

## **Cinema for the Ear: A History and Aesthetics of Electroacoustic Music**

College of William and Mary – Music 365-2  
Tu/Th 12:30pm - 1:50pm, Ewell Hall 154

SPRING 2004

**Instructor:** Marcus Bittencourt, Visiting Assistant Professor  
**Office Hours:** by e-mail appointment (with one day notice), 110 Ewell  
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Required book: Electric Sound: the Past and Promise of Electronic Music.  
by Joel Chadabe.

This class will be an exploration of the 50-year-old art of recorded organized sound. It will be mostly centered on the study of the pioneering movements of Musique Concrète and Elektronische Musik, through readings and discussions of historical articles and essays from the 50s and 60s. These articles will be available at the course blackboard site for download.

The most important part of this class will be the guided careful audition of some of the most important pieces in the electroacoustic repertoire. Each student will be responsible for writing a short paragraph of impressions for every musical piece heard in the class. These paragraphs must be handed in weekly in installments every Tuesday.

For the final project, the students will be assigned to groups and each group will be responsible for an in-class twenty-minute presentation on a topic selected in class, with an accompanying paper to be handed in.

Grading is done in the following way:

A= 100-90    B= 89-80    C= 79-70    D= 69-60    F= 59-0

Also, you are expected to participate actively in the class discussions. Your willingness and promptness to join the discussions in class will be the most important part of your grade. Attendance is very important. You are allowed only two excused absences per semester. In other words, those two excused absences don't count against your grades (any unexcused absence will be counted even if you have no excused absences). Please tell me in advance that you will be absent. You can call me at my office, e-mail me, or have a friend tell me. I will accept excuses if you tell me when you come to the next class at the latest. You are nonetheless responsible to keep yourself up-to-date on the daily reading assignments for the class.

If you have any problems or questions, please talk to me anytime. I will be very happy to help you out.

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### **Syllabus**

#### **Week 1**

1/22 Introduction: Electroacoustic music Vs. Electroacoustic music. Towards Organized Sound. Busoni, Varèse.

reading assignments: A33, A11, \*A35\_1(p.1-15), \*A3 – Ch\_1-20

Orient-Occident (1960), *Iannis Xenakis* 11  
Ecuatorial (1934), *Edgar Varèse* 12  
Corale e Serenata (1921), *Antonio Russolo* 4'40  
Intégrales (1925), *E. Varèse* 10'20  
Poème Électronique (1958), *E. Varèse* 8

#### **Week 2**

1/27 First Experiments: The emancipation of noise and the concept of Organized Sound. Schaeffer, Ussachevsky, Luening.

reading assignments: A2, A34, \*A8, \*A22

Cinq études de bruits (1948), *Pierre Schaeffer* 16'20  
Sonic Contours (1952), *Vladimir Ussachevsky* 7'30  
Piece for Tape Recorder (1956), *V. Ussachevsky* 5'40  
Incantation, Low Speed, Invention in Twelve Tones,  
Fantasy in Space (1952-53), *V. Ussachevsky and Otto Luening* 13

1/29 Musique Concrète: Sound manipulation techniques.  
Pierre Schaeffer and Pierre Henry.

reading assignments: A27, A35appII – Ch\_26-35

Symphonie pour un Homme Seul (1950), *P. Schaeffer, Pierre Henry* 21'30  
selections from Microphone bien tempéré (1952) *P. Henry* 6  
Voile d'Orphée (1952), *P. Henry* 15'40

**Week 3**

2/3 Musique Concrète: Lutherie vs. Solfege, and the concept of Acousmatics.

reading assignments: \*A13, \*A14

Etude aux Objets (1959), *P. Schaeffer* 17'10

selections from Variations pour une porte et un soupir (1963), *P. Henry* 10

selections from Granulométrie (1967), *P. Henry* 10

2/5 Elektronische Musik: heirs of Webern and integral serialism. Eimert, Stockhausen.

reading assignments: A15, A16, A35appI

fragments from Variations op.30 (1940), *Anton Webern*

fragments from Le Marteau sans Maître (1955), *Pierre Boulez*

Fünf Stücke (1956), *Herbert Eimert* 13'40

Studie I, Studie II (1953-54), *Karlheinz Stockhausen* 13

Studien (1962), *Herbert Eimert* 8 ?

**Week 4**

2/10 Elektronische Musik: discussion of the classical techniques of additive and subtractive synthesis.

reading assignments: \*A18 – Ch\_35-44

audio demonstration

2/12 Elektronische Musik: the unity of the musical parameters.

reading assignments: A17, \*A19 – Ch\_0-0

Kontakte (1959-60), *K. Stockhausen* 34'30

**Week 5**

2/17 Electronic integral serialism and musical mathematics: failure?  
Blending the techniques.

reading assignments: A7, A35appIII

Studie II (1954), *K. Stockhausen* 3'20

Artikulation (1958), *Gyorgy Ligeti* 4

Gesang der Jünglinge (1955-56), *K. Stockhausen* 13'20

Fragments from Hymnen (1966-67), *K. Stockhausen* ?

to be rescheduled:

2/19 Musique Concrète and the Art of Listening:  
Schaeffer's Solfège de l'Objet Sonore, part I.

### Week 6

2/24 Musique Concrète: Schaeffer's Solfège de l'Objet Sonore, part II.

2/26 Musique Concrète: Schaeffer's Solfège de l'Objet Sonore, part III.

reading assignments: Schaeffer interview.

### Week 7

3/2 The fruits of Schaeffer's Solfège: the Groupe de Recherches Musicales.  
Bayle, Parmegiani, Ferrari, Malec.

reading assignments: A23, A31, A 32

Tautologos II (1961), *Luc Ferrari* 15  
La Roue Ferris (1971), *Bernard Parmegiani* 10'30  
Mavena (1957), *Ivo Malec* 10'50  
L'Inconscient de la Forme (1970) *François Bayle* 10

3/4 Other studios around the world: Italy and Belgium.

reading assignments: A35\_1(p-16-29) – Ch\_47-62

Momenti (1960) *Luciano Berio* 7'20  
Thema / Omaggio a Joyce (1958), *L. Berio* 8'30  
Dialogues for man & machine (1956), *Henk Badings* 20'40  
Scambi (1957), *Henri Pousseur* 6'30

3/9 – 3/11 Spring break

### Week 8

3/16 The electroacoustic composer par excellence: Pierre Henry.

reading assignments: \*the Book of Revelations

Tendu from Concerto des Ambiguïtés (1950), *P. Henry* 3'30  
Entité (1959), *P. Henry* 6  
Divinités Irritées and Le Couple from Le Voyage (1963), *P. Henry* 11  
Les Tarahumaras II, Le Langage and L'Etoile Mange from Fragments  
pour Artaud (1970), *P. Henry* 8'20  
Schisme from Futuristie (1975), *P. Henry* 10  
Transe from Un Tour de Babel (1999), *P. Henry* 7

3/18 Pierre Henry's l'Apocalypse de Jean.

reading assignments: Pierre Henry interviews

Apocalypse de Jean (1968), *Pierre Henry* 1h42'

### Week 9

3/23 Other studios around the world: Japan (NHK), and the USA (Columbia-Princeton)

reading assignments: A1, A25, \*A21 – Ch\_45-47, \*268-277

Olympic Campanology (1964), *Toshiro Mayuzumi* 2'30

fragments from *Kusabira* (1964), *Makoto Moroi* +- 6

fragments from *Telemusik* (1966), *K. Stockhausen* +-10'

Stereo Electronic Music no.2 (1970), *Bülent Arel* 14'30

Music for a Sacred Service (1961), *B. Arel* 3

Hyperboles (1970), *Ilhan Mimaroglu* 4'40

3/25 Synthesizers, computers, algorithmic and chance composition.  
Milton Babbitt, Lejaren Hiller, Cage.

reading assignments: A20, A9, \*A12 – \*Ch\_140-154

Composition for Synthesizer (1961), *Milton Babbitt* 11

fragments from *7 Electronic Studies* (1963), *Lejaren Hiller* (tr3+tr4) 10'20

*Aria*, with the Fontana Mix (1958), *John Cage* 10

fragment from *The Illiac Suite* (1957), *L. Hiller* 3'30

Computer Suite from *Little Boy* (1968), *Jean-Claude Risset* 4'40

### Week 10

3/30 Discussion of the Final presentation and paper projects.

4/1 Modular Synthesizers. Moog and Buchla. The San Francisco Tape Studio.

reading assignments: A10, A26 – Ch\_81-91

*The Wild Bull* (1968), *Morton Subotnick* 28'10

*I of IV* (1966), *Pauline Oliveros* 20'34

**Week 11****4/6** Projection Music vs. Live Music. Mixing traditional instruments and Electronics.

reading assignments: \*A4 – Ch\_63-80

Deserts (1968), *Edgar Varése* 24'30  
 Phonemena (1975), *M. Babbitt* 4'20  
 fragments from HPSCH (1967-69), *L. Hiller, J. Cage* 5  
 Rimes (1958-59), *Henri Pousseur* 4'10  
 Volumes (1960), *François Mâche* 13

**4/8** Mixing traditional instruments and Electronics (continuation).

reading assignments: \*A5, \*A6 – Ch\_91-107

Jazzex II (1966), *Bernard Parmegiani* 13  
 fragments from Mikrophonie I (1964), *K. Stockhausen* 10'30  
 Medium Size Mograph (1963), *Gordon Mumma* 8'30  
 Horn (1965), *Gordon Mumma* 9'40

**Week 12****4/13** Back to Computers: stochastic music. Masses of sounds: Iannis Xenakis

reading assignments: something from Formalized Music ? – Ch\_279-280

Metastasis (1955), *Iannis Xenakis* 10?  
 Concret PH (1958), *I. Xenakis* 3  
 Bohor (1962), *I. Xenakis* 21'40  
 Mycenae Alpha (1978), *I. Xenakis* 10  
 S.709 (1992), *I. Xenakis* 7'10

**4/15** The invention of digital sound and the beginning of Computer Music.  
James Tenney, Ingram Marshall, Charles Dodge.

reading assignments: A28, A29, A30 – Ch\_108-118, 173-179

Dialogue (1963), *James Tenney* 4'20  
 Phases (1963), *James Tenney* 12'30  
 The Sydsing Camklang (1976), *Jon Appleton* 7  
 Song without Words (1987), *Charles Dodge* 14'40

**Week 13**

4/20 The evolution of Computer Music, part I.

reading assignments: Ch\_119-129

Songes (1979), *Jean-Claude Risset* 18'10

Weather Report from Greenland's Icy Mountains (1974), *Ingram Marshall* 12'40

Speech Songs (1972), *Charles Dodge* 2

The Story of Our Lives (1974), *Charles Dodge* 1'20

Iddle Chatter (1985), *Paul Lansky* 9'30

4/22 The evolution of Computer Music, part II.

reading assignments: Ch\_129-139

Chreode I (1983), *Jean-Baptiste Barrière* 9'30

VOX-5 (1986), *Trevor Wishart* 6

Purity (1994), *Curtis Roads* 7'20

Sonal Atoms (1998), *Curtis Roads* 3'50

Mortuos Plango, Vivos Voco (1980), *Jonathan Harvey* 9

Ow, My Head (1996), *Christopher Bailey* 7'30

**Week 14**

4/27 Student final project presentations.

4/29 Student final project presentations.

Cinema for the Ear:

file:///home/alessi/ELECclass/mus365\_files\_B/Website/mus365/mu...

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Prof. Marcus Bittencourt  
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### **FINAL PROJECT**

For the final project, the students will be assigned to six groups and to each group one of the following six topics will be chosen. The group will be responsible for an in-class twenty-minute presentation on the selected topic, with an accompanying paper to be handed in (4 pages minimum, 6 maximum).

Topics:

- 1) Vladimir Ussachevsky — [Suite from No Exit](#) (1962) ;
- 2) Luc Ferrari — [Place des Abbesses](#) (1977) ;
- 3) François Bayle — [L'écriture Acoustique](#) (1970) ;
- 4) Morton Subotnick — [Silver Apples of the Moon, part II](#) (1967) ;
- 5) Pierre Henry — [La Reine Verte](#) (1963) ;
- 6) Pauline Oliveros — [Bye Bye Butterfly](#) (1965) ;

Items to be discussed in your projects:

- An account of the composer and his/her *modus operandi*, historical time, place, and peers.
- The place of the musical work within the context of the author's body of work and within the works of his/her peers.
- For your discussions, use the reading materials from class, materials from the library, and materials you can find on the internet (which will be plenty, including interviews and sound clips). You will have to properly acknowledge and identify the sources on your paper.
- The appropriate recordings are available on this page.



Articles from the Columbia-Princeton Electronic Music Center Archives file:///home/alessi/ELECclass/mus365\_files\_B/Website/mus365/ind...

Cinema for the Ear: A History and Aesthetics of Electroacoustic Music

Music 365-02 - SPRING 2004

Tu/Th 12:30pm - 1:50pm, Ewell Hall 154

[Prof. Marcus Bittencourt](#)

## Articles from the Columbia-Princeton Electronic Music Center Archives

- |    |   |         |
|----|---|---------|
| 1  | <a href="#">Afterward Random Thoughts on Creative Collaboration with Machines</a><br>Vladimir Ussachevsky                             | 1 – 2   |
| 2  | <a href="#">Postlude: The Old and the New are the Same</a><br>Otto Luening  |         |
| 3  | <a href="#">Conversation with Varèse</a> (Perspectives of New Music)<br>Gunter Schuller   | 4 – 6   |
| 4  | <a href="#">Why Modern Music Looks Strange</a> (Bandwagon)<br>Gordon Mumma  | 7 – 12  |
| 5  | <a href="#">On the Newly Acquired Status of Music</a> (Columbia University paper)<br>Ilhan K. Mimaroglu                               | 13 – 22 |
| 6  | <a href="#">Aesthetic Direction in Electronic Music</a> (The Western Humanities Review, vol. XVIII no.4, Autumn 1964)<br>Jon Appleton | 23 – 28 |
| 7  | <a href="#">Electronic Music</a> (Tape Recording Magazine, vol. 14, no.1, December 1966)<br>Vladimir Ussachevsky                      | 29 – 31 |
| 8  | <a href="#">Music in the Tape Medium</a> (The Juilliard Review, Spring 1959)<br>Vladimir Ussachevsky                                  | 32 – 36 |
| 9  | <a href="#">The Two Extremes of Avant-Garde Music</a> (New York Times Magazine, January 15, 1967)<br>Richard Kostelanetz              | 37 – 42 |
| 10 | <a href="#">Electronic Music: Untouched by Human Hands</a> (The Reporter, vol.16, Apr 1957)<br>Roger Maren                            | 43 – 44 |
| 11 | <a href="#">Waves of Melody</a> (MD, June 1959)   | 46 – 48 |
| 12 | <a href="#">The Revolution in Sound: Electronic Music</a> (Princeton Magazine, Spring 1960)<br>Milton Babbitt                         | 49 – 52 |
| 13 | <a href="#">The Place of Electronic Music in the Musical Situation</a> (Northwest German Broadcasting System, 1954)<br>Herbert Eimert | 54 – 61 |
| 14 | <a href="#">What is Electronic Music?</a> (Die Reihe, vol.1, 1955)<br>Herbert Eimert  | 68 – 72 |
| 15 | <a href="#">Studio Technique</a> (Die Reihe, vol.1, 1955)<br>Gottfried Michael Koenig   | 7       |

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| 16 | <a href="#">The Third Stage</a> (Die Reihe, vol.1, 1955)<br>H.H. Stuckenschmidt   | 75 – 76   |
| 17 | <a href="#">Actualia</a> (Die Reihe, vol.1, 1955)<br>Karlheinz Stockhausen  | 77 – 81   |
| 18 | <a href="#">The Concept of Unity in Electronic Music</a> (Perspectives of New Music, Fall 1962)<br>Karlheinz Stockhausen  | 82 – 88   |
| 19 | <a href="#">Electronic Music</a> (1959)<br>Jack Holloway  | 89 – 103  |
|    | Part I            89 – 92   |           |
|    | Part II          93 – 97  |           |
|    | Part III        98 – 103  |           |
| 20 | <a href="#">This Man is Composing Music</a> (Science Digest, February 1965)<br>Bruce H. Frisch  | 104 – 106 |
| 21 | <a href="#">Applications of Modern Technology in Musicology, Music Theory, and Composition</a> (1968)<br>Vladimir Ussachevsky   | 107 – 114 |
| 22 | <a href="#">The Processes of Experimental Music</a> (Journal of the Audio Engineering Society, July 1958)<br>Vladimir Ussachevsky   | 116 – 122 |
| 23 | <a href="#">Tape Techniques</a> (1964)<br>Vladimir Ussachevsky  | 123 – 149 |
| 24 | <a href="#">An Introduction to the R.C.A. Synthesizer</a> (Yale Journal of Music Theory, Winter 1964)<br>Milton Babbitt   | 150 – 157 |
| 25 | <a href="#">What is Electronic Music?</a> (Radio-Electronics, June 1965)<br>James Seawright   | 158 – 160 |
| 26 | <a href="#">Electronic Music – Its Composition and Performance</a> (Electronics World, Feb 1967)<br>Robert A. Moog  | 161 – 166 |
| 27 | <a href="#">fragment from “The Application of Recording Techniques to the Production of New Musical Materials and Forms: Applications to Musique Concrète ”</a><br>(L’Onde Électrique, 1954)<br>Jacques Poullin | 167 – 172 |
| 28 | <a href="#">The Digital Computer as a Musical Instrument</a> (Science, November 1963)<br>M. V. Mathews  | 173 – 177 |
| 29 | <a href="#">Computer Synthesis of Musical Sounds</a> (The Rockefeller University Review, Nov-Dec 1965)<br>J. R. Pierce  | 178 – 183 |
| 30 | <a href="#">A Brief Description of the Music V Program</a><br>R. F. Moore   | 184 – 186 |

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33	<a href="#">An Unfinished History of Electronic Music</a> (Music Educators Journal, Nov. 1968) Otto Luening	194 – 200
34	<a href="#">Pioneers in Creative Tape</a> (Tape Recorder Magazine, January 1960) Stark Auringer	206 – 208
35	<a href="#">Report to the Rockefeller Foundation</a> (1959) Otto Luening and Vladimir Ussachevsky	210 – 308
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36	The Solfege of the Sound Object (INA-GRM, 1967, reedited 1998) Pierre Schaeffer <a href="#">Complete Text</a> <a href="#">Audio Examples</a>	