

# The Black Box

An Experiment in Haptics and Blind Navigation

Location:

**A Sense of Place:  
Regeneration**

The Eden Project  
Strawberry Car Park  
Cornwall, England  
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A  
Research Project  
by:

**Lisa Ann  
Pasquale**

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## An Experiment in Haptics and Blind Navigation

- **Hap-tics**, (noun) [hap-tiks]  
the application of all four spatial senses in environmental design, including sight, sound, smell and touch.

### The Project:

This experimental installation will be testing a framework-theory of haptic deployment in constructed environments. In this theory, haptic design is most successful when designed to convey spatial information through particular navigational mechanisms that are tailored to the capacity of the specific senses which perceive them. This systemic deployment of haptic queues facilitates more rapid cognitive mapping, creating greater ease in navigating sight-less environments.

The goal of this research is to dispel the common belief that the use of haptics in environmental design leads to disorienting or overwhelming spaces. We intend to show that the success or failure of haptic environments is not due to its volume of sensory triggers, but rather in how those triggers and queues are deployed.

The installation will be exploring the inundation boundary of sensory perception, and hopefully answering many questions about haptic. Can this framework-theory haptic design hold up in a comprehensively sensory environment? Can it broaden the usable palate of haptics for environmental designers? Is it possible to use identical sets of sensory cues in different deployments and achieve distinctly different levels of navigability? Is the success of haptic environments tied more to the volume of sensory information, as commonly thought, or more to the level of systemic coordination and design applied to its implementation, as this new theory proposes?

You're cordially invited to come, learn, and experience this full-scale, haptic installation.

### The Designer:

Lisa received a Bachelor of Architecture from Rensselaer Polytechnic Institute in 2004. Her thesis analyzed sensory navigation and perception, and established a framework for deploying haptics in environmental design. She presented her research at the International Conference for Universal Design in Kyoto last October. She has worked in Boston and Shanghai as an architectural designer and planner, and was an instructor at the Boston Architectural College this past year. This autumn she will begin graduate studies in Sustainable Environmental Design at the Architectural Association in London.

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Sensory Trust

**A  
Sense  
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regeneration

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