

# Healing Gardens – Japanese Garden Society National Meeting, 6th / 7th October 2012. Reported by Anthony Austin

This article is drawn from the National Meeting held in Bath in which the four speakers gave talks on different aspects of healing gardens.

## Overview

Anthony Austin reviewed current research evidence on the healing effects that gardens and landscapes have upon people. Neil Wright, Chief Executive, Willowbrook Hospice, outlined the work of the Hospice and what thinking lay behind his desire for creating gardens around the buildings and their impact. Robert Ketchell linked the Zen parable of the ten bulls to his personal journey as a garden designer creating a new garden for the Osmosis Bar Sanctuary in California. Graham Hardman explored some of the many factors that affect how a garden is perceived and ventured some suggestions as to why Japanese-style gardens may well be very effective in a healing environment.

## Introduction

As a Society we have spent a lot of time thinking and writing about many aspects of the Japanese garden, history, design, planting, religious underpinnings, philosophy, cultural borrowing et cetera. The underlying question we have been exploring over the past two National Meetings is "What is it about a Japanese garden that is so special and why, when we enter a Japanese garden, are we overcome by a feeling of peace?" The choice this year of the theme, "Healing Gardens" enabled us to reflect in a different way on that same basic question and in so doing tried to unravel some new insights and effects as we explored another perspective on the attributes of landscapes and the human condition.

## Garden Landscapes and Healing – Anthony Austin

The opening talk considered in more detail what is going on when humans interact with garden landscapes, and why garden landscapes are being used in the healing process. It referred principally but not exclusively to viewing and being within landscapes and gardens but not of active work within garden landscapes. It showed that there has been a growing understanding that the movement of people from the countryside into cities, which now contain 50% of the world's population, had created a widening disconnection between people and nature and that this disconnection from nature was bad for physical and mental well being.

New forms of research had emerged – Environmental Psychology being one new discipline, which sought greater understanding of the impact of the environment upon people's well-being and arising from this research perspective there had been a growing interest in healing gardens in association with medical facilities. It showed that researchers believed that the consequences of the widening gulf between people and their natural environment and the pressures from advances in technology, the knowledge explosion and population growth all contributed to the experience of mental fatigue, which can lead people to be less tolerant, less effective, and less healthy.

One of the key negative impacts of these pressures upon people relates to what researchers called their attention capacity (people's ability to focus on important activity). They said that our attention could be divided into two key types, involuntary attention which is effortless, such as being attracted by a beautiful flower or sunrise. This involuntary attention is restorative, or healing, as no effort is required to sustain attention and competing thoughts are easily excluded.

The second type is directed attention when you have to focus on something, which requires effort. (Such as report writing or problem solving) However, one's capacity to put forth such attention is limited and therefore subject to fatigue. Modern everyday pressures have tended to increase demands of directed attention. We have all experienced what it is like to be constantly interrupted with new pressurized demands of our time when we are expected to constantly change our focus and suffer from increases in our workloads. Researchers see directed attention as a foundational mental resource that allows us to voluntarily manage the focus and direction of our thoughts and to regulate our emotions. It is useful for dealing with the short-term versus long-term choices involved in our effort to remain effective, productive, clearheaded and helpful. It allows us to pursue an important goal despite interesting competition in the immediate setting. However, over demand for directed attention can lead to detrimental physical outcomes in the form of stress related illnesses, such as angina, tension headaches, cardiac arrhythmias, pain, ulcers, and atrophy of the immune system.

Researchers have become increasingly interested in the capacity of natural environments to strengthen people's capacity to regain focus in their lives on matters of central importance to them. In particular how the natural fascination of nature ameliorates the negative physical and mental impacts of increasing personal pressures, frees up the mind, enabling directed attention to be strengthened in the process.

The second part of the talk focused on the particular characteristics of natural settings, which researchers believe provide restorative effects.

# Healing Gardens.....continued

Researchers have put forward arguments that natural environments such as gardens have four restorative characteristics that promote spiritual expression and spiritual wellbeing. This is encompassed within Attention Restoration Theory.

The first restorative characteristic is fascination where a compelling interest is apparent. The natural environment is made up of an infinite variety of complex plants both in colour and form. It is a natural human response to want to look closer and to investigate natural forms, to look for patterns in nature. This is an absorbing involuntary process, which has restorative healing qualities.

The second restorative characteristic arises from the perception of being away. This escapism enables one to put away worrisome thoughts. Natural environments and man-made gardens are completely different places from built environments with all their associated pressures upon people. Inhabiting such unthreatening spaces induces a calming affect upon an individual.

The third restorative characteristic is extent, which arises from the capacity of a landscape to be rich enough that it draws one into a whole other world. Being within contrived and natural landscapes can release new reflections on the wonder of living things and of the complexities and interrelationships of living organisms.

The fourth restorative characteristic is compatibility, which allows the person to feel that they are part of a complete and harmonious whole. Observation and reflection of the natural environment and the rediscovery of self opens up the possibility of a deeper realization of the connectedness of a person to their existence and their natural surroundings. In a real sense enables one to 'lose oneself'.

Researchers go further to underpin the rationale for our responses to nature and suggest that because most of humans' evolutionary timeline was spent in a natural setting we are predisposed to have a psychological and physiological response to natural scenes that effect all thoughts, meaning, memory and behaviour.

The third part of the talk explored why the medical profession has shown increasing interest in the quality of the landscapes around and within their facilities.

In the eighties, following a massive expansion of investment in building hospitals in America there was growing awareness that in order to improve patient outcomes, investment also needed to be made to address the emotional and social needs of patients, staff and families in medical settings. There was awareness that clinical success needed to be supplemented by environments that enabled patients to achieve fuller sense of well-being during the pre and post operative stages of their stay in a hospital setting.

A body of research demonstrated that stress and psychosocial factors could adversely affect patient health outcomes. For those people in medical settings undergoing treatments for severe illnesses, stress levels are quite high and the stress impacts referred to previously can significantly impede recovery and healing.

Medical evidence showed that being in a garden or viewing greenery reduced a person's stress response allowing a calming effect to take over. It decreased neural responses sent to the brain. This relaxation response is characterized by decreased heart and respiratory rates, decreased blood pressure, and decreased oxygen consumption. The garden views cause specific areas of the brain to release endorphins and

other neurotransmitters that affect the brain cells and make the immune system function more efficiently and generally enhance the body's ability to respond to illness.

It is understandable that a person in profound distress and disorientation as a result of facing a life threatening illness in which their very self is in jeopardy, or a situation in which their mental faculties were significantly deteriorating benefit from experiencing an environment which enables them to reduce the stress symptoms, enhancing restorative capacity, enabling their mind to reconnect with their fundamental self as they work through their conflicting thoughts and emotions.

Arising from the above research and economic pressures, healthcare settings started investing considerable sums in creating living environments within courtyard areas or the periphery of the wards where patients could easily view the natural settings.

It is true to say that not all such garden landscapes have been successful and further research has been undertaken to discover what forms of landscape have the greatest impact. This varies according to the specific needs of the patients. In the UK, The King's Fund has been running its award-winning, Enhancing the Healing Environment programme since 2000. The latest phase of which focused on Environments for Care at End of Life.

In some settings gardens are used not only as places to view but also as therapeutic 'workshops' with patients to aid recovery.

The research demonstrated some remarkable outcomes of the impact of viewing natural or garden landscapes from within medical settings. Even where amazingly the view provided might only be a picture of a landscape.

The following are quotes of various research programme outcomes:

- Acutely stressed patients experienced significant restoration after only a few minutes of viewing nature settings with greenery, flowers, as indicated by positive changes, for instance, in blood pressure, heart activity, muscle tension, and brain electrical activity. They also experienced elevated levels of positive feelings (pleasantness, calm), and a reduction of negatively toned emotions such as fear, anger, and sadness.
- Heart patients who viewed the trees/water scene were significantly less anxious during the postoperative period and suffered less severe pain than patients assigned to the other forms of picture.
- Recovery records of gall bladder surgery patients who had a bedside window view of trees had shorter hospital stays and suffered fewer minor post-surgical complications than those who only had a view of a brick building wall with no nature.
- In at least three studies, garden like scenes are shown to mitigate pain, as indicated both by patient ratings of perceived pain and observed intake of analgesic medications.
- One study suggests that dementia settings with wander gardens found that moving some restorative therapy sessions to the wander garden may positively effect post-stroke rehabilitation. Plants, trees, and memorable objects in the garden generate a variety of visual, auditory, and tactile stimulation for dementia patients. Flowering plants and a variety of trees attract birds and butterflies, provide multiple colours and textures, and may help residents notice the seasonal changes.

- A study of young children with Attention Deficit Hyperactive Disorder (ADHD) showed a significant reduction in symptoms when they experienced activities in the natural environment.

Following on from the above examples the talk then looked at examples of settings that have shown the power of Japanese garden landscapes to provide restorative experiences.

#### **Great Ormond Street Children's Hospital**

Maureen Busby created a rooftop garden. Representatives of the hospital were asked to send a few notes describing its impact. Natalie Robinson Acting Director of Redevelopment and Jo Trussler wrote as follows:

*"The Nomura Garden at Great Ormond Street Hospital for Children provides a place for quiet contemplation for children, families and staff at GOSH. Created on a rooftop in the heart of the hospital, it provides a welcome and calming respite from the busy and*



*Nomura Garden (Photo Maureen Busby)*

*intense atmosphere that goes with our role as a specialist children's hospital -a place of hope, but often a last resort for families with desperately ill children. Located alongside our intensive care beds -we have 53- it provides a place where families can engage in a different world, the design of which prompts an alternative perspective. The garden is looked down on from the floors above so its pattern and story can be enjoyed in a different dimension. Having an outside space such as this one in the heart of the hospital, where you least expect it, is such an important visual alternative to the very clinical environment patients, families and staff find themselves in, through its simplicity, soft lines and planting.*

*When I went to the garden recently, I talked to a father whose child was in our Paediatric Intensive Care Unit [PICU]; he described being in the PICU as being imprisoned and how wonderful it was to have the Garden close by. He sent his thanks to JGS for maintaining it to be faithful to the original Maureen Busby design"*

#### **The Medford Leas Continuing Care Community N.J.**

This facility has a series of courtyards with 32 gardens. Seiko Goto, assistant professor of landscape architecture at the School of Environmental and Biological Sciences at Rutgers, and Karl Herrup, professor and chair of cell biology and neuroscience, surveyed residents about their garden preferences.

*"The Japanese gardens scored highest. The herb gardens scored lowest," says Goto. "Japanese gardens significantly reduced stress. We confirmed this with a heart-rate test comparing the Japanese garden, the herb garden, and an unstructured space with a single tree."*



# Healing Gardens.....continued

## Francis E. Parker Memorial Home

Seiko Goto recently created a small Japanese garden in a room at one end of the Alzheimer unit at the Francis E. Parker Memorial Home and introduced several residents to the garden during 15-minute sittings twice a week. In these brief exposures, "interesting things happened," Goto reports. "Many of these patients don't know who they are, "Many get confused at a certain time of day. Yet immediately upon being in the garden they calmed down, even if they were in the midst of screaming.

"They smiled and stayed calm for the rest of the day. The doctor said this was more effective than medications that can take time to work and leave patients listless."

Professor Goto wrote to Anthony the following about the outcomes: "The garden reduced heart rate,

improved behaviour, and tapped long and short term memories of very late stage Alzheimer patients. When we compared the effects with multi sensory room, the difference is significant."

## The Samaritan Lebanon Community Hospital, in Lebanon, Oregon. Created by Hoichi Kurisu.

Kurusu studied landscape design and construction under Kenzo Ogata in Tokyo, Japan. He then was Landscape director for the Garden Society of Japan during which time he supervised construction of the Portland Japanese Garden.

This Japanese-style garden is completely surrounded by the hospital building, with a garden window providing views from almost every interior space. One room cantilevers over a koi pond and provides a view of waterfalls rocks and fish. The garden has a level

pathway to facilitate movement through the garden landscape similar to a traditional stroll garden. Gazebos are provided to view the garden alongside the paths.

Bordered on each side by distinctly different wings, the rectangular garden was planned to give each audience its own experience. On one side, the fluidity of water and fish relaxes chemotherapy and other infusion patients in the Emehiser Center. From the cafeteria side, the welcoming pathways and gazebos tempt staff and visitors outside. The obstetrics wing requires privacy, so Kurisu made that side of the hill inaccessible and added a strip of lawn to calm the eye and heightened emotions. On the fourth side, people drained from attending classes in the Health and Career Training Center get a vista of trees sweeping upward to energize them and raked gravel to rest their minds.



*Samaritan Lebanon Community Hospital, in Lebanon, Oregon (Photo: Kurisu International)*



*Willowbrook Hospice Garden (Photo Graham Hardman)*

In a video of Hoichi Kurisu talking about the Japanese Garden he says this, which in a strange way summarised the essence of some of the research contained within the talk:

"Japanese people believe in the principle that nature and us is one. Japanese Gardens, all beautiful yes, all different and peaceful yes. Japanese gardens bring ourselves to the closeness of oneness, we drop off ego, pride, angry or agony and gradually bring yourself to be real yourself, that's the Japanese garden."

The first talk ended with the following which underscored the power of landscapes and the connectivity with human emotion and reflection:

In spring 1994, the playwright Dennis Potter, in his final interview with Melvyn Bragg and nearing the end of his life, described the tree he could see from his bedroom window

The blossom is out in full now ... It's a plum tree, it looks like apple blossom but it's white, and looking at it, instead of saying "Oh that's nice blossom" ... I see it is the whitest, frothiest, blossom-iest blossom that there ever could be ... Things are both more trivial than they ever were, and more important than they ever were, and the difference between the trivial and the important doesn't seem to matter. But the now-ness of everything is absolutely wondrous ... you have to experience it, the comfort of it, the reassurance ...'

#### **Experience at a Hospice: Neil Wright, Chief Executive, Willowbrook Hospice, Prescott**

The second talk delivered by Neil Wright started with a focus on the changing nature in the way in which society responded to end of life issues. He gave a fascinating insight into the work of the hospice movement and in particular the work and inspiration

provided by Dame Cicely Saunders who established the ethos of the modern hospice movement.

Neil described the three main aims of hospice care:

A] To relieve pain. Hospices specialize in pain control. Hospice staff believe all pain, however severe can be brought under control.

B] To help patients, friends and relatives face up to death. Opportunities are given to the patients and to family members to discuss death and dying.

C] To care for the emotional needs of friends and family. Hospices help families cope with bereavement before, during and after the death of their relative.

He set out how he wanted to create a living environment around his hospice buildings that would be welcoming and visually inviting and relaxing. Neil then described the partnership with JGS and the building of the two Japanese style gardens. Details can be seen in Shakkei 16-2 / 16-3 / 18-3.

Neil explained how the Japanese gardens had inspired the building of other 'themed' gardens such as the 'Willow brook of flowers' built by the students of RHS Wisley and plans for many other gardens. Regrettably hospices can't make people better, but their gardens can make them feel better. The gardens will not only help patients, carers, visitors, staff and volunteers to feel better but they also act as a way of raising funds as well.

He talked about the profound affects the garden landscapes had upon staff, families and those in the last stages of their lives. The gardens have supported his mission to ensure the entire latter group live each day as fully as possible and his belief that enjoyment of the new Japanese landscapes is a vital part of that process.

#### **Design of a Japanese garden for a Health Spa: Robert Ketchell, former Chairman, JGS**

In the third talk Robert Ketchell linked the reflective process he went through as a gardener designing a garden for a day spa in northern California. The design and concept of the garden was intended to reflect the concept of 'journey' that seems to be an integral part of the traditional Japanese garden. Central to the conception was the understanding that in the Japanese garden tradition in particular, the garden and the viewer are closely entwined, and that there is a dialogue that occurs between the two. Also, through the medium of the garden the designer may facilitate the process of communication between viewer and the garden. Part of the initial design brief was that the garden should have an 'other worldly' quality, to create a space that would allow the guests to immerse themselves wholly in an intimate experience of nature and beauty.

An overarching theme was chosen for the garden, which was the Chinese Zen parable of the Ten Bulls. The parable was used in Zen monasteries in both China and Japan as a means to communicate the nature of the path of spiritual development and self-realisation. This narrative would underpin the meditative process visitors to the spa embarked upon as part of their therapeutic experience. By embedding and expressing a certain level of symbolism in the layout of the garden the intention was to allow the possibility of a deeper engagement with the garden itself, and it would create the potential for reflection and meaning to be extracted from the experience of the garden by the viewer.

In the parable of the Ten Bulls the pictures, poems and short pieces of prose tell how the student ventures into the world in search for "the Bull" (or "Ox"; a metaphor for enlightenment, or his or her true self), and how his



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*Osmosis Garden, Moon Gate (Photo Robert Ketchell)*

efforts prove fruitless at first. Undeterred, he keeps searching and eventually finds footprints on a riverbank. When he sees the bull for the first time he is amazed by the splendour of its features ('empty and marvellous' is a well known phrase used to describe the perception of Buddha nature). However, the student has not tamed the bull, and must work hard to bring it under control. Eventually he reaches a profound level of understanding of himself (or in the Buddhist conception, 'satori' or enlightenment), returns to the world armed with a greater knowledge he is able to help others in a similar path. Thus the cycle may begin again, a notion that underpins an understanding of nature being a wholly interdependent, as well as a cyclical process.

Robert described the process that he went through in trying to 'uncover' the garden that eventually emerged. He linked each stage of his reflections about the garden design to the stages contained within the story. His eventual design told the parable of enlightenment through garden art in which rock formations represented the key characters in the Ten Bull story, the ox and the ox herder. A journey of discovery for a visitor that started on a meandering pathway in which the 'future' was unclear, to a place where a framed view of a pond and 'paradisiacal' landscape garden could be seen. Once through the archway a visitor could view and contemplate the entire garden from a veranda or proceed on a continuing pathway to further rock settings which provided additional reflective points on the stages of enlightenment. Nature and the landscape have for centuries been viewed in the East as a medium through which human beings may find a deeper realisation of themselves and the world about them, the garden is an extension of natural world in which we live, and upon which we depend.

"Because mountains are high, the way of riding the clouds is always reached in the mountains. The infinite power of soaring in the wind comes freely in the mountains", Dogen Zenji (1200-1253), spiritual teacher and founder of the Soto Zen school.

A short film made by the owner of the Osmosis Day Spa, Michael Stusser spoke highly of the impact of the garden upon their visitors where an experience of the garden was viewed as an integral part of the spa treatment.

### **Why are Japanese-style gardens so suited to the healing environment? – Graham Hardman**

The fourth talk focussed on the attributes of Japanese gardens that may contribute to the healing process. Graham Hardman started by alerting the audience to the role of individual perception in interpreting and reacting to any view of a landscape, garden or otherwise. The same view seen by a group of people will be interpreted and responded to differently by each person, there is no fixed response, level of understanding or personal impact.

He then explored the role that colour in a Japanese garden might play in inducing calming responses different to those when experiencing other forms of garden. He highlighted colour research that showed insights into human reactions to colours. How reds yellows and oranges stimulated people. At the other end of the colour spectrum blue indigos and violets were less stimulating and more restful. Green, which is found in the middle of the spectrum, is the most restful and calming. The colour palette used in the Japanese garden is largely green and the use of a narrow range of other flowering plant types within their gardens was used principally to reflect the seasons.

He then spoke of research looking at the impact of two gardens in Sweden with different spatial organisation, measured using the Attention Restoration Theory outlined by Anthony in the first talk. The research, comparing an enclosed courtyard space with a much larger open flowing space (equivalent to a stroll garden) found that the open garden was found to be more interesting and restorative however the courtyard was felt to be more cohesive in design. Both

gardens scored significantly higher than natural scenes, indicating that even simple constructed garden spaces can have a restorative effect.

Moving on to consider the potential effect of Japanese gardens, Graham offered the view that the spatial arrangement of a Japanese garden created a greater engagement of the mind (involuntary attention) as the scenes presented within the garden sparked use of the imagination to unravel what was being observed. Aspects of design seen in Japanese gardens are multi-layered. At a purely aesthetic level they encompass structure, shape, materials, balance and use of space. At a more psychological level, symbolism, scale and the idea of the garden as a journey play their part, as well as more esoteric aspects that require knowledge of Japanese culture to understand (religious and mythical symbolism). The ability of the garden creator to capture the essence of nature and portray it in a way that engages the imagination and visualisation capability of the viewer is crucial to the success of the garden. By being engaged in this way, the viewer will be 'in the moment' and will be able to leave behind concerns about other things going on in their lives, albeit for a short but valuable time. In this way the Japanese garden touches all four aspects of restoration theory, fascination, being away, extent and compatibility.

#### **Reflections**

The day opened up a number of streams of thought about healing aspects of Japanese gardens. The perception of the individual will obviously have an impact upon their reactions (voluntary and involuntary). A person entering a meditation centre arrives with mind set ready to be in tune with what they experience. It is part of the individual's personal life journey and the garden is an environment

supporting that inward personal focus. The same is true of temple gardens.

A person with detailed knowledge of the philosophy symbolism and cultural meanings inherent in Japanese gardens will appreciate in greater depth a Japanese garden landscape from one who has none of that understanding. The latter can however be profoundly affected by what they see yet not fully understand.

The deliberate positioning of places to view a garden, through a framed view, sitting rather than standing on a veranda to appreciate a particular perspective, a pausing stone on a footpath, a turning point in a footpath to reveal hitherto hidden views all contribute to a deepening of the involuntary attention of what a person sees. The richer the variety contained within a garden of the above elements the deeper the experience and impact of the garden upon the individual.

The complexity of considerations brought to bear in the creation of a Japanese garden, from literature, art, religion and wider culture all lead to the creation of landscapes, which are an expression of the unity of mankind and nature and designed to enable that inward realisation to be attained. It is in this sense that Japanese gardens truly are felt to be healing gardens irrespective of your full understanding of their cultural background.

We have only lightly touched on this healing aspect of the Japanese garden. I hope that others will consider what we have begun and follow with deeper consideration of the issues in further articles.