Music 320 Fall 2014: Topics in World Music:

Global Rhythm and Human Consciousness

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Classes: MacLaurin Building A168 / Tues, Fri 2:30 pm

Text: The Geometry of Musical Rhythm, by Godfried Toussaint
(note: also available in electronic version)

Grading:

video journal 10%
paper 20%
quoizes (2) 10% for each = 20%
mid-term exam 25%
final project 25%

Policy on Academic Integrity
Undergraduate Grading Scale

COURSE SUMMARY AND OBJECTIVES

Global Rhythm and Human Consciousness: The nature of human perception and production of rhythm.

We will investigate rhythm from global, cultural, cognitive and mathematical perspectives. This interdisciplinary exploration includes aspects of ethnomusicology, systematic musicology, computational ethnomusicology, cultural anthropology, and auditory neuroscience. We will discuss the origins of music, the nature of rhythm, perception of time, and the use of music and dance to enhance trance, altered states and ritual. Geographic areas of study: Africa, Latin America, India, Eastern Europe. How unique is the human capacity for rhythm and entrainment to a pulse—why can't dogs dance? What would our popular music be like today without the influence of Africa? Some hands-on opportunities to learn both African and Latin polyrhythms and to practice rhythmic improvisation.

On Reserve or in the library:

Hearing in Time, Justin London
Ethnomusicology, Jaap Kunst
The Technique of my Musical Language, Olivier Messiaen
The Music of Africa, J. Kwabena Nketia 1974
Musique et Trance (Music and Trance, Rouget)
African Rhythm and African Sensibility, Chernoff
Flash of the Spirit, RF Thompson
How Musical is Man? J Blacking
Technicians of the Sacred, Rothenberg
World History of the Dance, K. Sachs
Divine Horsemen, M. Deren
Planet Drum, M. Hart
Drumming at the Edge of Magic, M Hart
Auditory neuroscience: making sense of sound / Jan Schnupp, Israel Nelken, and Andrew King (plus the associated website)
African Art in Motion, RF Thomson
African Civilizations in the New World, Bastide
Precolonial Black Africa, Diop
Black Music of Two Worlds, John Storm Roberts 1998
Popular Music of the World, Peter Manuel

ARTICLES

Investigating the human-specificity of synchronization to music, Patel, et alia, 2008 (What nonhuman animals, if any, can follow a "beat"?)
Perception and Production of Syncopated Rhythms, Fitch and Rosenfeld (A research paper on the perception of syncopation)
Percussion and Transition, Needham: the connection between trance/altered states and percussion
Perspectives on the Standard African 12-8 bell pattern, Jerry Leake
The Faculty of Language: What Is It, Who Has It, and How Did It Evolve? Marc D. Hauser, Noam Chomsky, W. Tecumseh Fitch
When does consciousness arise?
The Cambridge Declaration on Consciousness
What do we know about African rhythm?, Koetting
An Aesthetic of the Cool: West African Dance, Thompson
A Physiological Explanation of Unusual Behavior in Ceremonies Involving Drums, Andrew Neher

LINKS

Auditory Neuroscience
NYU Music Cognition experiments
The evolution of hearing
Ifá as practiced in Cuba and Brasil
Speech Surrogates: Yoruba talking drum
Michel Camilo Trio live in Madrid: Rhythmic, but not periodic?

Schedule (please note that these entries are subject to slight variations):

Week 1 Sept 3

Introduction and Overview; what to expect, with some initial musical examples from Africa, Cuba, Bulgaria, India.
What is ethnomusicology and where did it come from? (vergleichende Musikwissenschaft)
What is computational ethnomusicology?
What is cultural anthropology?
What is consciousness? perception? cognition?
What is auditory neuroscience?
Reading: Chapt. 1, 2, 3, *Rhythmic Cognition in Humans and Animals*

What is the difference between pulse, meter, periodicity, rhythm and sycnopation? (Compare definitions in book)

What does a "random" rhythm sound like? (on a continuous time-scale vs quantized time)

Where is one? Or is there a one? Perhaps this is our Western approach.

Prescriptive vs Descriptive notation (Charles Seeger)

Options for notating rhythm:
- Traditional musical notation (shows the meter and its relation to a pulse, which is useful and familiar to musicians)
- **TUBS** notation ("Time Unit Box System) shows the "layout" of the rhythm, is useful for showing polyrhythmic relationships, and is easier for non-musicians to understand)
- Digital notation is useful for computer manipulations and testing: [1 0 0 1 0 0 1 0 0 0 1 0 1 0 0 0] is **son clave**, for example
- Geometric notation (this option shows various spacial aspects like symmetry, rotation, etc)

Mother **AFRICA** - origin of our species?
The African aesthetic vs the European aesthetic

**SPECIFICITY:** the link between specific sounds (instruments like drums) and specific rhythms; traditional rhythms are usually played on particular instruments. In a way, this is a global version of *orchestration.*

Reading: Chapt. 4, 5, 6

**AFRICA** con'td

**African Musical Examples**
What does evolution have to do with music?
What is the human ability to entrain to a pulse/rhythm? Is it unique to homo sapiens?


**video:** LISTENING TO THE SILENCE: African Cross-Rhythms (33 min)

**video:** OLIVER JONES IN AFRICA (53 min)
**video:** DUNDUN, The Talking Drum, voice of the Gods

The profound influence of Africa on Western popular music, and therefore/thereby on popular music around the world.
Also the pervasiveness of the African aesthetic in electronic dance music: **LOOPS.**

**Adzro example**

**Week 4 Sept 23**

**Reading:** Chapt. 7

**CUBA**

**Week 5 Sept 30**

**Reading:** Chapt. 8

**CUBA** con'td

**QUIZ 1** — Listening and short answer
Week 6 Oct 7  Reading: Chapt. 9.

BRAZIL

**Week 7 Oct 14**  Reading: Chapt. 10
video: TBA

**INDIA**—alap, jor, jhala—a model progression for almost any time-based artform
tala, raga

**INDIA** (Indian music concert at UVic on Sunday, October 19th)

**Week 8 Oct 21**  Reading: Chapt. 11
In-class **concert/master class** on Indian music. Guest performers: Neil Golden on tabla, David Trasoff on sarode.

**Week 9 Oct 28**  Reading: Chapt. 13
**Turkey, Bulgaria, Romania, Hungary**
QUIZ 2 — Listening and short answer

**Week 10 Nov 4**  Reading: Chapt. 14, 15
**Turkey, Bulgaria, Romania, Hungary cont'd**
guest lecturer: TBA

**Week 11 Nov 11**  Reading: Chapt. 16, 23
READING BREAK
**MIDTERM NOVEMBER 14 (AFTER READING BREAK)**

**Week 12 Nov 18**  Reading: Chapt. 26, 27
**Paper Due**  Nov 21
Altered states of consciousness, shamanism, how much can we learn from EEG and other physiological measurements of brain activity?
Listening experiments, improvisations
Contemporary composers and rhythmic approaches (Messiaan, Ligeti, Reich)

**Week 13 Nov 25**  Reading: Chapt. 28-32
Microtiming -- systematic vs random deviations from canonical patterns
**Analyzing Cuban Clave Performance**

**Video Journal due November 28**

**Week 14 Dec 2**  Reading: Chapt. 36-38
FINAL PROJECTS, in-class presentations through December 2

**Demos**
Music software: Max/MSP/Jitter, Pro Tools, sndpeek, Audacity
Randomness in pitch and rhythm: what does it actually sound like? (Max patch)
Auditory Demonstrations CD (Acoustical Society)

**Listening examples played in class:**
Edgard Varese: Ionization
Steve Reich: Drumming, Clapping Music, Music for 18 Musicians
Olivier Messiaen: Quartet for the End of Time,
Georgy Ligeti: XXX
Conjunto Folklórico Nacional de Cuba
Ilú Añá, Sacred Rhythms of Cuba
Tuvan throat singing (harmonic singing), Inuit throat singing (totally different from Tuva)

Other Videos (selections from list below):
Divine Horsemen (Haiti)
Oggún (Cuba)
From Neurons to Nirvana
Simha Arom, ethnomusicologist
Yousoun'Dour — I Bring What I Love (Senegal)