

Music 154: History of Electronic Music

(a.k.a. Composition and Performance of Instrumental Music with Electronics)

Stanford University

Spring 2011 Syllabus

Instructor: Bruno Ruviaro (ruviaro@stanford.edu)

Teaching Assistant: Leah Reid (leahreid@stanford.edu)

Meeting Time: Mondays 3:15 pm - 5:05 pm.

Meeting Location: Knoll 217 (CCRMA Classroom)

Office Hours: Tuesday 11am-12pm, or by appointment

Class Website: <http://ccrma.stanford.edu/courses/154/>

Class description:

What is electroacoustic music? Acousmatic, computer music, algorithmic composition, tape music, glitch, electronic, musique concrète, noise, laptop performance, DJ culture, organized sound... This course will provide a brief historical survey of electronic and electroacoustic music and discuss some of the most salient questions associated with it, from both a compositional and musicological point of view. Topics to be covered include: possible definitions of musical sound and musical instrument; Schaefferian theory and musique concrète; serialism and elektronische Musik; tape music and computer music in the USA; analysis of electroacoustic music; sampling and intellectual property; algorithmic and computer-aided composition; live-electronics and improvisation. The course does not require previous experience in the field. Classes will be based on discussion of selected listening and reading materials, as well as hands-on electroacoustic fun with sounds.

Student evaluation:

20% attendance and class participation;

10% first listening report (minimum 300 words, due April 11);

20% second listening report (minimum 600 words, due April 25);

50% final project: experimental podcast (exactly 300 seconds, due May 23).

March 28, 2011 – In the beginning

What is a “musical” sound? What happened with musical sounds in the 20th century? Early electronic instruments: Telharmonium, Theremin, Ondes Martenot, Trautonium. Composing “inside” and “outside” the sound. New sounds and new grammars. Luigi Russolo, Edgar Varèse, John Cage.

April 4, 2011 – Turntables (starting *with scratch*); Acousmatic Listening vs. Memory

Musique concrète. Recording and editing found objects. Turntables and tape machines. A glimpse at Schaefferian Theory: reduced listening, acousmatic, *objets sonores*, abstract vs. concret, the four types of listening. *Solfège de l’objet sonore*. The Acousmonium; spatial diffusion as performance. Schaeffer, Henry, Bayle, Parmegiani. DJ Spooky, Christian Marclay, 'avant-turntablism'.

April 11, 2011 – Sine Waves (starting *from scratch*); Sine Waves and Early Synthesizers

Serialism and *elektronische Musik*. Spatialization as a compositional parameter. Analog and digital. Synthesis techniques: quick demo. Computer music origins: Bell Labs, University of Illinois. Early commercial synthesizers. Institution- and home-based studios. Stockhausen, Xenakis, Ligeti. Max Mathews, John Chowning, Jean-Claude Risset. Morton Subotnick. Wendy Carlos, Isao Tomita.

April 18, 2011 – Human Voice

Text-sound pieces. Issues of text recognizability. Speech and music. Sound poetry. Radio art. Language and verbal meaning. Music and politics; engaged pieces. Eimert, Berio, Dodge, Lansky. Glenn Gould. Kraftwerk, Bob Ostertag, Dolly Parton via John Oswald, Autotune.

April 25, 2011 – Beat

Intersections, tangents, parallels between experimental and popular electronic music: Electronic Dance Music (EDM), Intelligent Dance Music (IDM). Origins of house and techno in the 1980s; origins of glitch and noise in the 1990s. Genres and sub-genres and sub-sub-genres: artificiality and naturalness of over-compartmentalization of styles. Kraftwerk, early Chicago DJs, Ikeda, Oval, Autechre, Aphex Twin, DJ Spooky.

May 2, 2011 – Analysis, Notation, Scores, Live Visuals, VJs

Creative and analytic connections between electronic music and various types of graphical visualizations. How to analyze electronic music? Comparison between analyses of score-based and scoreless musical pieces. Is there “notation” in electroacoustic music? Notation versus *écriture*. Descriptive and prescriptive scores. Listening scores. Score following. Xenakis and the UPIC. Dynamic scores and other types of alternative computer-based notation. Live visuals in experimental and dance electronic music.

May 9, 2011 – Sampling and Intellectual Property

Musical borrowing in electroacoustic music. Intellectual “impropriety”: sampling and issues of ownership and authorship. Accessibility and diffusion of recorded music. Plunderphonics. Creative musical recycling. Sampling and concatenative synthesis. Collective composition. Sampling in Hip-Hop and DJ culture. Oswald, Stockhausen, Negativland, Hip-Hop (Biz Markie case), GirlTalk.

May 16, 2011 – What is an Electronic Musical Instrument?

From Theremin to Laptop Orchestras. Back to Schaeffer and turntables. Sound, presence, movement, history. Relationship with audience. Laptop as meta-instrument. Max Mathew's “Lektrowsky's Will”. Monolake: multichannel dance music. Networked performances.

May 23, 2011

Final Project Presentations [Extended session?]

May 30, 2011

NO CLASS (Memorial Day)

Reference readings:

Chadabe, Joel. *Electric sound: the past and promise of electronic music*. Upper Saddle River, NJ: Prentice Hall, 1997.

Cox, Christopher; Warner, Daniel (Eds.). *Audio culture: readings in modern music*. New York: Continuum, 2004.

Holmes, Thom. *Electronic and Experimental Music*. New York: Routledge, 2008 (Third Edition).