

Grieg Academy Composition Seminar:
Composition with Various Technologies and Environments

Meets Wednesdays at 14:00 in KMD Main Building, Møllendalsveien 61, Room 4229: Media Lab/lyslabor (in some weeks we will also meet at John Lunds Plass or elsewhere).

This course will deal with basics of music composition with various technological frameworks and environments. Classes will be weekly with individual consultation with individuals over the course of the term. Students will learn to work in a digital workstation environment with reaper and max, to record and analyze sound with Spear, AudioSculpt and max/MSP to use plugins, be able to work with MIDI environments combining max and reaper and to be able to interweave recorded with live sound in an electroacoustic environment.

Besides bi-weekly assignments students will write a final piece for percussion/ environmental sounds/instruments and/or voice(s) and electronics employing reaper and max. These pieces will be performed in the context of the JAM project and possibly in an additional workshop concert. In addition, students will be given listening assignments and be asked to respond in writing. We will discuss the various aesthetic issues of electroacoustic composition: students are also expected to present detailed analyses of their own work, focusing on aesthetic issues and how the various technologies affect their compositional process.

Please bring to the seminar:

- 1) A notebook
- 2) Music paper
- 3) A computer

The relevant software will be made available at the Grieg Academy/KMD.

Marking is as follows:

Analysis Assignments: 33%

Composition Assignments: 33%

Final Project: 34%

Course Policies

- 1) Students are expected to attend all meetings regularly and punctually.
- 2) Please always bring music paper (in notebook form) and a notebook with you.
- 3) Reading and listening assignments should be completed before the relevant class. Success in the course is directly related to regular attendance and timely completion of all requirements.
- 4) Assignments are to be submitted in-class on the due date.
- 5) If you borrow a library score from the møterom at John Lunds plass, please indicate which score you are borrowing by signing it out (a sheet is behind the door).
- 6) The office of Dániel Péter Biró is a private office and all materials therein should be treated as such.
- 7) Please refer to university guidelines about sources and citations. See: <https://www.uib.no/en/education/49058/use-sources-written-work>
- 8) Are you a student with a learning disability, ADHD, mental health issue or long-

term recurring physical or sensory disability? Do you have chronic health issues? Suggestion: students with special needs should register with the Division of Student Affairs and coordinate accommodations with the supervisor: <https://www.uib.no/en/sa/48887/services-students-disabilities>

- 9) Respectful, honest and open communication is expected to facilitate the successful completion of the course.
- 10) Some changes in course content and schedule may occur.

Part One - History and Aesthetics of Electroacoustic Music

History of electroacoustic music, aesthetics of electroacoustic Music, studio orientation; working with microphones and recording equipment

Analysis: Stockhausen: *Studie II, Kontakte*, Pauline Oliveros: *Bye Bye Butterfly*

Readings: Walter Benjamin: *The Work of Art in the Age of Mechanical Reproduction*

Jean-Claude Risset: Foreword to *Electroacoustic Music*

Karlheinz Stockhausen: *Four Criteria of Electronic Music*

Heidi Von Gunden: *The Music of Pauline Oliveros*

C.K. Koenigsberg: *Karlheinz Stockhausen's New Morphology of Musical Time*

Michael Clarke: "Extending Contacts: The Concept of Unity in Computer Music"

Assignment #1: Fixed media Composition with recorded percussion sounds (for JAM project) and/or or voice recordings/media recordings.

Part Two – Musique Concrète: Creating Music with Environmental and Synthesized Sounds

Reaper, Ableton and musique concrète recording, microphones, recording equipment

Analysis: Pierre Henry *Symphonie pour un homme seul*, Paul Koonce *Walkabout and Back*, Bernd Alois Zimmermann *Requiem für einen jungen Dichter*, Arne Nordheim *Nedstigningen, Epitaffio*, John Oswald *Plunderphonic*

Readings: Jacques Attali: *Noise*

Dodge and Jerse: *The Acoustics and Psychoacoustics of Music*, Chapter 2

John Oswald: "Plunderphonics, or Audio Piracy as a Compositional Prerogative"

<http://www.plunderphonics.com/xhtml/xplunder.html>

Assignment #2: Musique concrète field recording; musique concrète etude

Part Three – Acoustics and Psychoacoustics of the Recorded Voice/Recorded Instrument

Studio Tutorial, routing, recording and file management, analysis of timbre and spectra using max and AudioSculpt, frequency modulation, speed variation and cross synthesis, recording and simulating voices and instruments

Analysis: Milton Babbitt *Philomel*, Karlheinz Stockhausen *Gesang der Jünglinge, Mantra*, Gerald Grisey *Modulations*, Tristan Murail *Désintégrations*, Chaya Czernowin, *Shu Hai Practices Javelin*, Hans Tutschku *Irrgärten*, Richard Barrett *Dark Matter*

Reading: Richard Kostelanetz: *Notes on Milton Babbitt as Text Sound Artist*

Dennis Smalley: *Spectro-Morphology and Structuring Processes*

Hans Tutschku: "Using The Iphone For Live-Electronics In My Composition *Irrgärten* For Two Pianos"

John Chowning: *The Synthesis of Complex Audio Spectra by Means of Frequency Modulation*

Assignment #3: Spectral composition with voice samples processed and analyzed with AudioSculpt

Part Four–Working with MIDI; Live-Electronics

MIDI, notation and the audio workstation, controlling consoles with Reaper and max, introduction to Max8 and object-oriented programming, Supercollider (Tijs Ham)

Analysis: Luigi Nono *Post Praeludium per Donau, Omaggio a György Kurtág*, Brian Ferneyhough *Time and Motion Study III*, Kaija Saariaho *Jardin Secret I*, Natasha Barrett *Sagittarius A**

Readings: *Live-Electronic Music: Composition, Performance, Study*, Friedemann Sallis, ed.

Brian Ferneyhough: *Collected Writings*

Assignment #4: Composition combining live and recorded voice and synchronization

Part Five–Working with Max and Pro Tools: Making a Shadow-Voice/Shadow-Instrument

Speed variation, delays, looping, buffers, realtime sound processing

Analysis: Steven Kazuo Takasugi *Sideshow*, Alvin Lucier *I am Sitting in a Room*

Readings: Steven Kazuo Takasugi: *Strange Autumn, An Attempt at an Interpretation*, Wieland Hoban: *Poems*

Christopher Ballantine: *Towards an Aesthetic of Experimental Music*

Assignment #5: Composition combining live and processed voice/instruments/objects using fixed media and Max

Part Six–Final Composition with Voice and Electronics

Continuation with max, speaker placement; using acoustic resonance and various microphones and various loudspeaker setups, more work with parameters, envelopes and patterns in max and Supercollider (Tijs Ham)

Analysis: Dániel Péter Biró *Simanim (Signs/Traces)*, *Udvarim Achadim, Mishpatim (Laws)*, Marta Gentilucci *(On) The Other Side of The Skin – Lullaby*

Readings: Daniel Libeskind; *Between the Lines*, Paul Celan: *Poems*

Final Piece: Work on composition with voice(s)/instrument(s) using Reaper/Max/ with multiple microphone, multi-track, surround sound setup