

# Aesthetics of Knowledge Space

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How to present knowledge as a visible shape? How to visualize it as a space to enter? Looking from a perspective of media art, the artists' presentation examines the notion of knowledge space. The staging of information structures and the procedure of interactive perception will be exemplified by the authors' own works.

## Introduction

Knowledge is understood as something that originates in processes of interacting with the world and is actively constructed by the individual. "You can't manage knowledge — nobody can. What you can do is to manage the environment in which knowledge can be created, discovered, transferred, adopted, adapted and applied," say Knowledge Managers Collison & Parcell. As artists we produce artistic environments in which knowledge can be created. Inspired by art historian Aby Warburg and his notion of the Denkraum, we do research on the Virtual Denkraum and the aesthetics of staging knowledge space to enter — between experience

and expertise. By knowledge space we understand architectural space furnished with data.<sup>1</sup> Thus physical space transforms into a data landscape to walk-in — an interactive environment connecting data, space and user. The visitor of such an environment is not only the protagonist, but also the producer of knowledge through interaction. For the human it becomes an enlarged action space that is experienced fourfold: through perception of the spatial (and other attendees), by exploration of data, production of knowledge through active experience, finally, through communication with others. In this article we introduce media art examples of staging knowledge, driven by different paradigms of interactivity — and as a public space of knowledge.<sup>2</sup>

## The virtual exhibition: from representation to presentation

The Virtual Reality installation "Home of the Brain" (1990-92),<sup>3</sup> reflects not only on the new medium, but the media discourse itself becomes the theme of the virtual exhibition — a philosophical debate. The

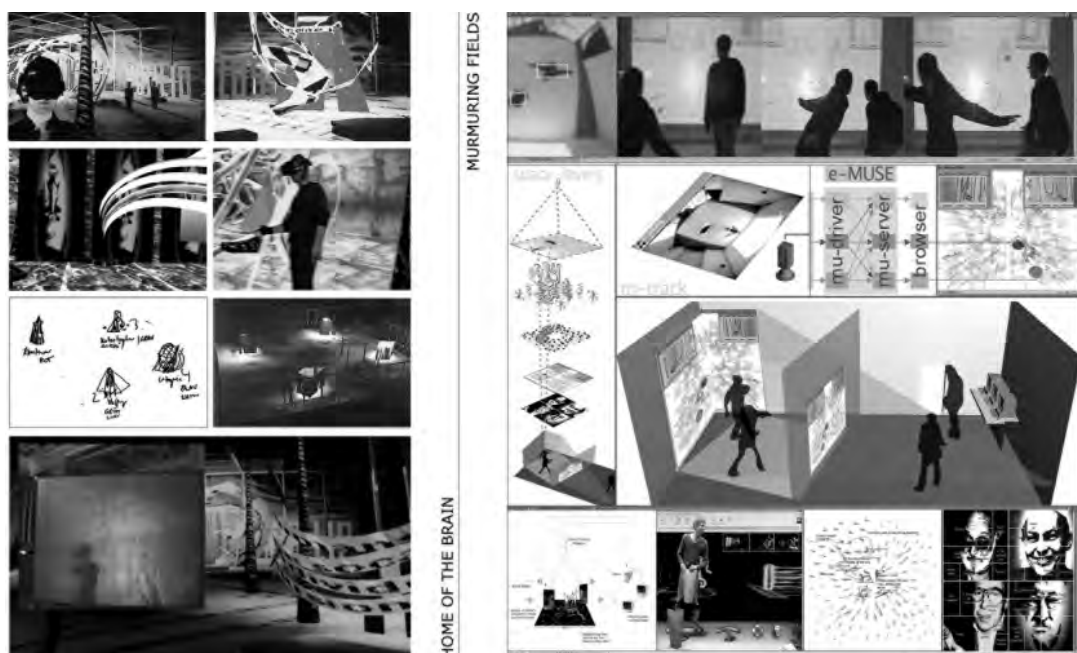


Figure 1: Assembling the interactive stage: Home of the Brain (1990-92) and Murmuring Fields (1997-99)

interactor “moves” through the space that contains four houses in which the philosophers minds “live”: Joseph Weizenbaum, Marvin Minsky, Paul Virilio, and Vilém Flusser discuss the digital culture. The interactor is enclosed literally in the discursive environment. With the aid of a data glove, one visitor at a time navigates through the 3D-environment visible in the data goggles. Other visitors see these images on a projection screen. They take the role of the chorus in ancient Greek theater by making comments. The navigator becomes the storyteller.

### The mixed reality stage: from movement to bodily experience

The isolated space of mind “Home of the Brain” was transcended through dialogic forms of play with other participants in “Murmuring Fields” (1997-99). Spaces for data and action are combined using an invisible tracking procedure, a video camera interface, to building up a mixed reality stage. The stage is filled with virtual sound elements — philosophers’ statements. Movement in physical space triggers sound in data space. Movement breaks words into syllables and transforms into a sound collage. Two interactors produce sound samples. “Poli-tic-tic-tic”, says Flusser’s voice as soon as a performer moves around and thus interprets his original statement: “Boys and girls on the computers

turn their backs to **politics** and turn to each other.” The audio-visual installation is played like an instrument using body movement — acoustic space is experienced bodily. Knowledge here is not acquired by reading, but through the body. The theorist of cognition, George Lakoff, emphasizes the importance of the body and its entity for thought processes. Sensory experience and reflection combine together in “sensory thinking of the body”, he writes.<sup>4</sup> Art historian Oliver Grau recognizes “Murmuring Fields” as well as “Home of the Brain” as spheres of thought referring to Aby Warburg. Grau states that the works create a new type of a “Denkraum”.<sup>5</sup>

### Staging the information flow in Urban space

How can online archives be used not only virtually, but also physically as walk-in areas? This question was taken up with “Energy-Passages”,<sup>6</sup> an installation on creating knowledge as a process of energy in the city of Munich. The project reproduces the news by producing linguistic space in form of a data flow. Hundreds of catchwords, taken from daily newspapers, appear as a visual information flow on the street and are spoken by artificial computer voices. As soon as passers-by select a word, thematically related links become visible in the flow, which can also be experienced as an audiovisual echo. The visitors “write” anew “Living



Figure 2: Energy-Passages — interactive installation in urban space, Munich (2004)

Newspaper” by means of their personal choice. During four weeks runtime of the installation, the system builds a collective memory of the interactions. It confronts the most frequently used words of the newspaper with the most often well-chosen words of the visitors. While in the newspaper a kind of forcing into line is to be observed, the audience gets a voice and expresses its own interests. The work uses the energy of the actors and plays with concepts like fragmenting, forcing into line and censorship. The ranking of words used in the newspaper: Germany, Million, People. The words chosen by the audience: Victim, Love, Food.<sup>7</sup> The disparity of the language of the mass media and the preferences of the people become clearly visible. Sherry Turkle, MIT Professor of the Social Studies remarks: “The notion of a spatial experience of the discourse of the news within a city space and the possibility of deconstructing the newspaper captures the fragmentation of how media is experienced by citizens in a culture of simulation. It thus mirrors and concretizes an important cultural and political moment, turning it into an object for reflection.”<sup>8</sup> Through interaction reading becomes a process of thinking in acting. In the real sense of interaction the installation produces connections between the people.

## Deep Storage’s<sup>9</sup> storytelling

With “Home of the Brain” the media discourse itself became an object of reflection. In “Murmuring Fields” a space of mind through dialogic forms of play with other participants occur. With the metaphor of the flow the static archive is transformed into a time-based medium and takes up a narrative function. Moreover, the linguistic play invites people to take part. And because of the interactive audio-visual character it offers liveness that is much like theater. However, the difference between the two is the fact that “Energy-Passages” is interactive and reversible. In all of the installations one can move in a “knowmadic” way to gain new experience. Future learning environments could learn from knowledge arts and adapt the virtual Denkraum through staged learning environments.

More of Fleischmann & Strauss’ work:  
<http://netzspannung.org/about/mars/projects/en>

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  - 6 Strauss, Wolfgang; Fleischmann, Monika. 2005. “Implosion of Numbers – Performative Mixed Reality.” In *Disappearing Architecture*, Flachbart, Georg, Weibel, Peter (eds). Stuttgart: Birkhäuser, pp. 118-131.
  - 7 Statistics in the Archive of *Energy-Passages*: <http://www.energie-passagen.de/webinstallation.html>
  - 8 Turkle, Sherry. 2004: *Energie-Passagen* <http://www.energie-passagen.de/puplicvoices.html>
  - 9 Schaffner, Ingrid; Winzen, Matthias (ed). 1997 (German) 1998 (English). *Deep Storage. Arsenale der Erinnerung / Deep Storage. Collecting, Storing and Archiving in Art*. New York: Prestel, München.