



Martin Hesselmeier, Karin Lingnau

*Interactive Installation*

*Cologne 2007*

1.0 | *Installation*

<http://www.martinhesselmeier.com/saroskop>

*(images, movies,...)*

*The installation SARoskop is dealing with the visualisation of electromagnetic waves, which are imperceptible for the human sensory spectrum. The complete net of SARoskop-objects is composed as an interactive sculpture reacting sensitively to the data of the proximate surrounding and transforming it into movement and interdependent oscillations.*

*The work SARoskop deals with the visualization of electromagnetic waves which are not discernible for the human sensory spectrum. The net of the single objects forms an interactive sculpture which reacts sensitively to data from the direct environment and moves this in movement and mutually conditional oscillations.*

2.0 | *Space requirements*

*Variable dimensions (installation is adapted to the space situation)*

*(example installation construction February 2007, Moltkerei Cologne: approx. 4-metre height x 4.80-metre width, see also images/ movies DVD)*

*25 single objects in a net/matrix of steel cables, power supply unit, cable*

3.0 | *Detailed text*

*As a person one orientates himself within certain frequency responses.*

*Nevertheless, the surrounding spectrum is bigger than is to be perceived in the audible (15 hertz to 20.000 hertz) or visible area (400 nm, ultraviolet to 700 nm, infrared). The installation transfers the electro-sensory taken up data of a specifically chosen frequency spectrum in a perception visible and audible for the participants.*



Realization (form, technology, material)

The single objects are consistent of a clear body which contains the electronics and mechanics. Gearwheels and a gear rack move a bar which visualize in its movement the intensity of electromagnetic waves.

A total of 25 of these objects form a net which is connected by thin, stream-leading steel ropes. This matrix is braced between ground, cover and wall as an independent space element. A parallel net originates from suspension in the respective terminator points of the sticks (positive pole and negative pole). As a matrix the moving net indicates the formation of electromagnetic fields in a clear and distinct way.

The movement which increases throughout the whole construction is the indication of local wave strengths, but also a reference for wave fields in a space in general. The objects are bound not to a stiff grid, but can be installed adaptably, in dependence to the space situation.

The movement which increases itself about the whole construction and moves is the tip to local wave strengths, but also a general view for wave fields in the space. The objects are bound not to a stiff grid, but can be installed adaptably, in dependence to the space situation.

Role of the participants and form of interaction:

The well-chosen spectrum encloses 900 to 2400 MHz, i.e. frequency from the area of cellular radio, WLAN, television, UMTS, radar, broadcasting company, telemetry, microwave etc. The participants / viewer of the installation can influence the movement and the intensity of the reaction of the object-matrix by application, e. g. of their mobile phones. At the moment of the transference of data via mobile phone the intensity is taken up and transferred on the mechanics by the sensor technology and the aerial. (Both elements are settled on the circuit board, structuring and forming each single object in connection with the mechanical layout.) In succession the movement of the mechanics is set into an accordant rhythm. The intensity of the amplitude increases with the amount in data transfer and nearness of any active devices.

Key sentence

The SARoskop is therefore an interactive sculpture reacting sensitively to data of the proximate surrounding and transforming it into movement.



4.0 | Contact

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*In 2002 he received a Diploma in Communication Design from the Fachhochschule Mannheim, academy of arts and design Mannheim, Germany and has since been working as a designer for various design studios in Germany. He is currently studying at the KHM, Academy of Media Arts, Cologne, as a postgraduate student and is working on the EU research project „citizen media“.*

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