GARDENS OF THE MIND:
NATURE, POWER AND DESIGN FOR MENTAL HEALTH.

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ABSTRACT

Nature, gardens and greenery are necessary to the healing of the mind. This paper discusses the integration and use of open spaces and 'gardens' in mental health units. There is ample evidence that gardens and gardening can relieve stress but how are gardens designed into mental health units to facilitate this known fact? (Cooper Marcus and Barnes, 1995; Pretty, 2004; Simpson, 1998). The results of an ethnographic observational study in a purpose built mental health unit in Australia form the basis for the discussion but this study is also situated within global debates on design for improving mental health. One of the key issues emerging from the literature is the importance of natural settings in the reduction of stress for mental health clients and clinicians (Daykin, et al., 2008; Sitchler, 2008; Day, 2004; Ulrich, 2008; Andes and Shatell, 2006). We situate the discussion within the context of contemporary debates, we also bear historical examples in mind, especially in relation to power relations that are designed into the spaces. However our focus is the contemporary purpose built mental health unit. The paper questions relationships between the outside garden and the inside ward in terms of power and healing. Specifically it looks at how gardens operate as sites for healing in a harsh built environment. Additionally we ask how open spaces are used by mental health clients and how the 'gardens' integrate with the overall architectural design of mental health units.

Keywords: Gardens; Mental Health; Power.

INTRODUCTION

Though nothing can bring back the hour
of splendour in the grass, or glory in the flower;
We will grieve not, rather find
Strength in what remains behind;

(Wordsworth, 1954, 157).

We have called this paper 'Gardens of the mind' with the subtitle of nature, power and design for mental health, because of the intimate relationship between the mind - itself a place of growth incorporating all kinds of consciousness – and the physical context in which it exists. In applying the ideals of the English Romantic poet William Wordsworth (who as a Pantheist, saw God in the design of a flower), we investigate the interplay between nature and the movement of those housed and working in purpose designed mental health units. In so doing we comment upon the effects and usefulness of particular types of garden (i.e. gardens designed in a specific way which do or do not correlate with the lines and language of the architecture). And we interrogate the power relations which might operate in designed gardens. In this way we question if indeed such outside spaces can function as places of healing for troubled minds.

The chief source of our data is taken from an observational study conducted in a recently completed mental health unit in South Australia (our research method is outlined in detail below). One of the factors motivating this research was the fact that existing research on the relationship between mental health and architecture still lies within the broader sphere of general health and architecture, and as such mental health and architectural design is an

area of research that requires more attention. Two literature reviews published in 2008 and 2010 open up the breadth of research that is necessary to develop healthcare design. These are Ulrich et al. (2008) and Dobrohotoff and Llewellyn-Jones (2010). Ulrich et al. focus specifically on "evidenced-based healthcare design" (2008, p. 101), in which they note that there is both a direct and indirect relationship between nature views and reduced depression; reduced length of stay; increased patient satisfaction; decreased staff stress and increased staff satisfaction (2008, p.148). Dobrohotoff and Llewellyn-Jones state that key design issues such as direct access to enclosed gardens and quiet areas result in a productive environment (2010, p. 5). The intention of our paper is to pose additional questions and make some suggestions regarding the design and use of gardens, which can be used to facilitate cooperation between architecture, design and mental health care.

THE ASYLUM IN A GARDEN

Nineteenth century mental institutions in England and its colonies were more often than not built in the countryside with large grounds for clients to use. This was a time of heightened Victorian awareness of the remediating qualities of country life. Hickman (2009) notes the emphasis placed upon nature and the rolling landscape as a prevention for "immoral activities" (2009, p.435). It was believed that the garden atmosphere instilled a sense of the "Garden of Eden" and brought the patients closer to God. Added to this was the rural work ethic, with labour in the vegetable gardens seen as a cleansing activity. The geographic distance from the city was regarded as essential because of prevailing beliefs that industrialisation was a cause of insanity (Hickman, 2009, p.438). This view was supported by English Romantic poetry, landscape painting, and the affiliated Pre Raphaelite and Arts and Crafts movements. Poets like William Wordsworth, John Keats and John Dunn drew attention to what they believed was being lost as a result of urbanisation. Wordsworth in particular bemoaned the loss of innocence gained from experience in a natural setting, and landscape artists such as John Constable portrayed rural idylls. Added to this the Pre Raphaelite Brotherhood called back a lost medieval age celebrating the mystery and magnificence of nature. A retreat to nature was seen as a defence against the onslaught of the mechanical and industrial revolution for anyone of a sensitive disposition. On this point, however, Hickman notes that there were class issues involved in the responses to nature as a curative measure, stating that the elite and "educated" classes were more susceptible to the benefits of nature (Hickman, 2009, p.431).

Many of the asylums built in the nineteenth century were situated on elevated ground, thus enhancing the views of rolling countryside and transcending the feeling of walled gardens and courtyards. Even the asylums built in the cities tended to be positioned where they could benefit from the vistas provided by extensive grounds. Large country house asylums were not only built in recognition of the benefits of clean air, nature and generous space; they were also stereotypical of the powerful manor house on the hill, presiding over its domain. The house may have signalled the sheltered domesticity of a home in a large garden on one level but large country houses were symbols of the ownership of more than just land. The house controlled the lives, behaviour and bodies of many people not least the family; the dramas incorporated in many of these histories are well established in literature (Tromp, 2000). The hierarchy of class and position were unflinching and accordingly exploited by those 'above' them. In this way the design of the country house asylum was caught up in the language of imperialism, power and control. Therefore whilst the house might have been set in large grounds which conjured up the type of romantic pastoral idyll longed for by the artists mentioned above, it was also a darker gothic/ romanticism of despair, cruelty and isolation. The design was a facade for brutal systems of restraint, where people were seemingly committed to a life of peace in a gardened asylum but in reality the actual quarters constituted punitive practices and extreme cruelty. Philo (1997, p. 83) notes that such houses where grounds were used for apparently therapeutic "exercise" were in fact "landscapes of fear". It took decades for the malpractices in secluded asylums to be exposed and some continued well into the twentieth century (Morrall, 2000).

Figure 1. A nineteenth century mental health building in South Australia.[1]

THE RETREAT AND RETURN OF THE GARDEN IN MENTAL HEALTH ARCHITECTURE

The twentieth century departure from institutionalisation in mental health was in many ways a welcome exit from the above mentioned harsh treatments and seclusions in the era of asylums. Yet despite this much needed move away from situations of depravity and constraint in many asylums of the nineteenth century, Curtis (2009) notes that in the transition from institutionalisation to community care patients of the older institutions reported a love of the large gardens and that they had developed an attachment to them, so much so that they returned to walk in them where possible (2009, p. 346). In one study conducted by Curtis in East London, it is noted that the gardens in contemporary mental health settings are not 'real' gardens, because they are cramped and not large enough for clients to walk in and use. A respondent who was a mental health consultant in Curtis' study says the following about the new hospital site where the study was conducted in East London:

… this probably was a quite barren piece of land – so they have planted a whole lot of trees, but I do find it important to have a whole lot more greenery. What you just have, if a patient came out here, is a car park to walk on. I think you can walk behind the back or whatever, again, it's not a park, it's not a lovely garden space that you can go and use … I think that's part of a need [to] … allow people to go out for walks and that that they actually have a place to do that in (2009, p. 346).

The cost of land and the expense of upkeep for gardens is an obvious issue in the twenty-first century. Consequently there is a growing movement towards the development of dedicated "healing gardens" (Ananth & Smith, 2008; Hartig & Cooper Marcus, 2006; Kahera, 2002; Munt & Hargreaves, 2009; Sherman, 2005; Sternberg, 2009; Ulrich, 2001). In some instances the healing garden incorporates Ancient Eastern and Moorish influences with the idea of a garden "containing an entire universe" (Kahera, 2002, p. 3), and in these instances imagination is used to create depth and illusions of space with appropriate plants and water reflections. It appears, however, that the term is applied loosely and interpreted variously by landscape architects and landscapist and garden contractors. In some examples of healing gardens included in architecture within the health sector such as cancer wards, themes such as "Friendship Garden" or "Garden of Dreams" is used as a basis for sculptural features, furniture and other man-made constructions in the garden (Sherman et al., 2005, p.170). In this and other examples, private donations to commemorate the loss of loved ones help to fund the gardens. Curtis (2009, p. 346) notes that maintenance of the grounds are often the responsibility of outside companies and not under the direct control of national health. Such out-sourcing of services contributes to a lack of communication and understanding of the holistic healing qualities of gardens. Generally the literature indicates that funding is already in short supply for life threatening diseases and when it comes to an additional MRI machine versus a garden, it is the usually the machine that holds sway. Despite this, gardens and indoor greenery are becoming more prevalent in new designs for hospitals. Gordon (2001, p. 191) writes that only now are hospital administrators and health authorities waking up to the reality of mind body healing and seeing that gardens which are used to heal can also save money for the hospitals as they are "less expensive than medical technology" and help to retain quality staff.

The integration of nature and the built environment generally are being taken more seriously since the massive concretisation of cities in the mid to late twentieth century with the modernist emphasis on

large powerful buildings as symbols of 'progress'. As such, the benefits of a growth of 'landscape architecture' are slowly making an impact. Ian McHarg wrote in 1969 that we must design with nature and not against it. More recently, Swaffield (2002) notes that

"We need nature as much in the city as in the countryside. In order to endure we must maintain the bounty of that great cornucopia which is our inheritance. It is clear that we must look deep to the values which we hold. These must be transformed if we are to reap the bounty and create that fine visage for the home of the brave and the land of the free. We need, not only a better view of man and nature, but a working method by which the least of us can ensure that the product of his works is not more despoliation" (p. 173).

However landscape architecture is not without its critics, for example Margo Huxley writes, "The problems of theory and practice in landscape architecture are a direct consequence of its origins, both the in the epistemological domination of masculinist rationality, the objectivism of Enlightenment and modernity, and in the practice of 'landscaping' in the interests of landed aristocracy, newly-acquired capital or the state" (Huxley, 1994, p. 36). Therefore, for design to work well it needs to work with nature and not as an exterior mechanism of control. Roger Fry, writing on design as politics, argues that "unsustainability arrives by design, and as such negates futures" (Fry, 2011, p.19). Fry calls this type of design "defuturing", and under such a regime 'beautiful' architectural structures are erected "under the aura of elegance"(Fry, 2011, p. 27) which are deceptive. With these debates about architectural innovation, concerns for health and the holistic integration of nature into units designed specifically for mental health in mind, we began our study with systematic observations of how clients and staff moved in and used the purpose built facilities. Our method is outlined below.

METHOD

The study was conducted in the mental health unit of a large public hospital in South Australia. Buildings were completed in stages between 2009 and 2010. The secure ward had a total of 6 beds that were all single rooms, and three bathrooms with one disabled bathroom. The open ward contained 20 beds, and 10 bathrooms with one disabled bathroom and one assisted bathroom. Both of these wards were typically full throughout the study.

ETHICS AND PARTICIPANTS

Ethics approval was granted from both the University of South Australia's Human Research Ethics Committee and from the Ethics Committee of the hospital involved in the study. Clients, staff and visitors at the hospital were informed of the study through information sheets that were placed around the ward. Staff speaking to the second author were assured that anything they said would remain strictly confidential, and the information sheet similarly stated that no identifying information would be used in any publications that arose from the study. All users of the ward were informed of the times that the ethnography would take place (typically one day a week for a three hour time slot). The movements of clients, staff and visitors were observed throughout the ethnographic observations.

PROCEDURE

The second author carried out ethnographic observations on ten occasions for three hours each, meaning that this author conducted a total of 30 hours of observations. These observations were conducted during both the morning and afternoon over a ten week time-period, and the time was split evenly between both the secure and the open ward. In the open ward, the second author spent time both within and outside the duty station, however in the secure ward the majority of time was spent observing from within the duty station for security and ethical reasons. Brief notes were taken during observations, however in order to reduce the amount of time spent note-taking during observations the majority of the field notes were written immediately after leaving the hospital premises. In addition to these 30 hours, the first author also conducted four hours of ethnographic observations entirely from within the wards, including the secure ward. These observations were conducted in order to examine the

use of space from where the clients' experience it. Both the first and second authors remained neutral during these times, rarely asking questions of staff unless wishing to gain clarification in relation to a particular procedure or space. Where clients or staff asked either author what they were doing, both authors replied that they were observing the use of space and the architecture with the ward.

Ethnography was chosen as the methodology for this study due to the fact that the literature has identified it to be appropriate for use in healthcare settings, and has been used before (Johansson, Skärsäter & Danielson, 2006; Savage, 2000) In particular, ethnographic observations are typically unobtrusive and allow the researcher to develop a flexible approach to both understanding an environment, and to gaining insight into the relationships between that environment and the behaviour of the people within it.

ANALYTIC APPROACH

Once the observations were finalized, the field notes were analyzed using thematic analysis, following the approach laid out by Braun and Clarke (2006). In their paper, Braun and Clarke (2006) provide rigorous guidelines for conducting thematic analysis in qualitative research within the broad study of psychology and these guidelines were followed in each stage of the analysis of the field note data. Initial analysis of the entire corpus revealed a number of themes. These included (in order of significance): the use of the duty station by both staff and clients; doors and passages; the use of glass in both wards; the use and effects of gardens and plants; the choice and positioning of visual art in the wards; and the use of colour. Correspondingly extracts from the data concerning these themes were further analyzed in order to reveal the patterns of use of this space. Each theme is researched as a separate paper and the results of the analysis of the use of gardens and plants are presented below.

FINDINGS

As discussed above, a concern in relation to the design of mental health units is the design of gardens. In the analysis that follows we examine the use of garden spaces in both the High Dependency Unit (HDU - the locked ward) and the open ward. Our ethnographic research noted both similarities and differences between the use of gardens in these two spaces, which we discuss below.

ETHNOGRAPHIC OBSERVATIONS OF GARDEN USAGE

The site of our study was a purpose designed mental health unit completed in 2010, and the gardens were approximately six months old when we commenced observations. The entrance for visitors and staff is via the main entrance to the mental health ward, and is surrounded by a car park (figure 2). However, this entrance is not used for the admission of clients, who are instead admitted via an internal corridor from the main hospital (figure 3). When entering directly into the ward through the main entrance, the transition from external to internal space through the main entrance is from light to light and upon entering one is immediately aware of an adjacent enclosed garden. However the journey made by clients coming from the emergency section or the general wards of the main hospital into the mental health ward is internal with little to no views of outside spaces. As clients journey into the mental health ward with staff, the first space they enter is the seclusion corridor, which has doors opening into rooms for stabilising clients. In this corridor there is only one high rectangular window, which offers a piece of sky with some wattle branches and can be viewed whilst the patient is escorted through this area. The shutting off of nature seen in this entrance can serve two purposes. Firstly, it could be argued that being separated from outside space provides a sense of security from the anxieties that clients struggle with on the outside and therefore helps them feel safe especially if they are suicidal. On the other hand, however, the effect of this seclusion may cause some clients to feel claustrophobic. These latter clients may in fact benefit from a swifter transition into the HDU mental health ward, where there is ample light but also absolute security from the exterior. The language of the architecture favours those who require more security.

Figure. 2. Main entrance to mental health unit.

Figure 3. Admissions corridor to mental health unit.

Once in the ward(s), an abundance of glass in the open plan eating and recreation areas of both the HDU and open ward flood the interior with light in most weather conditions. Large window walls look out upon all garden areas, irrespective of whether they are accessible to the clients. One of the results of the extensive use of glass is a feeling of openness in the shared spaces and a sense of interior –exterior spatial flow. Connellan et al. (2011) note the ambiguous realities evoked by the multiple reflections of nature and people in mental health wards. The barriers of glass between a garden which is accessible to clients and a garden which is inaccessible to clients are also a concern of this paper because of the ambiguous messages that such architectural features might communicate to clients.

THE OPEN WARD

There are two dedicated outside areas located within the confines of the ward which clients in the open ward have access to, although visitors are not permitted in these enclosed garden areas. Clients in this ward may also ask permission to go outside the main entrance to sit beneath a tree alongside the car park. This tree is a favourite amongst clients, as it places them beyond the surveillance of the duty station and outside the ward. It is, however, not a part of the landscape design of the internal gardens, but rather is merely a tree with benches beneath it on the edge of the car park between the public road and the hospital (see figure 4). The second author noted that almost every time she came to the hospital to conduct observations, there were people sitting smoking under the tree. The car park adjacent to the tree is relatively busy and therefore this 'tree spot' does not offer a retreat into nature but instead it offers an informal and unstructured space for clients. It is almost directly opposite the main entrance to the mental health unit and therefore a short walk takes clients back inside.

Figure 4. The tree used for smoking, chatting or relaxing beneath.

We will now describe the two gardens designed for the open ward and discuss their usage. We will refer to them as Garden 1 and Garden 2.

The doors out to Garden 1 are sturdy aluminium framed glass doors with large handles. The area has three wattle trees that are still quite small and six wooden benches in pairs under the trees. The area is covered with pebble patterned concrete pavers and artificial grass. There are exercise bikes under an awning against red brick walls (figure 5). On one occasion a table-tennis table was set up in this area but was not observed in use.

Figure 5. Exercise equipment in Garden 1.

The area has shrubs in neat rows under the windows and beside the grey corrugated iron exterior walls. The main building of the general hospital forms the backdrop on one side. This façade of the main hospital is covered with a grey grill rising up several storeys. It is not a soft leafy space but more like a courtyard that is easy to maintain. The inclusion of plants echoes the severe lines of the building and repeats the straight architectural lines with narrow rows of spiky grasses (figure 6). Garden 1 is clearly visible from the centrally situated duty station in the open ward and although cameras operate throughout, it is easier for staff to look through the glass windows than to survey the clients in any other way. Garden 1 was used by clients much more than Garden 2.

Figure 6. Garden1.

The table below is extracted from the data which recorded the number of clients in specific spaces at 15 minute intervals. This table shows the total amount of time that spaces were used in the 15 hour observation period per ward (over the total of 30 hours split between wards). The table does not summarise the number of people over the period because some people would be counted more than once thus skewing the figures. However bearing in mind that the maximum number of occupants at any one time in the open ward is 20, the maximum number in one 15 minute slot is provided in the second column.

Activity	Total hrs	%	Max. people	%
Using exercise equip.	0.75	5%	2	30%
Smoking/ sitting/ walking	4.4	29%	5	83%

Table 1. Garden 1 Open Ward usage.

Psychiatrists were not observed using this space to consult with their clients, nor were nursing staff observed relaxing in this space.

Smoking is discussed below but it became quite clear at an early stage in the observations that more clients went outside to the garden areas to smoke than to do anything else (see Table 1 above). Records in the observation notes frequently indicate that clients were seen either in small groups smoking and talking together, or sitting alone and smoking. Indeed, the fact that this was one of the primary reasons for going outside is reinforced by the observation that the outside spaces were used less once smoking was banned in the hospital.

The second author noted that Garden 1 (see figures 5 and 6) was a very popular area for open ward clients, but not quite as popular as the tables which are used for chatting and/or craft activities outside of meal times. The open ward is larger than the closed ward, with two television sets, a piano and a pool table. Clients can also make their own tea and coffee, which they do on a regular basis.

Garden 2 (Figures 7 and) is slightly further from the central duty station and therefore less visible to staff. It has several large lavender bushes which were in flower during the period of our study. There are five wattle trees which were still smallish at that time, with a total of eight wooden benches beneath the trees in this area. This area is planted with hardy geraniums, rows of native grasses and other drought resistant plants with long slender green leaves. One of the perimeters is a blue grey corrugated iron

fence. There is a large expanse of sky above this area.

Figure 7. Garden 2.

Figure 8 Garden 2.

During the course of our observations, clients hardly ever went out to this space. As was the case with Garden 1, psychiatrists did not use this space to consult with their clients and nursing staff were not observed relaxing in this space. The second author noted that the space might have been locked at times. It appeared curious that this space was virtually unused because although there is a lot of hard concrete and plants are laid out in a strictly geometric order, this garden is softer and more aesthetically pleasing than Garden 1.

A final notation from the ethnographic notes highlights the significance of gardens for clients. The first author was waiting in the reception area and looking out onto the rectangular garden which was accessible to the aged care clients, and which provided a garden view through the large glass walls of the mental health reception area (see figure 9). An elaborate spider web sparkled in the light between two flowering peach trees (see figure 10).

Whilst looking out, a client coming through on his way to have a smoke under the tree approached the first author enthusiastically saying: "Can you see the spider? The web is awesome!" He was proud of the web and it seemed there was some propriety in the spider and its web; it was as if this was their spider that was making his way in life in this small walled garden. Upon further conversation with the client, it became clear that this spider was a source of interest and joy to some of the clients. Here was something wild making a home for itself methodically and beautifully between two gloriously flowering trees. During this time, an elderly client from the aged care unit entered that garden space and sat on a bench looking at the spider's web. He was still there when the author left fifteen minutes later.

Figure 9. View out of reception windows.

Figure 10. The spider web between two flowering trees.

HDU (High Dependency Unit / Closed Ward)

The outside area (figures 11 and 12) that is accessible to clients in the HDU has no plants. It is covered with a circular design of concrete paving

which also has four 'paths' off the centre (which is a sunken square drain). Bright green artificial grass glistens between the concrete paving. There are two metal benches on the far end of the space. This courtyard is surrounded by a barrel-curved tin overhanging roof supported by aluminium pillars that echo the window frames of the surrounding glass walls. These contrast with the solid red brick exterior wall. Clients used this space to smoke, speak privately on the telephone when they had calls from family, and as a space to sit or walk in. Clients generally went outside alone but on occasions they were observed speaking to other clients. As visitors were not allowed in the HDU at all, they were also not permitted to enter this space. Psychiatrists did not use this space to consult with clients (rather, they made use of the interview rooms) and nursing staff only went into the space to see to the needs of clients.

Figure 11. The courtyard in HDU.

Figure 12. The courtyard in HDU.

On Day 2 of our study the second author noted that when she commenced at 9.30 am in HDU,

Most clients are outside ['outside' is the term used in the notes for all exterior spaces] *when I arrive. They are all pacing around and around the courtyard, but in different directions and at different speeds.*

It could be suggested that this type of walking was more acceptable outside as opposed to inside, where clients were more often observed walking slowly up and down the bedroom corridor or round and round the recreation areas. One reason for this could be that walking in this manner could upset other clients inside, but nevertheless it is interesting to note that clients used the outside space in the HDU as a potential space for release of frustrations, or to be alone.

Still on Day 2 the extract below is taken from observations in HDU by the second author and isolates the activities of 'J' a male client (there were only four clients in HDU on this day of observation):

2 men remain outside walking around perimeter. J … comes out (of his bedroom) and begins walking up and down the corridor trying all the doors and looking inside them but not entering. He then walks over to where staff are taking S's blood and starts talking to staff there. I can't hear their conversation but it seems they suggest that he go outside and then 1 staff member takes him to get him a drink. While she does this he approaches the nursing station door which hasn't closed properly from someone coming in (door closes quickly at first but then slowly at the end and this may take a second). J comes up and pushes door open – another staff member says 'leave it closed please' and pushes it closed. J then takes his drink from the other staff member and tips it outside. S paces corridor for a bit and then goes back outside. J approaches door again and asks for smokes, but wanders off while staff member gets them. J wanders back up corridor and punches glass wall at end and nurse goes out to have conversation with him and then takes him outside with his smokes. [A little later] *J gets bored (I guess) and goes up to where G is sitting at tables and chairs, wanting to give him a drink – but G doesn't want it. Staff go out to intervene and see what is going on. … G gets up, wanders outside and J*

takes his seat with his drink. G goes outside and starts pacing around.

J comes up to [duty station] window for a while with his cup and pours cordial over the benchtop. Staff immediately go out and take it from him. J then wanders outside and starts talking to G again – a bit aggressively and then comes to window again and asks for staff who goes out and tells him to stop coming up and to go for a walk instead. Staff comes inside but J stays outside door and doesn't go anywhere, just watches what is going on.

The extract above is one example of a client in the HDU showing signs of frustration. The interior space is relatively small and if clients are restless their restlessness fills the space. Despite the illusion of space created by glass walls, clients in HDU do not have many options for movement or entertainment. During the course of our observations, no organised activities (e.g. craft or cards) took place at the tables located within the HDU – although clients were observed doing some drawing - and the only other entertainment was offered by the television or some magazines on general themes piled on the shelf in the TV area. As is evident from the above extract, J was annoyed and might have felt restricted and thus became difficult. The outside space provided some relief but was clearly inadequate.

Therefore, it seems reasonable to conclude that the outside space in HDU is used as a time-out space when clients were more than usually irritable, a place for exercise (even pacing the perimeter) and a place for smoking. (We note below that smoking was banned on the hospital grounds towards the end of our ethnographic study).

On one day when the first author was observing in the HDU, there was a round ball resembling a soccer ball lying in the centre, but no one used it for the three hours of the observation on that afternoon. It was a sultry, overcast day with the prevailing grey colours of the aluminium and corrugated metal mixing with the relatively small section of visible grey sky. Despite the lack of plants to absorb the heat, the outside space in HDU does provide fresh as opposed to conditioned air. One of the female clients (K) was feeling the heat on that day. Below is an extract which illustrates the atmosphere:

K tells me she is hot and that she has a swimming pool. "My husband um boyfriend loves getting in and so do I". Then she fans herself and says 'It's hot in here' and moves off. After a while K asks me if I want something to drink. She is very cheerful. Her psychiatrist arrives and they go to an interview room.

Later she gets bolshy at the nurses' station, she wants to talk with her brother and is eventually allowed to. She tells him how she was found with cuts etc and then put into a room and how she had needles stuck into her. A few minutes later K is crying, she bangs on the door to go outside and says she wants a smoke. Later K opens a letter that a male nurse brings her. She opens it and says loudly: "Annie! [the name we give to the senior nurse] ! I have to be here for 7 days! Geez, he's strict". Annie comes in and says "the way to get out of here is to be low key and behave. The no-smoking thing is a policy".

Again, the space in the HDU is remarkably small when personalities as large as K's brim over. There are no extensive gardens to wander in, no secluded shady areas to cry in, and no real relief from the heat that is generated from the climate and from anger. K longed to go back to her boyfriend and family where it was clear that she had a great family support system, but also clear that she tested her loved ones to their limit. K had a 'larger than life' personality coupled with her own particular condition and the space available for her to heal in did not suffice.

Towards the end of the three month period of our observations, a smoking ban was implemented in all of the hospital buildings, internal courtyards and hospital grounds. This had a direct effect upon the mental health clients in the HDU who were not allowed out of the secure unit. Almost all HDU clients were smokers, and when this ban was implemented, additional nicotine therapy was provided but the outside area had now lost one of its functions as a smoking space. The second author

noted that the outside space in the HDU was used significantly less after the smoking ban.

The table below (like the one above for the open ward) is extracted from the data which recorded the number of clients in specific spaces at 15 minute intervals. This table shows the total amount of time that the outside space was used in the 15 hour observation period. As mentioned for Table 1, the table below does not summarise the number of people over the period because some people would be counted more than once thus skewing the figures. However bearing in mind that the maximum number of occupants at any one time in HDU is 6, the maximum number of people in a 15 minute slot is provided in the second column under 'people'.

Activity	Total hours	%	Max. people	%
Smoking/ sitting/ walking	5.25 hrs	35%	4	66%

Table 2. HDU courtyard usage

To be outside for 35% of their waking hours is a lot of time for people who are all variously out of kilter with the demands of themselves, their relationships and the outside world. More conclusions will be drawn at the end of this paper but at this stage suffice to say that the clients in HDU need more space to 'get away'.

As mentioned earlier, an extensive use of glass creates a light filled ward, but in some instances provides views of gardens that are not accessible to clients. One of these views is from the TV lounge of the HDU ward which looks directly onto a garden but also shows a view of the main hospital and includes the large car park (see figure 10 below). It is the only view of the outside world for HDU clients, yet this is an outside world that is both denied to them and simultaneously presented to them through a large picture glass window with an attractive garden bed as a buffer. The plants in the garden directly outside the window were already quite dense during our observation period. The foliage may also have been planted to obscure a deep view both inside and out whilst still providing the clients in HDU with a pictorial/ garden view. The question is whether this image of the outside was teasing or soothing for clients; there are benches just beyond the planted area for general seating (although they were vacant during our observations). Clients could look out onto strangers passing by or sitting on the bench in a garden which they knew they could not gain access to and those strangers could also peer through the foliage into the HDU ward, if so inclined. The power of the window to both present and deny is a design feature which requires ethical consideration in the case of acute mental health clients.

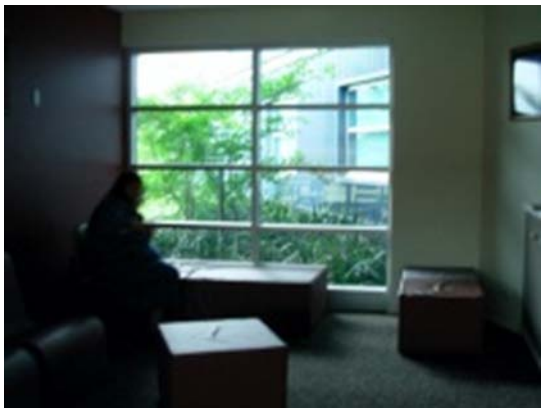

Figure 13. The window in the TV lounge of HDU.

CONCLUSIONS

Before embarking on our conclusions, it is important to consider the limitations of this study so that our findings are not overstated. Consequently, our chief limitations lay in the restrictions put upon us by the ethics committees: i.e. we could not conduct interviews with staff or clients, we could not observe clients' bedrooms and we could not access client records. After these and other publications from this, our pilot study, we are hopeful to gain more permissions for deeper studies. These future studies will look at data from different sites comparatively and also consider how clients connect with nature in more specific ways.

Whilst in the title of this paper we refer to the outside spaces in the mental health unit in which we undertook our observations as 'gardens', as we progressed through the issues under discussion in this paper it became more and more difficult to call the spaces gardens with any kind of conviction. Instead, they became more like courtyards, walled enclosures, or in the case of the HDU, just a yard.

These are meaner terms and spaces than those evoked by the generosity of the term 'garden'. This was particularly the case in the HDU, which often appeared too small to cope with the tension that we were able to see (there were days when our ethnography could not take place and had to be rescheduled because we were advised that accessing the space would not be safe on that particular day).

In the open ward, only one courtyard (garden 1) was utilized, though it is likely that a staff shortage did not make the other one (garden 2) fully accessible to clients. The tree outside the front of reception was a favourite spot, and although we do not have figures on this as it was outside of our observations, there were rarely occasions when we arrived during the three month period to find the benches under the tree empty. Sometimes clients would be lying on the benches just looking at the leaves and the sky and most times they would be smoking and chatting. But it was not only clients who used this spot it was often used by clinicians and doctors, especially if there were no clients there.

This example of clients and staff taking up any opportunity to spend time in nature outside the built environment suggests to us that illusions of nature are insufficient. This is particular of import given the fact that neither staff nor clients can alter the structure of the spaces they are required to move in. Therefore, although the contemporary mental health unit is a far cry from the old punitive asylum, it is nonetheless the case that they continue to fail to meet some of the basic needs of both clients and staff to have an ongoing connection to the world beyond the walls of the institution.

As a corrective to this failure, we suggest that there should be gardens for staff and for clients and these could have features including (where appropriate) sculpture, water, nooks for quiet reflection and grass to lie and sit on. Gordon's (2001) research suggests that healing gardens are in fact a cost saving device because clients heal more quickly and there is less staff turnover. Gordon draws on Cooper Marcus' work and notes that "healing gardens are a 'lot less expensive than the latest medical technology'"(2001, p. 191) and that a 697 bed medical center in Phoneix found that their "large outdoor garden filled with plants and trees indigenous to Arizona, found improvement in their ability to retain quality staff by providing a place for them to go to overcome the stress of the job" (2001, p. 191). Additionally, mental health facilities could include paintings that include naturalistic gardens which could complement natural places that clients could relate to, and more imaginative use could be made of interior plants, combining different foliage and scales of plants.

To conclude, Wordsworth wrote in his *Ode to Intimations on Immortali*ty that we must regain strength in what remains behind. He was talking about the passage through life and the distance between the garden of childhood innocence and the bleakness of adult responsibility. Without over romanticising the issue, it remains to be asked whether the "prison house" (1954, p.154) which Wordsworth used as a metaphor for the loss of innocence can be circumvented in the case of mental health institutions by retaining and not losing nature. By ensuring that the grass is real, the plants and surfaces are varied and natural, and the lines of outdoor space design are not exclusively straight, it may be possible for such spaces to truly be constituted as gardens that can play a positive role in the healing of clients in mental health facilities.

NOTES

1. All photographs in this paper are taken by the author.

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