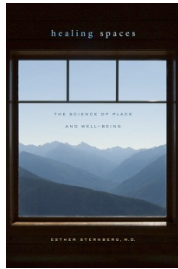


Healing Spaces: The Science of Place and Well-Being



By Esther M. Sternberg, M.D.
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Review by Leland R. Beaumont

Spaces affect healing and well-being. Patients in hospital rooms with windows overlooking a grove of trees healed faster than similar patients in rooms overlooking a brick wall, according to a study by Roger Ulrich published in 1984 in *Science* magazine. Medical Doctor Esther Sternberg examines the intersection of architecture and neuroscience—how spaces influence our minds and bodies—in this well-written and informative book.

Theme parks are carefully designed environments incorporating theatrical displays that create excitement and make us happy to spend our money. Shopping malls are spaces carefully designed to create a mood that encourages us to go there and shop. This book explores how wise architects can use visual, auditory, tactile, olfactory, and collective memory cues to design urban spaces, office spaces, businesses, homes, parks, and sanctuaries that improve our well-being.

We respond to many visual elements that surround us in predictable ways. Humans find fractals, especially as they occur in nature, intrinsically satisfying visuals. The color blue is relaxing while the red and yellow colors are stimulating. Sunlight enhances mood while fluorescent lights often depress mood. Flowers elevate our mood. Soldiers provided Meals Ready to Eat packaged in drab kaki colors often lost interest in food, ate little, and discarded most of the meal. Simply changing to more attractive packaging increased the soldier's appetite significantly.

When we listen to silence, what we really hear are the many tiny sounds of our environment. The sounds of birds chirping, leaves rustling, breezes blowing, water flowing, and animals scampering are calming, while loud noises that so often dominate our environments are stressful. Music can also have a soothing or stimulating effect. Sounds activate the vagus nerve, modulate heart-rate variability, and affect our immune response.

The scent of lavender is soothing, gentle touch helps infants thrive; mazes trigger anxiety, however focusing attention on the single winding path of a labyrinth is calming. Focusing attention on our

calming. Focusing attention on our breathing calms us. Landmarks orient us, and draw us near.

Even hope can heal. While some who make the pilgrimage to the Sanctuary of Our Lady of Lourdes are dramatically healed by the experience, all of the faithful visitors benefit. Placebos, prayer, pilgrimage, and meditation, powerful enough to create a genuine expectation of improvement can elicit a belief response that promotes healing. The mechanisms are not fully understood, but studies show changes in heart-rate variability, endorphins, hormones, and attaining distinct mental states.

A 2007 report identified New York City as the healthiest place in the nation, despite the noise, grime, congestion, and hassle. New Yorkers walk almost everywhere because driving is nearly impossible, and there are many interesting places to visit. Can urban sprawl provide a cure for obesity?

We are intimately connected to the places around us. A tiny drop of dew on a blade of grass may invoke as strong a sense of place as the lure of a mountain in the distance. This book encourages us to make wise choices in creating, selecting, and experiencing our surroundings.