

Why of finding scale ideas, and of their relation to the five generators of musical space

Contact

Three essays

Why?

Other links

Why?

Scale, notation, art

Musical notation

Performances

Demonstration

Next steps

Thankyou



Ways of making people move: cross-domain mediation in the live generation of musical scores

Dorkbot Cambridge
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> this presentation is available at:
<http://rheadley.net/presentations>

Three streams

- > (automated) composition
- > physical computing
- > music notation

Why?

- > to develop and exploit an understanding of what happens when we imagine, compose and perform, including the interaction between composer and performer via notation
- > notation is in particular a highly complex technical, creative and social phenomenon

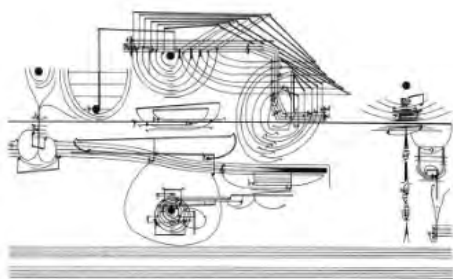
Scores, notation, art



Richard Hoadley, *Four Archetypes*, 1994



Wassily Kandinsky, *Komposition 8* 1923



Cornelius Cardew, *Treatise*, 1968

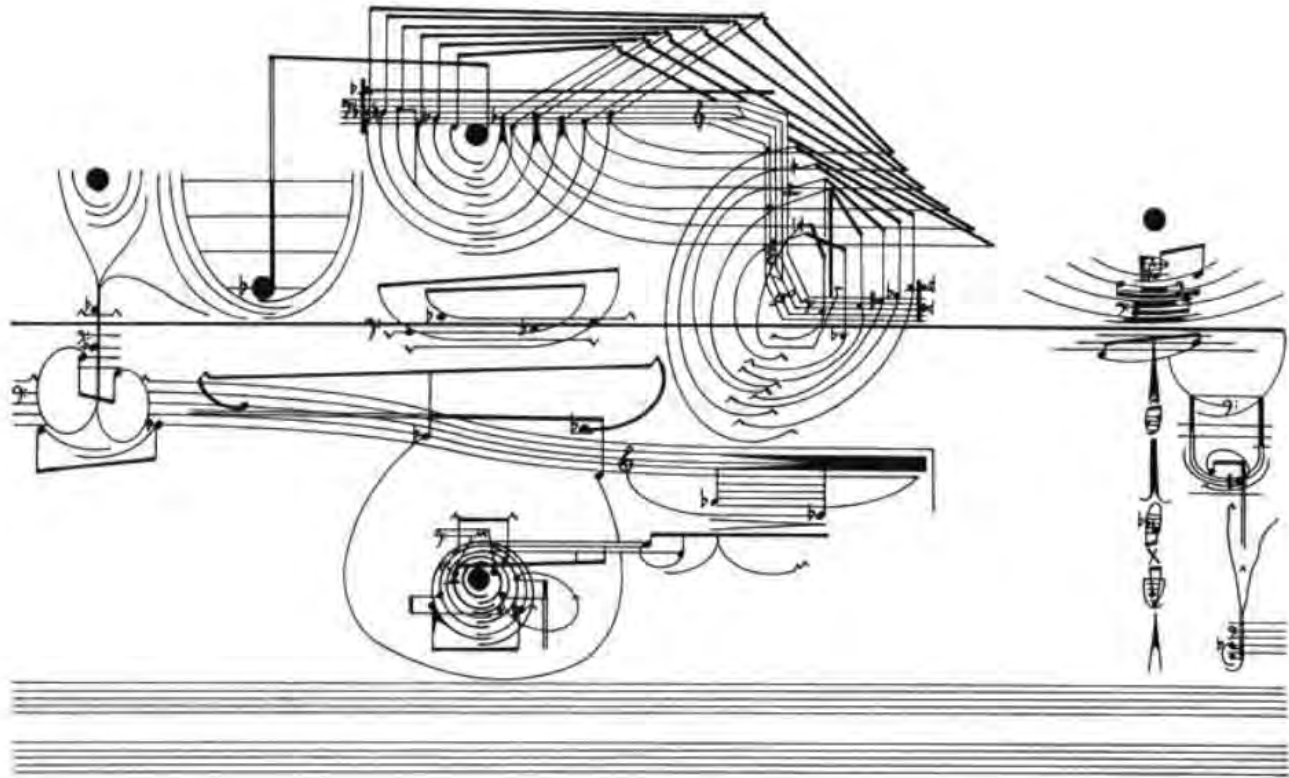
$\text{♩} = 110$

The image shows a handwritten musical score for a string quartet, titled "Four Archetypes" by Richard Hoadley, 1994. The score is written on three systems of staves, each system containing three staves (1, 2, and 3). The tempo is marked as $\text{♩} = 110$. The key signature is one sharp (F#). The score is characterized by complex rhythmic patterns, including many sixteenth and thirty-second notes, and frequent rests. Dynamic markings include *mf*, *p*, *p sotto*, *mf sopra*, and *f sopra*. The notation includes various articulations such as slurs, accents, and fermatas. The first system has a *mf* marking at the beginning and *p sotto* markings in the second and third staves. The second system is mostly blank. The third system has *mf sopra* markings in the first and second staves, and *p sotto* markings in the second and third staves.

Richard Hoadley, Four Archetypes, 1994



Wassily Kandinsky, Komposition 8 1923



113

Cornelius Cardew, *Treatise*, 1968

Why?

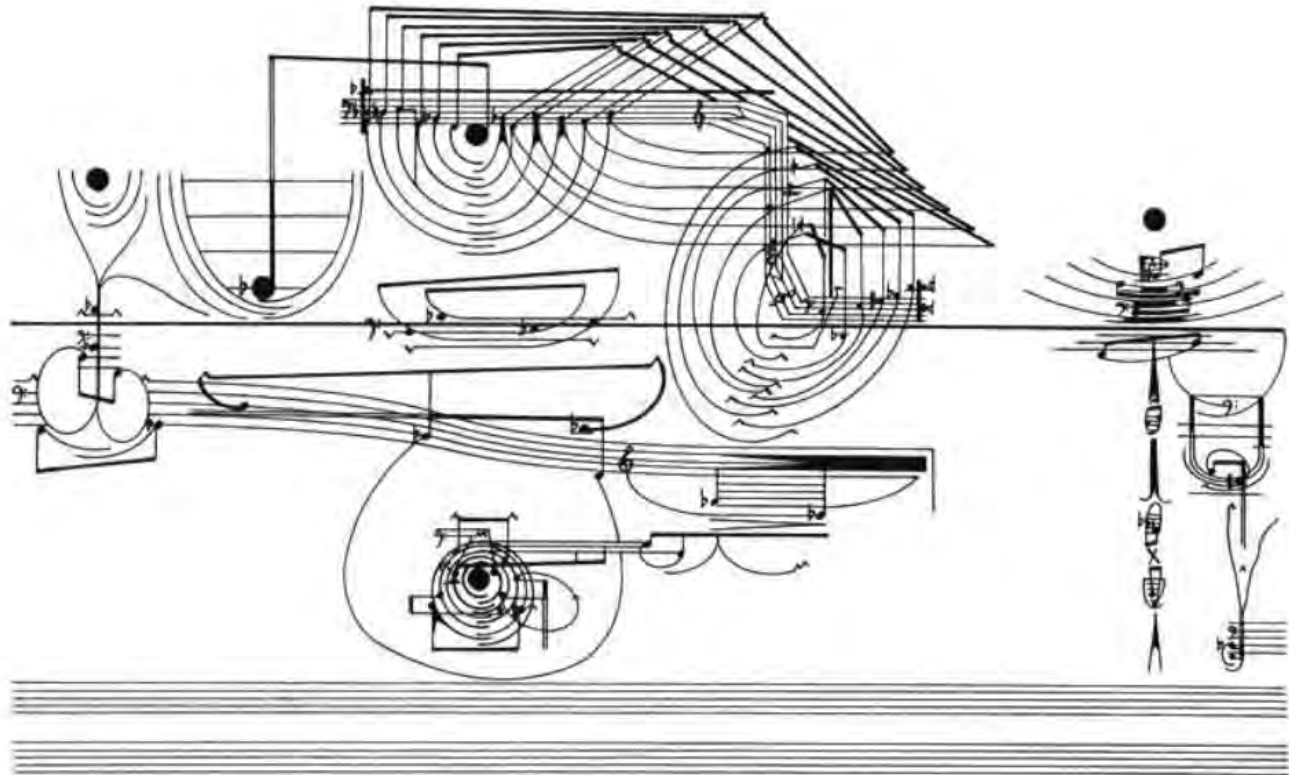
- > my interest in physical computing is related to an interest in how music performance works from a somatic perspective (it also refines and extends the creative imagination)
- > a significant part of creativity is the result of the interplay of imagination and physical reality

Other issues

- > NOT (yet) the computer as agent (machine listening, learning and responding)
- > notation: "a way of making people move, of getting them to be engaged in musical activity" (Cardew)



- > complexity of score, sight-reading (*prima vista*) and improvisation



Cornelius Cardew, Treatise, 1968



YouTube

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36.

AUTUMN LEAVES - JIMMY HERRER

(1st time)

Chords: A-7, D7, Gmaj7, Cmaj7, F#-7 b5, B7, E-, F#-7 b5, B7 b9, E-, A-7, D7, Gmaj7, F#-7 b5, B7 b9, E-7, E7, D-7, D7, Cmaj7, B7 b9, E-, FINE

BILL EVANS - "PATIENT IN JAZZ"



Performances



Gaggle, HCI conference, 2009, Cambridge UK



YouTube

Museums, Interfaces, Spaces and Technologies Conference, 2010, Cambridge UK



YouTube

Triggered, Kings Place, London, 2011



YouTube

7281919



Calder's Violin, London, 2012



The Fluxus Tree, Leeds, Coventry , London, 2012-13



The Fluxus Tree @ Phase Transitions, Cambridge, 2012



YouTube

Three Streams, Cambridge UK, 2013



YouTube

Demonstration



Next steps

Physical

> the interplay between 'gesture' and 'touch'. How and why do we need our hands to control some things in detail? [[video =>](#)]



> finger, hand and gesture recognition (LEAP)

> some gestures are full of meaning, others should be ignored. How to tell the difference?

Musical

> multiple parts all generated live: 'group' structured improvisation

> rhythmic synchronisation across parts and groups

> dynamics, phrasing, annotation: more use of augmented score features and experiments in how they can be used

> investigating the balance between composition, performance and improvisation

Technical etc.

> machine listening

> live coding of 'real' performance

> therapeutic uses (gismos)

> pedagogical uses, maybe particularly support for sight-reading and improvisation



 XboxViewTV
Best Xbox & YouTube and PlayStation

YouTube

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> any questions?

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