### Intersemiotic translations and live notations in dance, music, poetry and graphics

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#### Abstract

Intersemiotic translations describe how we understand concepts such as metaphor, analogy and simile between expressive domains such as music, image and physical movement. The conductor of an orchestra might use an upward gesture of the hand to indicate a change in amplitude, texture, pitch or mood. Such a gesture might mean something particular to this conductor or it might be a spontaneous movement to be interpreted at the discretion of orchestral players.

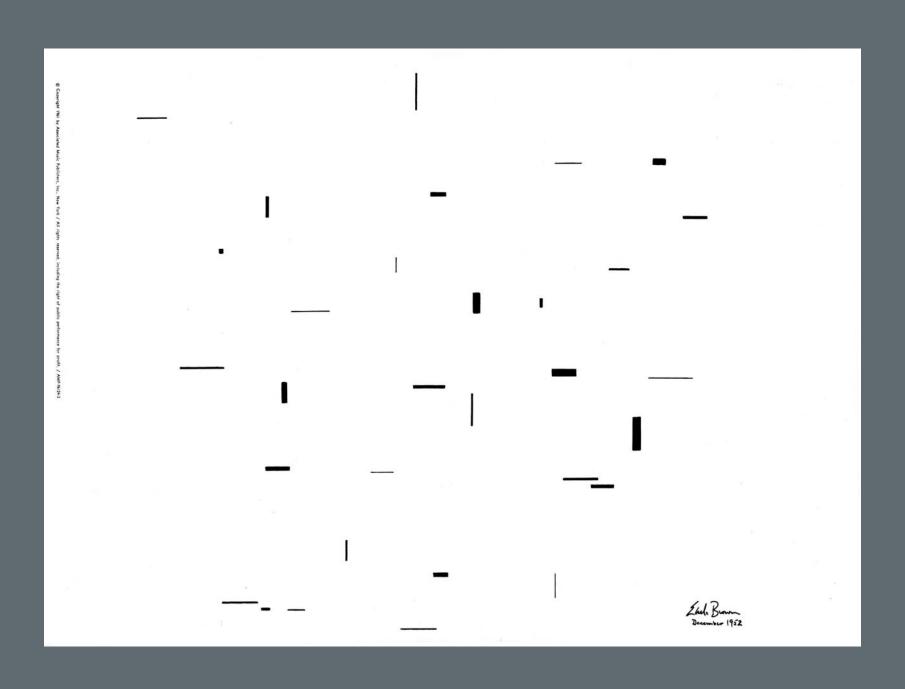
The author presents and demonstrates research into the **technical implementation** of these translations and investigations into such links and relationships **particularly where the expressive domains include visual elements** (for instance the music–dance–text piece *Semaphore* and the clarinet and computer piece *Edge Violations* which uses raster and vector graphics prominently). **Ways in which they can be extended creatively and further across expressive domains are also proposed** (for instance *Choreograms* which investigates algorithmic dance notations). The nature and purpose of visual and symbolic notations in a post–print environment as well as how such notations are interpreted by practising musicians is investigated.

Finally, **the nature of interpretive human performance** in the automated, algorithmic, environment of art today is investigated.

# Notation as visual art: (Cordier - Belle, Bonne, Sage, (~1400) etc.)



#### Notation as visual art: (Earle Brown, etc.)

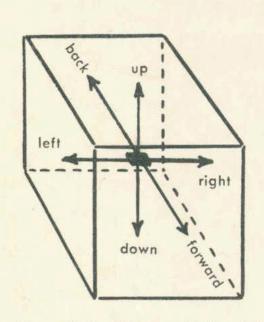


#### Prefatory notes

#### DECEMBER 1952

for one or more instruments and/or sound-producing media

The following note and sketch appear on a notebook page dated Oct. & Nov. '52, but they are the basis of the composition "December 1952" as well as being particularly relevant to "Four Systems".



space relative to conceptual mobility and transformation of events in arbitrary, unstable time

space as an infinitude of directions from an infinitude of points in space . . . to work (compositionally and in performance) to right, left, back, forward, up, down, and all points between . . . the score [being] a picture of this space at one instant, which must always be considered as unreal and/or transitory . . . a performer must set this all in motion (time), which is to say, realize that it is in motion and step into it . . . either sit and let it move or move through it at all speeds."

"[coefficient of] intensity and duration
[is] space forward and back."

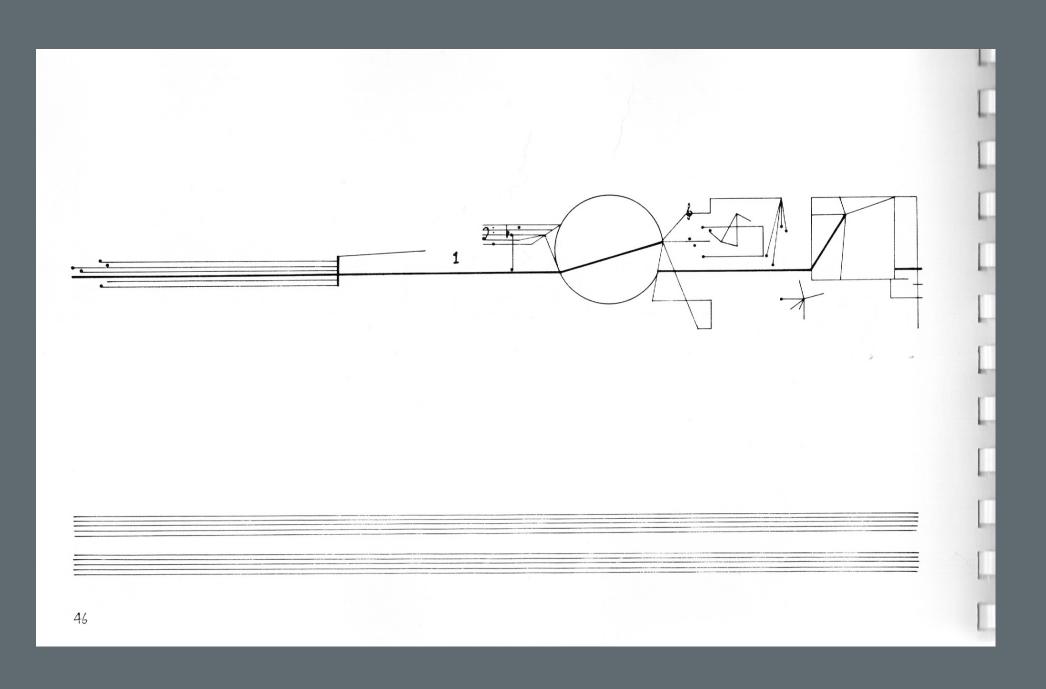
The composition may be performed in any direction from any point in the defined space for any length of time and may be performed from any of the four rotational positions in any sequence. In a performance utilizing only three dimensions as active (vertical, horizontal, and time), the thickness of the event indicates the relative intensity and/or (where applicable instrumentally) clusters. Where all four dimensions are active, the relative thickness and length of events are functions of their conceptual position on a plane perpendicular to the vertical and horizontal plane of the score. In the latter case all of the characteristics of sound and their relationships to each other are subject to continual transformation and modification. It is primarily intended that performances be made directly from this graphic "implication" (one for each performer) and that no further preliminary defining of the events, other than an agreement as to total performance time, take place. Further defining of the events is not prohibited however, provided that the imposed determinate-system is implicit in the score and in these notes.

#### Notation as visual art: (Cardew, etc.)

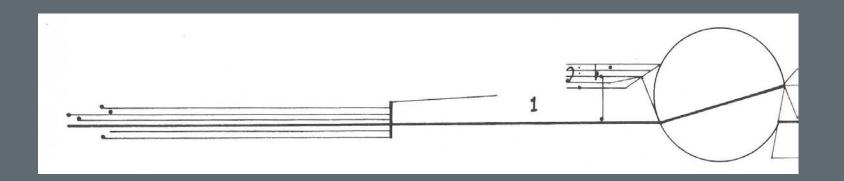


From Cardew **Octet 61** (1961)

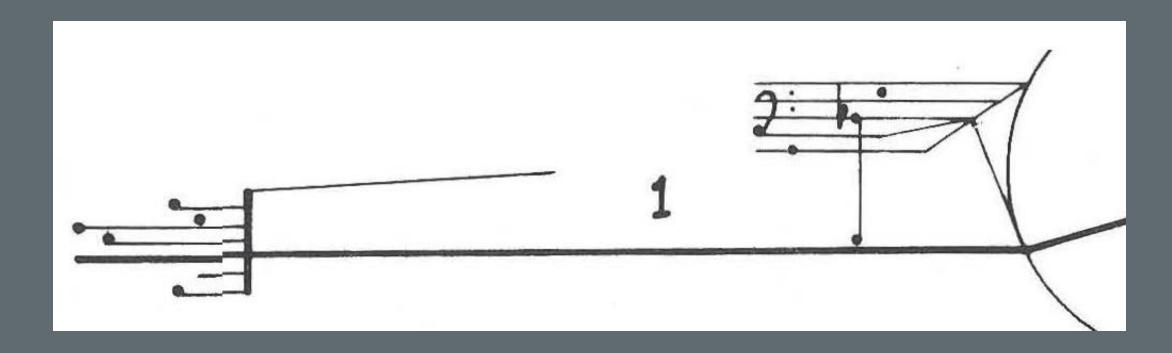
#### Cardew Treatise (1963) page 46



#### Cardew Treatise and Bun No. 2 (1964)









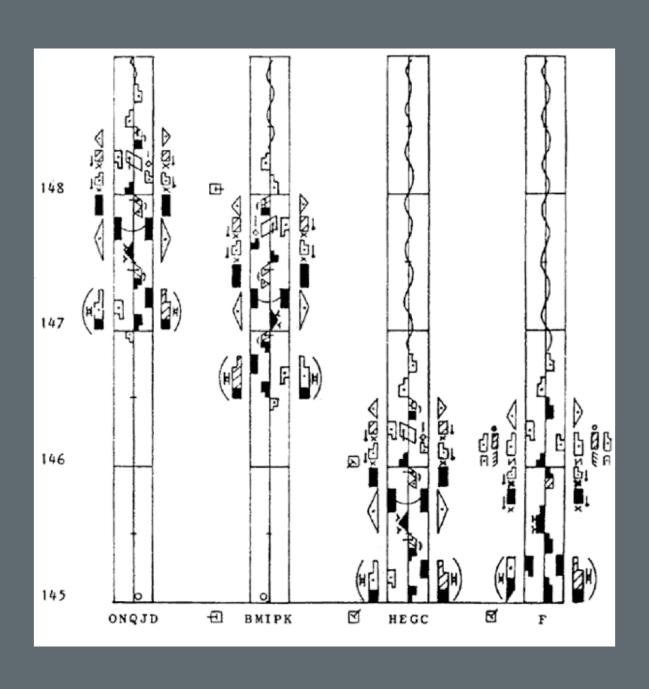
# Art as music notation: Christian Marclay, etc. - Crossfire (2007)



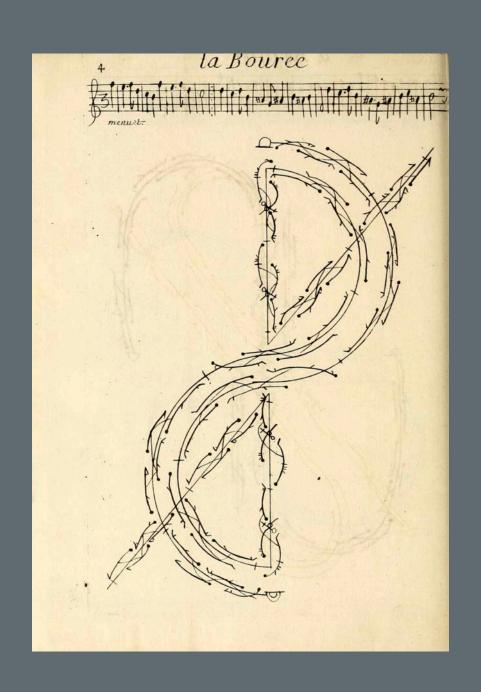
#### Art as music notation: Christian Marclay, etc. -Surround Sounds (2015)



#### Dance Notation: Labanotation



#### Recueil de Dances (Pecour/Feuillet)

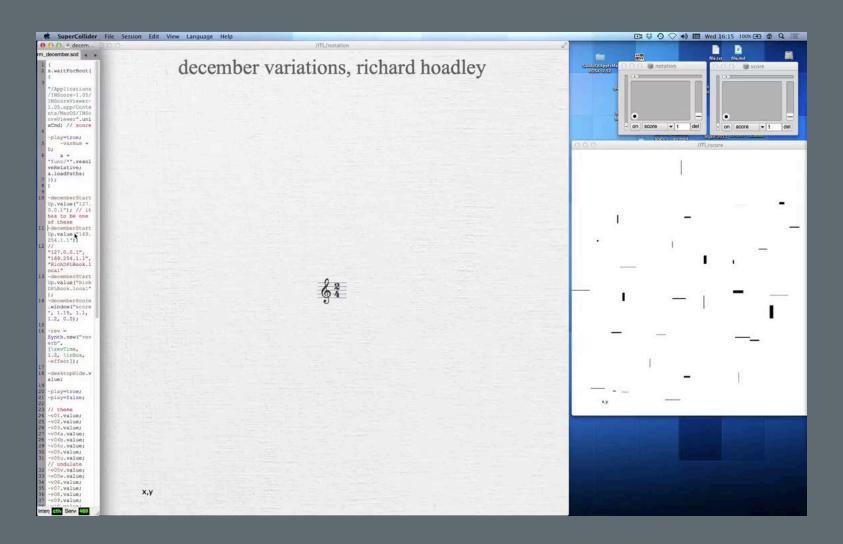


#### Semaphore 2014



with Jane Turner, Phil Terry and Turning Worlds Dance

#### December Variations 2013-4



Compare theme (0:10) and variation 5 (5:00)

#### December Mobile (2013–16)

See demo

#### How To Play the Piano 2015



with Philip Mead

#### Edge Violations 2016



with Ian Mitchell (see 8:15 in particular)

#### Portrait of the performer

Experience has confirmed that there are no substantive (although there are stylistic) issues surrounding the use of non-fixed, generative live notation. After decades of experience performers are well-used to creating concert standard performances with minimal rehearsal. The techniques used in these compositions ensure that the material is sufficiently familiar (see demo).

#### Artistic statement:

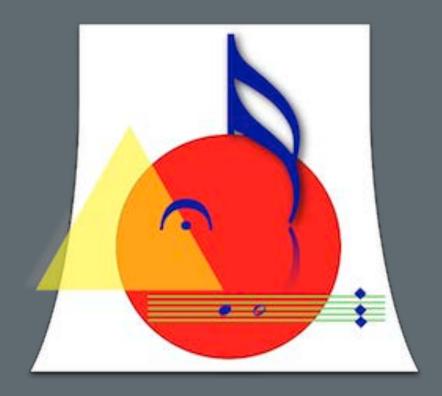
For what it's worth, I think that computers are not, and can **never** be, **the same as** 'acoustic' musical instruments, and that code can **never** be **the same as** musical notation (of any sort). However, computers and the software they run can and will provide a fascinating, expressive and possibly dominant role over time.

#### The tools

- » provide a structure for the **generation** of music and/or common practice **notation** as well as text and **graphical** elements (including raster and vector images).
- >> facilitate communication between **SuperCollider** and **INScore**
- » offer the beginnings of a more standard interface for physical mapping and live notation

#### which are located...

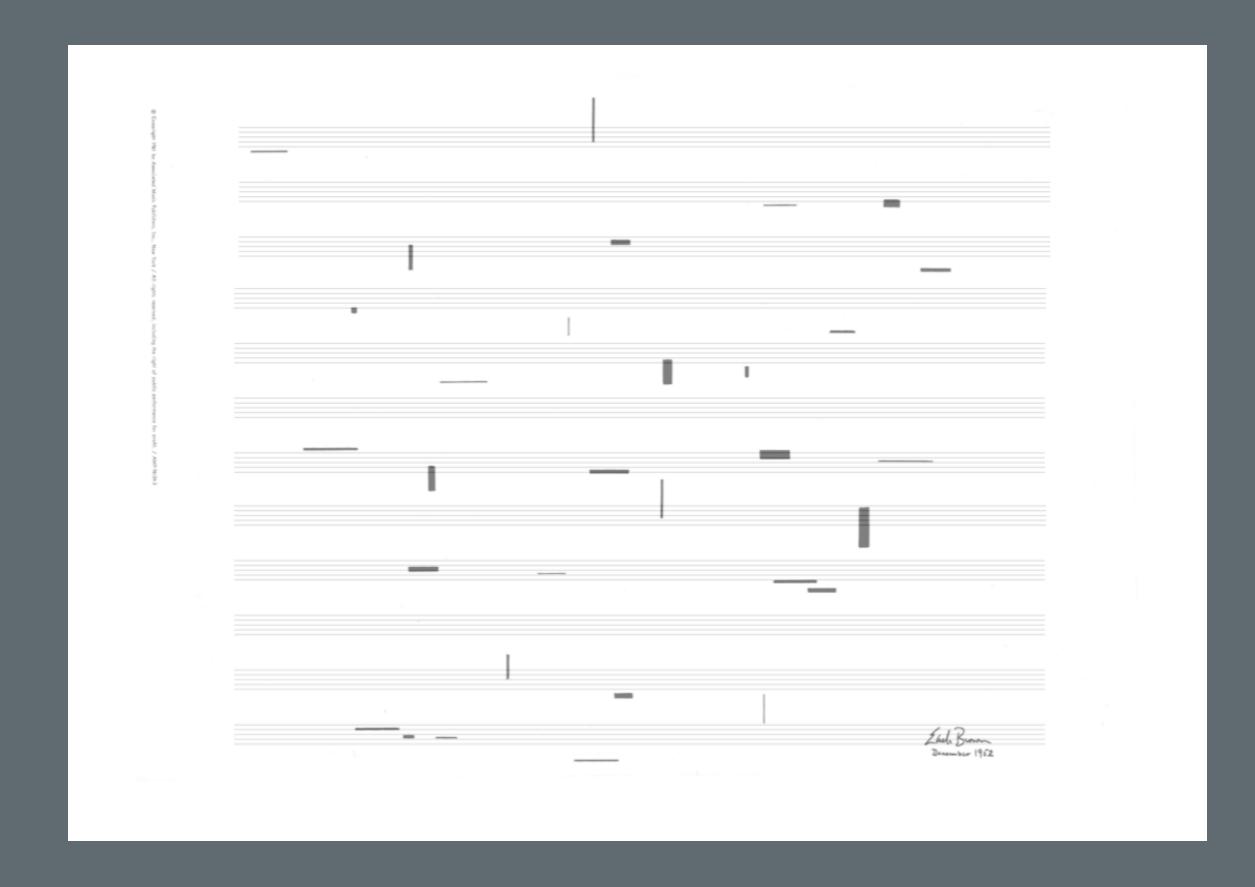
- https://github.com/supercollider/supercollider
- http://inscore.sourceforge.net/
- http://rhoadley.net/inscore (on request)





### Earle Brown Demonstration

· version of **December 1952** in which the notation was created by superimposing the objects onto staves. This system does the same (sort of), but without so much effort each time



### Earle Brown

- · I'm neither a musicologist, nor an Earle Brown scholar; this project is an interesting opportunity to investigate use of these ideas in a musicological setting
- · elicits (contradictory) opinions on cross-domain links, the nature of the score and its relationship to performance

• the work provides insights into notation, performance and performers: how does detailed notation effect the performance? How is it different from fully improvised performances? How might it aid coordination of many musicians?

Earle Brown himself presents a rather ambivalent opinion

## Earle Brown 'On December 1952' Brown, E., On December 1952, American Music Vol 26 No 1, Spring 2008

66 Under the influence of Calder, I considered this ... a score that was mobile ... that had more than one potential of form and performance realization (page 1) 99

- 66 ...this was an attempt at correlating my own conception with an extremely rapid way of "composing", which was, I have said, almost like improvising myself in other words, realizing a graphic drawing... (page 2) 99
- 66 the notebook has ... sketches of ... scores I thought of that would allow for multiple realizations of a sonic image and ... deal with new notational possibilities ... as well as [more] spontaneity in the performance. (page 2) 99

66 ... I have a sketch for a physical object, a three-dimensional box in which there would be motorized elements - horizontal and vertical, as the elements in December are on the paper... It would be a box which would sit on top of the piano ... so that the vertical and horizontal elements would ... [cross] in front of and behind each other, and [obscure] each other... The performer [would play] very spontaneously, but still very closely connected to the physical movement of these objects....[I] hoped that I could construct a motorized box of elements that also would continually change their relationships... I never did realize this idea ... not ... being ... that interested in constructing it. 99

#### Demonstration

# Any questions?

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this presentation is available at

http://rhoadley.net/presentations

as **psn2016.pdf** 

video recordings of past performances are at rhoadley.net/youtube and rhoadley.net/vimeo