

**The Powers of Place**  
**An Inquiry Into the Influence of Place, Space and Environment**  
**On Collective Transformation**

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**REVIEW OF THE LITERATURE**

Recognition that place, space, and environment play a role in our lives is not new. Over two thousand years ago, Hippocrates linked human health and specific natural settings, laying the cornerstone for Western medicine. He and other ancient healers identified a connection between illness and the “mal aria”—bad air—of swampy places (which encourages mosquitoes to breed) and, conversely, the healthy effects of breezy hillsides with good air circulation (Jones & Withington, 1990). Frederic Law Olmsted, a 19th century landscape architect and planner, also saw the relationship between health and place and specifically used it in his work (Jackson, 2001; Szczygiel & Hewitt, 2000).

Just as links between place and human well-being have been in human consciousness for centuries, definitions of the terms *place* and *space* are broad and diverse. The antecedent Latin term for “sense of place,” *genius loci*, referred not to a place itself but to the guardian divinity of that place (Frumkin, 2003). Canter (1997) saw place as a holistic unit that comprises three interrelated elements: the physical form, the activities that go on there, and the conceptualizations of that place [meanings and ideas]. All these together, he said, comprise the purpose for which the place is used. In Sanskrit, one of the most ancient human languages, there exists a word—*kshetra*—which means field or energy fields that are similar to electromagnetic (EM) fields in physics. These fields are referred to in the *Bhagavad Gita*, one of Hinduism’s central and oldest spiritual stories. Howard Frumkin, in his excellent article, “Healthy Places: Exploring the Evidence” (2003), put it this way:

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. Places can evoke memories, arouse emotions, and excite passions. Some places have spiritual resonance; every religion has sacred places, some natural such as the Himalayas for Buddhists and Hindus and some built such as the great Catholic cathedrals. Legends are grounded in places. Places affect our performance as we work and study. Some places—the social gathering spots that sociologist Ray Oldenburg has called “great good places”—help us connect with other people. Some places, as every vacationer knows, seem to enhance well-being. Some places may even promote good health. (p. 1)

Most people regard place as a subset of space, a kind of bounded space, either physically or conceptually. Physically, we may think of the walls, floor and ceiling as transforming open space into a building, or metaphorically we may refer to “a place in my heart” where we keep a lost loved one. In a college-level course on environmental psychology, the instructor distinguished between place and space this way:

Space is more abstract than place. What begins as undifferentiated space becomes place as we get to know it better and endow it with value. . . . Space is an abstract term for a complex set of ideas.

Indeed, when we think of space in the context of astronomy, there is a sense of infinity or unboundedness. Yet, although *place* connotes a more physical, bounded environment, it is also much more. According to Frumkin (2003),

While a place’s character is a function of physical qualities, it is also a product of risks and opportunities, the nature of the social organization attached to the locale, its political, social and economic relationships with other places, the psychosocial characteristics of the individuals occupying the space, and the local cultural milieu. We learn to act in specific ways in certain places; we don’t genuflect in bars or drink beer and eat popcorn in churches. (p. 1)

Although many people agree that we intuitively know that our surroundings play an important part in our lives—in our homes, places of work, neighborhoods and communities, vacation spots, and even our final “resting place”—there has been relatively little in the way of systematic exploration of its effect. In a cursory review of the literature on place, space, and environment, I came across the following approaches to the study of its effect on human beings. The categories are general and there are many overlaps, but for purposes of clarity, I have chosen to group them in the following ways. I apologize in advance for overlooking many studies and approaches; this paper and its antecedent research were not meant to be comprehensive nor exhaustive but only to open the door to dialogue and further inquiry (see Figure 1).

Place and space play a central role in the disciplines of art, interior design and architecture. In these disciplines, the approach is generally aesthetic and functional, responding to what is pleasing to the eye and useful for its purpose. Many opinions surround the topic, but for the most part, the approach remains subjective: what is pleasing to some is not to others. Frumkin (2003) described the guidelines by which authors in the fields of art and architecture write as “*ex cathedra pronouncements*”: they declare what is beautiful and what is not; what works well and what does not. These are interesting, he stated, but beg the question, “By whose standards?” Christopher Alexander’s work is an exception and is mentioned below in a different framework of approaches to place and space.

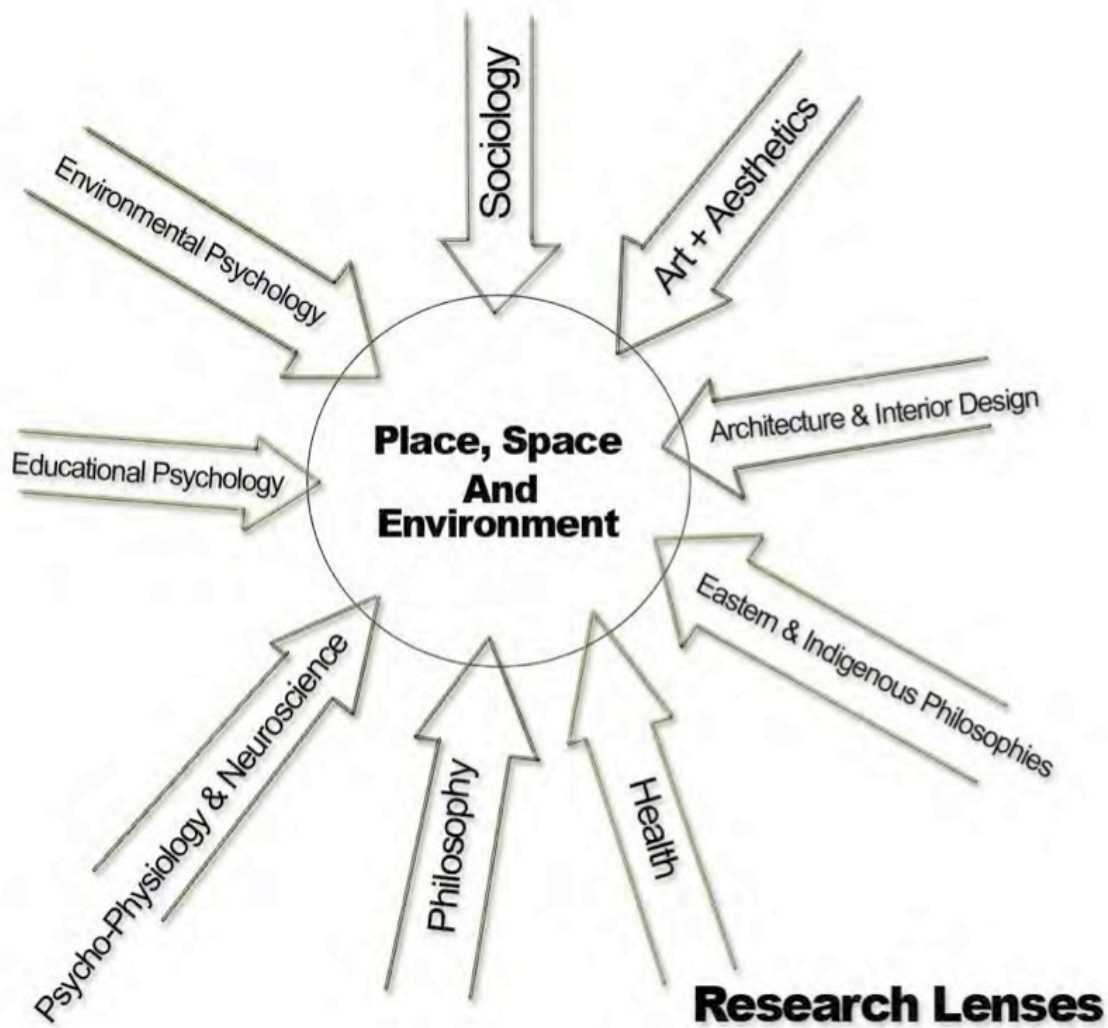


Figure 1. Research Lenses.

From Eastern philosophies and traditions come approaches to place and space that are based on beliefs that certain arrangements of furniture and architectural elements attract positive energy, or *qi*, into the lives of the people who live or work there. These approaches flow from an assumption of the existence of an intimate connection between the natural environment and human beings. Although feng shui, the best known of these approaches, is based on ancient understandings of astronomy and geography, it is considered subjective and not scientifically “proven” by Western methods. Also from the East come spiritual traditions such as Hinduism in which particular places are considered to be vortexes with special energies connected to particular divinities. Hindus visit these sites during important life events, such as the first cutting of a baby’s hair, weddings, and initiation of new work ventures. Again, because these places are part of a spiritual tradition, their power is generally not considered to be proven by Western scientific standards as energy vortexes, yet they are as basic to the life of a Hindu as food or shelter.

Indigenous and native peoples throughout the world also have a relationship to place, particularly land and nature, that is integral to their lives as individuals and as collectives. For example, invoking the wisdom of the directions—north, south, east, and west—to inform discussions and decisions is part of life in these cultures, as is sensitivity to elements of the natural environment, such as animals and weather, as messengers of wisdom from beyond. Because indigenous peoples do not see themselves as separate from the environment around them, little scientific study (requiring the assumption of separateness or dualism) has been undertaken in this arena. This is true of Eastern philosophies as well.

In the literature, another category of approaches to understanding the effects of place, space, and environment is qualitative research, often used in the human sciences. The underpinnings of qualitative research are anthropological in that human behavior determines how to organize setting. Principles or patterns are culled from interviews with people on the topic explored. I use Christopher Alexander and his colleagues in the field of architecture and the work of several researchers in the growing field of environmental psychology as examples.

In 1977, Christopher Alexander (with Ishikawa and Silverstein) published a book called *A Pattern Language* that influenced residential architecture, building design and city planning. The unique quality of Christopher Alexander and his colleagues' work was that it was based on thousands of interviews with individuals on how they use and experience buildings and public spaces. From this data, certain patterns emerged that became guidelines for making "great places" for people not necessarily trained as architects or city planners. These guidelines came from a more rigorous method—structured interviews—and thus distinguished themselves from other theories in the fields of architecture and design.

Another field of inquiry into the relationship between environment and human beings has come to be known as *environmental psychology* or *eco-psychology*. Grounded in the notion that people experience what renowned ethnobiologist and professor, Edward O.

Wilson, Ph.D. (1984) called "biophilia," an innate need to interact with the living world of which we are a part. My own search of the academic literature to date offered hundreds of studies and articles on subjects as diverse as the effect of the outdoors on quality of life for older people to the environmental psychology of workspace to the effects of environmental considerations on public health and adult learning.

Key contributors to the field of environmental psychology are Stephen and Rachel Kaplan from the University of Michigan. The Kaplans' (1989) restorative environments theory posits that certain aspects of natural environments are implicated in the restorative effects on people who suffer from directed attention fatigue. In other words, immersion in natural environments with specific characteristics helps individuals whose task concentration is compromised by the demands of life in urban settings. The characteristics are: (1) the restorative setting must be away from distractions and

demands on directed attention; (2) the person must be “fascinated” by environmental contents; (3) the person should experience the environment as “coherent” and of substantial extent; and (4) there must be compatibility between environmental demands, the person’s inclinations and environmental supports for the intended activities. A fifth factor, familiarity with the surroundings and/or activity, is also implied.

For 10 years, the Kaplans followed 27 groups through the 9-14 day Outward Bound wilderness program and found that after completing the course, participants reported experiencing a sense of peace, wholeness and the ability to think more clearly. In another study, they interviewed more than 1200 corporate employees from various companies and state agencies and found that office workers with a window view of nature—trees, bushes or even a large lawn—experienced significantly less frustration and more enthusiasm for their jobs than those workers without windows.

The Kaplans’ work is significant because they conducted systematic studies that confirm and expand on what many of us know intuitively—that there are consequences when human beings remove themselves from the natural world in which our evolution as a species has been embedded. Will Adams (2005) described it as a dissociative relationship, which may explain the rise in conditions such as attention deficit disorder (ADD) and the everyday stress and tension that many of us suffer. I think the Kaplans’ work may also be useful in explicating the relationship between group intelligence and transformation and settings immersed in nature.

Moving deeper into the realm of objective scientific research into the study of the effect of place, space and environment on human beings, we encounter the empirical approaches of Roger Ulrich, Mihaly Csikszentmihalyi, Michael Persinger, Roger Barker, and Stephen Suomi. Roger Ulrich, like the Kaplans, contributed to restorative environments theory but from the perspective of psychophysiological aspects of person-environment relations. He measured the emotional (affective) response of human beings to nature and natural settings by examining their neurological activity (1983). Ulrich focused attention on the biological response of human beings to the aesthetic (visual) experience of nature. His assumption was that *humans are biologically programmed for pre-cognitive response to stimuli that would have been found in the natural settings where human evolution took place*. In other words, before we can even think about our reaction to a particular natural setting, we have a “gut” (emotional) like-dislike response that is instinctual and coded to our evolutionary development in nature. That is why, according to Ulrich, nature provides restorative experiences for people who may normally be deprived of such stimuli, such as city-dwellers.

One of Ulrich’s famous experiments was a 10-year study of hospital patients in rooms with a view of trees and their accelerated recovery compared to a group of patients without a view of natural elements. In his studies, Ulrich found the following eight factors that appear in natural settings and contribute to emotional response in humans:

- Complexity and number of perceived elements,
- Structure of order,

- Focality,
- Depth or spaciousness,
- Quality of ground surface textures,
- Presence of threat,
- Presence of a deflected vista,
- Water, and
- Presence of vegetation.

Other empirical studies have examined the effect of environmental stimulation on human behavior. Michael Persinger, a professor of psychology and neuroscience, investigated the effects of “extraordinary environments” on the human nervous system. He discovered that geophysical activity associated with specific places accounted for altered consciousness in human beings as does the interaction between novel or unusual settings and human chemical activity (e.g., adrenaline bursts). Persinger (1985) also examined electromagnetic (EM) effects on human beings, which might account, for example, for the effect of sound and vibration (and music) on human well being and learning. These vibrations may also account for why we feel different on the top of a mountain, for example, where EM fields are different from those in a valley or on a noisy city street.

Mihaly Csikszentmihalyi (1990) researched (and named) “flow” experiences, those times when we are absolutely lost in whatever we are doing without regard to time passing or other distractions. He found that such flow experiences occurred most often when there was an optimal balance of stimulation in the form of demands and challenges from tasks in a person’s environment. Optimal life experiences, he found, occurred when humans experience just the right amount of challenge or demand from what they are doing rather than too much or too little.

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