The Locustream Project
(version anglaise)

In the fall of 2005 the lab started work on a group project aiming to involve the various different members of the group in a way, loose enough to not stifle individual creativity, while still providing a firm basis for communal experimentation and exploration.

Locus Sonus is inherently nomadic in nature, shared between 2 institutions separated by several hundred kms (École Nationale Supérieure d'Art de Nice Villa Arson and École Supérieure d'Art d'Aix-en-Provence), we travel regularly to meet and work together in and from different locations.
It was decided to set up some live audio streams, basically open microphones which upload a given soundscape or sound environment continuously to a server and from there available from anywhere via the WWW. Our intention was to provide a permanent (and somewhat emblematic) resource to tap into as raw material for our artistic experimentation.

After setting a first permanent stream (outside Cap15 an artists studio complex in Marseille) we started by using the stream in a performance/improvisation type mode using the, now standard, laptop and MIDI controller with homemade patches to reinterpret the stream in real time. This proved to be somewhat problematic because often nothing in particular would be happening on the stream at a given time when we were intending to work with it. This led us to follow various leads:
The first was to develop a stream which using a denoiser and a sampler continuously renewed a database of the "best of" current sound events or "objects". Although this made the stream much more listenable to (and usable as musical material) it did pose some conceptual problems in that the sound was, pre-composed at it's source and with the development of the project it has now disappeared to be replaced with the unadulterated "open mike" once again.

Other developments included an activity developed by one member of the group (Nicolas Bralet) which he calls "mémoires de streams" . It consists of listening to the streams on a regular basis from where ever he happens to be at the time and producing a short composition using a mixture of sounds gleaned from the stream and those of the local environment, simultaneously an idealized projection of the remote site and a reflection on the schizophonic* aspects of the whole project.
At the same time another member of the group (Esther Salmona) conducted a similar activity but in this time in a literary mode, listening to and describing the streams as she switches from location to location, a sort of laptop tardis with which she could make instantaneous hops (without stumbling around every time she lands).

"Vendredi 1er septembre 2006. Une barre de fer vient de tomber sur le sol. Le bruit dénonçait sa façon de tomber qui dénonçait sa forme et sa longueur, un bout puis l'autre, un matériau urbain, assez légère de 50/60 cm. Une de celle dont on se sert pour soulever les plaques d'égoût. Et le sol? Pas de bitume, le sol, pas d'asphalte, dur, des dalles, et non surfacé, plutôt lisse, en grandes dalles. Je l'imagine clair ce sol et moucheté de grains de micas noir et gris et bruns. D'autres sons suivent, comme si la plaque soulevée, elle se soulève, je l'entends, on pouvait enfin travailler dans la ville, au coeur de la ville, un peu dans ses tripes. Alors? Cette illusion de la circulation est contrecarrée, niée, abrutie par l'intérieur (les clics, les bips, intimes) et l'intérieur (les dessous, les galeries). Un début de sirène de police, le frein d'un bus, le stream, maintenant épaissi, en vertical, en horizontal."

Our main efforts have gone into the development of a spatial form proposing a suitable interpretation of the streams in the local environment. The first attempts involved using resonating wires - long piano wires strung from wall to wall were set into vibration using piezo transducers at one end the resulting modified sound being captured at the other end using guitar pickups. This set up allowed a performer (Lydwine Van der hulst) to play the streams by touching the piano wires and thus modifying their resonant qualities. Using a I/O board we increased the effect by detecting when a specific wire was touched and increasing the amplitude of the audio signal in that wire. By this time we had three streams up and running (Marseille, Aix-en-Provence and Chicago) in this first version we used the wires to map out the virtual network, pointing the wire in the direction corresponding to its provenance with an angle that represented relative distance.

A discussion that followed this presentation led us to believe that it was necessary to define the protocol (sound capture/network/local form) that we were employing more precisely. One of our problems was the choice of the stream emplacement - should this be made in relation to geographical location or sound quality or some kind of political or social situation... The decision was made to leave this up to other people, a partly practical and partly ideological choice. At this point we tidied up our PureData streaming patch so that other people could implement it without too much difficulty, boosted the number of streams which could be accepted simultaneously by our server, and started stripping down our ideas for installations, confident that the worldwide audio art community (with a little help from our friends) would respond to our call, which they did.

WIRELESS PARABOLIC MIKE&CAM
Transmitter ->
Wireless Mike ->
IP Camera ->

Locustream Tuner

In its present version, the installation with which we present the streaming project, consists of a pair of wires stretched the length of the exhibition space with a small ball threaded on them. The position of the ball can be altered by the public acting like a tuner, an audio promenade where users slide their way through a series of remote audio locations. Multiple loudspeakers enable us to spatialize the sound so that each different audio stream selected via the wire emanates from a new position in the local space.
In order to make the installation function efficiently we were obliged to incorporate a system allowing us to interrogate our server and update the list of current streams (people go away or use their streaming computer for a concert or a machine crashes...) we use the list to provide visual feedback by projecting names of the places the streams are coming from.
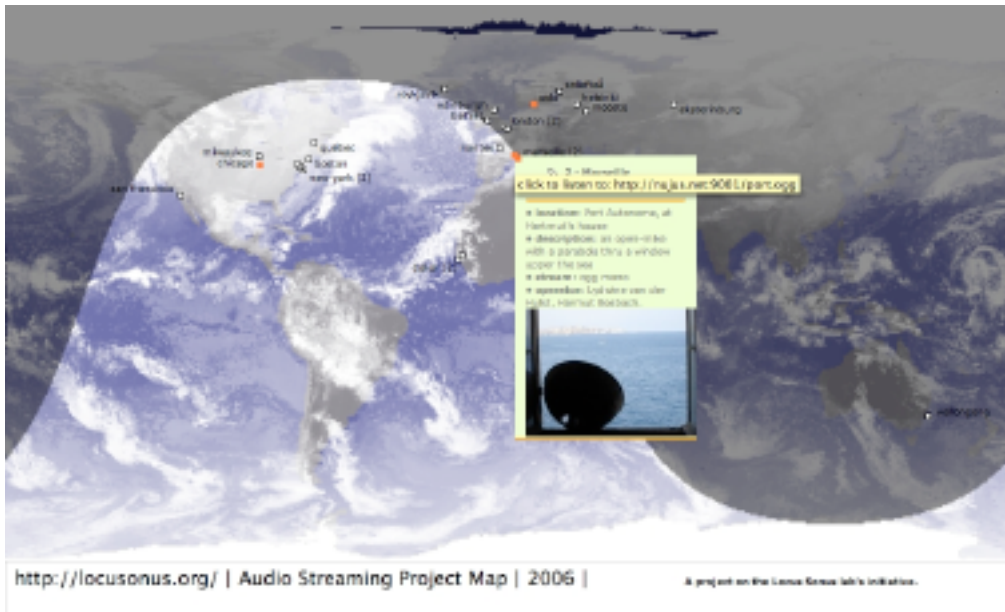
Locustream tuner http://locusonus.org/

new-york chicago marseille nantes london reykjavik boston solleftea belfast

Locustream map

At one point it seemed necessary to provide the "streamers" (as we have come to call the musicians and artists who've responded to our call) with the possibility to access the streams themselves, not only to hear their own sound but also that provided by other people. Our website now offers an animated map which shows the location of all the streams and indicates those which are currently active with a blinking light. By clicking on a chosen location one can listen directly using an OGG Vorbis plugin in any browser.

http://locusonus.org/ | Audio Streaming Project Map | 2006 | A project on the Locus Sonus lab's initiative.

What's next

Several interesting things have happened through the act of opening up the streaming project to other people. Apart from the fact that we have found ourselves with audio environments which we wouldn't have considered (a kitchen in Iceland, a noisy transformer in California), certain streamers have started to use the material themselves as part of their own artistic production. Inviting Jason Geistweidt from SARC in Belfast to perform we were surprised and delighted to find that some of the samples that he's using have been gleaned from the streams. We are urging to meet the community of streamers who have go involved in this project which leads us to consider organizing some kind of event or festival to accommodate different versions or interpretations of the project.
As the project grows and more people join in we are rapidly running out of bandwidth however a charitable soul has recently offered to accommodate an unlimited number of streams, so that is no longer an issue. We are currently working on a wireless "streaming box" which could be placed anywhere within the range of a wifi router and stream continuously, increasing the range of sound capture and enabling streamers to get rid of their computers.

To conclude the locustream project through the articulation of its different facets offers a multitude of view points, that of the person/place emitting the stream, the walk through the installation, the web user, the performer, the resonant qualities of the receiving architectural space, the remixing of sounds into a slower form of stream (podcast)... These positions are interlaced and embodied by the participant and their trajectory through the different spaces of transmission and reception the moment a stream is activated. The system becomes a unique instrument for each person taking part.

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* term originally coined by Murray Schafer in his book "The Tuning Of The World" 1977

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