#### **Lecture 3 - Time**

#### 1. ... How Time Passes...

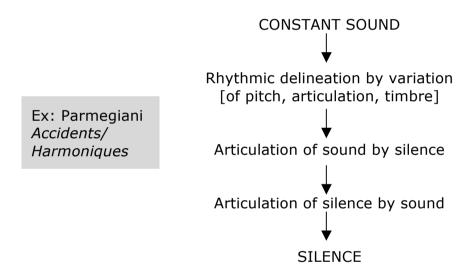
### Stockhausen - ....How Time Passes... [Die Reihe 3, 1957]

'Music consists of order-relationships in time: this presupposes that one has a conception of such time. We hear alterations in an acoustic field: silence - sound - silence, or sound - sound; and between the alterations we can distinguish time-intervals of varying magnitude.'

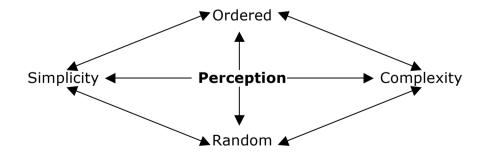
OR

'The perceptible temporal relationship of [sound] events' [PJ]

### Rhythmic Realisation



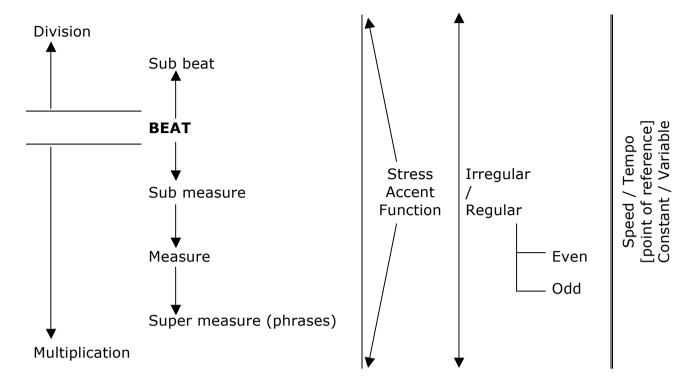
#### Rhythmic Perception



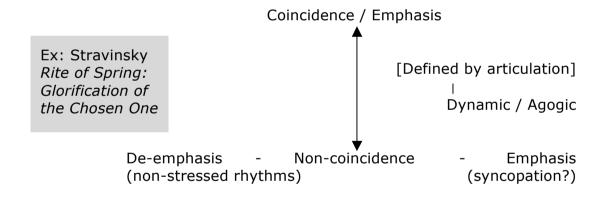
Mediated by memory...

Ex: Nancarrow Study for Player Piano No. 48

## Metrical Rhythm

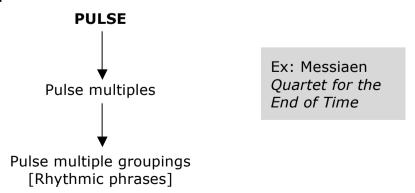


#### Function of Events



# 2. Additive Rhythm

# Levels of organisation



# 3. Structural Organisation

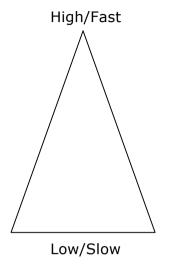
LINEAR Synchronicity [uni-directional] Clarity **MULTI-LINEAR** [poly-uni-directional] Ex: Reich Violin Phase **PLANAR** Fixed/Variable [multi-directional] time relationships [In phase/Out of phase] MULTI-PLANAR [multi-directional] Asynchronicity Obscuration

Delineation by:
Pitch
Timbre
Volume
Articulation

Ex: Xenakis *Psappha* 

Ex: Stravinsky Rite of Spring: Procession of the Sage

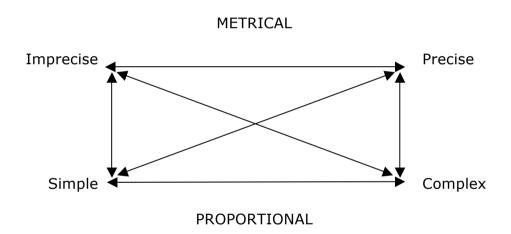
# Pitch/Rhythm Pyramid



Mediated by perception - ability/choice

Mediated by memory - the ability to recall/identify individual events as larger structural relationships

#### 4. Notation



Examples of complex or indeterminate notation

Ferneyhough - String Quartets, Carceri D'Invenzione Stockhausen - Piano Piece XI Kagel - Transicion II Logothetis - Odysee