

(Basic) strategies for performing the space

Space as a musical and performative parameter

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Working with sound in Space

- ✘ Sound Spatialization:

Organization of **sound in space**

- ✘ Sound Diffusion:

Placement of sound around a performing **space**

- ✘ How spacialization is performed and projected
- ✘ Placement – active process (live)

Space as a musical parameter

× Musical parameters:

Pitch | Duration | Dynamics | Timbre | **Space**

× **In electroacoustic music, space is used as an expressive element for both composition and performance**

× Spatial organization shapes:

- × musical form
- × meaning
- × listener perception

Space as a musical parameter

× Pre-loudspeakers

- × Thomas Tallis – *Spem in Alium* (1570) (Janet Cardiff *40-Part Motet* (2001))
- × Heinrich Biber - *Missa Salisburgensis* (1682)
- × Hector Berlioz – *Requiem* (1837)
- × Henry Brant – *Antiphony I* (1953)

× Electronic Diffusion

- × John Cage – *Imaginary Landscapes 1 & 4* (1939-1951)
- × Stockhausen – *Kontakte* (1958-60)
- × Edgar Varèse – *Poème Électronique* (1958)
- × Iannis Xenakis – *Eonta* (1963–64)
- × Beatriz Ferreyra – *Medisances* (1968)
- × Elaine Radigue – *Trilogie de la Mort* (1985-93)

Sound

- ✗ Sound as **material**
- ✗ Sound as **sound object**
- ✗ Sound carries:
 - ✗ spectral content
 - ✗ dynamics and envelope
 - ✗ intrinsic spatial information
- ✗ **Different sound materials invite different spatial strategies**

Sound and space

Simple or minimal sound materials can become
highly **expressive** in space

✘ Sometimes less is more

Space

✘ Intrinsic space:

Information within the sound

- ✘ where we are, how the sound was produced, what surrounds the sound

✘ Extrinsic space:

Created by projection and diffusion

- ✘ how a sound is positioned, moved, placed – in a performance space

Six expressive levels of space

- × **Abstract:** volumes, movements, geometric figures
- × **Structural:** marking sections, transitions, form
- × **Ornamental:** decorative movement
- × **Figurative:** imagery and metaphor
- × **Archetypal:** universal meanings (wave, circle, explosion)
- × **Madrigal:** expressive reinforcement of text or narrative

Performance space and spatialization

Acoustic qualities / venue factors

- ✘ size, geometry
- ✘ reverberant / dry
- ✘ direct / diffused
- ✘ dark / bright (how much can we see?)
- ✘ audience position (what can they hear?)
- ✘ performer position (what can we hear?)

✘

Performance space and spatialization

Loudspeaker context:

- ✘ Amount and disposition

stereo | loudspeaker orchestra | quadraphonic | dome

- ✘ type of speakers:

hi-fi | diy | transducers on wood or glass or metal | mobile phones | radios

- ✘ visibility

Performance space and spatialization

Spatial tools shape decisions:

- × placement
- × movement
- × distance and rotation
- × ...

From sound to spatial action

× Format/Source:

mono | stereo | multichannel

× Playing:

channel-based | ambisonics

× Control:

live | automated | hybrid

→ defines spatial possibilities

Spatial gestures

- × Crossfading
- × Unmasking
- × Emphasis
- × Sparkling
- × Oscillation
- × Swinging
- × Wave
- × Rotation
- × Spiral
- × Rebound
- × Insertion / Rupture
- × Appearance / Disappearance
- × Explosion
- × Accumulation
- × Invasion
- × Empty/Full

Crossfading

- ✘ **Slow or imperceptible transition between pairs or groups of speakers**

Unmasking

- ✘ **Highlight a sound/location by decreasing the amplitude of other sounds**

Emphasis

- ✘ **Highlight a sound/location by increasing its amplitude**

Sparkling

× **Fast, cascading. Random play. Tremolo-like.**

Oscillation

× **Rapid and regular alternation between two speakers or two speaker groups.**

Swinging

× **Slow and gestural alternation between two speakers or speaker groups.**

Wave

- × **Moving mass through crossfades or unmasking gestures**

Rotation

- × **Circular trajectory, often around the audience.**

Spiral

- × **Circular trajectory with acceleration/deceleration or elevation and a different endpoint**

Rebound

- ✘ Quick jump from one point in space/group/soloist to another.

Insertion / Rupture

- ✘ Sudden shift or overlap of a characteristic space in an established area.

Appearance / Disappearance

- ✘ Unprepared burst or closing from a different spatial state. MUTE.
Surprise.

Explosion

- × Sudden passage from narrow (directional) space to large (environmental) one

Accumulation

- × Successive addition of planes or calibres on top of each other. Spatial tutti.

Invasion

- × Rapid accumulation oriented towards the audience

Empty / Full

- × Density of sound in the space.

Speakers + space as instruments

- ✘ The speaker system and the space become the instrument
- ✘ Every performance means learning a new instrument
- ✘ Knowing the material guides:
 - ✘ what to reveal
 - ✘ what to reduce
 - ✘ when to wait
- ✘ Spatial gestures need time and space to emerge

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