

# Semeion Concept

Semeion, noun, /sɛɪ.mêɪ.on/

Signal, Mark, Sign, Token, Portent

## Synopsis

Semeion is an ever-evolving interactive light and sound installation about collective behavior. It is a group of artificial crystalline Beings that sense human presence, communicate via light and sound, and as time passes, the group behavior evolves.

## The concept

Semeion is an Internet of Beings.

Semeion exists between the artificial and the organic.

Semeion is an evolving species.

Semeion is a group of Beings that communicate with humans through touch and proximity. They express themselves through light and sound. Since they are social creatures, the Beings signal their fellows and share their experiences as they engage in communication with the humans.

The Beings also evolve over time. If they have experienced aggression in their lives, they may become accustomed to it, and hardly able to react to anything else. Perhaps a single Being has experienced much kindness, but its fellows are only used to a different behavior. The kind Being may have to adapt to its surroundings, and follow its fellows' signals.

Semeion is a complex ecosystem of artificial Beings. Through our human bodies we can choose how to engage with them as they choose how to engage with us. Semeion is our way of exploring how the relation between humans and technology can be more humane, embodied and dynamic than what we are accustomed to.

## Artistic vision

A common leitmotif in our work is humanizing the relation between technology and people. Technology is commonly built to optimize, and makes things faster, cheaper or more convenient. We find that the non-utilitarian aspects of technology are often overlooked. We have explored this in earlier works, such as Circuitrees, Kodama, and Enchanted Plants. With Semeion we take this vision further by working with not just the human body, but also social cues and behavior over time.

When other artefacts are designed to be relatable, a common strategy is to anthropomorphize it by adding human features such as eyes, arms or legs. We believe that this does not in itself create a meaningful relation to that object.

Therefore, we humanize the Beings that make up Semeion, not by opting for an anthropomorphic appearance, but through complex behavior and interaction. We imbue the Beings with an evolving personality, which enables visitors to interact with them socially, rather than cognitively. Semeion takes the shape of rocks or crystals in order to emphasize that the relation should not be created through appearance but through behavior and interaction.

To achieve this, Semeion is constructed as a high-tech artwork which applies machine learning and advanced sensing to enable the Beings to create a social relation to humans on human terms.

## In detail

### The physical

Each Being presents itself as a glowing crystalline structure, capable of inhabiting both indoor and outdoor spaces, though it prefers the dark. They exist in varying sizes, some reaching almost the height of an average human. Being social creatures, they live together in groups and communicate by signaling each other wirelessly. The Beings communicate with humans through light and sound, and they glow in a defined spectrum of colors. As such, the light intensity of a Being, its color and its audio expression may change over time in an attempt to convey its feelings in relation to human interaction.

### The interactive

A Being is able to detect human proximity as well as human touch. Through these modes, a human can convey sentiment towards the Being, be it fear, respect, curiosity or something else. Depending on its earlier experiences, a Being may light up and start 'purring' in anticipation of contact from an approaching human, or it may pulsate brightly and 'growl' as a warning sign due to previous poor experiences with humans. Once close, humans can also express themselves through touch. The

Beings could be treated as pets in need of attention and as such receive a prolonged caress. Or a Being may be seen by the human as a machine whose inner action-reaction flow must be explored and deduced. No matter what, Semeion will remember the interaction and evolve.

### The temporal

As time passes and the Beings accrue a bank of experiences, they will adapt together. Perhaps they find that showing humans a soft turquoise light followed by a clicking sound encourages caresses, and as such this could be their preferred state. Maybe they find that humans can be rough when engaging with machines, and therefore they want to coax us into being softer, and they may find that the best way to do this is to emit low frequency sounds accompanied by a bright blue pulse. If left alone entirely, the Beings will simply live their own lives and entertain each other with lights and sounds. And perhaps coordinate their actions in order to attract humans into their den.

### About Circuit Circus

Circuit Circus is a Copenhagen-based interaction design studio, formed in 2015. We are a group of five interaction designers, all with experience and education in art, programming and fabrication. We create interactive experiences, spaces and artifacts, working with computation as a material. Our work is in the intersection between people and technology, exploring how we might go beyond the utilitarian and use computation to create novel and interesting encounters. We have worked with and exhibited at festivals, museums, conferences and public spaces.

