

# Structuring Spirited Spaces: The Roles of Intuition and Data

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## Introduction

This presentation uses qualitative and quantitative methods across disciplines to reflect on the holistic (physical, intellectual, spiritual) role of labyrinths in built environments.

Two recent high profile projects (American Psychological Association headquarters renovation; the National Intrepid Center of Excellence, NICoE – a traumatic brain injury center for active duty service members) included labyrinths. Inclusion of this element was based on two primary considerations: design and intuition. The design facet hinged on visual appeal, the notion that labyrinths invite people to purposefully interact with built environments, and the idea that labyrinths may serve as clinical tools promoting healing. The intuitive component drew on anecdotal experiences and writings suggesting that labyrinths function as symbols and spaces of non-sectarian spiritual reflection.

To augment this combination of design and intuition it is possible to gather experimental data. While this approach is commonly used with regard to *task* features, true experiments evaluating spiritual experiences in relation to built spaces are rare.

This presentation highlights two perspectives on labyrinths as constructed spaces. First, an architect from the NICoE design team reflects on the processes and outcomes of including a labyrinth in that project. Second, a psychologist summarizes the findings from a three-year series of experiments involving the relation of labyrinths to spiritual experiences.

The design challenge was to incorporate varied features with potential to facilitate care delivery to patients struggling with traumatic brain injury and other physical conditions. The labyrinth was included because its curving pathway may support rehabilitation efforts focused on skills affected by the injury (walking / balance). Simultaneously, the labyrinth functions a metaphorically to engage spiritual and emotional issues arising during rehabilitation (journey to finding oneself). Beyond individual-oriented benefits, the labyrinth was centralized, encouraging group usage. This highlights the healing process as involving teamwork: family, friends, and staff. Post-occupancy evaluations support the effectiveness of the labyrinth space at meeting these goals.

It is imperative that ideas about the potential of labyrinths be explored systematically to provide hard data regarding their efficacy. One of the few known experimental investigations randomly assigned participants to walk 1) a labyrinth (Chartres pattern), 2) a straight line of distance equivalent to the labyrinth, 3) in an undefined pattern, or 4) to sit still in the center of an open space. All received minimal instructions, noting that the exercise was a common spiritual practice. Analyses revealed no significant pre/post alterations in emotionality *across* conditions. *Within* each condition, however, negative emotions decreased and positive emotions increased; the labyrinth did not provide any unique benefit. Post exercise interviews further demonstrated that labyrinth condition individuals believed that it was an exceptionally powerful encounter. Their

interviews were significantly longer than others and contained greater detail about the experience and its relation to other life moments. In other words, people *felt* that the labyrinth was very influential, even though that influence was not objectively different than the other conditions.



*Image of Central Park, National Intrepid Center of Excellence, Bethesda, Maryland*

With regard to using labyrinths in built environments, ideas drawn from the growing field of embodied cognition (Wilson, 2002; Gibbs, 2005) serve as guides. In keeping with those notions of the reciprocal influences of mind and body, we suggest that some of the labyrinth's subjective effect is because it establishes a bounded, focused space. The space is compelling because it is moderately psychologically arousing on both the level of motion and with regard to vision (Ladd, 2011a, 2011b). Another influential feature of the labyrinth is that it provides a micro-pilgrimage experience evoking immediate reactions, while stimulating longer-term reflection. For instance, post-exercise interviews indicated that people experienced moments of insight and felt that time in this environment helped them identify questions for rumination. While some contend that the specific location of a labyrinth is critical to its influence, we think that a key feature to the labyrinth's success is its ability to create its own space. This transportable nature helps explain the durability of the pattern and its use across time and cultures as a tool to promote physical and spiritual well-being.

### **Outcomes of Presentation**

The discussion portion of this presentation will be directed toward exchanging ideas concerning how to evaluate effectively the spiritual influence of built spaces using a combination of qualitative and quantitative methods.

*Potential discussion questions:*

- Blesser and Salter (2007; *Spaces Speak; Are You Listening?* MIT Press) argue that explicit and implicit features of spaces (e.g., light, sound, proximity to nature) can stimulate or retard spontaneous spiritual reflection. In what ways do audiences come to *know* about the effectiveness of these features? How is this knowledge shared and retained (or restricted and lost) among different audiences across time? How can this awareness and processes of transmittal be measured and employed for purposes of crafting even more meaningful spaces?
- What ethical considerations arise when incorporating potentially “spiritually provocative” spaces into public settings?
- As the scientific study of spirituality advances, discoveries of neural level effects are proliferating. What are some of the most prominent bridges that already exist between architecture and medicine, psychology, etc.? What other alliances would further integration efforts?
- Labyrinths and similar symbols create communal spaces. Not all communities, however, are consistently welcoming to *all* people. René Girard notes how communities sometimes become *excluding* rather than *including*. Are there design “safeguards” that can help spaces remain positively communal?
- What significant questions remain concerning the creation of environments to promote physical and spiritual healing? What sort of research (e.g., experiments, case studies) is critical to pursue to answer these questions? To what extent are the perspectives of rehabilitation staff adequately represented in this process?
- Labyrinths (unicursal) are often presented as flat surfaces upon which people walk. How is the experience changed when employing three dimensions? What sort of materials could be used to create a three-dimensional labyrinth that would evoke maximal healing spiritual experiences? To what extent is scale (labyrinth : person) influential in such projects?

**References**

- Blesser, B. & Salter, L. (2006). *Spaces speak, are you listening? Experiencing aural architecture*. Cambridge: MIT.
- Burger, R. L. & Salazar, L. C. (2008). *Machu Picchu: Unveiling the mystery of the Incas*. New Haven: Yale.
- Gibbs, R. W., Jr. (2005) *Embodiment and Cognitive Science*. New York: Cambridge.
- Girard, R., Antonello, P., Rocha, J. C. C., & Kirwan, M. (2007). *Evolution and conversion: Dialogues on the origins of culture*. New York: Continuum International Publishing.
- Grudin, R. (2010). *Design and truth*. New Haven: Yale.
- Hood, R. J., Jr., Hill, P. C., & Spilka, B. (2009). *The psychology of religion: An empirical approach*. New York: Guilford.
- Jaccard, J. & Jacoby, J. (2010). *Theory construction and model-building skills: A practical guide for social scientists*. New York: Guilford.
- Kirwan, M. (2005). *Discovering Girard*. London: Cowley.
- Ladd, K. L. (2011a, September). The art of prayer: Reflections on visual representations of faith. Invited lecture at the *Land of Tomorrow* art gallery, Lexington, KY.
- Ladd, K. L. (2011b, December). Thy faith shall be sight: How spiritual beliefs influence visual perception. Invited lecture at Université catholique de Louvain, Louvain-la-Neuve, Belgium.
- Rowland, I. D. & Howe, T. N. (Eds.) (2008). *Vitruvius: Ten books on architecture*. New York: Cambridge.
- Wilson, M. (2002). Six views of embodied cognition. *Psychonomic Bulletin & Review*, 9 (4), 625 - 636.