

On the t.i.k.s Exhibition Project

t.i.k.s. stands for *Transparent Information of the Klara Systems*, implying hidden information and communication processes in urban space. Klara is the name of a district in the city quarters of Stockholm [see enclosed map].



The District of Klara

t.i.k.s. was exhibited at the Stockholm Culture Centre during September-October 1998. The exhibition was initiated by the organisation 'New Stockholm: Klara' (Nya Stockholm: Klara) and the t.i.k.s. project was exhibited in connection with the annual European event: 'Stockholm - Cultural Capital of Europe 1998'. t.i.k.s. has also participated in the exhibition project Design Sounds, produced by the Swedish Society of Crafts and Design (Svensk Form), at the Museum of the Swedish Society of Crafts (2001), at Konstindustrimuséet in Copenhagen (2001) and at Röhsska Muséet in Gothenburg (2002).

In short, the main idea with t.i.k.s. was to discuss and illustrate different types of acoustic spaces that exist in the district of Klara. These are also discussed and illustrated in the thesis *Noise Design*. t.i.k.s. consists of a mixture of music and environmental sound recordings, and animated projections of graphic scores. The project is divided into four different compositions each of which lasts about two

minutes. The environmental sounds consist of sound recordings made near the main entrance of Kulturhuset (the Culture Centre of Stockholm) at the square level of Sergels torg, and from the top of the roof of the same building [see photos].



Culture Centre



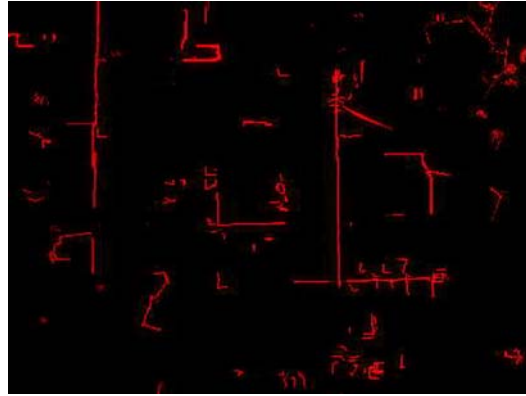
Sergels Torg



Sergels Torg

The Culture Centre, shops and steps that lead to an upper street level surround the square level of Sergels torg, which functions as a node in the district of the Klara. A characteristic sound image when standing at the square level is a mix of voices, street musicians, sounds of murmuring and footsteps from passers-by or people meet-

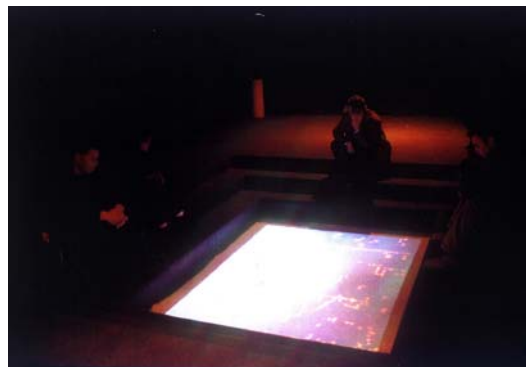
ing and mingling at the place. The dense traffic sound from the upper street level is a dominant element, which also functions as an effective border for masking peripheral sounds. The distinct acoustics at the square level makes the voices and footsteps easily apprehended. However, the softer and more remote sounds are masked by the noise from the traffic [*listen to the sound excerpt - square*].



Map of Infrastructure

The listening effect when standing on the roof of the Culture Centre is entirely different to that of the square level; sounds from the traffic and people blend in a condensed, low-frequency sound image; the single sound sources, and the distinct spatial layering of sounds that is easily heard from the square level, are no longer discernible; the sound-sources develop seemingly without any audible variation in time and space, like a continual sonic flow, without beginning or end. The major cause of this dramatic sonic difference between the square and the roof may be explained by the difference in distance between the listener (in this case the microphone) and the sound-sources, but the acoustic condition is, of course, also a determining factor [*listen to the sound excerpt - roof*].

The project was launched at the Stockholm Cultural Centre, and the exhibition room was 45 square metres (9 x 5 m.). The exhibition floor was placed half a metre over the ground floor, which allowed a construction of a terraced whole in the middle of the exhibition room – the terrace also functioned as seats [*see photo - exhibition room*].



Exhibition Room

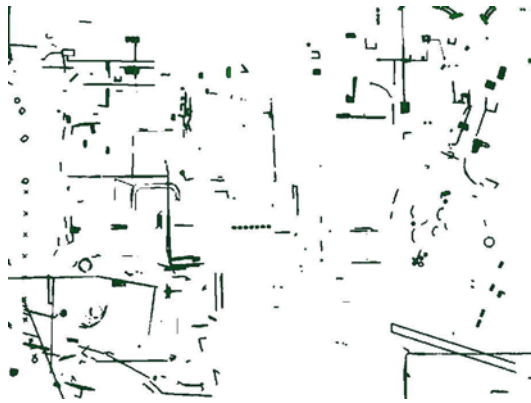
The music is composed and performed by Sten Sandell, and the instruments are piano, organ, harmonium, synthesiser and sampler. In each of the four compositions, the environmental sounds and the music are mixed together, but the second half of each composition consists solely of music.

The animated pictures derive from digital information of the hidden infrastructure (i.e. water, sewer, gas and electricity) of the Klara district [*see map of infrastructure*].

The principal idea was to create a sonic boundless space where it was impossible to apprehend the physical extension of the room. To carry this out, the floor was covered with a black carpet and the walls were painted black, the only source of light derived from the projecting pictures, and the acoustic space was established by four loudspeakers, placed in each corner.

The projector that ran the animated pictures hung from the ceiling in the centre of the room. The pictures were projected

on the terraced floor and this was covered in sea salt in order to serve as a projection surface. Sea salt was chosen as the grains are approximately the same size as the pixels of computer images; the effect obtained was that the pictures appeared to be coming from below which thus evoked a sense of gravitation [see *images*].



Map of Infrastructure

The participants in the project team that executed the t.i.k.s. project were the following:

Björn Hellström	Idea, executive supervisor, sound composition, sound recording and sound mixing.
Arild Lagerkvist	Adviser, co-executor, sound composition, sound recording and sound mixing.
Sten Sandell	Composer and executor of the music (the music originates from the CD <i>Behind the Chords</i> – 1997 LJ CD 5216).
Östen Petersson	Graphic design, graphic processing and animation.
Johannes Tüll	Graphic design, graphic processing and animation.
Erika Dahlén	Adviser graphic design.
Bo Samuelsson	Adviser graphic design.
Johan Liw	Video editing.
Niklas Almgren	Loudspeaker design.



Detail of Infrastructure