interstate practices who are increasingly being commissioned for both government and private projects in South Australia.

The potency in acknowledging the influence of local origins is embodied in the biography of internationally renowned South Australian interior graduate, Steven Blaess.

BLAESS lived a nomadic life for the first half of his childhood travelling with his family throughout South Australia.

He experienced its magnificence and solitude and with this, developed an early inventiveness with objects available to him in order to occupy an inquisitive and growing mind.

The open uninterrupted space and simplicity within the bush and coastal landscapes around The Great Australian Bight, formed an unconscious awareness in BLAESS, that is now displayed in his purpose to create forms and environments which express simplified beauty and freedom within form (Blaess).

In South Australia, there has been recent public debate as to what characterises the region's design identity. Partly driven by the continual deference to design expertise from elsewhere, the debate has occurred not just at the level of strategic direction – 'Are we a quaint little Victorian town or a 21st century megacity...I don't think we are either. I'd like to think we could have explored some form of unique regional identity' (Bonato, 2006) – but also on the more serious issue of ecological and intellectual sustainability '...the built environment is a barometer to the creative and intellectual health of our state. If we do not develop a considered style – with our own skills and resources, we will continue our perceived slide into irrelevance. By failing to address such a critical issue of identity, we will fail our young by giving them no vision of a sustainable future. No reason to stay' (Bonato, 2003).

South studio structure

Five idiosyncratic assignments formed the basis of the *South* studio program. The first was an introspective project to analyse and represent an aspect of personal identity. The second assignment required students to focus on a specific and relevant cultural characteristic of South Australia. The third and fourth projects were conducted simultaneously and required students initially to brand the subject matter in consideration of the broader demographic profiles of the user groups and the fourth accompanying project asked students to illustrate a concept for a spatial design. For the fifth and culminating project, students were given a plan of a small commercial tenancy and series of five generic briefs ranging in typologies for example, retail, hospitality or commercial. Students had to select one and spatially design the interior environment integrating all of their previous projects. The autonomous nature of the five projects enabled students to develop highly personalised and self-generated design proposals and subsequently no two schemes were alike.

me, myself, i

The first project was a self reflective exercise titled *me myself i*. Students were required to illustrate a biographical narrative with images and carefully integrated text. They were asked to valorise their interests and influences, not as a critical undertaking, but one in which they could engage in self reflection using the pre-eminence of memory.

The tenant of memory has been widely acknowledged by design educators², as fundamental in creating culturally specific and socially rich environments. Educational theorist, Bastea proposes that 'Memory creates a special relationship with space, holding on to the essence of it, the best and the worst, letting the rest of the details fade to gray...As writers, scholars, and architects we are constantly in an open dialogue between form and culture, space and memory, images and psyche (2004, pp. 1–2). Architects Lyndon and Moore claim in *Chambers of a Memory Palace* that by drawing upon one's memory, designers can create truly memorable places, '...places that are memorable are necessary to the good conduct of our lives; we need to think about where we are and what is unique and special about our surroundings so that we can better understand ourselves and how we relate to others. This mental intermingling of people, places, and ideas is what makes architecture interesting' (1994, p. xii).

Students produced self effacing, culturally specific outcomes with the most common themes based upon childhood reminiscences. These included familial recollections such as treasured and intimate moments with grandparents; places, often quite ordinary; and significant childhood events, such as annual family vacations to familiar destinations. Many of these were recorded and recalled from aged sepia tinted photographs snaffled from family albums which were invariably accompanied with succinct and poignant (hand) written reflections, narratives and descriptions. Students also used everyday objects or collections as prompts for their project, such as concert tickets – the sacred physical remnants of a first date '...those who possess very little or whose attachment to those few precious things suggests a healthy nurturing of self-identity' (Cooper Marcus, 1997, p. 71).

Throughout the studio, the topics and sincerity of these very personal projects were never challenged by the teaching staff, reflecting Jung's position that 'whether the stories are true is not the problem. The only question is whether what I tell is my fable, my truth. An autobiography is so difficult to write because we possess no standards, no objective foundation, from which to judge ourselves' (Jung, 1969, p. 3). For some students having to situate personal aspects about oneself and submit it publicly for assessment was initially confronting. As a response, over half the group gravitated towards the refuge of humour or humility which engendered the most optimistic responses. Commonly, through these critical ruminations, what students once may have regarded as ordinary and banal emerged as exquisite and extraordinary. However, what became overwhelmingly apparent in this exercise was that through these diverse expressions, the greatest majority acknowledged the influence

and presence of family friends and their attachment to place as being critical to their r'aison d'être.

There is no doubt that for most of us, the childhood dwelling and its environs is the place of first getting in touch with who we are as distinct personalities. Indeed, we may have a clearer and more accurate sense of our true selves at that time than in later years, when the demands of societal and familial expectations create mask like overlays on the psyche, hence the critical importance of looking back at childhood places as sources of understanding more deeply who we are (Cooper Marcus, 1997, p. 31).

something other

In the second project titled *something other* students were required to continue an examination of their ardent interests and passions. In this stage of the studio the foci was a specific cultural aspect of South Australia to broaden students' cultural, political and social understanding of the region. For many, this was not an erudite endeavour but an investigation into a new field, prompting an unearthing of insightful, curious and contentious phenomena that were both diverse and enlightening for all involved in the studio. Some sensitive issues were investigated through projects that revealed controversial indigenous and environmental concerns. These were manifest with moving images and narratives exposing for example, the notorious history of the forgotten generation; the long term (and in part irreversible) environmental damage brought on by over farming by white settlers; and social justice achievements of the State. Other more contemporary examinations included photographic narratives on the local urban sites used in South Australia's renowned film industry and visual studies of burgeoning artistic subcultures emerging in the State.

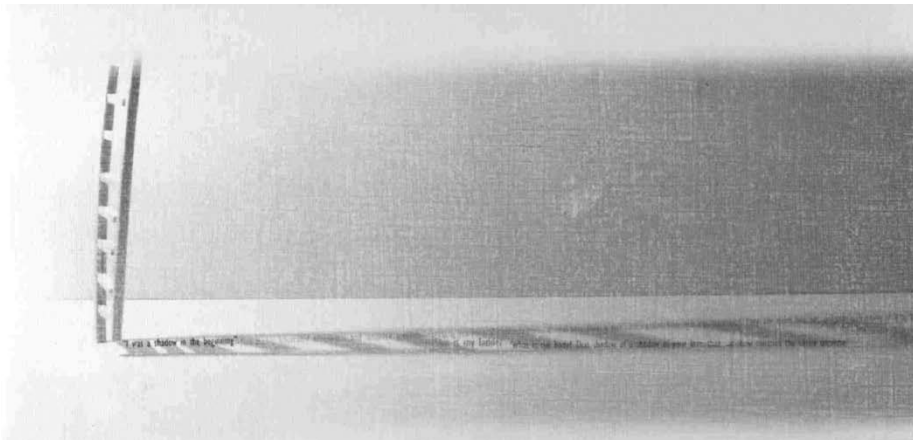


Figure 1: something other. (Trine Norberg)

This submission was followed by two (non assessed) projects which students developed in concert with one another to further develop their subject matter into a conceptual spatial strategy and 'brand' their proposal. The most successful outcomes demonstrated a clear connection with their initial explorations, exploiting the resource of information and translating that into considered and sophisticated two and three dimensional propositions, the detail of which clearly echoed the preliminary submissions.

The *South* submissions were unlike traditional studio projects where students commonly regard theory and research as separate undertakings removed from the actual process of 'doing' design. In this studio, the design outcomes of these accumulative projects was the research and not ill-perceived as a separate, conventional exercise that can be only be best justified in studio pedagogy as mirroring the contractual phases of a real design project to be completed chronologically.

South

In the fifth and final project students were issued with a site plan and the opportunity to select from five typological generic briefs. These were hospitality, commercial, retail, furniture and exhibition. Students were required to revise their conceptual design and with their chosen brief, produce a schematic design to accommodate their specific area of research. By this point, students had developed an informed and passionate connection with their subject in a manner not normally attained through traditional studio experiences. Their specific knowledge-base, in fact, exceeded that of their studio tutors and their design position was personally rather than externally generated.

Discussion of the following projects illustrates the cross-section of subject matter and describes the progression of idiosyncratic ideas of identity, memory, place and experiences and how these were translated into self generated design projects that projected the personal design position of the student.

Case studies

The legacy of being raised along the lush, fertile strip edging the River Murray which had once more than adequately supported generations of families influenced one student to contrast the existing condition with recollections of her close knit family in a project she called *two lives living* as one. In the following project she recounts and counts down through the decades, the decreasing numbers of yielding fruit trees and the demise of the livelihood of this region which once supported a flourishing orchard industry fed by the now dwindling Murray. The work communicated the social and economic effects on the Riverland

community due to shrinking waterways and cheaper imported orange concentrate which has resulted in the loss of fruit trees, production and livelihood. In the final project, alternative viable uses for now worthless citrus trees were explored, resulting in the design of a series of furniture pieces using the forsaken citrus timber. These were curated into a politically motivated and highly creative public exhibition.

In a characteristically candid and idiosyncratic account of her eccentricities another student confesses in barely visible tiny flaxen script 'I like to dress a bit punky...I wear my socks when I should wash them...I fall off my bike usually when I'm drunk.. I don't understand what rhetoric means... I love dictionaries... I like bogans too I think I'm a bit of a bogan³⁷'. This self effacing biography informed the subsequent study in which she further documented her passions and described both visually and eloquently the retreat of Warilbin (windy place) on the Yorke Peninsula 'governed by brown snakes and march flies. A place so quiet you can hear your thoughts as clear as the summer sky'. Her passion for and familiarity with this region culminated with an ambitious scheme to design an eco-tourist retreat responsive to the local environment and 'bogan' demographic. The design utilised only natural materials from the region and in consideration of the site characteristic, allowed for natural cross-ventilation and explored the threshold between interior and exterior.



Figure 2: me myself i. (Michelle Lunnay)



Figure 3: something other. (Michelle Lunnay)

The poignant memory of another student learning to tie shoelaces was represented through an unbroken swirling line of text in which she lyrically pens the rhyme her mother chanted... 'watch her tie her shoelaces my tiny little girl she looks so innocent trying my darling Gabrielle'. This theme of the continuous line was threaded through each of her subsequent

projects. In the second project, the student trod a path along her own street, mapping each of the early 20th Century inner-city workers cottages, photographically framing and recording each resident at the threshold.

The unselfconscious narrative of the everyday comprising ordinary, visceral and ubiquitous objects of daily life revealed itself again in the final project with a design for an exhibition of interpretive retail elements housed in a re-created interior of an old corner store. Through evocative images she recorded its morphosis from once being the foundation of the neighbourhood to become a fashionable inner-city upgraded domestic dwelling rendered invisibly into the greater urban context. The power of the supermarket conglomerates, increasing property values and changing demographic of dual income residents in inner-city Adelaide symbolically revealed itself in a lament for the loss of this local icon. This project not only celebrated the history and importance of the almost extinct corner store but also communicated a deeper message about the demise of the self supporting local neighbourhood and once strongly-held community values.

No reason to leave

The perception of what a regional identity could be was rich and varied within the studio. Given the student cohort predominantly consisted of white Anglo Saxon twenty year old female students, there were some unexpected and perceptive outcomes. Although the strong notion of community bordering on familiarity arising from South Australia's parochial condition fondly referred to as 'the 2-degrees of separation factor' (Adams 2004), was a common phenomenon in many of the schemes. Not all students ventured beyond identifying this notion and failed to distinguish a regional condition. Some students persisted with cultural aspects that lacked the potential to develop into any type of spatial endeavour. It was apparent that these students had not undertaken enough specific investigation to broaden their cultural awareness peculiar to South Australia and therefore produced nothing more than a prosaic translation from the preliminary exercises into the final design proposal. Understandably, students naturally persisted with the things that were familiar and an intrinsic part of their everyday lives. As identified by Lefebvre, the everyday at 'its most basic...is simply "real life", the "here and now"; it is "sustenance, clothing, furniture, homes, neighbourhoods, environment" – ie material life-but with a "dramatic attitude" and "lyrical tone"' (Lefebvre cited in McLeod, 1997, p. 13). A small number made clear that their frame of reference, in the most banal cases, did not extend much beyond clubbing.

However, in more delightfully ordinary studies, students described and illustrated sensitive recollections of afternoons spent counting cars with grandpa on the front porch bench. In

another unpretentious project a towering student made joke of her loftiness with a depiction of herself as a giraffe in her work 'BIG'. The student ingeniously utilised reminiscences of family holidays to the giant tourist edifices⁴ that signified the naive and honest local industries which for years successfully supported the progress of small country towns. As Berke describes 'there is poetry and consolation in the repetition of familiar things. This is not to romanticize dreary and oppressive routine...the everyday allows for personal rites but avoids prescribing rituals' (Berke, 1997, p. 224).

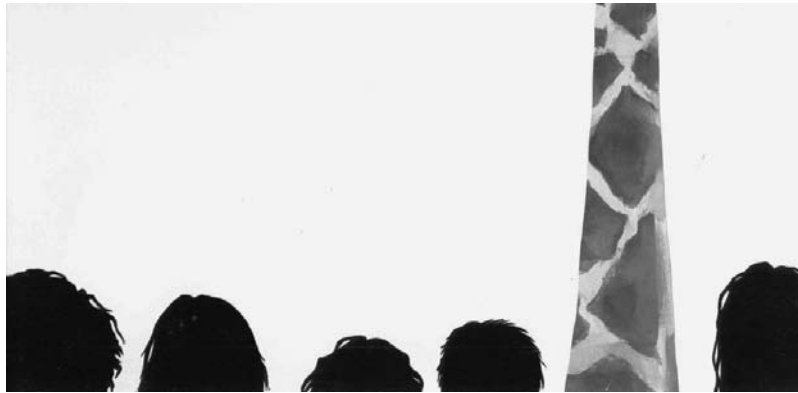


Figure 4: me myself I. (Meaghan Williams)

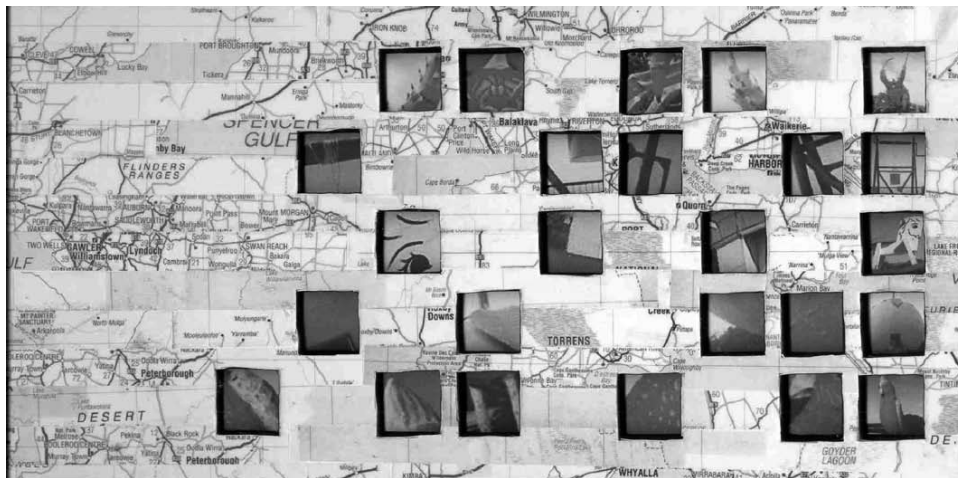


Figure 5: something other. (Meaghan Williams)

The majority of students successfully developed their design position in similar ways to those discussed in the case studies above and similarly expanded their research into an

inspired and comprehensive spatial proposal. For these students, the *South* studio provided a clearer direction for their future career path. For example the student from the Riverland has ambitions to specialise in furniture design practice and has identified possibilities to work locally with citrus timber. The student who recalled family holidays to visit giant tourist attractions is now undertaking an honours thesis on the theory of collections and the everyday, using “big” things as the focus for her proposition. An investigation into the sites of South Australian film production has resulted in another student securing set design and production work experience with a renowned film director. It has become apparent that the *South* studio has provided students with not only the knowledge but also the confidence to identify and explore individual practice options. Within the broad curriculum of this studio, students readily identified specific individual and idiosyncratic areas of study with which they have personal interest. This opportunity has stimulated their learning to the extent that some have become proactive in planning their future careers in unconventional areas.

As design educators recognise, theory is a critical and inseparable component of the design process. Design educators also recognise, however, that a theoretical or research-based design approach can be a difficult practice for students to embrace due to the ‘disconnectedness’ between research and theory and the doing of design. Students (and some practitioners) often perceive them as separate and discreet activities. The individual and local specificity of the *South* studio increased students’ confidence in their own philosophical and theoretical thinking. They recognised that their research, which in this studio was not only a necessary but also a creative activity, was critical to, and inseparable from, their design outcomes.

The *South* studio successfully provided an alternative design driver to the magnetic appeal of anonymous global sophistication and allowed students to use regionality as an incubator of ideas. Students’ awareness of regional identity and the opportunity to draw upon it as a design generator was unreservedly amplified. The notion of the commonly understood premise, ‘think globally; act locally’ in this studio was transposed to ‘think locally; act globally’. Most poignantly, students recognised the extraordinary possibilities that exist around them even in abandoned orchards, corner stores and little towns with big things in them.

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Endnotes

- ¹ Francesco Bonato's speech at the opening debate at the 2001 [X]periment Design Symposium, Adelaide, 26 October, made reference to the diminishing consideration that designers were able to spend on the actual conceptual design process as a result of client budget and time restrictions. Bonato cynically identified the two main tools of contemporary interior architecture as AutoCAD drawing software and the international design, interiors, lifestyle magazine *Wallpaper*.
- ² Seminal publications on the tenant of memory as a design generator include Bastea (Ed.) (2004), Lyndon & Moore (1997) and Cooper Marcus (1997).
- ³ Bogan is a colloquial term for a person who is, or is perceived to be, unsophisticated or of a lower class background. The stereotype includes having speech and mannerisms that are considered to denote poor education and uncultured upbringing (mostly applied to white, working-class people).
- ⁴ In South Australia some of these include The Big Rocking Horse, Gumeracha; The Big Lobster, Kingston SE; and The Big Orange, Berri.

The Environmental Experience of Shopping with Cognitive Impairment

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Abstract: *The environmental experience of shopping was used as a vehicle to research the experience of complex or non-residential environments for people with cognitive impairment. Cognitive impairment is defined here as a condition by which an individual's cognitive processes have become altered for some reason. Such conditions may result, for example, from acquired brain injury, dementia, and/or substance abuse. The objective of the study was to ascertain through the investigation (a) the experience of shopping from the person with cognitive impairment's perspective; (b) the impact or the role of the physical environment in that experience; and (c) the implications for designers of public places such as interior designers, architects, and landscape architects. Therefore an ethnographic investigation of four individuals' experiences was undertaken by accompanying them on a shopping expedition to an environment they nominated as being very familiar to them. The findings highlight the role of environmental mediation in the experience of the person with cognitive impairment. Spatial layout, environmental containment, spatial positioning, environmental triggers, and signage are all revealed to influence the environmental experience. In addition, spatial understanding, environmental constancy, environmental stimulation, and a sense-of-knowing were also revealed to be important. The participants with cognitive impairment exist in a state of continual and conscious negotiation when in public spaces. The environment sometimes acted as a facilitator in order to help the participant cope with the situation and achieve goals, while at other times the physical environment was shown to be limiting or obstructive. This information is important for designers of public spaces due to the increasing numbers of people with cognitive impairment using such spaces.*

Keywords: *interior design, environmental experience, cognitive impairment*

Introduction

There are increasing numbers of people with cognitive impairment in our society. The World Health Organization's (WHO) defines impairment as any loss or abnormality of body functions or structures including psychological, physiological or anatomical aspects. In relation to the current field of research reported in this paper, relevant impairments are sub-grouped by WHO as psychological: nervous or emotional condition; intellectual: difficulty in learning or understanding things; and head injury stroke or brain damage: with

long-term effects that restrict everyday activities. The Australian Bureau of Statistics (ABS) defines disability as occurring 'when a person has an impairment or is restricted in his or her activities or participation because of health condition(s). Of particular concern are those disabilities resulting in specific restrictions which affect the core activities of self care, mobility or communication; or schooling or employment restrictions' (ABS 2003). This definition emphasises how impairments can influence to varying degrees a person's ability to cope with day to day life. In 1998 ABS reported that 599,100 people had at least one of these three disabilities and needed some form of assistance (ABS 2003). With Australia's ageing population increasing, the number of people with dementia is also increasing. The Alzheimer Association notes that in Victoria the people with dementia 'increased by 10.3% between 2002 and 2005, and is expected to increase by a further 17.8% between 2005 (52,535) and 2010 (61,905); ...it was estimated there were approximately 13,400 new cases of dementia diagnosed. By 2050 the number of Victorians with dementia is projected to increase to 176,000, a near fourfold increase over 2002' (Alzheimer's Association, 2006). As a result, it is becoming increasingly urgent to give consideration to if and how these people may be coping in our dynamic and changing environments.

There is limited investigation of the link between people with cognitive impairment and the designed environment from the perspective of the users' experiences. Zeisel (2006) in his latest version of the seminal reference *Inquiry by Design* introduces the field of environment/behaviour/neuroscience (E/B/N). Through the description of E/B/N the role of the environment in memory, spatial processing, and learning is highlighted. Core concepts from environment behaviour theory – place, personalisation, territory, and way-finding – are described as having a 'central role in the evolution of the brains of all animals...' (Zeisel, 2006, p. 356) and he cites the impact of neonatal intensive care units on the child's development. In addition, Zeisel proposes that an in-depth understanding of neuroscience can also inform the design of environments, and therefore, can support people with impaired brain functioning. A residence for people with Alzheimer's disease is described and highlights that the design generator was the nature of the brain atrophy which was mapped against design performance criteria and possible design responses.

In contrast to investigations of institutional environments, the current research project deliberately explored everyday environments, and in addition, focused on the experiences of complex or non-residential environments for people with cognitive impairment. Such environments are an integral part of how we engage fully in life on a day to day basis – especially in contemporary urban societies. Therefore, they provide an opportunity to

understand 'normal activity' for these people as opposed to scenarios involving adapted housing or institutional care provided for those with severe limitations. The example of the everyday activity selected for this study was shopping. In addition, the person with cognitive impairment in relation to shopping environments is an example of the broader theoretical construct known as the person-environment relationship.

The experience for people with cognitive impairment, through their relationships with the built environment and with other people, may be facilitated or inhibited, and thereby, their ability to cope is affected (Smith & Adkins, 2005). An ability to cope is defined in this study as an ability to understand and negotiate one's surroundings, to obtain one's goals, to express one's self as desired, and to maintain one's identity to a self established level at any particular point in time. A sense of belonging, as part of the environmental experience, is integral to positive outcomes for the person. Therefore, it is imperative that the act of 'place-making' is giving explicit attention in environmental design processes and associated practice.

The study will be introduced with a description of the method used, an outline of the findings, and a discussion of their implications in light of the findings. The research to be described in this paper focuses on the interaction between the person with cognitive impairment and the characteristics of the physical environment. Therefore the investigation of shopping, which will now be outlined, demonstrates these connections from the position of a person with cognitive impairment striving to obtain their goals and therefore to cope.

Method

This study is a pilot investigation into the experience of shopping and as such is developed as an interpretative study in order to gain the insiders' understandings of the situation. A small number of participants were selected to gain insights into their experience rather than to attempt to gain generalisable data in the first instance. As part of the ethnographic pilot study conversational interviews and field notes were selected as the mode of data collection. This enabled the researcher to take the role of participant observer and to discuss as well as observe issues as they arose during the shopping event.

Each person's visit served as a case study to identify how the person with cognitive impairment in the shopping environment experiences the situation. The objective of the study was to ascertain through the investigation (a) the experience of shopping from the person with cognitive impairment's perspective; (b) the impact or the role of the physical environment in that experience; and (c) the implications for designers of public places such as interior designers, architects, and landscape architects.

The field work involved four people with differing forms of cognitive impairment; two with acquired brain injury and two with dementia. People with acquired brain injury may have difficulty performing everyday tasks that others take for granted. Their resultant behaviours which are exhibited may be due to the 'condition itself' and/or due to frustration. They are complicated by the fact that the injury/disability is not visible to those people around them. Similarly those with early onset of dementia may have difficulty processing environmental stimulation and may become disoriented and frustrated. In relation to people with dementia, Pressley and Heesacker (2001) state that there is a need to research sites where there is a mix of people rather than just specialised environments. In order to adhere to this requirement, this project targeted the everyday environments for shopping.

A consistent set of problems that characterise cognitive impairment has been identified by other researchers, including visuo-spatial processing skills and ability to tolerate stimuli (Barnes et al., 2003; Mapstone et al., 2003; Perry & Hodges, 2003). Visuo-spatial processing refers to the management of visual data, including the assessment of objects in space (for example, humans, cars, chairs and so on); whether they are moving or stationary, the speed with which they travel and slotting these measurements into the memory (Williams, 2003). It is also important for panoramic visual imaging, which includes connecting together the collection of images into one scene and assessing things such as the depth, distance and other generalities. In relation to responses to stimuli, cognitive impairment can affect processing associated with all five senses: vision, hearing, taste, touch and smell (Moberg & Turetsky, 2003). In particular, it is associated with problems with visual attention to sequential stimuli. The processes of odour identification, detection sensitivity, discrimination and memory are all affected. As memory and attention deficits are at risk to over stimulation, tasks such as reading, listening to music, watching television or other associated visual and recreational activities can become more difficult because of their disorientating effects. Outcomes may include vulnerability, memory loss leading to disorientation even in familiar environments, distractibility, and physical challenges often evident, while some people can suffer depression (Smith, 2001, 2006).

Each of the current study's participants undertook a shopping expedition to their local or regular shopping centre. Each encounter involved a different form of environment—a shopping mall, a small shopping centre, a supermarket in a centre, and a recycling depot. The nature of the shopping experience was not controlled because the priority was for the participant to select their 'local' shopping environment; that is, the one they were familiar with and were to some degree comfortable in. Their selections also allowed us to include

a diversity of situations – department store, supermarket, enclosed mall dining area, and recycling yard – and therefore gain insights into some of the possible experiences for people with cognitive impairment as part of this pilot study. Even so, this study was very focused with the results drawn from an in depth look at a few individuals, and therefore, will be used to inform future research in this area of environmental design involving more extensive studies.

The participants were interviewed informally through a conversation about their accident or medical condition and the impressions that they held about shopping. This discussion occurred prior to the visit. Each person was also 'chatted to' while shopping as he or she went about the acts of arriving, looking for things, finding items, paying, and leaving and returning to their car. This process provided insights into the nature of having cognitive impairment as well as the experience of carrying out the everyday event of shopping from their perspective. The shopping excursions lasted approximately an hour as extended visits were normally avoided by the participants because they become tired and sometimes ill from the activity and the concentration required.

Each visit involved experimentation with recording and monitoring techniques. It was found that an accompanied shopping event that involved an unstructured interview was the most successful in gaining a relaxed and open discussion. It became obvious that disadvantages arose when too many people were involved – additional researcher and/or carers. Taped conversations would have been useful, however, these were not undertaken as the length of the visit and the intrusion of the tape recorder were two negative considerations. Therefore notes were taken to record characteristics of the environment (for example, the layout) and the visit (for example, where the person went within the space) and any comments by the participant (for example, how they felt, recalling past experiences). Initially it had been planned to identify distinct episodes or events which would demonstrate particular aspects of the experience. However, the shopping excursion did not lend itself to such a systematic breakdown. Instead an interwoven discussion of how the person felt, what they were doing, and their past and expected experiences unfolded.

Findings

All four participants were cognisant of what it is to have cognitive impairment. By making explicit some of the implicit understandings they demonstrated not only how they see themselves but also the relationship between others' understandings and their own understandings of their actions or behaviours. They also demonstrated, to varying degrees, how they had a sense of the environment and its relationship to their actions. This 'knowing' was in itself a context for future action. It involved knowledge about (a) the future, and (b)

the self. For example, the activity quite often involved negative physiological outcomes such as tiredness, nausea, or headaches. Therefore the participant undertook a chosen activity, such as going shopping knowing that as a result other things would need to be foregone.

The data were then interrogated to identify key concepts. In particular those that demonstrated a connection to the environment in some way were identified and sub-grouped accordingly. The material world was shown to play a number of roles in the experience. These identified roles are (a) the site as a location, (b) a setting for an activity, and (c) a participant in interaction. The environment as a mediator in the person-environment relationship was also shown to be played out in a number of ways. Aspects of the environment involved in these phenomena included the spatial layout, the degree of environmental containment, positioning within space that were supported by the environment, triggers, spatial understanding, environmental constancy, environmental stimuli, and signage. Each of these will now be discussed to demonstrate the relationship of the environment to the experience for the person with cognitive impairment. Pseudonyms are adopted in regard to the participants' comments.

The spatial layout

The spatial layout was a critical dimension of the shopping experience. 'Frank' specifically noted that complex configurations such as the Myer Centre in Brisbane's CBD would not be able to be negotiated without distracting him from his goal or purpose. However, in contrast, the systematic layout of the supermarket or small centre enabled strategies to be employed. Acts such as 'walking every aisle' and 'doing the circuit' were noted. The layout of the store also enabled a certain degree of predictability about others' behaviour and the tasks required. This predictability allowed 'Frank' and 'Glen' to structure their relationship with the environment in order to cope. In 'Glen's case one area (or zone) was always crowded and noisy when the facility opened, with people running to get to the most desirable items first. This meant he was unable to concentrate, resulting in debilitating headaches. He therefore chose to avoid this area until the crush receded. In 'Frank's' case the supermarket layout provided opportunities to ensure success such as being able to undertake a systematic perusal of the immediate shelves, to recognise the need to act in some way because of the location, to use objects as triggers to certain actions, and to be able to self check his hunches and rationale for what to do next in his own time. Over time these particular actions or strategies became rituals that are aspects of what it for this person to shop in a particular location and to enhance his/her ability to obtain the goal.

Environmental containment

Environmental containment may also be an important dimension. For example, a shopping aisle was noted by 'Frank' to provide limits to the experience at any point in time and therefore was a positive factor. Three major aspects of context came to the fore – spatial context, social context, and contextual constancy. In association two points of disjuncture are evident. The spatial context is important in this aspect as the layout can limit the input at any one time, delineate the environmental input, and provide order. Similarly, the demarcation of zones within the larger space in the experience of the recycling yard or the division of space in the department store by wide circulation paths edged in red, both helped to contain the breadth of stimuli in any one location or time period. 'Audrey' states that to assist navigation she 'follows borders on the floor border/edge of shopping centres' (Interview notes) while 'when asked if he knows things he wants are on the other side of an aisle or if he normally assumes they are; 'Frank' replies that the supermarket is good as the aisle is a contained space' (Field notes), and therefore he can locate items.

Spatial positioning

In addition to the overall spatial layout is the manner in which the person is positioned within the environmental setting by aspects of the environment itself. Spatial positioning may reveal to the shopper only a slice of the whole environment, certain vistas, or particular alcoves. It may also result in the person establishing linkages with other aspects of the environment – either physical or social – for example, being able to see all of one kind of product, to communicate with the staff, or to be identified as requiring service rather than being an independent browser by other shoppers.

These connections can be either positive or negative. In 'Glen's case having to queue to pay for goods without having a place to rest or put his goods down, meant that he was subjected to undue stress that brought on nausea from pain. To the outsider he appeared as just another constituent part of the queue with no particular identity distinguishing him from the others. He was positioned firstly in a particular physical context and secondly in a social structure through the layout and environmental design. Subsequently taken-for-granted, yet incorrect, assumptions could be made about him as a member of the queue and therefore as a generic 'purchaser' based on the person-environment relationship. In contrast to 'Glen', 'Frank' was able to select which exit he used and to whom he spoke. He was able to put down his load and to engage in banter. The environment combined with management positioned him differently and therefore enabled him as an individual to express himself more freely while still partaking in the rituals of supermarket shopping.

The spatial positioning of an object also influences the outcome or the level of engagement by the person. For example, the object's position in the visual field influences the ability to see the item as some objects were noted during the visits to be concealed behind service ducts, that displays were divided between different sides of stands, similar goods were displayed on different sides of the aisles, and the like. For people who may have difficulty remembering or linking disparate fields such arrangements potentially will influence their ability to easily obtain their goal and to feel as though they are coping.

Environmental triggers

The environmental characteristics also act as triggers to thought and to actions. The physical environment, as an abundance of differing visual stimuli, is the context within which the individual needs to negotiate and interpret. This happens in two ways – as a trigger and/or as an orientation tool. As a trigger, the environmental object or situation (product, aisle, shop, or signage) may operate in three ways. Firstly it is interpreted as an icon; that is, it is the thing in itself that is required or taken. Secondly, it triggers the memory so that the individual remembers that they have a need for something. Finally, it triggers actions. Those demonstrated by 'Frank' and 'Glen' included checking the written plan of action or reviewing the list of things to buy. The other senses presumably act as similar cues. If there is too much stimuli providing overload for the person, actions may be required to cope. 'Glen' noted that in order to filter out distracting auditory information in order to cope, he focused on the visual surroundings; this in turn made him more tired.

Spatial understanding

During this research project spatial understanding was demonstrated to be involved in orientation and navigation in one or more ways. For example, the participants with cognitive impairment demonstrated that at times they could (a) orientate themselves in space, (b) they have a 'mental' plan of the space through which they can move with purpose, (c) they can recall the total layout and the items within the space, and (d) they seem to understand the spatial relationships. They know or recall where they are by looking at the environmental cues, and therefore, the objects serve a greater purpose in assisting an individual than simply being its contents.

Signage

The physical environment also assists in orientation within the greater spatial context. Signage is used as a system of communication in distinguishing areas ranging from entire zones to individual items. The more integrated the visual language used the more successful it is likely to be. However, the position or height of the sign or item outside the normal visual field may mean it is missed. 'Audrey' related how signage is 'Okay in front and at head height as [she] can't see below a certain level. [Also she] can remember location and direction,... I know I am on level Y'. She then works out where to go; looks for signs, uses the directory. However, she relates how after her brain injury that she was 'frightened while in the Centre on her own; it felt like it was brand new even though [she had been] going there for 10 years' (Interview notes).

Of interest is the fact that none of the four participants appeared to be using the signage. Yet when asked 'Frank' and 'Glen' were emphatic that they used it continually. As Rapoport (1982, 1990) states, redundancy assists people to orientate and find their way. 'The more complex and culturally pluralist the setting, the greater the required redundancy to produce sufficiently clear cues, particularly since many people are "outsiders"' (p. 150). As our participants demonstrated, people with cognitive impairment who are interacting at local or familiar shops often needed to recheck what they were doing or were going to do. Therefore they are applying strategies or actions in much the same way as an outsider may need to do in a new town or complex.

'Frank' used a list of objects as a linear record of a spatial plan of the store. Orientation (in this case) involved a layout map in the form of a list and the produce as it is laid out on the shelves in the store. Therefore, the produce acts as signposts to the map and vice versa. Reciprocal relationships exist between the list as a layout, the environment as a layout, and the objects as a list. 'Frank', through a constant dialogue with the environment via the actual three dimensional space in relation to his list, was able to stay on track to locate himself in space and to find the objects which were sought. In 'Glen's case, he stated that he 'doesn't get lost or forget where he is. However, he does forget what he is looking for because of the reduced speed to get ideas into the mind'; the problem is not orientation or finding his way; rather the difficulty is the 'visual reaction to place, accessing lots of things, and going into lots of places rather than going to get something in an ordered way' (Interview notes).

Environmental constancy

Environmental constancy seemed to be an important aspect of the ability of people to cope with the situation successfully. The participants with cognitive impairment experienced the chosen environment through their local knowledge. 'Frank' and 'Glen's stated aim is to be in a place where local knowledge can be applied or integrated and hoped that the environments they frequent will remain stable in the future. This is obviously contradictory to the philosophy of many retail spaces, including one of the case-study environments which was undergoing renovations. Confusing environments, which cannot as readily be understood through 'local' or immediate knowledge, were spoken about during site visits and if possible they are avoided by the participants.

Environmental stimulation

Environmental stimulation can cause discomfort, distraction, and long term physiological consequences. Sensations are part of the environmental situation or setting, and are perceived and interpreted by the occupant of a space. All four participants noted the effect of noise on their experience and their level of engagement with it. For example, 'Glen' stated he was 'very sensitive to noise since the operation – noise in shopping centres, music, machines, talking' (Interview notes). 'Mark' also noted that noise is a major irritant in the environment, for example the slamming of the kitchen cupboard (Interview notes). 'Frank' commented that the overall activity level was distracting (Interview notes).

Sense of knowing

In addition an important aspect of the experience was a sense of knowing about the event without necessarily being able to identify its particulars. For example, things look familiar or things are known to be in this place. Within the context the person is tacitly aware that safeguards may exist (such as the staff and the way they look out for 'Frank'). In addition, the ability to rationalise that particular negative outcomes will result in certain circumstances is evident. For example, three of the four participants predicted that they would not be able to know the way and/or know how to cope in larger or more complex environments. This indicates that at least three processes may be involved and future research may clarify the process occurring. The pilot study implies that (a) intuitive knowledge dominates conscious thinking about the situation; (b) memory informs the logic of the situation; and (c) evaluation of the current situation occurs by projecting to the future through reasoning. In addition, knowledge constitutes the experience of the place or event and informs action. In this case study, 'Frank' and 'Glen' both demonstrated knowledge of:

- their selves (capabilities and limits)
- self and condition (as understood objectively by others)
- sense of the environmental moment (pre-action to cope with situations arising)
- symbols and cues (constructing meanings)
- future scenarios (situations and actions).

Summary

The findings highlight the role of environmental mediation in the experience of the person with cognitive impairment. Spatial layout, environmental containment, spatial positioning, environmental triggers, and signage are revealed to influence the experience. In addition, spatial understanding, environmental constancy, environmental stimulation, and a sense-of-knowing were also revealed to be important.

The environment was shown to be an 'active' participant. The physical components not only act as a site of activity but can alternatively be understood in terms of their potential to form relationships. These will become the basis of interpretation and experience. A theoretical framework was generated and has been described elsewhere (Smith & Adkins, 2005). The constituent concepts include person environment relationships, environmental understanding, place, experience, and environmental mediation; each of these concepts is integral to environmental design.

From the above examples, it is evident that the physical environment has multiple roles in assisting people with cognitive impairment to cope with the day to day activities of life. The requirements and desires are facilitated or inhibited to varying degrees due to the person-environment relationship. As a consequence, it is worth considering how the designers of public spaces can incorporate this knowledge concerning the physical components of the person-environment relationship for people with cognitive impairments while simultaneously being cognisant of the broader context.

Designing public places for people with cognitive impairment

As environmental design mediates our everyday experiences, the ability to cope for people with cognitive impairment is embedded in the notion of place. Place is linked, not only to a sense-of-place, but also to the role of the structures and ideology embedded in its creation. Place has been shown:

...to be more than a setting, which we perceive through our sense organs and/or by thinking about it. In addition, our interpretations of a location or situation are the meaning that it has. These connections are important to our sense of belonging and engagement as we continually reconfigure or transform the place through our actions and with usage. If we are unable to develop meaningful connections then the built environment remains as space and as Berleant stated, the relationship is about 'distance and separation' rather than engagement and meaningful connections (Smith & Adkins, 2005 p.16).

It is evident that shopping experiences in this study involved conscious and ongoing negotiation with the immediate surroundings. For example, as 'Glen' related there is a 'need to concentrate; as the filtering systems are affected it is hard to focus. He tries to make up for the amount of distracting sound by focusing on the visual aspects 'as an anchor'...His concentration span is limited and the need to focus is very draining. As a consequence each activity leads to headaches and the best times to do anything are early in the morning as he tires during the day (Interview notes). 'Audrey' stated 'I am constantly thinking while doing the tasks' (Interview notes), while 'Frank' also commented '...there is a continuous process going on before I get to the checkout...' [I am] '...working at remembering' (Field notes). Therefore the person's potential ability to be integrated or to have their own sense of being integrated with the environment; that is, an 'unconscious' mode of operation, was demonstrated to be held at bay.

What the research has also shown is that people with cognitive impairment have a particular type of relationship with the environment which affects their ability to cope. As the number of people with cognitive impairment increases there is imperative to seek greater understandings of these relationships and their outcomes. People with cognitive impairment may demonstrate anti-social behaviours such as aggression or violence in certain circumstances. This has been shown to not necessarily be due to 'the condition' but rather due to other parameters such as frustration arising from the situation (Clitheroe et al., 1998; Rowlands, 2001; Wilson, 1999; Yody et al., 2000).

Therefore, the implications for designers of public places, such as interior designers, architects, and landscape architects, would appear to not only be in matters of usage and function. In addition, there is a need to address how environments are linked to a person's ability to understand and negotiate one's surroundings, to obtain one's goals, to express one's self as desired, and to maintain one's identity to a self established level at any particular point

in time. The design of public spaces has embedded within it certain ideologies, constructs, and assumptions of the creators and facilitators of such places.

The experience of people with cognitive impairment during their everyday activities exists through their relationship with the physical environment. The quality and nature of the relationship is mediated by the characteristics of the physical domain, and as such the design of the built environment is a critical consideration in contemporary environments. Information drawn from the first hand experiences of people with cognitive impairment can assist in the development of greater understanding, and therefore, a review of practice. This study therefore raises our awareness of some pressing issues for a growing segment of our population and informs designers, and those responsible for the management and governance of public spaces, of an area of investigation that needs immediate and informed attention.

Summary

In summary, it is evident from the case study described above, that a number of important issues need further research. The interconnection of the person with cognitive impairment and shopping environments can be understood more fully by recognising the following. Firstly, the environment is revealed to be active in how a person with cognitive impairment engaged or understood the place. Secondly, the design, and therefore the act of designing, produces a palette of physical elements to which a person can respond. The philosopher and scientist C. S. Peirce referred to this potential as the 'brute object' which can be interpreted numerous ways; it exists with the mere possibility to be something else (Peirce, 1988). Thirdly, a location or site potentially becomes 'a place' for someone through a person's interpretative processes. Place comes into being through these everyday experiences which facilitate meaningful connections whether positive or negative. Fourthly, a person with some form of cognitive impairment has particular characteristics (cognitive, perceptive, and affective) which influence the interpretive process, and therefore, what comes into being as this type of place for them.

The resultant outcome is influenced by the form of person-environment relationship. At least four types of person-environment relationships (P E) have been demonstrated to exist ranging from separation and objectification to interdependence and immersion (Zeisel, 1984; Aitken, 1991; Moore, 1987; Smith, 2000). However, from this study it is proposed that a person with cognitive impairment cannot readily move through all of these states – for example, viewer, participant, immersion (Smith, 2000). The ability to disengage has been shown to be very limited. The participants appear to be in the viewer state (P + E) person state, where the

environment is objectified, being continually read as a text, as the person seeks clarification of what the place is, how to act, and what is involved in this particular instance. An environment which would facilitate the transformation from one person-state to another as appropriate would seem desirable to assist the person with cognitive impairment to cope – to increase their positive experiences, while in turn, reducing their predicted negative experiences. One way to achieve this is to understand the mediative role of the physical environment in the person-environment relationship and that the venue or space known as the shopping centre has the potential to become 'a place' with meaningful connections for people with cognitive impairments.

In addition to addressing the lack of examples where design practice has been informed by research, this area of research recognises the urgency of addressing the increasing numbers of people with cognitive impairment. The concepts outlined in this paper were drawn from the conversations and observations collected during the accompanied shopping excursions with people with cognitive impairment. These findings have flagged a number of issues that constitute the experience of shopping from the perspective of a person with cognitive impairment. They have also provided insights into the impact or the role of the physical environment in those experiences and set the scene for further research in this field that may inform practice.

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Person Environment Relationships to Health and Wellbeing: An Integrated Approach

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Abstract: *It is widely acknowledged that a strong relationship exists between physical environments and human health and wellbeing. More specifically, various dimensions of person environment (PE) relationships have been studied relating to the psychological, physical and social aspects of human interactions and transactions. However, health aspects relating to human psychological and physiological relationships and such factors acting upon PE relationships are not well investigated. This paper emerges from a larger study and presents the approach undertaken to investigate the complexities of PE relationships to health and wellbeing for the purpose of reviewing research literature. The study attempts to understand how outcomes of health and wellbeing are interrelated to PE relationships when influences of the various systems of the human body are considered. Central to this study is the psychoneuroimmunology (PNI) model that proposes that the person's psychological health is internally related to the neurological and immunological systems. The PNI model was used as a basis to look at the various interrelationships of human environment interactions and transactions to health and wellbeing. This provided the study with an integrative inquiry method for exploring literature which looked at such relationships singularly or collectively.*

Keywords: *person environment relationship, health, wellbeing*

Introduction

Many properties of the built environment (BE) such as sound, smell, aesthetic qualities, social aspects, privacy, control and so on are understood to have the potential to influence the health of a person through the psychological and the physiological systems of the human body (Ulrich et al, 2004). This context has an important relevance to the interior environment as human beings interact with such settings on a frequent basis through their home, workplace, study, social places and so on. Thus, understanding outcomes of health and wellbeing in such settings is an important factor when designing and creating space. Health and wellbeing for the purpose of this study relates to psychological and physical wellness which contributes to overall human wellbeing influencing health in the process. Designers involved in the creation of human habitats have a capacity within themselves to provide conducive environments that elicit positive emotional and physical responses in people coming in contact with them.

Although methods and theories used by researchers vary from study to study, all agree that person environment (PE) interaction is an inevitable part of human existence and that the relationship between person and the environment has many facets which – though they may be interpreted in different ways – are overlapping and inter-connecting when the person and the environment are conceptualised in an integrated sense. While research in PE relationships highlight a holistic understanding of a relationship involving human health, wellbeing, and the environment, it is not always clear as to the extent or specific nature of this or to how the notions of mental and physical health and wellbeing, and environment are conceptualised.

Much of the literature on the relationship involving environment, health, and wellbeing has focused on the role of either the psychological systems or physiological systems. While the psychological, physical, social and spatial aspects are well documented, very few look at person and environment as a whole. In general, a person's psycho-physiological relationships with the BE, particularly emotional and mental relationships and their influence on the physiological systems, are less studied in physical environment research (Korpela & Ylen, 2005).

This article stems from a study investigating the health and wellbeing outcomes originating from PE interrelationships as described in the research literature. The goals of this paper are threefold. First, we investigate the nature of the PE relationship to health in research literature; if health and wellbeing resulting from the PE inter/transaction is recognised holistically. In other words, literature is examined to determine how the various systems of the human body are understood to be interrelated and how the wellbeing of a person as a whole is considered in relation to the built environment and the various elements of which it is comprised. Second, we make reference to the possibility of transdisciplinary approaches in response to increasingly complex and global health impacts demanding a broad knowledge and skills base (Frumkin, 2005). Third, we look at person and environment as a whole and in doing so recognise the importance of considering person and environment relationships as interrelationships between environmental influences and human systems which we describe in terms of a PE integrative¹ system approach.

An overview of literature

Our physiological system and psychological system are not 'separate and distinct from our experiences in life' (Ray 2004, p. 29). According to Rapoport (1990) the human body and the natural/ built environment (BE) are closely connected with each other by the simple fact that a person is always in one place or the other, be it in natural settings or human-made settings and the human body reacts to a place consciously and subconsciously all the time.

Furthermore, the fact that people are psychologically dependent on their social and physical surroundings for their individual development and wellbeing has been well-known for a long time (Ittelson, 1976).

Many studies indicate that the physical environment has properties that influence human health and wellbeing. For instance, studies on the properties of restorative environments in promoting wellbeing (see Kaplan, 1995) indicate that the environment is closely connected to the human being in terms of health and wellbeing. Roger Ulrich (1984) – one of the pioneers in promoting the concept that physical environments influence the physiological systems – in one of his early studies found that the length of stay in hospitals can be reduced by providing better physical surroundings. This suggests that mental wellbeing is necessary for the physiological wellbeing of a person and that the BE is responsible in many ways. Most recently, Ulrich and colleagues (2004) undertook an extensive literature review of ‘evidence based research’ regarding the role of the physical environment in hospital settings and found that many properties of the BE play a role in facilitating or weakening human response to illness, thus promoting or harming health and wellbeing.

Several key PE relationship dimensions have been proposed in previous research as ways to understand and explain environmental behaviours, responses and experiences. These include spatial use, environmental privacy and control practices, other experiential behaviours, preventive health factors connected to the environment (such as ‘sick building syndrome’), importance of aesthetic qualities, and design for human physical activity (Zeisel, 2006; Bell et al, 2001). The concepts have sought to explain PE relationship as being a result of human inter/ transaction with a collection of factors. While a thorough review of each of these dimensions of PE relationship is beyond the scope of this article, some key concepts relating to psychological, social and physiological aspects of PE relationships are relevant as they support the argument that the BE and the emotional changes they generate may be associated with instigating conditions related to poor physical health and wellbeing.

As environments differ in their negative and positive health outcomes, the ‘health promotiveness [of an environment] ultimately depends on its capacity to support those health outcomes most desirable and important to its members while eliminating or ameliorating those most clearly negative and detrimental to individual and social wellbeing’ (Stokols, 2003, p.139). Another example is the sociophysical environment and its relationship to privacy. An open office plan can nurture as well as hinder a person’s opportunity for interaction with other people, however, this depends on how they perceive the space (Evans & McCoy, 1998). Some responses from such influences may generate negative responses causing anxiety.

Studies indicate that high levels of anxiety on a regular basis can affect mental wellbeing eliciting certain physiological ailments (Rosenmann, 1994).

Built environment dimensions: classification for health and wellbeing outcomes from PE relationship

The term 'human environment' has evolved to embrace not only the physical but also the psychological aspects of an environment which includes the social, interactional, transactional and organisational aspects that might affect the mental health and wellbeing (Proshansky, 1976). Canter's theory about place posits the notion that the experience of a person in the environment is the sum total of the transactions between the environment and the different levels of a person's experience. These levels are understood to involve 'personal, social and cultural constituents of person-place' (Canter, 1997, p.118). The specified dimensions in the analysis categorisation evolve from similar theories associated with PE experiences and relationships. The two primary dimensions of the PE relationship are P (person) categorised in terms of the animate dimension and E (environment) categorised in terms of the inanimate dimension. These encompass research from environmental psychology/environmental behaviour research (EBR), architecture and design (including landscape and design psychology), environmental health and healthcare settings. They include human and spatial elements.

Canter (1997) states that in order to apply the principles of environmental psychology, an understanding of what forms the experience of place where the aesthetic elements stand out in connection with creative design is particularly important. For this purpose, he points out the importance of looking at the physical environment by exploring the designer's view as well as the researcher's view. In exploring the designer's view, it is necessary to look at the different facets of place and '...the major facets of designs that the designers manipulate' (p.110). Researchers mainly are interested in the paradigms of the environment investigating what they look at. However, how they look at it is also important. As each environmental understanding reveal different aspects (Canter, 1997), the relevance of the understanding that the factors that characterise a place or building also influence the human action and experience that occurs there is important. According to these conceptions, the assumption is that designers influence the PE relationship through (1) function: the task and performance of a place; (2) form: the appearance of a place mainly comprising of the structure and composition of the space and (3) space: the whole place or space occupied. These three aspects include only the spatial perspectives which, in a broader sense, identify and incorporate the user needs (Canter, 1997).

The contextual framework

The PE integrative systems model and qualification of the animate and inanimate dimensions of the BE according to their domains provides a basis for the main approaches taken in the study; the approaches of classification and categorisation. In other words, literature is classified and categorised chiefly in terms of how it considers health and wellbeing relationships to the physical environment within an integrative systems model.

When classified from health and wellbeing perspectives, research in human environment relationships, reactions and outcomes reveal several dominant themes. They include psychological and physiological factors, the effects of the physical environmental elements, the effects of inter/transactions between humans and certain environmental stimuli such as psychological and physiological arousal, emotional factors, sensory awareness and finally the effect of these relationships on health outcomes.

Many researchers suggest that human reaction and responses to the physical environment may reflect heritage and cultural factors as well as personal beliefs and adaptability (Bell et al., 2001). They also speculate that humans respond to specific environments because of an inherent need, thus conditioning the human response towards an unconscious preference for particular settings (Kaplan & Kaplan, 1989; Ulrich, 1984). Other research suggests that human responses to their surroundings or the place they come in contact with are personal processes that vary according to many factors, such as individual experiences, and social, cultural, and emotional influences (Canter, 1997; Rapoport, 1990; Russel & Snodgrass, 1987).

In addition, there is some work that focuses on the positive effects of human wellbeing derived from direct experiences from inter/transactions with the surroundings. These researchers examine topics such as the health outcomes in healthcare settings, healing taking place in similar settings, and the outcomes of environmental experiences (Ulrich et al., 2004). An example includes how sensory awareness affects healing and therapeutic processes. These also include restorative environments. For instance, there have been several studies that show most people prefer natural landscapes over urban views, especially when urban scenes lack vegetation and water features (Kaplan et al., 1988; Ulrich, 1983; Korpela, 1991). These preferences emerge possibly from the capacity of those spaces in providing stress relief contributing in turn to the healing process.

From the review of literature, environmental preferences and restorative environment theories appear to be the most dominant. Two of these are Kaplan's (1995) 'Attention Restoration Theory' which follows a cognitive model, and Ulrich's (1983) 'Nature Restoration Theory'

which follows an 'affective' or emotional model. The 'attention restoration' concept suggests that a rapid, unconscious type of cognition may precede affect or emotion (Kaplan, 1987). Most of Kaplan's research found that preferred places contained features that influenced and encouraged the gathering of information and an understanding of the elements as a person experiences space (Kaplan & Kaplan, 1982; Kaplan, 1995). While the above mentioned model represents the perceptive and the cognitive aspects of the PE relationship, the 'affect model' emphasises human aesthetic, affective, emotional and physiological responses to the physical settings or environments (Ulrich, 1981; 1983; Ulrich, et al., 1991).

Ulrich (1983) believes that humans respond immediately, unconsciously, emotionally and physiologically. These processes play a critical role in how humans respond to the physical environments, its configurations and elements. These concepts relate to the PE interrelationship integrative health systems model, which is developed in this study from the Psychoneuroimmunological (PNI) framework. Furthermore, Pennebaker and Brittingham (1982) state that certain environmental stimuli can elicit physiological responses influenced by psychological responses. They state that, when there is 'external information' (stimuli outside the human body), the 'internal sensation' creates an awareness of it which is 'directly related to physiological change' (p.119), these perceptions evolving either consciously or without deliberation. People may not be aware of the internal physiological sensations unless it is something contradictory to everyday encounters.

Emotional responses seem to be an innate phenomenon and several researchers propose that the feelings are essentially precognitive or that the sensations occur before perception and cognition takes place (Ulrich, 1983). Ulrich (1981) suggests that the cognitive process outcomes from the initial emotional reaction are greatly influenced by cultural and personal experiences and that the affective responses may be expressed as 'neuro-physiological' activity. Exposures to everyday environments may elicit various effects on human psychological and physiological systems (Ulrich, 1981; Ulrich et al., 1991; Ulrich et al., 2006). Ulrich's (1981) findings from a study, measuring person's physiological and psychophysiological responses to environmental elements indicate that preferred environments reduce anxiety and enhance recovery process and stress responses.

These studies suggest that the environment consists of several stimulants that influence the psychological and physiological responses in humans. Although generalisation can be found within each area of research, it is still helpful to identify specific patterns existing across environmental perceptions, cognitive and emotional responses, preferences, cultural

influences and therapeutic and restorative qualities of the occupied space, to understand their influences on health outcomes. It may well indicate that the results found for one particular group may apply to other groups and that no single study by itself can be conclusive. However, as numerous studies provide similar understandings and concepts, they indicate that direct and indirect effects may exist. Emotion featured repeatedly in the review, pointing out that feelings play a role in human psychological and physiological responses to place and that the physical environment can directly affect or alter emotions.

Mind-body relationship

To understand outcomes of health and wellbeing from PE relationships, it is imperative to understand the mind-body relationship of a person. For this reason, PNI is taken as a platform to model human health and wellbeing in the holistic sense as it is one area of medical research that represents an attempt to understand psychological and physiological systems as an integrated whole (Figure 1). PNI is the study of mind-body relationships (Evans et al., 2000) considering the interrelationship of the mind to the neuroendocrine system and the immune system. Its basic tenet is that a person's immunological response is affected by their psychological wellbeing. If one's psychological/emotional health is depressed, the physical body could be more susceptible to illnesses.

An increasing number of studies have documented the connection between mind and the body (Ader et al., 1991; Cousins, 1983; Hafen, 1996; Smith, 1998). For example, Marucha et al (1998) conducted a study on wound healing in which they compared students' healing time during vacation time versus examination time when they were under duress. It was found that healing took 40% longer in students when they were stressed during exam times (Evans et al., 2000).

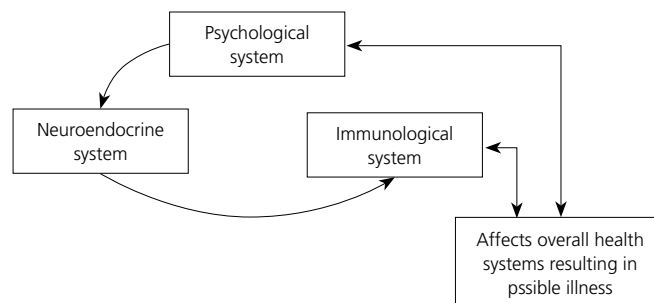


Figure 1: PNI Model.

This understanding of person as a whole is necessary when looking at environmental stressors. There are many 'sensual stresses' that stay in the background – such as urbanisation, crime, boredom, computer invasion, isolation of the aged, drugs, alcohol and tobacco abuse, noise levels – affecting the health and wellbeing of an individual adversely (Wheatly, 1994). Wheatly (1994) states that stress contributes in 'initiating, maintaining, and aggravating a number of physical and mental disorders' (p.1). Studies in the area of stress strongly support the notion that illnesses are contractible and can be aggravated by psychosocial factors responsible for stress. Though all diseases may not be based on emotions, a growing number of experts believe that some diseases result from emotional responses. For instance, a sense of loss of control over ones situation can lead to a loss of normal functioning of the physiological system (Kiecolt-Glaser et al., 2002). Stress levels from such experiences could contribute to the development of certain illnesses.

PE integrative system approach

As health and wellbeing outcomes from PE interrelationships are the responses and influences of the person as a whole inter/transacting with the environment in the integrative sense, people and environment should not be viewed in isolation. Similarly, the different aspects of the environment such as animate and inanimate elements cannot be separated as they interact and transact within themselves, eliciting different reactions from the person as s/he experiences place. In other words, they cannot be 'defined independent of the other' (Ittleson 1976, p. 56).

The investigation identifies health and wellbeing as integrated health with the consequences elicited from the transactions between the mental state and physical state resulting in either positive or negative wellbeing. It does not simply mean the absence of illness. 'Health' according to the Constitution of World Health Organization, is defined as 'A state of complete physical, social and mental wellbeing, and not merely the absence of disease or infirmity' (WHO, 2001. p. 6).

Integrative health can be said to be the embodiment of the overall systems of a person that contribute to health and wellbeing. This is mainly understood in this research using a psychoneuroimmunological (PNI) model that regards health and wellbeing as integrally related to the psychological and physiological systems of a person. By taking a transdisciplinary approach to investigate person in PE relationships it is proposed that a better understanding of the interrelationships of environment with the person's body systems and health and wellbeing is possible. As it looks at all the aspects of the human-body systems and their influence on each other, PNI is used as a framework for conceptualising the 'P' in the PE (person/environment) dialectic (Figure 2).

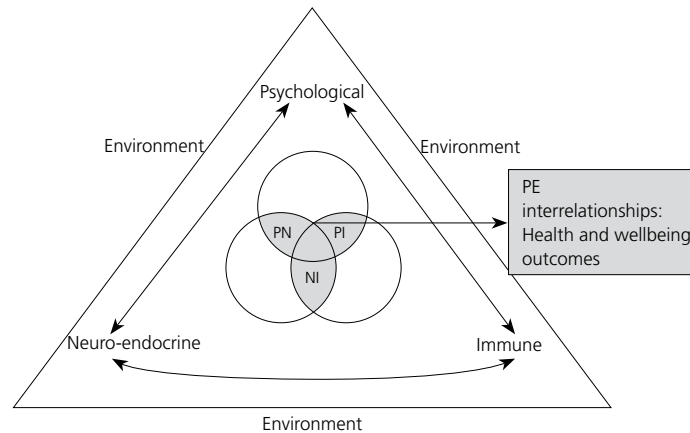


Figure 2: Model for PE relationship to integrative health and wellbeing.

While the model recognises a dialectical relationship between person and environment, it emphasises the potential influence of the environment on the psyche or mind and the subsequent influence of this on the immune system and, correspondingly, health and wellbeing. It also indicates that when the environment affects the P or the N or the I systems, they could affect each other. The emphasis is a response to wide recognition in the literature for giving this greater attention in an integrative model of health and wellbeing. In the model depicted in Figure 2, the person is understood in terms of their psychology, particularly in relation to stress and emotions, as well as to their physiology described in terms of the neuroendocrine and the immune systems.

The physical environment has been categorised by two interrelated dimensions – the animate and the inanimate; that is, the human and physical place dimensions. They have been further subdivided into the psychological, physical and social extents within the human dimensions and elemental and spatial extents within the physical place dimension. This is depicted in Figure 3.

The animate dimension and its constituents are described as psychological, social and physiological elements related in turn to concepts such as environmental perception, environmental cognition, stress and emotion, identifying environmental stressors, person environment interdependency, environmental determinacy, environmental experiences and so on. These concepts originated chiefly from environmental psychology, however, while the field provides invaluable insights to a person's psychological responses and the environment relationship, there is less research that directly identify the specific sources of any positive and

negative impacts on health and wellbeing within the environment in the integrative sense. Having said this, there is the potential for such links to be made by taking an integrated health systems approach. This could be achieved by combining knowledge from a number of different studies. For example, environmental behavior research studies indicate a lack of control over the place a person inhabits may cause anxiety and depression and an aversion to the place, relating to individual psychological outcomes of environmental perception and cognition (Gifford, 1996). Healthcare environment studies indicate that such psychological responses could elicit additional physiological disorders (Ulrich et al., 2004).

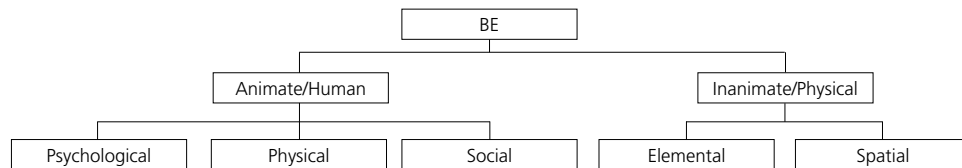


Figure 3 : Categorisation of BE and Design.

The inanimate dimension focuses on the physical elements within a space and their relationship with/to form, layout, aesthetics and so on in terms of sensual and physical impact. For example, furniture not ergonomically considered can cause certain physical ailments such as neck and back pain (Moffet et al., 2002). Open plan offices are related to headaches among employees using them depending on their type of work (Stokols, 1998). Further, the inability to change the circumstances – for instance not being able to move furniture according to need or personal choice; not having control over temperature settings – harms mental wellbeing (Stokols, 1998), and may cause other adverse health effects (Ray, 2004).

Although the animate and inanimate dimensions which are mentioned in existing studies may narrow the likely sources of the problem as direct or indirect generators of negative health and wellbeing, and/or identify person environment relationships in distinct contexts, they generally do not implicate a specific source and its consequences on health and wellbeing. The identified dimensions of the environment overlap when the person is considered in entirety.

Human health and wellbeing have been categorised in terms of the psychological and the physiological systems. In accordance with the PNI model, in this research psychological dimensions have been considered under stress, and emotional wellbeing and the physiological systems in relation to the neuroendocrine and the immune systems as represented in Figure 4.

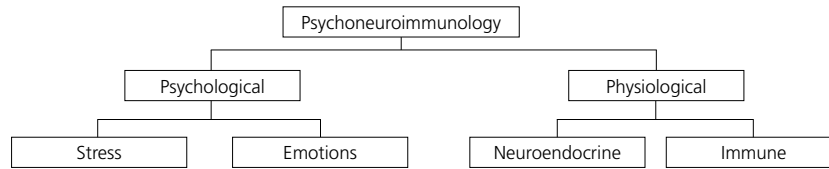


Figure 4: Categorisation of PNI.

The categorisation helps to identify specific features that are necessary to understand health and wellbeing outcomes from PE interrelationships.

Calling for a transdisciplinary approach

Associated with the importance of PE relationships are different dimensions of the person as well as the physical characteristics of the environment. Recognition of the psychological dimensions of the PE relationship was identified in the research synthesis as an important issue in health and wellbeing, in keeping with the PNI framework. As a primary human response that influences the physiological system, the person is capable of subjective and objective interpretations and reactions. While this area is well represented in the BE domain, it seems its impact on mind-body relationships and consequently on health is not well recognised, perhaps because of the lack of a theoretical framework. Though the general area is under study in the environmental psychophysiology domain, a detailed and integrated framework regarding the outcomes of health and wellbeing originating from PE interrelationships is yet to be demonstrated in a tangible way.

Frumkin (2005) states that environmental health being dynamic in nature encourages interdisciplinary as well as transdisciplinary research, rather than trying to concentrate on one discipline to conceptualise relationships between human health and the environment. He also states that the environments have many different properties and functions allowing people to interact and respond to them in 'predictable ways' (p.xxxviii), providing different dimensions ranging from being 'alienating, disorienting, or even sickening' to being 'attractive, restorative, and even salubrious' (p.xxxviii).

Some of the most important findings linking the environment to human health and wellbeing come from studies in environmental psychology, healthcare environment research and 'sick building syndrome' research. For instance, the degree of environmental 'fit' and the ability of the environment to provide beneficial elements is highly related to the occurrences of physiological symptoms (Parsons et al., 1998); empirical evidence of positive health factors (Cox et al., 2004); control of immune regulations (Ulrich, 1986); cortisol production (Riley et

al., 1992); depression (Galea & Vlahov, 2006); work related stress (Stokols, 2000); 'attention restoration theory' (cognitive model) (Kaplan, 1995); 'nature restoration theory' ('affect' model) (Ulrich, 1983). They indicate that when the environment and person act on each other in a consistent and equivalent way, the level of positive impact on health and wellbeing increases, as opposed to situations and places where the person has little or no control.

In response to the above mentioned studies in support of the PE integrative system model, we can see the environment as having three major influential characteristics. Firstly, it contains various stimuli which are potentially a source of negative or positive health outcomes; secondly, the stimuli can act as triggers in eliciting responses depending on the person; and, finally, the environment can act on the person's individual characteristics in terms of adaptive responses and belief processes. People's perception and their beliefs are usually a turning point in their experience of place. A person perceives a place as soon as s/he encounters a setting. The outcome influences many other activities that subsequently take place within the physical environment. In general, emotionally satisfying surroundings give a positive outcome of anticipation, and reaction to, the events that are to take place inside the human body.

From the current review of the research from the identified areas, it is indicated that, even in light of the limitation to the existing research, further significance should be given to the physical environment and its impact on person's integrative systems such as PNI, to address human health outcomes of person environment inter/transactions. This can be done by:

- further research into aspects relating the PE interrelationship with health, wellbeing, and illness
- providing spaces and places that influence overall health and wellbeing positively thereby reducing the risk of illness
- managing the social outcomes and the social impact of aesthetic aspects of the physical environment through design.
- establishing situations where human and environment co-existence is supportive of one another through design
- preserving human health for longevity by providing positive environmental influence.

The complexity of the PE interrelationship with health lies in the fact that a response to mental wellbeing due to environmental influences may or may not begin within the microenvironment. There may be a variety of factors that are reasons for the trigger and generation of wellbeing or illness. These may be subjective rather than objective and

recognisable. As a result, identification of minor triggers that develop into major issues may need to be identified in the first instance. Building codes and standards are developed for design and construction – in regard to air quality, building materials, water supply, thermal requirements and so on – in order to improve the quality of the physical environment (Lawrence, 2002). However, there seems a necessity to address the psychological aspect of the human being in policy making and codes.

Conclusion

This paper has described some of the characteristics of PE relationships as portrayed in literature, conveyed an invitation to look at the P (person) as a whole, provided a framework for adopting an integrative, holistic view in relation to health and wellbeing, and by association argued for the need to undertake transdisciplinary approaches in research and design. In recognition 'that the environment is a human creation, that the environment is artefact...' (Ittleson, 1976, p. 56), this study argues that while physical environments potentially have the power to influence the wellbeing of the person or people occupying it, the potential for the designer in influencing BE to affect the health and wellbeing of person relies on their understanding of and ability to accommodate the integrative nature of a person's psychological and physiological capacities contributing in turn to their overall health and wellbeing.

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Endnotes

- ¹ Integrated basically means a way for looking at person and environment and their relationships as a whole, rather than as separate entities. This also means understanding person as a whole and environment as a whole. In the integrated sense then PE relationships become PE interrelationships.

On Whenua, Landscape and Monumental Interiors

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Abstract: *There is an intersection of landscape and interior within pre-contact Maori building practice. Throughout New Zealand the land bears imprints from such interventions as the terracing of pa¹ to form defensible, habitable zones; the recessing of rua-ka² to form storage vessels within the ground; the indenting of umu³; and the imprinting of the interiors of whare puni⁴. This paper explores the manner in which this excavational practice destabilises the clear distinctions between the Western spatial disciplines of interior design, landscape architecture, and architecture. The paper speculates that this carving practice may offer opportunities for intercultural, interdisciplinary space making.*

This exploration moves between cultures, between perceptions of landscape and whenua, between landscape, interior and architectural disciplines. These between are theorised as a practice, as a mode of making contemporary space which draws from the history and specificity of this land and indigenous culture. This theorised practice has been embodied in a series of buildings developed over the last seven years. Step House, and Continuum House are discussed in relation to notions of landscape interiors and nature-culture continuums. The built works are sited in-between; between bodies in space, and the body of the land; between architecture, landscape and the interior; between indigenous and Western cultures.

Keywords: *Maori, interior design, landscape architecture*

in-between

There is an intersection of landscape and interior within pre-contact⁵ Maori building practice. Throughout New Zealand the land bears imprints from such interventions as the terracing of pa to form defensible, habitable zones; the recessing of rua-kai to form storage vessels within the ground; the indenting of umu; and the imprinting of the interiors of whare puni. Through this excavation practice the landscape becomes what theatre-archaeologists Pearson and Shanks refer to as 'a social construct, a palimpsest, marked and named by the actions of ancestors' (Pearson & Shanks, 2001, p. 139). These palimpsestic inscriptions in the land are interiors, within, inside the body of the land; many trace former architectures whose supplementary shells have eroded, leaving a monumental interior.

Referencing early colonial representations of the whare, Sarah Treadwell writes that 'the woven house is a container that leaks' (Treadwell, 1999, p. 267). Maori architecture is commonly characterised in colonial discourse as permeable and lightweight, constructed

as it was with technologies of knotting and weaving. In this there is an intersection of architecture, landscape and interior, with all three disciplines interconnected. Yet there is another technology that can be unearthed within traditional practice; one of excavation, a digging down into the earth to define space, to achieve environmental control, to preserve and to contain. Spaces such as those within the partially sunken whare become interior landscapes whose floors and partial walls are contiguous with the earth.

This exploration of difference across cultures and cultural spatial practices offers an opportunity to rethink our building practices and overturn spatial orthodoxies. Elizabeth Grosz's work has much to offer in this context. Grosz conflates thinking and texts (whether painting, book, landscape, architecture) thereby conferring agency, contingency, action on or within texts. She writes:

Like concepts, texts are complex products, effects of history, the intermingling of old and new, a complex of internal coherences or consistencies and external referents, of intension and extension, of thresholds and becomings. Texts, like concepts, do things, make things, perform actions, create connections, bring about new alignments. They are events – situated in social, institutional, and conceptual space (Grosz, 1995, pp. 125–126).

Two built works are discussed within the context of rethinking practice; the built spaces are understood as active 'text' events bringing about new alignments, operating between dissimilar conditions. These betweens, following Grosz, are theorised as a mode of making contemporary space which draws from the history and specificity of this land and indigenous culture.

The territory explored within this paper is one in which the land is not only a ground or site for a woven fabrication, but also a material within which, and with which, to make space. This exploration must move, therefore, between the landscape, interior and architecture practices which are understood in the Western model as separate, distinct disciplines; between indigenous and Western cultures; between conceptions of culture and nature; between body, whenua and landscape.

between whenua and landscape

The primary site of this paper is the ground itself, the land and its ecosystems. The terms 'whenua' and 'landscape' are employed to signify the same or similar conditions; yet the cultural differences between the Maori and Pakeha terms leads to a blurring, a kind of slumping, between meanings. Landscape entered the English language at the end of the sixteenth century; 'landscap, like its Germanic root, Landschaft, signified a unit of human

occupation, or a jurisdiction, as much as anything that might be a pleasing object of depiction' (Schama, 1995, p. 10). A bifurcation of the etymological root gives the term's derivation in the 'idea of a clearing cut by people in the wild forest' (Park, 2006, p. 9). As such, it already holds within it the notion of acculturation of the environment by human engagement. Yet the Western notion of landscape, a viewed or occupied human terrain, implies an understanding of the land, and the non-human organisms within it, as separate from, and subordinate to, humanity's controlling gaze⁶. The Western cultural construction of landscape includes a concept of 'ownership' of land and a sense in which humanity is separate from and in control of the natural environment. This concept has significant utility but has a problematic potential to reduce awareness of our profound reliance upon and vulnerability within the environment. This cultural construction is predicated on origin narratives of separation⁷.

The perception of the relationship between human and land in Polynesian culture is radically different to this. The term 'whenua' describes both placenta and land. These meanings overlay and profoundly intersperse; the term signifies the inseparable interaction and contiguity of the natural environment or 'nature' and humanity. In Maori origin narratives the land is body, that of Papatuanuku, humans are the grand-children of that body and the sky father, Ranginui⁸. There is, in this world-view, a sense of (placental) connection rather than separation, a nature-culture continuum.

Some Western trained ecologists are now beginning to espouse this ethic of connection, challenging the dominant Western model of conservation in which humans are seen as separate from or other to nature. Geoff Park speaks to this when he asserts that in the 'elemental terms of matter and energy, people ultimately are land, no more, no less than the birds, insects, trees and seeds and the constant process of their birth, growth and decay and the movement of them and their parts through the landscape' (Park, 2006, p. 25). Cultural critic Elizabeth Grosz's work is useful in reconfiguring notions of nature, and culture-nature relationships. Grosz frames nature, the natural, as an origin, a site of action, a fluid thing. She writes that she is 'interested in rethinking the status of the natural, to affirm it and to grant it the openness to account for the very inception of culture itself...the natural, must be seen as ... the ground of a malleable malleability, whose openness account for the rich variability of cultural life ... The natural must be understood as fundamentally open to history, to transformation, or to becoming...'. (Grosz, 2001, p. 98). It is this malleability, this openness to transformation which is engaged in the excavated landscape-interiors that mark the whenua.

into the land

There is a curious lacuna, a kind of hole, in discussions of the building practice of pre-contact Maori. What is particularly curious about this hole is that it occurs in relation to that which is most visible, most massive and monumental in Maori building practice; the hill top, headland and lowland pa, with their terraces and carved recesses⁹. By contrast smaller scaled cutting or carving techniques, whakairo, and ta moko, tattooing, have been discussed in considerable detail from early contact onwards¹⁰.

There are many potential reasons for this omission, architecture's disciplinary territory has been quite strongly defined and there has been little movement into the zones, seen as other and minor, of landscape architecture and interior design. It seems clear that these monumental pa landscapes, with their earthen interiors, have largely been understood as landscape interventions rather than as a building technology and material.

Colonial culture had a lot to gain from a conscious or subconscious denial of the location of Maori, 'ownership' in Western terms, within the land. There were frequent assertions that the land was empty, and that Maori were a dying 'race'; Walter Buller in his *Supplement to 'The Birds of New Zealand'* noted, in relation to the projected death of Maori, that 'Our plain duty as good, compassionate colonists is to smooth their dying pillow' (Park, 2006, p. 86). In fact many areas of the North Island, and several South Island locales, were densely inhabited; archaeologist Ian Barber writes that while '[monumental paa] structures are probably underreported for many Pacific Island landscapes (Best, 1993, pp. 438–39), there is still no question that the number of Maori paa is without precedent in Polynesia... Given the sociopolitical and ceremonial importance of paa, such landscapes represent spectacular and enduring visual re-creations of border, order, identity, and ancestry' (Barber, 1996, p. 876). While Maori held no deeds of ownership of the land, the inhabitation and investment, both spiritual and economic, remain written into the land itself.

This practice of excavation must have had multiple and overlaying cultural utilities. Building typologies and techniques varied across territories and across seasons. Type and use of pa also varied greatly, dependent on function, site and era of use. Certainly some pa were used as fortifications yet there is evidence that many did not have a defensive function. Many pa had a storage function, and there is a clear parallel between pa and areas rich in resources from horticulture and fisheries (Davidson, 1984, p. 184). Terracing was a practical response to achieving a flat living platform on steep hills and ridges, yet it may also have had other religio-spiritual functions. Recessing of fire pits, whare puni floors, and rua-kai had a clear

utility associated with achieving stable temperatures, and controlling fire spread. As these sites are explored we build up a pattern of a culture which used the body of the earth itself as structure, as a building material, as a generator of interior space.

Something in the order of 6000 pa sites have been discovered and it seems that pa proliferated in a short period of time, during the fifteenth and sixteenth centuries (Belich, 1996, p. 80). New Zealand historian James Belich has questioned the assumption that these pa were a response to a 'massive and permanent upsurge in warfare, and that it was a direct response to food shortages? He suggests rather that the pa 'were so difficult to take that there was often little point in trying...They are evidence of the presence of reserves, not their absence. They must post-date, or emerge in tandem with, the successful shift by some groups from an extractive to a sustainable economy' (Belich, 1996, p. 80).

In *Loss, Change and Monumental Landscaping* Ian Barber discusses the overuse and subsequent failure of a primary food resource in relation to pa construction finding that '[Given] a resource-crisis concern for territoriality, control, and permanence, paa of the fifteenth and sixteenth centuries at least may represent a monumental reaffirmation of and appeal for the extension of a more beneficent and productive order into a now more permanently capricious island world... In its symbolism, the paa landscape ... united expressions of "cultural" landscaping with "natural" sacred ancestral [land] ... paa building extended and reintegrated the traditional landscape... a response of spiritual continuity and connectivity to stressful environmental change' (Barber, 1996, pp. 876-877). There is, in this theory, a complex layering of culture and nature in order to formulate sustainable economies and ecologies; a culture-nature continuum established by ritualised landscape-building practices¹¹.

spaces of the in-between

This indigenous practice of excavation, the making of landscape spaces or exterior interiors, has formed the ground for a design practice which is concerned with operating in-between and with critiquing current spatial paradigms. This re-thinking has been embodied in a series of buildings developed over the last seven years by the author. Two of these buildings, Step House, and Continuum House, are discussed in relation to notions of landscape interiors and artificial ground.

Step House

The Step House sits on a gently sloping site, surrounded on three sides by housing, with a panoramic vista to an inlet. The house is formed by three shallow steps; at one end it retains

a hill; at the other it is recessed below the flat ground plane. The lower terrace is recessed 900mm below ground, the intermediate plane is slightly raised above ground, the upper terrace is level with the ground on the long axis, on the short axis the bounding concrete block wall retains 2.2m of soil. The stepping ground plane of the interior is continuous, moving from below ground, in the recessed winter lounge, stepping up to the dining zone, stepping again to the kitchen area, and then into the summer lounge, positioned at the upper level of the site. This continuous ground plane is polished, ground concrete in all zones other than the summer lounge. The grinding process is an excavational one, cutting back through the upper layer, the fines and slurry, down to expose sectioned spheres of aggregate and particles of shell. This ground holds other objects within its depths, iron rebars and services are held within, thus protected and encased.

In the winter lounge, set 900mm below ground, one is at eye level with the exterior ground plane when seated. This ground plane is problematised, radicalised via the relocation of the body below the exterior ground plane. The fireplace and hearth are recessed a further 30mm, the fire, recessed like the recessed fire pit, is set into the body of the ground within the cut concrete surface which folds down from the ground plane of the dining zone. Held within the body of the ground, with a recessed fire pit, the winter room is warm, contained by an 'exterior', operating as a landscape interior.



Figure 1: Ground level concrete slab



Figure 2: Folded concrete slab.

The folding, malleable ground surface marks the level change between dining and kitchen; it rises up 900mm above the surface of the kitchen floor, folding to form the kitchen bench. This bench too is formed of ground concrete, the cut surfaces of its aggregate apparent. The hobs are set within this cut 'ground' plane with the oven positioned below this ground. The summer room has timber flooring directly applied to the concrete substrate, recalling the temporary, supplementary fibres upon the earthen floors of whare puni. Beyond the concrete block wall at the back of the summer lounge is a store area which holds garden equipment and laundry. This space is set within the ground, held within an earthen vessel, as the service and storage zones of rua-kai were held.

Continuum House

Set on a steep site, overlooking the sea and a bush clad headland, the Continuum House¹² operates as a terraced, artificial, landscape. The building becomes the means by which one negotiates the steep site, moving onto the 'roof' which is level with the upper ground plane, then down the sloping roof/wall to a roof garden, and down again to an outdoor room which is partially enclosed by two perimeter walls. The house problematises distinctions between architecture and landscape in that the architecture becomes another landscape; it challenges understandings of interior and exterior in that the exterior forms the interior via the angled wall-floor. This angled wall-floor, formed from concrete, is pockmarked and bubbled; its surface speaking to the incised, weathered rock slope within which it is lodged.



Figure 3: Angled wall-floor.

The kitchen bench here too is formed from the artificial ground plane, a concrete fold extends up; recessed within its surface, the hob, beneath it the oven. The aggregate for

bench and floor is sourced from the same site, flecked with white and grey aggregate and shells, reminiscent of middens. Ruakai of a sort are held within this extended ground plane, the pullout pantry holds cooking essentials, olive oil, tea, salt. Also within this 'earthen' vessel are the plates, cups, pots and pans; pullout rubbish, recycling and compost bins; and three different kinds of water store, two sinks and a dishdrawer.

These interiors, monumental in their mass, are formed from a continuous folding ground plane; in this they are acculturated landscapes, artificial 'natures'. They explore an indigenous spatial paradigm in which interior and exterior are blurred and multiple, in which space is formed with and within the ground, in which the exterior, or land, becomes itself a mode by which to make interiority.

The paper suggests that the works are dynamic texts whose readings shift between landscape, interior and architecture, all inscribed within a contiguous nature-culture field. This mutability is engaged as a strategy, a means by which to open up contemporary architectural practice to cultural and spatial difference. The spaces operate between conditions, both 'natural' and 'cultural', both 'interior' and 'exterior', confounding and contesting these Western oppositions.

monumental interiors

The term 'monumental interiors' is used, in this paper, to describe the complex and multiple nature of the indigenous excavated landscape spaces, and to challenge Western disciplinary preconceptions on interior design, landscape architecture and architecture. The interior design discipline has been characterised as the lesser of the binary opposition, architecture and interior design; it is strongly gendered, again figuring as the supposed sub-ordinate pairing of the male, female binary. It is continually positioned as the temporal and temporary, against architecture's supposed permanence. There is some utility in this positioning, in the minor, the marginal, the ephemeral; such a location more readily enables a critical radical practice. Grosz sites this marginal practice in the space of the in-between, a space of trajectories of movement, of fluidity and contestations of identity. She writes that:

The space of the in-between is the locus for social, cultural and natural transformations... The first great thinker of the in-between is probably Henri Bergson, for whom the question of becoming, the arc of movement, is the most central frame. Instead of conceiving of relations between fixed identities, between entities or things that are only externally bound, the in-between is the only space of movement, of development or becoming... it is the space of the bounding and undoing of the identities which constitute

it... This in-between is the very site for the contestation of the many binaries and dualisms that dominate Western knowledge... (Grosz, 2001, pp. 92-93).

The work of refiguring the interior, of stepping outside of disciplinary boundaries, has some currency at present. Bill McKay and Antonia Walmsley's work situates itself in a space of in-between, exploring Western and Pacific models of space, rethinking the architecture of the Pacific. They write, in their paper on Pacific space, that:

In the West, architecture, landscape and interior are seen as separate disciplines, with the latter two subordinate to architecture's concern with object, form and structure.... [they] explore the extent to which buildings of the Pacific subvert this Western model... What if these indigenous structures are not architecture and have more of an affinity with the crafts such as weaving, binding, carving and painting? What if these buildings are closer to clothing or furniture or even floral arrangement than they are to building? What if the buildings of Oceania are not so much a topic for architectural history as one for the disciplines of landscape and interior design? (McKay & Walmsley, 2005, pp. 61-62).

These explorations and speculations recognise cultural and spatial difference. Through explorations of Maori and Polynesian building practices spatial orthodoxies may be reconsidered, contemporary spatial practice opened up to difference.

on whenua and monumental interiors

This paper has explored the pre-contact Maori building practice of excavation into the ground to make 'interior' space within the landscape. It has discussed the manner in which these interiors remain as monuments in the landscape, traces of former inhabitation. The paper has examined two contemporary buildings which are designed in response to these indigenous monumental interiors. The paper suggests that this excavational practice destabilises the clearly defined disciplinary territories of the Western spatial disciplines of interior design, architecture and landscape architecture. From this the paper speculates that such a carving practice may offer opportunities for intercultural, interdisciplinary space making.

In attempting to frame both the indigenous practice and the contemporary work this paper has ranged across a territory of culture, nature and cultured nature. It has sought to work into this territory, forming a discursive space which, while contemporary, is grounded in indigenous practice. The built works discussed in this paper draw from a paradigm in which the ground is engaged, enculturated to form space. They are sited in-between; between bodies in space, and the body of the land; between architecture, landscape and the interior; between indigenous and Western cultures.

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Endnotes

- ¹ The term Pa is difficult to define, given the variety in the typology; common features include a monumental carving of the landscape, sometimes fortified, often with food storage capacity, having a role as a marker of place. See Davidson (1984), *The Prehistory of New Zealand*, Belich (1996).
- ² Rua kai are excavated food stores; see Best, (2005).
- ³ Umu are in ground ovens, utilised throughout Polynesia.
- ⁴ Whare puni are indigenous sleeping houses, they manifest in a variety of forms, some are excavated; see Davidson (1984).
- ⁵ Contact era is commonly dated from 1769, the time of James Cook's expedition to New Zealand; see Belich, (1996).
- ⁶ Giselle Byrnes writes of the effect of the controlling gaze in the colonization of New Zealand; 'Typically, British visions of empire were appropriative: the British collected and packaged information for their own consumption. Visual readings and representations of landscapes, especially foreign and exotic landscapes, were considered in this possessive manner: for on a conceptual level, to see was to possess' (Byrnes, 2001, p. 129).
- ⁷ Western attitudes to 'nature' are polysemous, shifting, seamed through with values of connection to the earth which precede Judeo-Christian narratives and Cartesian thought. See Schama (1995) for an extended discussion on this.
- ⁸ In a Maori origin narrative Papatuanuku is the mythical earth mother, Ranginui, the sky father, whose grand-children were human. Polynesian origin narratives run parallel this; see also George Grey, *Polynesian Mythology*.

⁹ Mike Austin is one of the few architectural commentators who has discussed this practice, identifying it as the monumental architecture of Aotearoa/NZ (Austin, 2004 iii-xi.)

¹⁰ There is a large body of research on the ritualised carving of timber, stone, and the body, I have found little to date about a ritualised carving of the earth. I hope to explore this in a later paper.

¹¹ I intend to explore this ritualised sustainable practice further, with a view to its utility in addressing the growing awareness that Western economies and ecologies

¹² This house is still under construction

Acknowledgement

Many thanks to Rebecca Sinclair and Dorita Hannah for their comments on drafts of this paper.

