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## **Links between natural environments and well-being: A brief review of the literature**

There is a growing body of evidence that the natural environment nurtures human beings. The notion of a healing space goes back to ancient Greece, when people who were ill looked toward temples in the hope of having dreams where the god would reveal cures. Later, Florence Nightingale established ventilation and fresh air as “the very first canon of nursing”.

Anecdotally, many people report the positive effects from meditating in nature, and there have been a number of empirical studies that provide evidence of the link between exposure to the natural environment and well-being. For example, in health care settings, incorporating natural environments has been shown to improve the patient experience as well as improve clinical outcomes.

Regardless of age or culture, humans find nature restorative.

Researchers have examined how the physical environment can influence well-being, promote healing, relieve patient pain and stress, and also reduce medical errors, infections and falls. Many hospitals are adopting elements of nature and meditation-friendly places in new construction, expansion or re-modelling (Franklin, 2012).

A pioneering study conducted by Ulrich, a leading researcher in healing gardens, found that surgery patients with a view of nature suffered fewer complications, used less pain medication, and were discharged sooner than those whose view was of a brick wall (Ulrich et al, 1984). In a 1999 study, researchers Marcus and Barnes found that more than two-thirds of people choose a natural setting to retreat to when stressed.

Ulrich (1991) summarizes it thus: "We have a kind of biologically prepared disposition to respond favorably to nature because we evolved in nature. Nature was good to us, and we tend to respond positively to environments that were favorable to us."

Many studies show that after a stressful event, images of nature very quickly produce a calming effect. Within three to four minutes after viewing nature scenes, blood pressure, respiration rate, brain activity, and the production of stress hormones all decrease and mood improves (Mooney and Nicell, 1992; Nakamura and Fujii, 1992).

This again has an evolutionary advantage because it allows us to recuperate and recover our energy quickly. This ability to recover from stress quickly in order to be ready to respond to new threats was important for our ancestors' survival.

It has been proposed that the deep affiliations humans have with nature are rooted in our biology – that evolution may have ‘hard wired’ humans with a preference for specific natural settings. “Early humans found that places with open views offered better opportunities to find food and avoid predators...water to survive...trees for protection. Modern research has shown that people today, given the choice, prefer landscapes that look like this scenario. (Wilson, 1984)”

Today, therapeutic landscape design is an emerging field within landscape architecture, and evidence is accumulating that gardens and other meditation spaces improve outcomes both from a clinical and an experiential standpoint (Sternberg, 2009; Mitrione, 2008). In the field of environmental psychology, considerable emphasis is given to the interplay between humans and their surroundings, including the characteristics of restorative environments (Proshansky, et al, 1983); Kaplan R and Kaplan S, 1989; Kaplan R, 1993).

Frumkin (2001, 2003) notes that the features of a place affect us in many ways. We gain spatial orientation—our sense of where we are and how to get where we are going—from place cues. Some places—the social gathering spots that sociologist Oldenburg (2000) has called “great good places”—help us connect with other people, and even to find ourselves.

Since the 1950s, thousands of studies on meditation have been conducted. Today mindfulness-based meditative practices have become popular within the Western medical and psychological community, due mainly to the observable, positive impact such processes have on patients suffering from stress-related health conditions (Benson, 1997; Davison, Kabat-Zinn et al, 2003).

There is a growing interest in the benefits of walking meditation for people overcoming illness or trauma. Walking meditation is mindful slow walking with focused attention on body sensation and/or breathing that many people find helpful. Some empirical research has been undertaken that shows good results with cancer patients (Specca et al, 2000).

In addition to the pavilions and quiet sitting areas, the winding paths of the Place of Reflection resemble aspects of historical labyrinths. Many people are convinced that purposefully walking a single line path of a labyrinth can help resolve inner discomfort and still the mind. The calming and quietening effect and the metaphorical symbolism of the labyrinth can symbolise a pathway on a journey.

A significant body of research confirms and sheds light on what many people have known intuitively: that connection with nature is beneficial – even vital – for human health and well being (Marcus and Sachs, 2013).

Summary produced by The Place of Reflection Phase 2 Project Team, December 2013

For more information on the Place of Reflection in Kings Park, Perth Western Australia  
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