



BOUNDARY FUNCTIONS

Dimensions:

- Projector, video camera, pc computer, retro-reflective floor, custom software, 4m x 4m x 7m
- 12' x 12' foot print on floor

Power Requirements:

- Total power requirements 500-1000 watts or 50\60 hz
- 120volts~ 4 Amp depending on projector.*
- Camera output 12 Volts, 2.1 Amp, input 100-240 Volt

As people walk around a large floor, Boundary Functions draws lines between them. These lines show each person's personal space – the space closer to them than to anyone else. As more and more people walk onto this floor, these spaces form tiles that continue to change dynamically.

When people touch, the line between them momentarily disappears, allowing them to connect without borders. Boundary Functions reveals that our personal space, though we call it our own, only exists in relation to others and changes without our control.

The regions that surround each person in Boundary Functions are mathematically referred to as Voronoi diagrams. These diagrams are widely used in diverse fields; spontaneously occurring at all scales of nature. In anthropology and geography they are used to describe patterns of human settlement; in biology, the patterns of animal dominance and plant competition; in chemistry the packing of atoms into crystalline structures; in astronomy the influence of gravity on stars and star clusters; in marketing the strategic placement of chain stores; in robotics path planning; and in computer science for earthquake simulation and 3D computer graphics. The diagrams represent as strong a connection between mathematics and nature as the constants e or π .