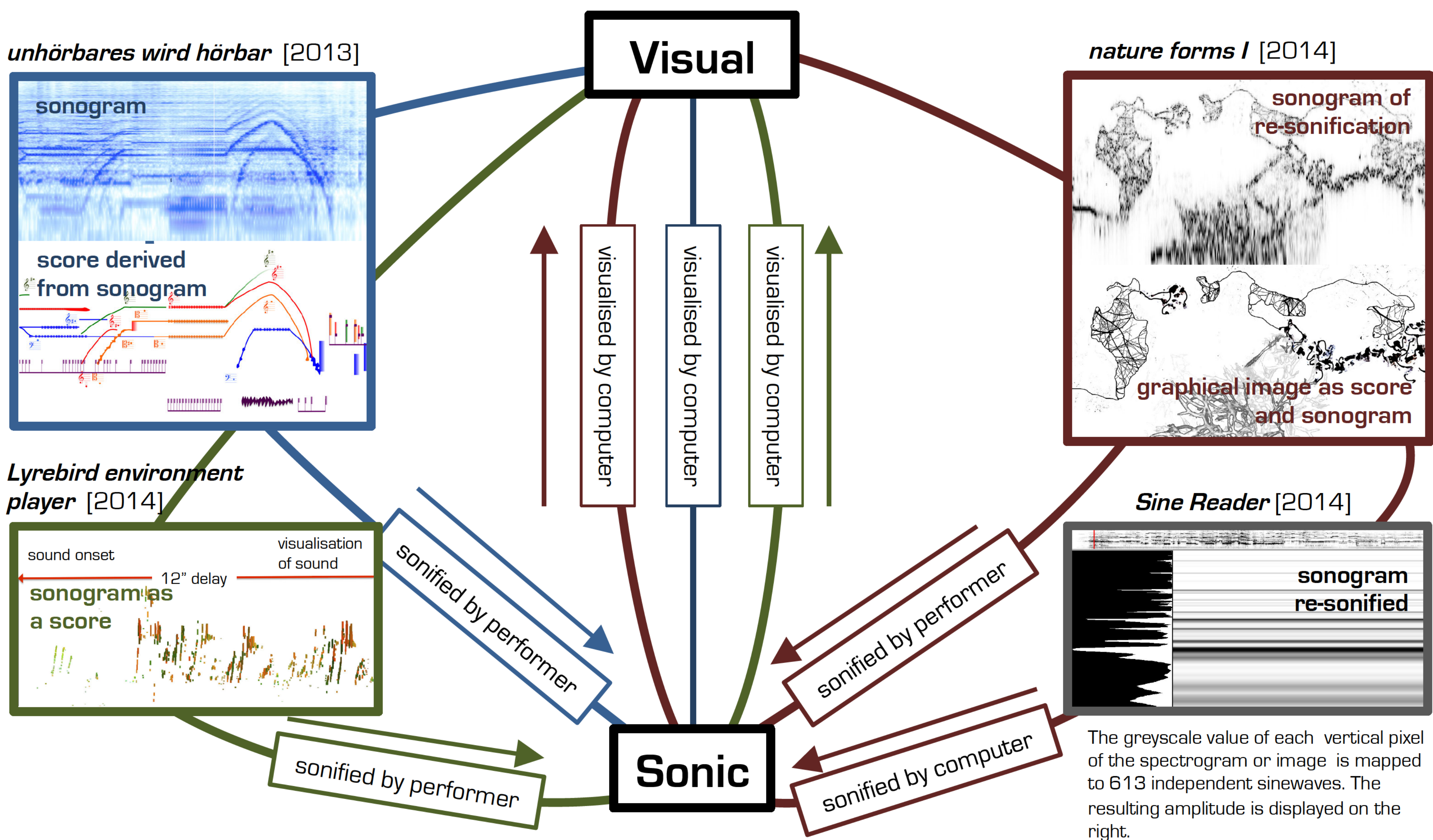


# Exploring a Visual/Sonic Representational Continuum

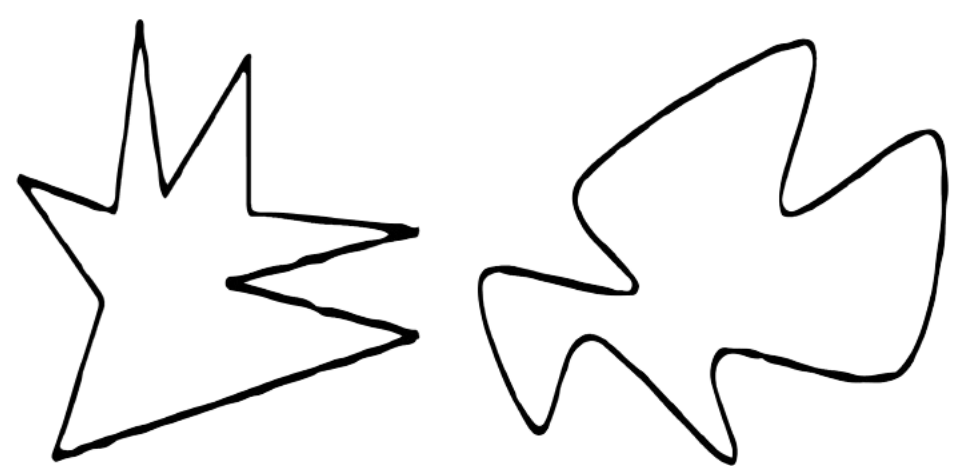
Lindsay Vickery Edith Cowan University [l.vickery@ecu.edu.au](mailto:l.vickery@ecu.edu.au) <http://lindsayvickery.com>



## Visualisation Issues

### shape

The kiki/bouba effect



“because of the sharp inflection of the visual shape, subjects tend to map the name kiki onto the [pointed, star-like] figure, while the rounded contours of the [other] figure make it more like the rounded auditory inflection of bouba”

W. Köhler, Gestalt Psychology, Liveright, 1929.

V. Ramachandran & E. Hubbard, “Synaesthesia - A Window Into Perception, Thought and Language”. Journal of Consciousness Studies, vol. 8, no. 12, pp. 3-34, 2001.

This correlation, and other similar associations, for example between shapes and sounds, and facial expressions and colours, led Barbieri et al. to propose the existence of a form of “weak synesthesia” exists in the general population.

O. da Pos & P. Green-Armytage, “Facial Expressions, Colours and Basic Emotions”. Colour: Design & Creativity, vol. 1, no. 2, pp. 1-20, 2007.

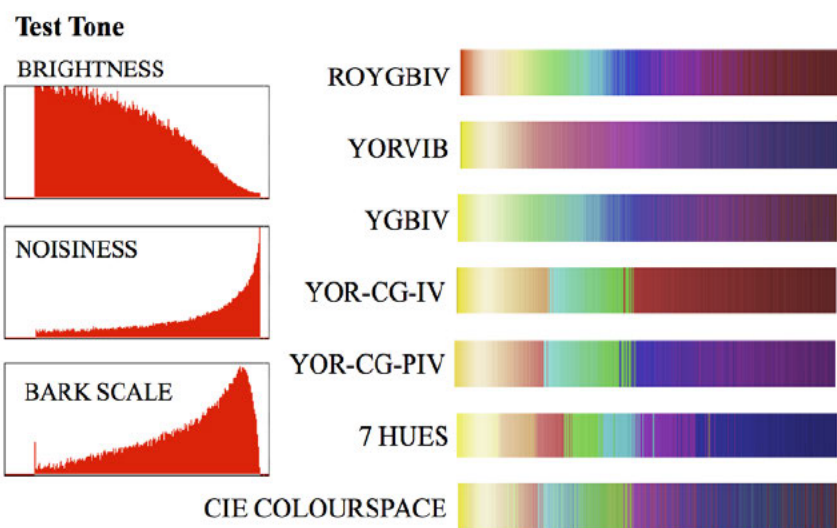
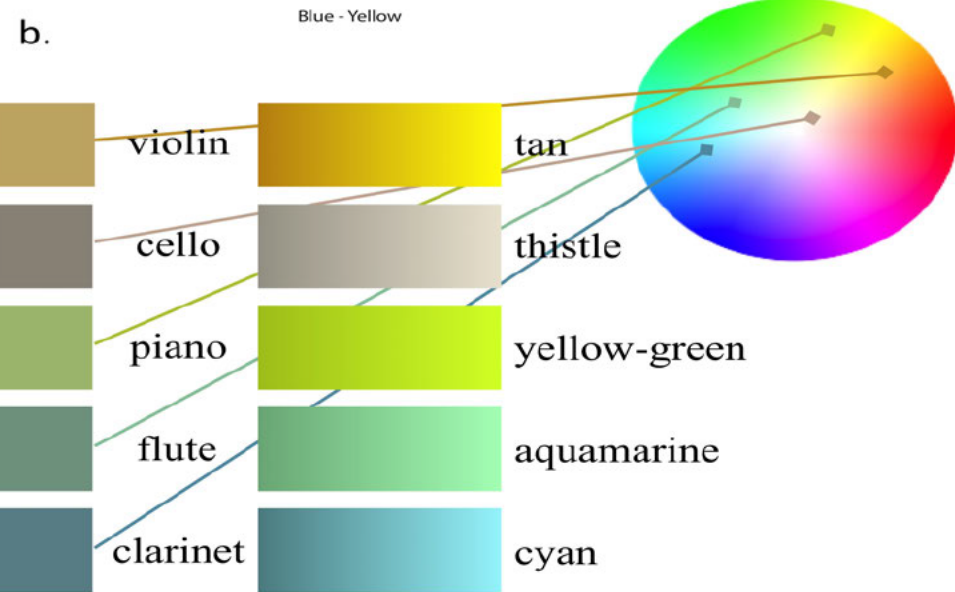
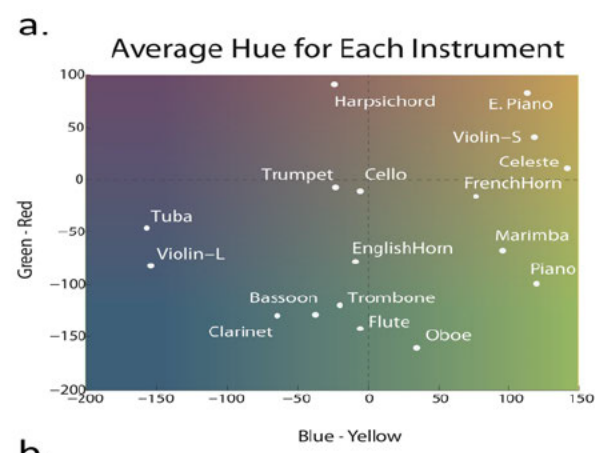
J. Barbieri, A. Vidal & D. Zellner, “The color of music: correspondence through emotion”, Empirical studies of the arts, vol. 25, pp. 193-208, 2007.

### colour

Griscom and Palmer have proposed that there are systematic relationships between colour and a range of musical phenomena including timbre, pitch, tempo, intervals, triads and musical genres in non-synaesthetes[25, 26]. Such observations may provide indications of how best to represent timbral information in these works in future versions.

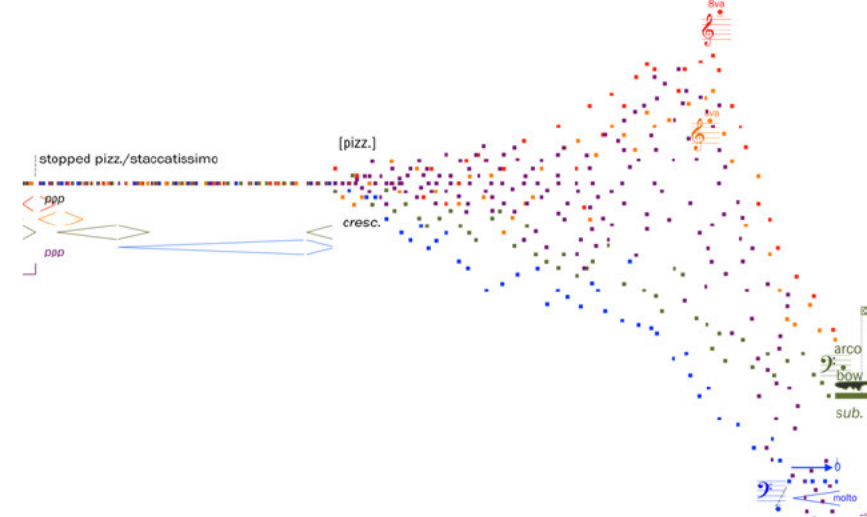
W. Griscom & S. Palmer, “The Color of Musical Sounds in Non-Synaesthetes”, 12th Annual Meeting of the Vision Science Society, Naples, 2012.

W. Griscom & S. Palmer, “Cross-modal Sound-to-Sight Associations with Musical Timbre in Non-Synaesthetes”, 13th Annual Meeting of the Vision Science Society, Naples, 2013.



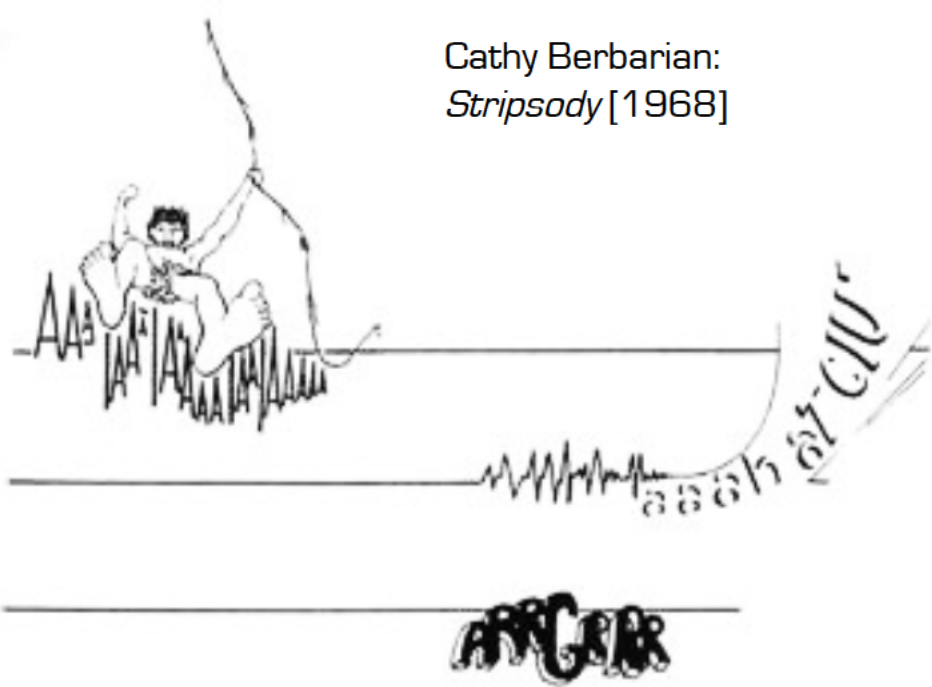
### perceptual metaphors

Lindsay Vickery: Agilus, Mimoid Symmetriad [2012]



### cartoon conventions

Cathy Barbarian: Stripsady [1968]



## semantic value

Patel, Schooley and Wilner's collection of visual principals that convey meaning in graphic symbols. They include gestalt principles, semantic attributes, cartoon conventions, compositional distinctions and line interpretation.

R. Patel, K. Schooley, and J. Wilner (2007). “Visual Features That Convey Meaning in Graphic Symbols.” Assistive Technology Outcomes and Benefits 41: 62-80:65.

The current expansion of interest in “weak synaesthesia” holds great potential to contribute to the development of efficient and semantically sound visualisation of sonic phenomena and musical notation.

### kinaesthetic understandings

Ryan Ross Smith: Study no. 8 for 15 percussionists [2013].

