»Opening Concert«

**LAC2005 – 3rd International
Linux Audio Conference**

ZKM | Institute for Music und Acoustics
Thursday, 21 April 05
ZKM_Kubus 8:00 pm

Gerard van Dongen: bb-7

Georg Holzmann: ATT

John ffitch: Boundless Space (UA)

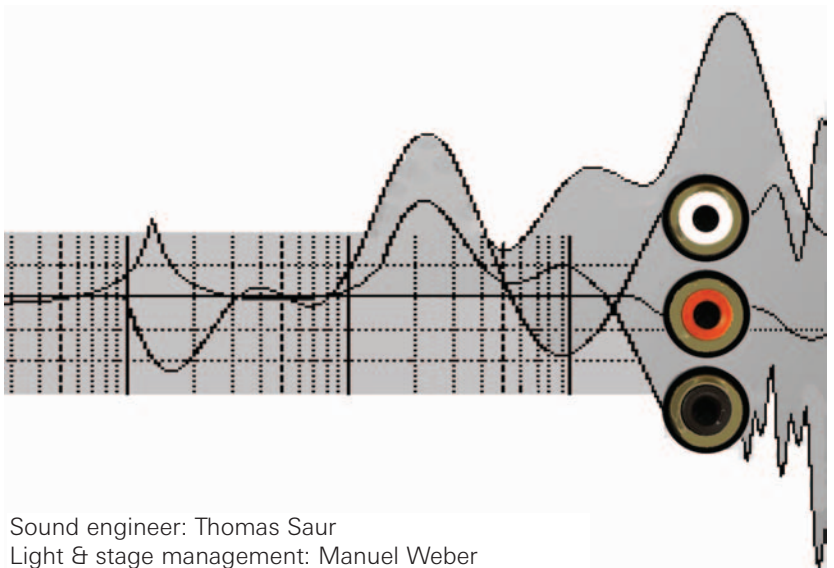**Joachim Goßmann:** Audio Fraktal (UA)

Marije Baalman: Imagines Fragosi Minorum

anteroom of the Kubus:
»motion« - an audiovisual installation
by Ludger Brümmer, Joachim Goßmann
and Chandrashekar Ramakrishnan

Admission: EUR 5 [concessions EUR 3]

Sound engineer: Thomas Saur
Light & stage management: Manuel Weber

bb-7
for piano and computer
Gerard van Dongen
2003

Over the last year, I have concentrated on new solo work for piano and/or computer. I am developing methods to control the computer through acoustic information, through gestures in front of a webcam and through game controllers with haptic feedback. The acoustic input is categorized in bins based on similarity, discovered with self-learning neural networks. The bins are processed with various effects. I am searching for pleasant unpredictability, a kind of serendipity in fact. The problem is to find useful feature-vectors that takes little computational overhead to calculate. This is made a little easier by the fact that I am not looking to emulate human understanding of sound.

In »bb-7« the computer sounds are completely synthesized. All rhythms are played/generated at the moment. They are structured with an abstracted pattern-sequencer that can generate recursive patterns, where each stepp can trigger time-scaled versions of the parent pattern. It is controlled with a force-feedback joystick, so that each type of sound has a different "feel" in the joystick. As an added bonus the joystick will move by itself.

ATT – acoustical table tennis
for 8 speakers, 1 table tennis ball and computer
Georg Holzmann
2004

In ATT the sound materials are live sampled table tennis balls. Also, the compositional rules are derived from table tennis rules. The speakers are divided into two players (one player at the right, one at the left side) and they are controlled via specific probability functions (markov chains). The match is over if one player reaches 21 points (like in the original game rules). The current points of the players are displayed on a very large screen. The space acts as an additional dimension to the piece: the table tennis field is enlarged acoustically and the listener can walk through this field hearing the "acoustic balls" flying from one player to the other.

In contrast to a "real" table tennis match more and more balls are sampled during the course. So a very complex sound network gets spread over the room. The exciting thing: You never know in advance which player will win and how much time he will need to beat the opponent!

This project is realized explicitly with open source software under Linux. For audio-synthesis, generating the video-display and all the program logic I used PD (Pure Data) and for some things C. For the live-sampling I built a transparent pipe with an integrated microphone. So you can see the table tennis balls springing inside the pipe when they get sampled.

Boundless Space

tape composition
John ffitch
2003

»O God! I could be bounded in a nutshell, and count myself a king of infinite space, were it not that I have bad dreams« - William Shakespeare from Hamlet

This piece explores the sounds of Richard Boulanger's »Trapped in Convert«. The instruments are being played in the same order and proportions, but the timing, pitches, and durations and other parameters are chosen by values generated by the Henon (chaotic) equation.

The piece opens with a short quotation from the start of »Trapped in Convert« to set the scene, and there is a further quotation after about 200 seconds, but the near-repetitions of the Henon equation dominate the work. A short, three note motif emerges from the process and dominates the closing moments.

The question that lies behind the work, and the Hamlet quotation, is: are we really in boundless space or just trapped in a nutshell? Is this reality or just bad dreams?

Audio Fractal

for 2 computers and video
Joachim Goßmann
2005

One of the fields in which sound touches other disciplines in an interestingly jarring way is sonification – the acoustical representation of data.
In this piece iteration paths of complex numbers are represented through sound and image – can we hear something we can not see?

The piece is played and rendered in real-time on two computers, one for the graphics rendering and the other for the sound. No previously recorded sounds and images are applied. The graphics and the playing infrastructure of the piece are realised in JAVA, the sound is controlled via OSC network messages and is rendered by SuperCollider3. Rather than as a piece of music, it should be regarded as a glimpse into a workshop – towards spatial audio architectures and user interfaces.
An interactive installation of the same name and topic is displayed at the ZKM | Media Museum where it can be explored by the visitors.

Imagines Fragosi Minorum

interactive sound performance
Marije Baalman
2005

The piece is an improvisation, based on an environment which is created by Super Collider. I use sensors which are built into an overall. By wearing the overall I can control the musical events. Rather than using a direct mapping of the sensors, I try to create an environment where I give impulses for processes to control the musical events. The mathematics behind these processes are loosely based upon mathematical-psychological theories of the German Philosopher Johann Friedrich Herbart (1776–1841).

It is a work-in-progress for an improvised environment and not a composition in a traditional sense. The sound itself is partly created with Super Collider and partly with the Clavia Nord Micro Modular, which is controlled by Super Collider via midi.

Marije Baalman

was born in 1978 in Pingjum, Friesland, the Netherlands. She studied Applied Physics at the Technical University in Delft and graduated in February 2002 with a thesis on Perceptual Acoustics. In 2001/02 she also followed the Sonology Course at the Royal Conservatory in The Hague.

In her free time she builds electronic instruments. Currently, she is researching the appliciation of Wave Field Synthesis for composition and live performance at the Electronic Studio of the Technical University of Berlin. She composes and performs piano as well as electronic music under the pseudonym »mobs«. In her works she combines acoustic and electronic instruments.

Currently, she focuses in her musical work on creating an interface, which can be used to perform live electronic music. Till 2004 she received the DAAD scholarship, at the moment she is receiving the NaFöG-Stipendium.

Gerard van Dongen

was born in 1967. He works as a composer, musician and computer programmer in Rotterdam. In the past he played in an acoustic quintet with Bart Maris, Tom Wouters, Joe Williamson and Henk Bakker and the electro-acoustic group »Gates« with Peter van Bergen, Ann LaBerge and Henk Bakker. He plays piano and computer.

He performed solo-concerts with electronics and/or piano compositions and played for numerous dance and theatre productions in the Netherlands, produced »radio«-plays for the internet, did technical design and software programming for multimedia theater.

With his own software for forcefeedback joystick and webcam as controllers, he performs and composes music and sound. One of his recent projects was the »Pinball-machine-music«. He is customizing a pinball machine (a 1992 data-east Maverick) to work as an alternative controller/sound installation. A general-purpose computer replaces the soundboard and the codes generated by the gameplay trigger different samples/compositions that run on a linux computer.

John ffitch

was definitely born after WWII, in that part of England which is God's own county, certainly educated at an East Anglian university in the sixties, and despite his long hair and lengthening beard was never a hippie. An academic mathematician/computer scientist, for 25 years he has been at Bath, where he holds the Chair of Software Engineering, a subject about which he knows little.

Interests have been in Relativity, Planetary Astronomy, Computer Algebra and LISP, but he also dabbles widely; tank warfare, Latin poetry, Arabic linguistics, compilers, and company management, all with some lack of success. Strangely enough he won the Adams Prize for Mathematics 30 years ago. Hobbies include maintaining Csound and complaining about the Web.

Joachim Goßmann

Joachim Gossmann studied music and sound engineering at UdK in Berlin, Germany. On a DAAD grant, he visited CalArts near Los Angeles from which he graduated in 2001 in the field of New Media Composition.

After collaborating in projects at the workgroup for Virtual Environments of IMK.VE Fraunhofer IMK (formerly GMD) in Bonn, Germany, he became employed as Tonmeister at the ZKM | Institute for Music and Acoustics in Deceber 2003. As a self-inflicted developer, he is interested in the interfaces between research, sound and visuals, coming from a perspective of audio production.

Georg Holzmann

was born in 1982 in Graz, Austria. With seven years he started to learn the piano. 2001–2003 he attended composition lessons of Florian Gessler (Steirischer Herbst) and 2002–2003 he attended jazz piano and theory lessons with Harald Neuwirth at the University of Arts, Graz.

In 2002 he started to study audio engineering (focus in computer music and signal processing) at the Institute of Electronic Music (IEM) in Graz with Winfried Ritsch, Gerhard Eckel, Robert Höldrich and others. Since 2004 he is developing PD-externals and other audio open source software.

In 2004 he helped to organize the first international pd~convention in Graz (Sept./Okt. 2004) and in 2005 he received a scholarship for composition lessons with Bernhard Lang and Beat Furrer (impuls-ensembleakademie).

Georg Holzmann lives and works in Graz, Austria.

The **LAC2005** is presented by:

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Das **ZKM | Institut für Musik und Akustik** in Spring 2005:

Fr 13.05.05
An der Staffelei
Konzert für Saxophon und Elektronik
Werke von N. Kawakami, Y. Yamaguchi, D. Capyrin,
F.J. Herferth und M. Ockert
ZKM_Kubus, 20 Uhr
Eintritt EUR 5 [ermäßigt EUR 3]

Sa 28.05.05
Claudia Robles :: upDate
mit Tejo Janssen: »Butoh«
Vortrag
ZKM_Kubus, 18 Uhr
Eintritt frei

Sa/So 28./29.05. 05
Claudia Robles: SEED/TREE
Installation/Live Elektronik/Butoh Performance
ZKM_Kubus, 15–18 Uhr
Eintritt frei

Fr 03.06.05
»Ich träumte John Cage jodelnd im Züricher Hauptbahnhof«
Hörstück von Alvin Curran
ZKM_Kubus, 20 Uhr
Eintritt EUR 5 [ermäßigt EUR 3]
In Zusammenarbeit mit:

SWR2»

Do–So 09.–12.06.05
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**Lorenzstr. 19
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