



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Each episode in the series is accompanied by an additional programme featuring exclusive or unpublished sound pieces by leading sound artists and composers working in the field.

PDF Contents:

- 01. Summary
- 02. Playlist
 - Part I
- 03. Bibliography
- 04. Related links
- 05. Acknowledgments
- 06. Copyright note

Written and edited by Mark Fell and Joe Gilmore. Narrated by Connie Treanor.

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 Biennial 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 #5.1

Duration

This episode explores the concept of duration in music. It examines the different ways that composers and musicians have explored duration in terms of both the large and small.

01. Summary

The fifth episode in the series continues to explore the idea of time in music practice, particularly in relation to duration. The show looks at how music is measured in terms of both micro and macroscopic intervals: through granular synthesis, where sound is constructed from microscopic sonic 'grains', to extended works whose duration is measured not in minutes and seconds, but years. Bringing together ideas and theories of the engineer Denis Gabor and composers Iannis Xenakis and Curtis Roads, this episode examines early tape and computer music works using granular and pulsar synthesis. The show closes with a focus on two recent treatments of time in music: by the German artist Hanne Darboven and media producer Terre Thaemlitz.

02. Playlist

Part I

- Curtis Roads 'Eleventh Vortex' (*Microsound*, MIT Press, 2002)
- Iannis Xenakis 'Analogiques A + B' (*Xenakis Complete Vol. 2 - Iannissimo!*, Vandenburg, 1997)
- Iannis Xenakis 'Concret PH' (*Electronic Music*, Electronic Music Foundation, 1997)
- Curtis Roads 'Pulsar Variations' (*Microsound*, MIT Press, 2002)
- Russell Haswell 'Maquette Augmentation' (*All Tomorrow's Parties 1.0*, ATP Recordings, 2001)
- György Ligeti 'Continuum für Cembalo' (*Continuum / Zehn Stücke für Bläserquintett / Artikulation / Glissandi / Etüden für Orgel / Volumina*, Wergo, 1988)
- Roc Jiménez de Cisneros 'Continuum Test' (unreleased)
- La Monte Young 'Trio for Strings' (unreleased live recording by Trio Basso)
- La Monte Young 'Drift Study 31 1 69' (*Aspen No. 8*, Aspen, 1967)
- Hanne Darboven 'Requiem Opus 19' (unreleased)
- Hanne Darboven 'Opus 17a' (Produced in association with the exhibition *Kulturgeschichte 1880-1983, 1980-83* at Dia Center for the Arts, March 28, 1996-June 29, 1997)
- Terre Thaemlitz 'Meditation on Wage Labor and the Death of the Album' (unreleased)
- Terre Thaemlitz 'Systole 008' (*Interstices*, Mille Plateaux, 2000)

03. Bibliography

- Dan Adler, *Hanne Darboven: Cultural History 1880-1983*. UK: Afterall, 2009.
- Milton Babbitt, *The Collected Essays of Milton Babbitt*. Princeton, New Jersey: Princeton University Press, 2003.
- Anne Draffkorn Kilmer, 'A Music Tablet from Sippar: BM 65217 + 66616, *Iraq*, vol. 46, no. 2. British Institute for the Study of Iraq, 1984, pp. 69-80.



[Curtis Roads, 2011]

Andrew Clay McGraw 'Different Temporalities: The Time of Balinese Gamelan'. Richmond, Virginia: University of Richmond, 2008.

Martin R. L. Clayton, 'Free Rhythm: Ethnomusicology and the Study of Music without Metre', *Bulletin of the School of Oriental and African Studies*, 59. 1992, pp. 323–332.

Martin R. L. Clayton, 'Time, Gesture and Attention in a Khyat Performance', *Asian Music*, vol. 38, no. 2. Texas: University of Texas Press, 2007.

R. L. Crocker and Anne Draffkorn Kilmer, 'The Fragmentary Music Text from Nippur', *Iraq*, vol. 46, no. 2. British Institute for the Study of Iraq, 1984, pp. 81–85.

Dimitris Exarchos, 'Inside/outside-time: Metabolae in Iannis Xenakis's Tetora', in Makis Solomos, Anastasia Georgaki, Giorgos Zervos (ed.), *Definitive Proceedings of the International Symposium Iannis Xenakis*. London: Goldsmiths College, University of London, 2005.

Dimitris Exarchos 'Iannis Xenakis's Writing and Outside-time Musical Structures', *Proceedings of the Fourth Conference on Interdisciplinary Musicology*. London: Goldsmiths College, University of London, 2008.

Roc Jiménez de Cisneros 'Continuum, Expanded'. Self-published essay. Barcelona, 2011.

Valerie L. Hillings, Wolfgang Marx, *Hanne Darboven: Hommage à Picasso*. USA: Guggenheim Museum Publications - Har/Com edition, 2006.

Peter Lynds, 'Time and Classical and Quantum Mechanics: Indeterminacy vs. Discontinuity', *Foundations of Physics Letters*, vol. 16, no. 4, 2003.

Peter Manning, 'The Influence of Recording Technologies on the Early Development of Electroacoustic Music', *Leonardo Music Journal*, vol. 13. Cambridge, Mass: The MIT Press, 2003, pp. 5–10.

Jean Molino, 'Towards and Evolutionary Theory of Music and Language', *The Origins of Music*. Cambridge, Mass.: The MIT Press, 2000.

Bruce Richman, 'How Music Fixed Nonsense into Significant Formulas: on Rhythm, Repetition and Meaning', *The Origins of Music*. Cambridge, Mass.: The MIT Press, 2000.

James Tenney and Larry Polansky, 'Temporal Gestalt Perception in Music', *Journal of Music Theory*, vol. 24, no. 2. Durham: Duke University Press, 1980.

Karl H. Worner, *Stockhausen: His life and Work*, (trans. and ed.) Bill Hopkins. Berkeley: University of California Press, 1973.

Iannis Xenakis, *Formalized Music: Thought and Mathematics in Composition*, *Harmonologia Series*, no. 6. Pendragon Press, 1992.

Iannis Xenakis, *Kéleütha (Ecrits)*. Paris: L'Arche, 1994.

04. Related links

Hanne Darboven
www.diacenter.org/exhibits/darboven/project/

Hanne Darboven on Ubuweb
www.ubu.com/sound/darboven.html

Terre Thaemlitz
www.comatonse.com/thaemlitz/profile.html



[Russell Haswell]

La Monte Young / Mela Foundation

<http://melafoundation.org>

La Monte Young 'Trio for Strings'

<http://closetcurios2.blogspot.com/2008/03/tones-extra-long.html>

'Trio for Strings' score

<http://homepage.mac.com/dtoub/blog/C1162157567/E20080308122050/index.html>

La Monte Young 'Druft Study'

www.ubu.com/aspen/aspen8/audio8.html#drift

Hanne Darboven 'Requiem'

www.hanne-darboven-70.de/index.php?show=download

05. Acknowledgements

Special thanks to Curtis Roads, Russell Haswell, Terre Thaemlitz and Roc Jiménez de Cisneros. Recorded at The Music Research Centre, University of York, UK.

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