

SENSORIUM

Interactive, Audio Visual Installation
by Reto Schmid & Kadet Kuhne

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1. Concept

Sensorium is an interactive, audiovisual installation that receives and correlates impressions transmitted directly to the intangible realm of the senses. Located in a virtual environment, one can navigate through three-dimensional space into portals based on the RGB color spectrum. Along this visual journey are ambient soundscapes that emerge and build with one's own interactive pathway. Sensorium explores how the relationship between art and technology is changing our knowledge and modeling of the world, leading to the emergence of new cultural forms, behaviors and values.

Sensorium's design is inspired by the perceptual phenomenon that results from the ways we process white light and white noise. The wavelengths of light and sound that we are sensitive to stimulate our perceptions and sensations, defining our impressions and memories of the world around us. Sensorium is not a mere representation of objects and surfaces, but rather an experience of spatial orientation in response to sensory data. It is a space of the unexpected and incidental where one can enter into a direct relationship with their inner world, nature and the built environment. The act of perception does not only have physical and dimensional features but also includes more subtle, ephemeral sensations of which we might not be consciously aware.

As an ethereal space, Sensorium exists of vibration rather than matter, expressing utmost weightlessness and indeterminacy. The spectator navigates through an abstract, dynamic topography of sounds, light and color while remaining physically stationary. The human body thus acts as a physical medium between the exterior world and the interior states of being. The sequences of sounds and images are connected in the mind in order to achieve an overall subjective composition. As a experience of movement and interaction it becomes a process of changing events taking place in actual space and time. The aural and visual reverberations bring about a transitory experience and together with the subjective memory of each individual they create an unadulterated sensory perception. Every moment becomes unique and can neither be preserved nor reproduced. By blurring the boundaries of space and time, action and object emerge as a fluid space suggesting a continuity towards infinity.



2. Spaces

CONTEXT

The basic structure of the installation consists of an interactive 3D space of geometric objects which are animated by a programmatic code (lingo 3D). By using specifically indicated keys of the keyboard or a customized controller, the spectator navigates their virtual journey through this open space accompanied by a sonic landscape of electronic loops and event sounds which build and shift according to their position. In the beginning all objects are colorless. In each direction there is a cubic portal colored in red, green, blue & white through which the spectator enters photo-realistic, 2D spaces of the same color. On the way to these portals are various features one can explore so as to modify and alter their experience which include: cloning objects, rotating world, relocating in space, and inner-sound object. Once returning to the 3D space from the 2D environment, the objects appear in the color of the recently visited portal and the specific sonic palette for that hue becomes active. The spatially minimal appearance of sounds and space - white noise / white light - frees the spectator from overt meaning and prediction. It allows a subjective sensory experience that goes beyond a defined physical act of seeing and hearing.

SUBTEXT

Compared to the virtual 3D environments, the photo-realistic 2D spaces are based on a built architectural model. The complex and angular designs suggest movement and depth yet in actuality are two-dimensional structures. The photographed model is colored in red, green, blue or white and portions are cut out and replaced by movies with associated sound loops. These movies are triggered on and off by simply navigating over them, creating a dynamic visual and sonic landscape. The moving images and the changing sounds introduce time as an additional dimension. The juxtaposition of sounds and images, nature and artificiality create an engaging poetic contrast within the installation. Existing boundaries become blurred and new room for memories and emotions evolves.



4. Installation

The spectator navigates through an abstract, dynamic topography of sounds, light and color while remaining physically stationary. The navigation is set up with a customized controller which triggers a notebook or desktop computer through a USB port. On the system runs a 3D-standalone application which was programmed in Macromedia Director. The controller and 3D-application are part of our delivery objects.

Computer Hardware

>Apple Macintosh:

- G4 PowerMacintosh or higher
- Min. 500Mhz Processor and 512MB RAM
- Operating System Mac OS X
- 1 available USB-Port (for controller)

>Microsoft Windows:

- Min. 1Ghz Processor and 256MB RAM
- Operating System Win2000 or WinXP
- 1 available USB-Port (for controller)

Special computer knowledge for the start-up of the installation is not needed; the application launches automatically upon starting the computer. A G-Force or Radeon Graphic card is recommended.

Projection

- 1 video projector, 1500+ lumens recommended
- Large projection wall is preferred for a more immersive effect

Audio

- Stereo or Quad sound system with powered speakers or PA system

Setup

- Surface for the controller (12 x 15") and written materials
- Seating possibility for one or two participants

Note:

- For exhibitions involving more than one piece in a single room, there are two options for exhibiting ,Sensorium:' a computer monitor for viewing, and headphones for audio.
- Computer keyboard commands> arrow keys: rotating & up/down, G: move up, B: move down, H: rotate up, N: rotate down

4. Artists / Contact

Developed by Reto Schmid & Kadet Kuhne

Reto Schmid >Bern, Switzerland >reto@testrun.to

Reto is a visual artist and designer who explores the myriad ways images can be manipulated to alter the perceptions of space. His work includes 'Lightspeed,' a light installation at Lethargy in Zurich, interactive 3D installations, visuals for galleries and web applications. In the past, Reto created installations for international exhibitions at galleries and lounge environments utilizing super8 and video as his main medium. These abstracted, minimal visuals were invented independent of computer tools yet simultaneously reflected the direct inspiration of the emerging digital age. With new media applications, Reto now continues to explore the innovative ways we can conceive of the future. With his conceptual graphic design works for interactive media and the virtual world of cyberspace, he is part of a movement that challenges the conventions of the multimedia world.

Kadet Kuhne >Los Angeles, USA >kadet@tektonicshift.com

Kadet is a digital media artist specializing in ambient, spatialized compositions and interactive installation. She released her full-length CD 'Seismic' in 2001, had a release in 2003 on 'Mono: Poly' by Asphodel & Gench labels, and has a new release due out in 2004 titled 'Spectra.' Kadet composes for new media, film and interdisciplinary projects out of her studio, Tektonic Shift. In her visual work she creates interactive, audiovisual installations that involve sensors, virtual applications and/or live processing. Past exhibitions & performances include venues such as Museum of Art Lucerne, Musees de Strasbourg, San Francisco Arts Commission Gallery and the Knitting Factory. As an award-winning, experimental filmmaker she has nine film and video shorts that are screened worldwide, with distribution through Cinenova and Fever Films.

Information online: <http://www.testrun.to/sensorium>

