

Resisting the Seamless Interface*

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*Title from a 2004 paper by:

Richard Coyne, Pedro Rebelo, & Martin Parker. (2004). Resisting the Seamless Interface.
International Journal of Architectural Computing, 2, 430-442. doi:

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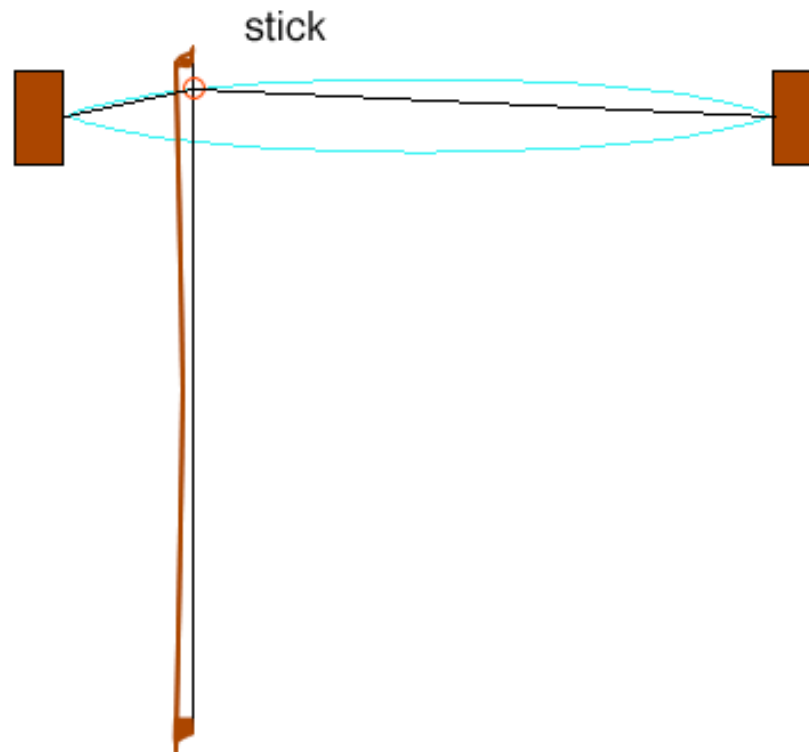
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paradox

- general presumption is that a key goal in HCI is that computer interfaces should be smooth and easy to use
- at odds with the way sound itself is made, sound is the result of friction

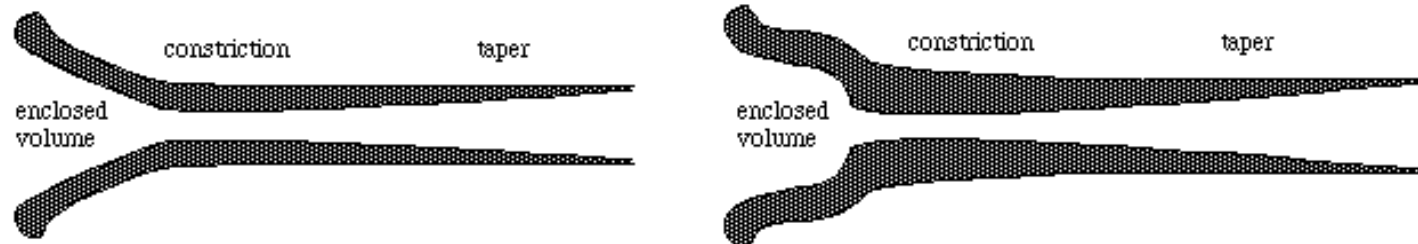
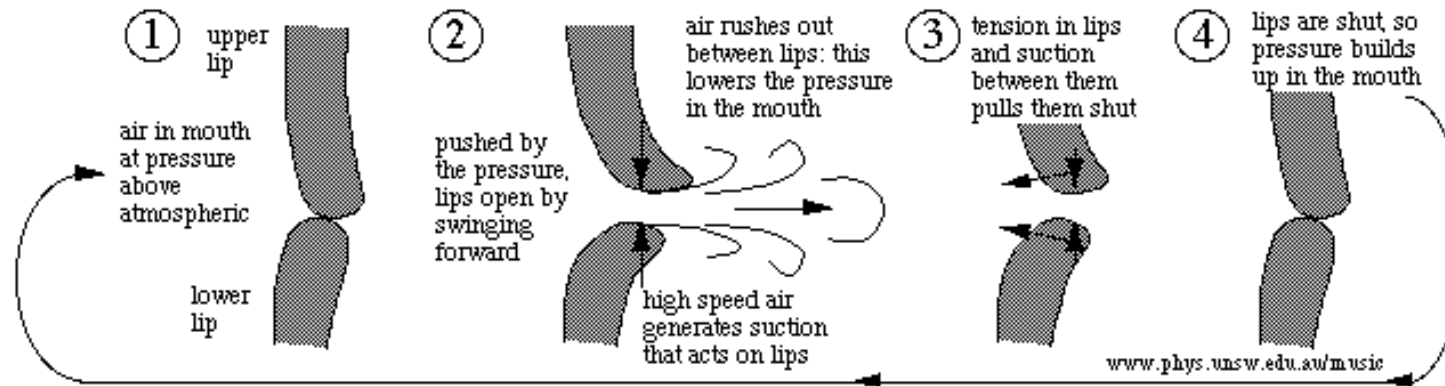
instrumental mechanism



The animation (made by Heidi Hereth) shows idealised Helmholtz motion of a transverse wave.

<http://www.phys.unsw.edu.au/jw/torsional.html>

instrumental mechanism



<http://www.phys.unsw.edu.au/jw/brassacoustics.html>

demonstration

- without resistance, air disappears, a note lasts a few seconds
- with resistance, a pitch can be held for many seconds

cultural resistance

- in the West, our instruments are hard to play
- they are inaccessible, require long time learning
- they are standardised and mass produced
- our education system encourages a form of standardisation
- the music is also standardised, not local but international

cultural resistance

- in other cultures, instruments are made from whatever is to hand
- no desire to make them the same
- this is similar in the “Folk” tradition of contemporary computer-music making
- composers and artists make their own systems and instruments, tools that are unique to them and particular to the time

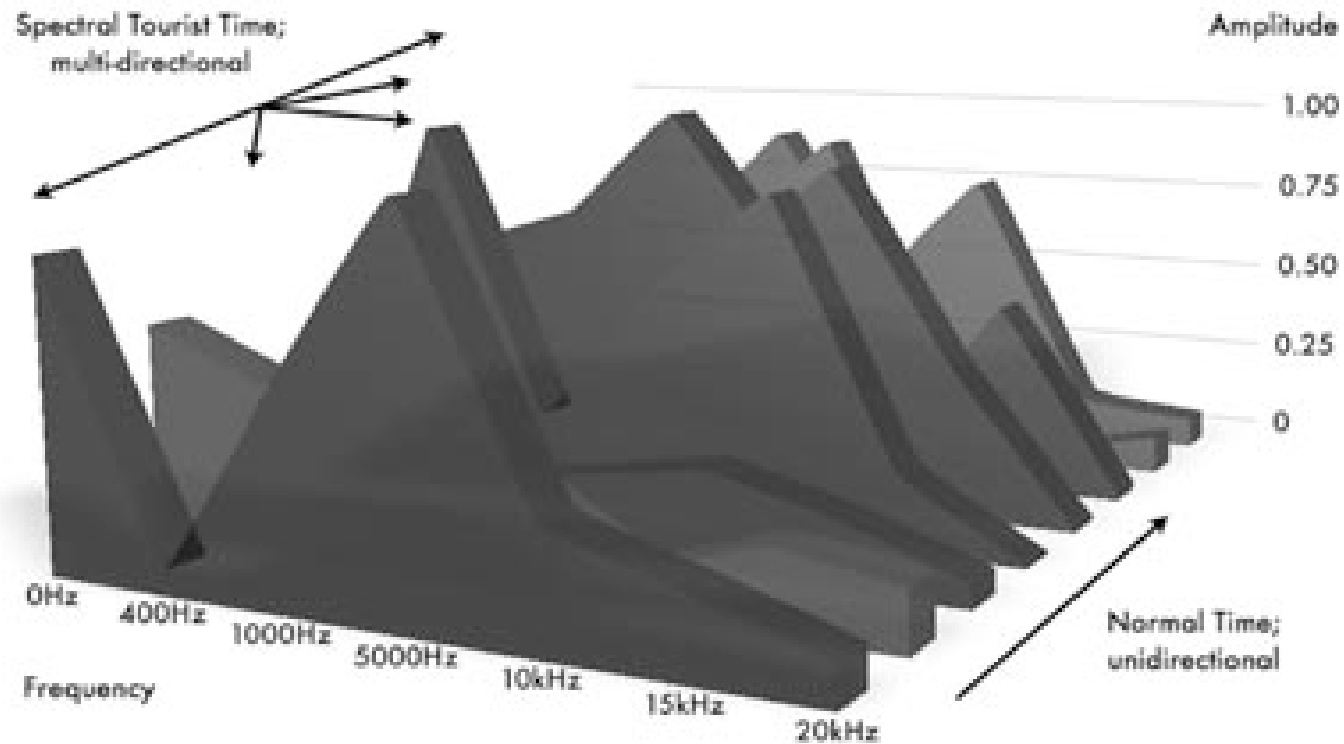
programming resistance?

- randomness
- complexity
- instability
- unpredictability

programming resistance?

- virtuosity
- mastery
- uniqueness
- spontaneity

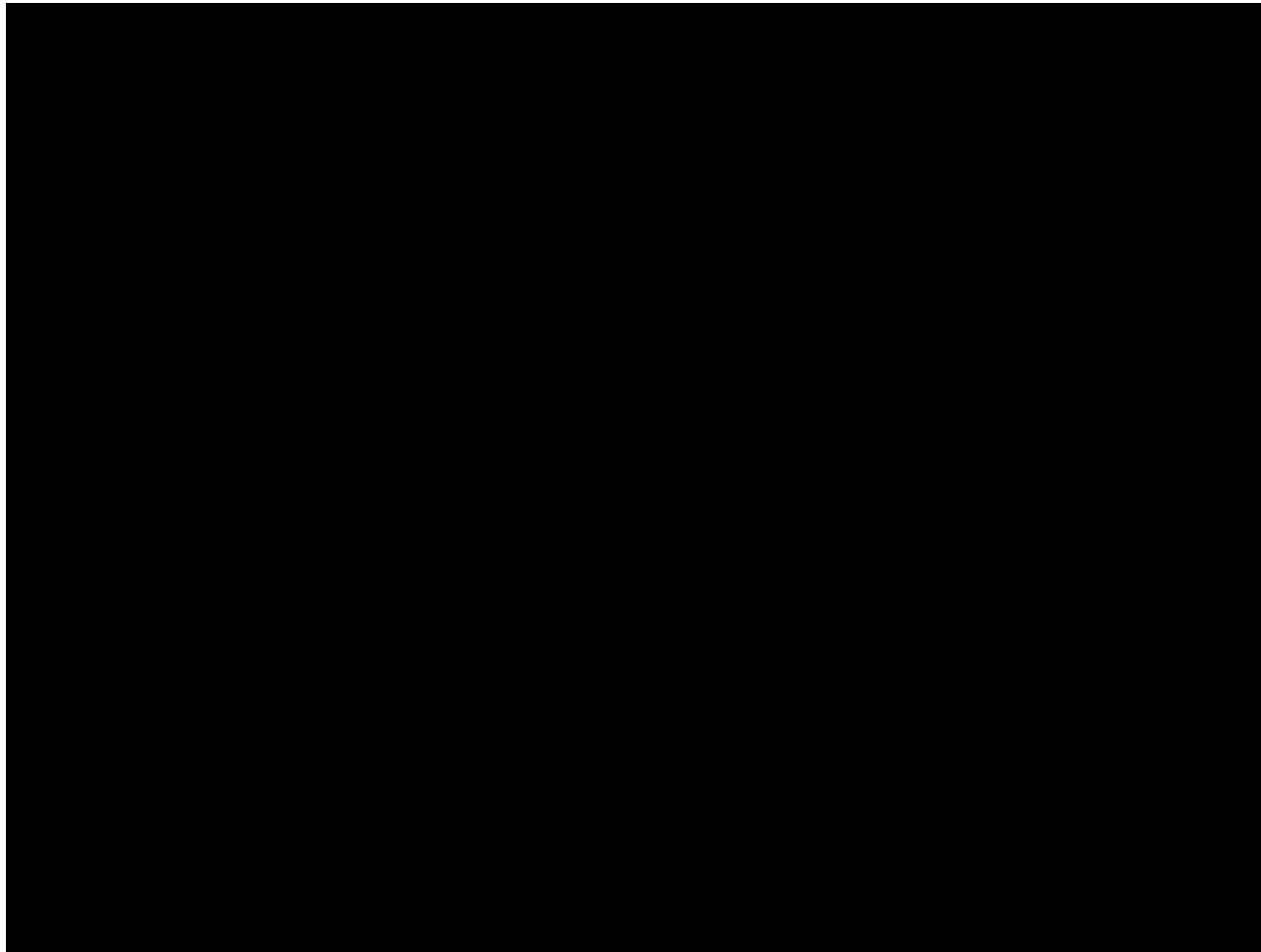
spectral tourist



Sheets of spectral data are lined up in normal time.

The Spectral Tourist can travel forwards and backwards and morph from sheet to sheet in multiple directions controlled by the joystick. It is easy to get lost and to take a wrong turn while navigating this space.

body movement



David Rokeby - Very Nervous Systems 1982-90

making SPECKS sound

<http://www.specknet.org/>

- connected to the body
- represent a version of the body (at distance)
- make the performer aware of their body in different ways
- leads the body to articulate itself differently
- any sound output possible but some sounds work better than others

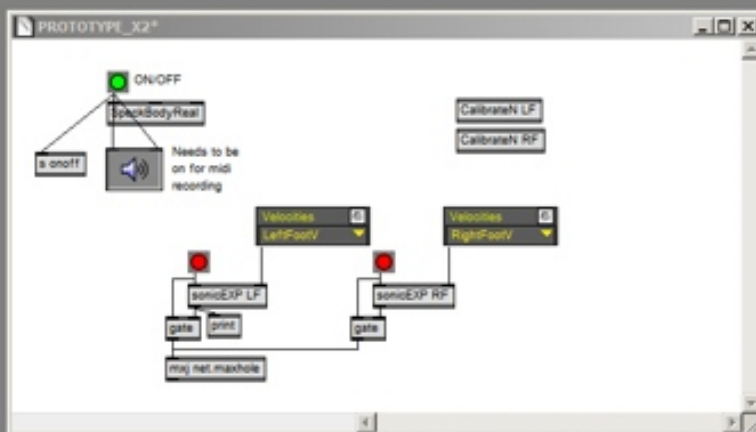
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<http://www.specknet.org/>

- Vangelis Lympouridis' work has so far included;
- whole body tracking and mapping
- collaboration with musicians and dancers
- tracking body positions and detecting states
- study of various forms of dance and movement

making SPECKS sound

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making SPECKS sound

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- Free dance
- Yoga
- Butoh
- ...