

# The Listening Room

Camden Arts Centre

Arkwright Road

London NW3

**14th June - 10th July 2005** (exhibition dates extended)

What happens when you magnify the sound of a room?

This installation amplifies the sound of the room in real time, introducing low-volume feedback. All surfaces - walls, floor and ceiling - reflect sound. The relationship of these reflections produces resonant frequencies, which are the notes at which the amplification will produce feedback. Other sounds and the presence of the spectator interfere with these reflections, shifting the feedback notes.

part of Architecture Week

This version of The Listening Room is minimal, one microphone and two loudspeakers in the Reading Room of Camden Arts Centre, a relatively small space for this work. The Reading Room is the former entrance to the building, this entrance has been bricked over to create three highly reflective wall surfaces in the room.

The room resonance is so pronounced that my usual placement of microphone and speakers would tend to fix on one pitch and stay there - to introduce more of the available frequencies from the space I left the Reading Room table in the space to allow an additional reflective element and used an asymmetric placement of loudspeakers, one at the side and one under the table.

The Listening Room allows the resonant frequencies of the room to become audible. This process is modulated by very slight acoustic changes as people move around the room, by ambient sound, by humidity, by anything that causes air to move.

The presence of the spectator integrates the object of the work with its subject.

The primary function of the noise gate is to govern the amplitude of the feedback which would otherwise rise exponentially. A secondary function is that the system will respond to loud noises within the space by shutting itself down, exposing the spectator to the unaltered sound of the space they are in. This is not as simplistic as it may appear - the difference or absence creates an observational opportunity at a moment where the listener is prepared.

## **Sculpture?**

The work could be considered to be a sculpture in the sense that there is a consistent structure which is moderated by

conditions of the space, just like a sculpture catching different patterns of light at different times of day or in differing locations. However, The Listening Room has a musical function and unlike much other time-based work is responsive to musicological analysis. It creates a slowly shifting series of chords based on a fundamental which is always a resonant frequency or a harmonic of the room modulated as described above.

### **Music?**

I realised when I did The Listening Room that there's a connection with the first record of mine that most people know about - 'Money' by The Flying Lizards (Virgin Records 1979) was renowned for its (then) extraordinary drum sound. The drumkit was in a big reverberant room with concrete wall and my microphone cable was a bit short so I recorded the drum with the microphone four or five metres away. You're not hearing the drum on the record, you're hearing the drum in that acoustically very complex space and all the air in the room.

Later, working with orchestras in a couple of particularly nice sounding studios (the old Pye/PRT studio 1 or Abbey Road 2), I became very interested in using what I like to describe as the air moving around in the room by pulling the microphones back from the instruments. The obvious next step - what happens when you take away the instruments and just listen to the room?

Elsewhere is a music industry devoted to replay, to the iconification and fossilizing of the recorded moment, mostly responding to purely financial imperatives.

### **Metaphor?**

There is no metaphor within the work.

My approach to this work has been essentially experimental, to initiate a process and let it flow, the nature of the process thereafter determining the structure of the work. This involves consideration of the structure of the work: which elements are prescribed, which are variables, how these variables will interact and feed back into the main consideration, which is that the work is a situation which organises itself dependent on its own structural organisation.

With this work it is important to maintain the scale, volume and complexity at a level which creates a coherent individual experience.

For myself the most important quality is that it is a situation which is physically referential both to external contexts and to its own structure.

### **Technical:**

The installation consists of a microphone connected to a noise gate, amplifier and speakers in a highly reverberant room. The system is arranged in such a way that when the microphone and loudspeaker begin to feed back the amplitude of the sound causes the noise gate to cut off the signal. The feedback notes resonate through the space accentuated by the long reverberation time of the room. As the sound falls below the threshold of the noise gate the system switches back on and the process continues.

The available pitches of the sound are primarily determined by the distance between the wall, floor and ceiling surfaces in the space, and by the location of the system; by the time it takes a sound to travel and be reflected in three dimensions, not a simple equation.