Music XX
Introduction to Evolutionary Musicology
Dartmouth College
Fall, 2008
Professor John Arroyo

Class Description
This class is designed to explore the work that has been done on finding the origins of music and how the brain has evolved to handle the processing of music. Issues of language and language processing will also be discussed. Students are expected to have a strong background in one of these disciplines: music, musicology, neuroscience, psychology, biology, or linguistics.

This class gives an introduction to the emerging fields of Evolutionary Musicology & Biomusicology. It also explores the connections between language, music, and the brain as found in other disciplines such as neuroscience. Many of the topics discussed are theoretical and tend to raise more questions than answers. We will look to the reading materials and class discussions to help elucidate what is declarative and what is probable. Student at some point will have to make up his or her own mind which portions of the ideas discussed are science fact or science fiction.

Guidelines
Class will be organized as part lecture and part discussion. Finishing the readings and the homework will prepare you for the discussions. The projects are designed to reinforce the material as well as engage the students in research. Projects include a written essay and a short presentation. The topic must be relevant to the current topics in class and must include one primary source that is not in the syllabus. The essay must be 3-4 pages and the presentation 15 mins.

Students are expected to complete all the readings and homework. Participation in class discussions is mandatory and part of the grade for this class. The homeworks are 1-2 page essays on the topic assigned.

Required Books:
Origins of Music edited by Nils Wallin, Bjorn Merker, & Steven Brown
Music Language and the Brain by Aniruddha Patel

Suggested Books:
Singing Neanderthals by Stephen Mithen
Descent of Man by Charles Darwin
This is your Brain on Music by Daniel J. Levitin
Grading:
Homework – 20%
Class Participation – 10%
Project – 20%
Exams – 50%

Homework:
Assignments are due at the beginning of class the Tuesday after they are assigned.

Class Participation:
Students are required to participate in the class discussions.

Exams:
Quiz 1 - TBA
Midterm – TBA
Final – TBA

Projects:
Presentation 1 – Week 4
Presentation 2 – Week 8

Class Schedule

Week 1
Topic: Introduction to the origins of music
Required Reading: The Singing Neanderthals, Ch1-2
Assignment: How is the knowledge of the origins of music beneficial to Science? How is it beneficial to the arts? You may argue the converse in either case but you must discuss both topics.

Week 2
Topic: Is birdsong music?
Required Reading: Origins of Music, Ch 4
Optional Reading: Bird song & music: is there a connection?, interpretive birding bulletin, may/june 2002
Assignment: Argue why birdsong is or isn’t music. Use scientific and musical evidence back up your argument.

Week 3
Topic: Evolution, is music adaptation or ex-adaptation?

Required Reading: Descent of Man, Ch 4

Optional Reading: Darwin Loves You by George Levine, Ch 1

Assignment: How can evolutionary theory be applied to art music or the visual arts?

Week 4

Topic: Gestalt grouping, Monkeys

Required Reading: Music, Gestalt, and Computing (Gestalt Concepts and music, pgs 57-70)
The Origins of Music, Ch 6 (The Sound and the Fury: Primate Vocalizations as Reflections of Emotion and Thought)

Assignment: Presentation 1 (focus either on Gestalt principles or primate vocalizations)

Week 5

Topic: Rhythm & ratios in music

Required Reading: This is your Brain on Music, Ch 2 (footapping)

Optional Reading: 

Assignment: How are ratios in rhythms and tones perceived in our brain? Make references to gestalt principals.

Week 6

Topic: Origins of music and language

Required Reading: Origins of Music, Ch 3, 16

Assignment: Do you think more knowledge of the origins of music will lead to “better” music? Justify your answer using examples from the readings.

Week 7

Topic: Cognition of music and language

Required Reading: The Singing Neanderthals, Ch 5 (The modularity of music and language)
Music Language and the Brain, Ch 2-3
Optional Reading: “Brain organization for Music Processing”, Annual Review of Psychology, 2005

Assignment: Discuss how language and music are related in terms of the brain and perception.

**Week 8**

Topic: Comparative research on the origin of music


Optional Reading: Origins of Music, Ch 11 (Toward an Evolutionary Theory of Music & Language)

Assignment: Project 2 (Comparitive research, examine one concept in depth)

**Week 9**

Topic: Chompsky’s theory of language

Required Reading: Knowledge of language: It’s Nature, Origin, and Use by Noam Chompsky, Ch 1-2

Assignment: Apply Chompsky’s language theory to music.

**Week 10**

Topic: Rhythm & Intervals in language and music

Required Reading: Music Language and the Brain, Ch X


Assignment: No Assignment this week (have a beer), but do the reading!

**Additional Readings & Resources**

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