

Lecture 2 – Music and Numbers

1. Pythagoras

Everything is number

Concept of unity
Symmetry | Balance | Proportion

2. Medieval and Renaissance Musical Practice

Mensural notation
Canon
Prolation Canons

3. Overtone Rhythms

Henry Cowell *New Musical Resources* [1919? Published 1930]

Chapters

1. Tone Combinations

The Influence of Overtones in Music [📖 - *New Musical Resources*]
Polyharmony
Tone-quality
Dissonant counterpoint

Rhythm translated into pitch [📖 - *New Musical Resources*]

2. Rhythm

Time [📖 - *Overtone Rhythms: Exs. 1, 1a, 2, 2a*]
Metre
Dynamics
Form
Metre and Time Combinations
Tempo
Scales of Rhythm

3. Chord-Formation

Building Chords from Different Intervals
Tone clusters

4. Pitch Organisation

Schönberg - classic serialism [📖 - *Serial Sets: Ex 1-3*]

Berg - melodic serialism [📖 - *Serial Sets: Ex 4*]

Webern - motivic serialism [📖 - *Serial Sets: Ex 5-7*]

Natural Laws

Tonality/Atonality : Consonance/Dissonance [📖 - *The Path to the New Music*]
Unity through repetition
Balance through symmetry
Use of palindromes and canons [illustrations]
Preoccupation with Magic Squares [illustrations]

5. Dynamic and Articulation Organisation

Messiaen - *Etudes de Rythme* [1949-50]