Research > COMPOSING WITH PROCESS: PERSPECTIVES ON GENERATIVE AND SYSTEMS MUSIC

Generative music is a term used to describe music which has been composed using a set of rules or system. This series of six episodes explores generative approaches (including algorithmic, systems-based, formalised and procedural) to composition and performance primarily in the context of experimental technologies and music practices of the latter part of the 20th Century and examines the use of determinacy and indeterminacy in music and how these relate to issues around control, automation and artistic intention.

Each episode of the series is accompanied by an additional programme, entitled 'Exclusives', featuring exclusive or unpublished sound pieces by leading sound artists and composers working in the field.

PDF Contents:

Written and edited by Mark Fell and Joe Gilmore. Narrated by Connie Treanor. Exclusives by Marcus Schmickler and EVOL.

Mark Fell is a Sheffield (UK) based artist and musician. He has performed and exhibited extensively at major international festivals and institutions. In 2000 he was awarded an honorary mention at the prestigious ARS Electronica, and in 2004 was nominated for the Quartz award for research in digital music. He recently completed a major new commission for Thyssen-Bornemisza Art Contemporary, Vienna which premiered at Youniverse, International Biennal of Contemporary Arts, Sevilla. He is currently working on a research project at the University of York UK funded by the Arts and Humanities Research Council looking at independent practices in radical computer musics. www.markfell.com

Joe Gilmore is an artist and graphic designer based in Leeds (UK). His work has been exhibited at various digital art festivals and galleries. His recorded works have been published internationally on several record labels including: 12k/Line (New York), Entr'acte (London), Cut (Zürich), Fällt (Belfast) and Leonardo Music Journal (San Francisco). Joe is currently a part-time lecturer in the department of Graphic Design at Leeds College of Art & Design. He is also a founder of rand()%, an Internet radio station which streamed generative music. http://joe.qubik.com

COMPOSING WITH PROCESS: PERSPECTIVES ON GENERATIVE AND SYSTEMS MUSIC #2.2

Exclusives

Each episode of this series is followed by a special accompaniment programme of exclusive music by some of the leading sound artists and composers working in the field. This show presents two contrasting generative works by German composer Marcus Schmickler and Catalan group EVOL.

01. Playlist

02:00 Marcus Schmickler 'RR 0' (Revolving Realities #0), 2010 (23:43)

'RR 00' is an excerpt from a collaborative auto-reactive light and sound installation that was premiered on 19th January 2010 in Cologne. The sound component is the sonification* of astrophysical data and the simulation of dynamic systems.

The installation consisted of computer controlled electro-luminescent wires, quasi-spherical light projections and 10.2 channel audio. The light installation, its custom controllers and the light projections were created by Cologne-based group Interpalazzo. Schmickler created various musical parts especially for this collaborative work. 'RR 0' is the process running at sunset before dark, after which the light installation becomes visible.

The piece was originally conceived for 'The Bonn Patternization' - which explores the sonification of astrophysical data. The basis of 'The Bonn Patternization' consists of readings for different stars, star clusters and galaxies, as well as their properties such as light, distance and coordinates. In addition, sounds are generated from systems that arithmetically simulate astronomically relevant phenomena such as the interaction between celestial bodies due to gravitation. The process underlying 'RR 0' simulates the behavior of objects or clusters of objects in a gravity field. It is based on a visual embodiment primarily implemented in Supercollider by Fredrik Olofsson and reworked into a Subtractive Synthesis application with the help of Alberto de Campo.

25:41 EVOL 'Untitled Anthem Study', 2010 (12:37)

After reading Benoît Mandelbrot's 1982 *The Fractal Geometry of Nature* in 1998, Roc Jiménez de Cisneros became fascinated with self-similarity and iterated function systems and their possible application to musical structures. This piece, which was finished a few days after Mandelbrot's death in the fall of 2010, uses several synthesis models originally written for *Rave Slime* (ALKU, 2010) in combination with a recursive algorithm that was used in the composition *Fart Synthesis* (Presto!?, 2009).

The piece is one of many studies realised in the research process started in late 2008 to combine rave-inspired sounds with generative algorithms to explore particle physics concepts such as configuration spaces, parameter permutations and phase spaces.

*Sonification is the process of conveying information or data as sound.

02. Biographies

Marcus Schmickler

Marcus Schmickler is internationally known in various types of contemporary music. He is closely associated with the A-Musik label and in recent years he has

worked in the fields of electronic, improvised, experimental and new music as well as doing scores, radio plays and unusual pop music projects. He is a member of MIMEO and Pluramon. Schmickler has received numerous prizes and his work has been represented worldwide. He has released music with Editions Mego, A-Musik, Erstwhile, Häpna and collaborated with Thomas Lehn, Thomas Brinkmann, Keith Rowe, John Tilbury, Peter Rehberg, Felix Ensslin and Jutta Koether. His written music was performed by Schlagquartett Köln, ensemble recherche, Zeitkratzer and Staatskapelle Weimar amongst others.

EVOL

Since the late nineties, Roc Jiménez de Cisneros and his collaborators have been producing what they call 'computer music for hooligans', inspired by geometry, Physics, noise and rave culture. A vortex of generative basslines, air horns and strangely familiar vocalisations, their music displays a radical and playful approach to algorithmic composition, with works available on Entr'acte, Mego, Presto!?, Diskono, Scarcelight, fals.ch and their very own ALKU. In 2003 the group initiated an ongoing series of electroacoustic pieces entitled *Punani*, built around the implementation of generative techniques and psychedelia in what Kristian Vester defines as 'Radical Computer Music'.

Occasional EVOL members since 1996 have included Stephen Sharp, Rubén Patiño, Miguel Ferrer, Jakob Draminsky Højmark, Joe Gilmore, Ana María Ramos, and Andy Davies. The name of the project comes from Sambucus Ebulus (in Catalan, évol), a herbaceous species of elder with a characteristic foetid smell.

03. Related links

Marcus Scmickler http://www.piethopraxis.org
Supercollider http://www.audiosynth.com
Fredrik Olofsson http://www.fredrikolofsson.com/
EVOL http://www.vivapunani.org
Astrophysics Data System http://adswww.harvard.edu
Benoît Mandelbrot http://en.wikipedia.org/wiki/Beno%C3%AEt_Mandelbrot
Configuration spaces http://lesswrong.com/lw/pi/classical_configuration_spaces

04. Acknowledgements

Recorded at The Music Research Centre, University of York, UK. New Aesthetics in Computer Music research project funded by the Arts and Humanities. Research Council UK.

Special thanks to Marcus Schmickler and Roc Jiménez de Cisneros.

05. Copyright note

2010. Published under the Creative Commons licence "Attribution-No Derivative Works 3.0 Unported".