Music, Art, and Biology: Critical Analysis and Creative Response
Courtney Brown

Class Description

This course looks at the relationship between biology, art, and music. We will examine scientific research, essays by artists and composers, and conduct informal experiments. You will be expected to respond to the material in class with music compositions and creative work that engages the topics.

Assessment

Listening and reading projects will be assigned for each class. Most of the readings will be posted online, and the rest will be on reserve in the library. There will be no required textbook. There will be regular pop quizzes in class on the reading and listening, and four creative projects. There will be no make-up quizzes, but lowest quiz grade will be dropped. Classroom participation is required, and lack of participation and attendance will result in a lowered grade.

Grading

10% Class participation and discussion
10% Pop quizzes
40% Assignments
40% Final Project

Assignments

Assignment 1: Bird song

Part 1: Provide an analysis of bird song. You may use traditional musical notation, or a notation of your own devising. If you use your own notation, you must provide a key and explanations for it.

Part 2: Compose a 30 second piece based on the bird song you analyze. You may use the same structure of the birdsong, the same melody, or you may even use the sample in an electro-acoustic work. Provide a short description of the work that answers the following questions: How did you incorporate bird song into your work? Why did you choose this method? How is your piece different from bird song?

Assignment 2: Music Cognition/Perception

Part 1: Research an aspect of cognition, perception, human psychology, or the voice. Eg. auditory illusions. Write a description of your findings. Do not forget to cite your sources. 250-500 words.

Part 2: Compose a 30 second piece of music that engages with the topic that you have chosen. Provide a short description of the work that answers the following questions: How does your work engage this topic? What elements, specifically, contribute to the effect? In your opinion, how transparent is your treatment of the concepts? How reliant is this piece on the conceptual
framework? How might this piece be misread? What are the consequences of such a misinterpretation?

Assignment 3: Conduct an informal “breaching experiment”. Violate a social norm, and then write about your experience. What did it mean to break the social norm? Why did you choose that particular transgression? What were the reactions of the other people? Can you justify your actions in an artistic context? Why or why not? Aim for around 500 words.

FINAL PROJECT:
Create a piece of art or music that engages biological ideas and elements.

Part 1: Proposal – Write a formal proposal for your project. Describe your project and how it engages with biology. Place it in the context of the work we discussed in class (or what we will go over in the future). Create a timeline for its completion.

Part 2: Progress Report and Artist Statement – Describe your progress thus far. Have you encountered any problems? Write an essay describing the biological and/or psychological concepts and ideas that your project engages. This essay should be around 1000 words.

Part 3: Completed Project. Give a 10-minute presentation showing or performing your work and explaining why you created it.

Introduction

Week 1: What is music?

Reading:

- Excerpts from Cage, John (1961), *Silence*
- Experimental Music
- Music Lover's Field Companion

Unit 1: Music, Sound, and Animals

Week 2: Birds and Song

Reading:


Listening:

- Ottorino Respighi, *Pines of Rome*
- Olivier Messiaen, *Oiseaux exotiques*
  - Reference: http://www.oliviermessiaen.org/birdsongs.html
- Ron Nagorcka, *Cockatoo*
Gyorgy Ligeti, *The Cuckoo and the Pear Tree'*

**Week 3: Other animals! Whales, Wolves, etc.**

Reading:

Listening:
- George Crumb, *Vox Balaenae*
- Alan Hovhaness, *And God Created Great Whales*
- Judy Klein, *The Wolves of Bays Mountain*

Bird Assignments Due: Present and Discuss

**Week 4: Monkeys and Other Primates**

Reading:
- McDermotta, Josh and Marc D. Hauser. (2006). Nonhuman primates prefer slow tempos but dislike music

Reference: [http://www.guardian.co.uk/world/2003/jun/16/arts.artsnews](http://www.guardian.co.uk/world/2003/jun/16/arts.artsnews)

^ No Chump Change for Chimp Art. (2005) All Things Considered. NPR


**Unit 2: Humans and Music**

**Week 5: Music Cognition and Perception**

Reading:

Listening/Watching:
- James Tenney, *For Ann* (rising)
- MaryAnne Amacher, *Dense Boogie 1*
- Tony Conrad, *Ten Years Alive on the Infinite Plain*
  Reference: http://www.youtube.com/watch?v=7yCHstLAChs
- David Rosenboom, *On Being Invisible II* (*Hypatia Speaks to Jefferson in a Dream*)

Final Project Part 1: Final project proposal DUE

**Week 6: Humans and the Voice**

Reading:
- Williams, Carl E. and Kenneth N. Stevens (1972) *Emotions and Speech: Some Acoustical Correlates*
- Selections from Moore, Brian C.J. (2003) *An Introduction to the Psychology of Hearing*, Chapter 9, on the speech signal

Listening:
- Joan La Barbara, *ShadowSong*
- Trevor Wishart: *Tongues of Fire*
- Amy X, *Tattoo Song*
- Björk, *Mouth’s Cradle*

Assignment 2 DUE

**Week 7: Music and Language**

Reading:
  Reference: http://www.msu.edu/user/sullivan/AdornoMusLangFrag.html
Listening:

  Chris Mann
  
  Amanda Stewart

Machines for Making Sense

Kurt Schwitter, UrSonata

Missy Elliot, Get your freak on

Lauryn Hill, Doo Wop (That Thing)

Software:

  Speech Analyzer - computer program for acoustic analysis of speech sounds.


Final Project Part 2 DUE: Artist Statement & Progress Report

Week 8: Human as a Social Animal: Social norms and Transgressive Art

Reading:

  Solomon Asch, (1955) *Opinions and social pressure*.
  Selections from *Antennae* (2008) Issue 5, pp. 30-52
    - Marco Evaristi: Helena
    - The Goldfish Thread
    - The Death of the Animal

  Reference: http://www.antennae.org.uk/

Reading/Watching:

  Chris Burden, *Documentation of Selected Works 1971-74* (on UbuWeb)
  Marco Evaristi, *The Goldfish Blender*
  GG Allen, *PUBLIC ANIMAL #1*
  Aliza Shvarts, reading Yale Daily News:
    http://www.yaledailynews.com/articles/view/24559

Assignment 3 DUE

Week 9: Humans and the Body

Reading:

  Johnson, Mark and Tim Rohrer. (2007) *We Are Live Creatures: Embodiment, American Pragmatism, and the Cognitive Organism*
  Excerpts from Lakoff (1999) *Philosophy In The Flesh: the Embodied Mind and Challenge to Western Thought*
Schroeder, Franziska. (2004). The old and the new and the new old: A conceptual approach towards performing the changing body”
Reference: http://www.hz-journal.org/n7/schroeder.html

Reference: http://www.ctheory.net/articles.aspx?id=71

Watching:
- Stelarc, Ping Body
- Stelarc, Stomach Sculpture
- Marina Abramovic, Rhythm 10
- Marina Abramovic, Freeing the Voice
- Matthew Barney, Drawing Restraint
- Tatsumi Hijikata, A Girl
  Reference: http://www.youtube.com/watch?v=yRuAcGHdM8A

**Week 10: What does it all mean?!**
Selections from Kac, Eduardo, ed. (2006) *Signs of Life: Bio Art and Beyond*
  Introduction (Eduardo Kac),
  Semi-Living Art (Chapter 15, Catts and Zurr);
  The Art of Unnuatural Selection (Chapter 23, Ballengee)

Watching:
- Denise King, bacterial aesthetics
  Reference:
  http://www.flickr.com/photos/mallen/sets/72157603518214867/
- Meart, the semi-living artist
- SymbioticA, *Still, Living* Exhibition

Final Project DUE: Present and/or perform