

The background of the slide features a close-up, slightly blurred image of a vinyl record. Overlaid on the record is a large, stylized graphic of a hand holding a pen, as if about to write on the record's surface. The hand and pen are rendered in a light, sketchy style, contrasting with the more detailed texture of the vinyl grooves.

Visually Inspired Visual Music from a Musician's Perspective

Understanding Visual Music 2015

Dave Payling

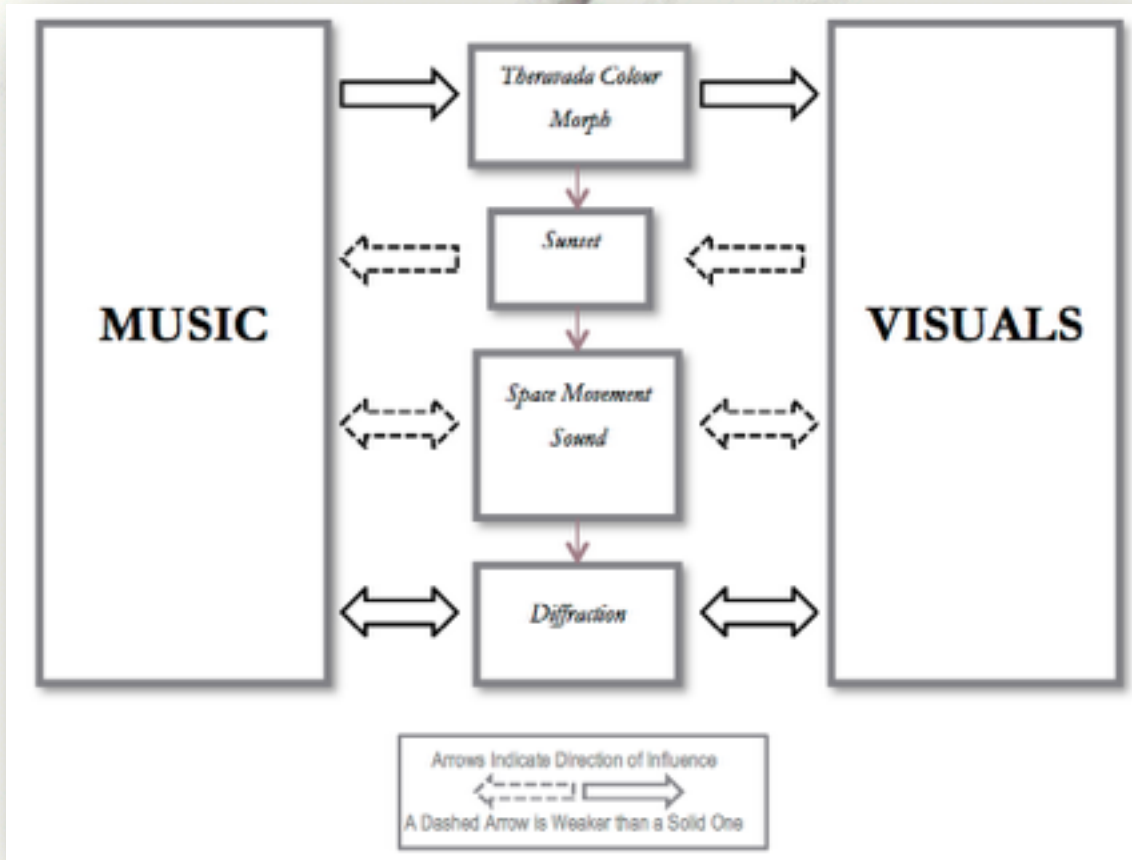
Contents

- My Background and Interests
 - Music, Teaching, Research
- Production and Composition
 - How visual theories and phenomena have influenced sound and image
 - Space Movement Sound
 - Diffraction

Interests and Background

- Musician
 - Conventional instrumentation: Bass, guitar
 - **Computer** music production
- Academic
 - Electroacoustic composer
 - Audio-visual composition
- Teaching
 - Mastering, Sound Synthesis, Max/MSP
 - Audio visual composition
 - https://www.youtube.com/playlist?list=PL55fTtK2XcKwagylXsk9Lz94h_Ob9hK8e

PhD – Visual Music Composition with Electronic Sound and Video

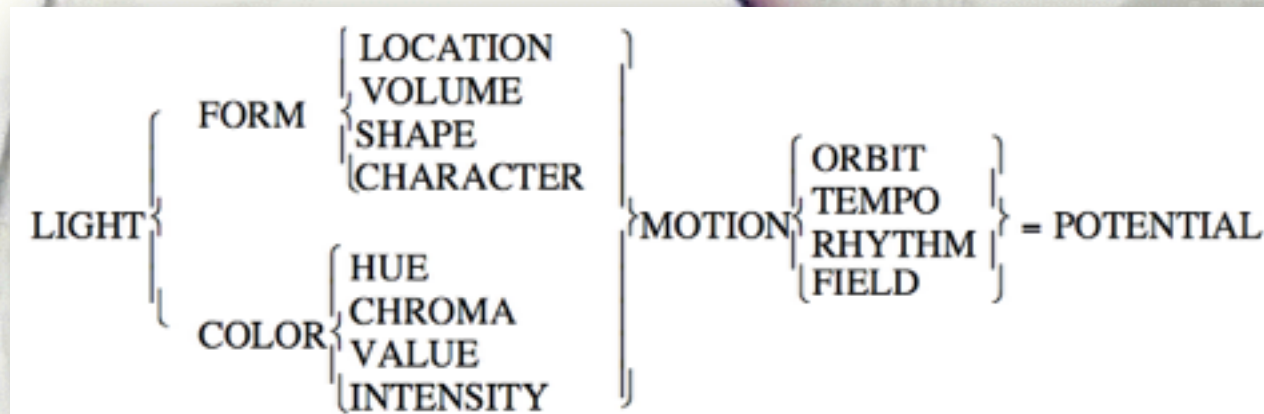


- Thesis available from: <http://eprints.staffs.ac.uk/2047/>
- Initially convert Images to Sound based on their Colour Content
 - Algorithmic sonification
- Later - Interaction between sound and image becomes more fluid
- A parallel development from exclusively using colour into incorporation of form and motion

Portfolio Development
from Music Dominance to AV Equilibrium

Lumia and Space Movement Sound

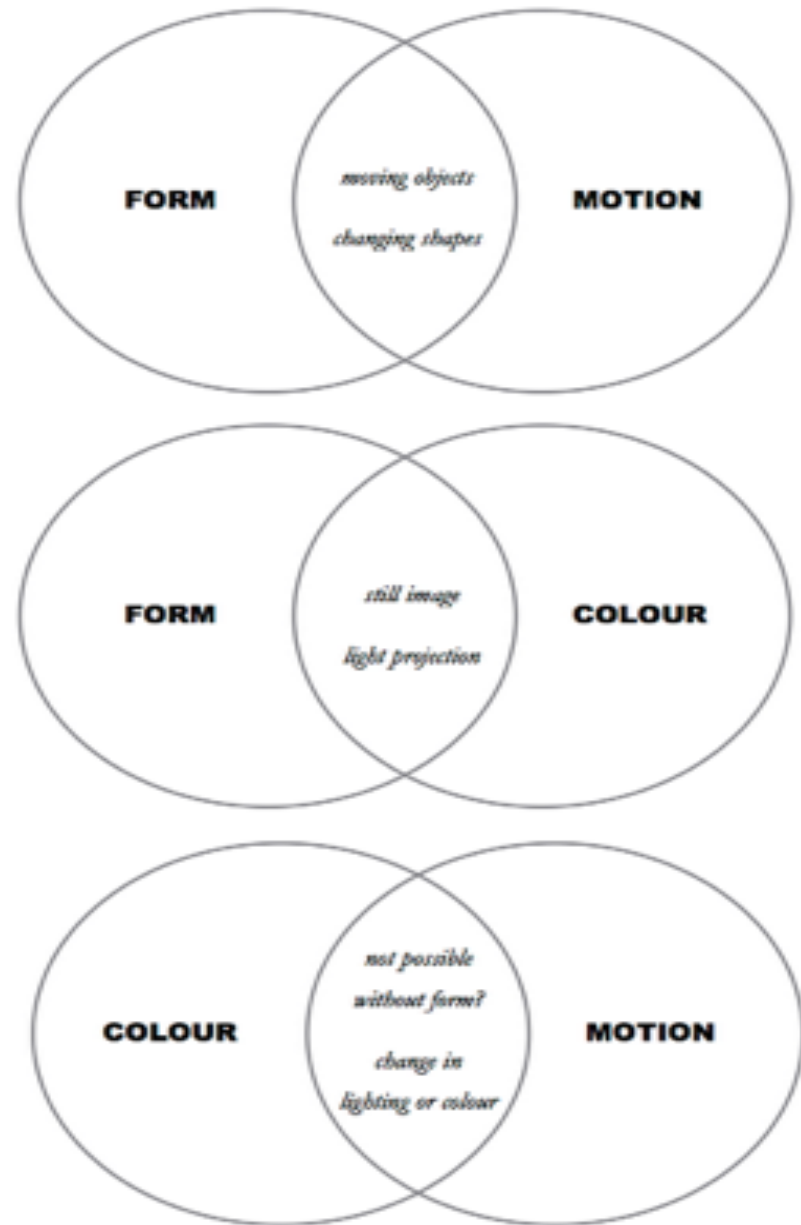
- Thomas Wilfred and Lumia
 - <http://rhythmiclight.com/articles/LightAndTheArtist.pdf>
- Drawn to his ideas as an extension of Kandinsky's colour and form
- A purely light based, non-static, silent, art form



Wilfred's Graphic Equation of Lumia Factors, from Light and The Artist (1947)

Space Movement Sound Pairing Lumia Factors

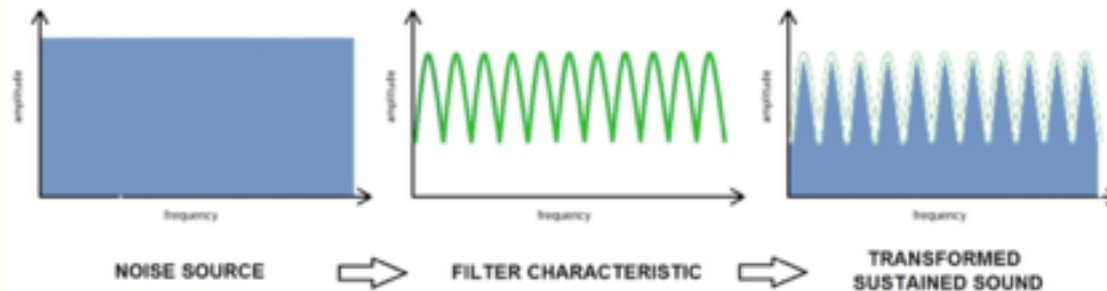
- Colour Blends
 - Isolated Colour
 - Includes subtle form and motion
 - Sound
 - Long textural sound drones
- *Example excerpt from video*
- Motion Shifts
 - Paired Form and Motion
 - De-saturated Images, edits and motion
 - Sound
 - Rapid audio edits and dynamic changes
- *Example excerpt from video*



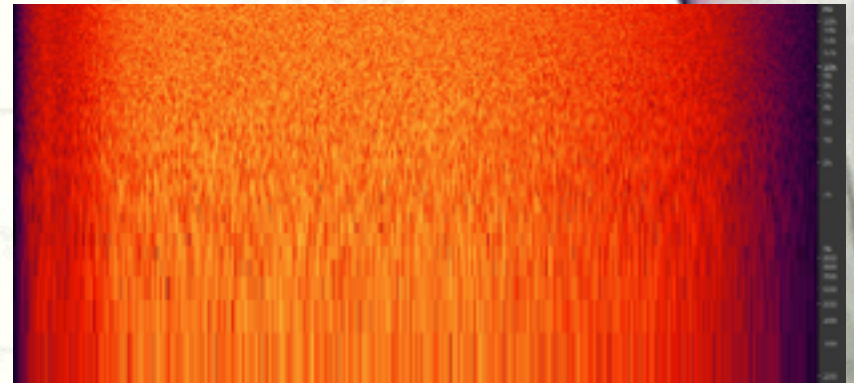
Diffraction

- Refraction?
- Developed from experiments in Colour Blends
 - based around the idea of ‘sound refraction’
 - Colour maintained as a primary influence
- Sound is generally more textural in nature
 - Use fairly basic techniques utilising noise and sine waves
- Refraction of Sound
 - Sound refracted by splitting noise into several component frequencies by a filtering process
 - Also sine tones were recombined to create noisy drones

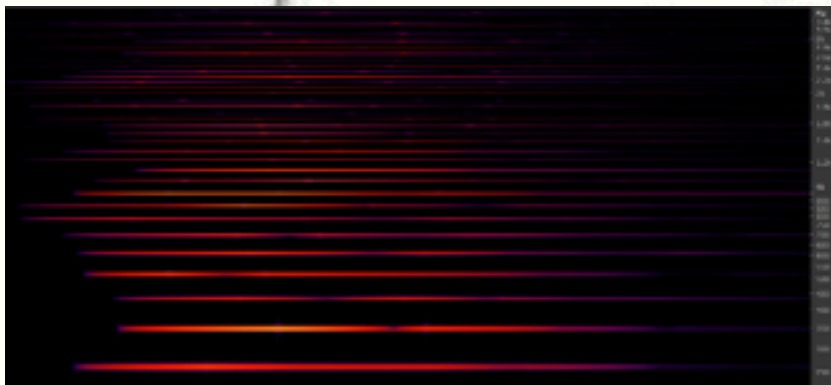
Sound Refraction – Noise To Tones



- Technique relies heavily on Michael Norris' Spectral Magic Plugins
 - <http://www.michaelnorris.info/software/soundmagic-spectral>
- Program a gestural interface in MAX / MSP to allow performance to the visuals

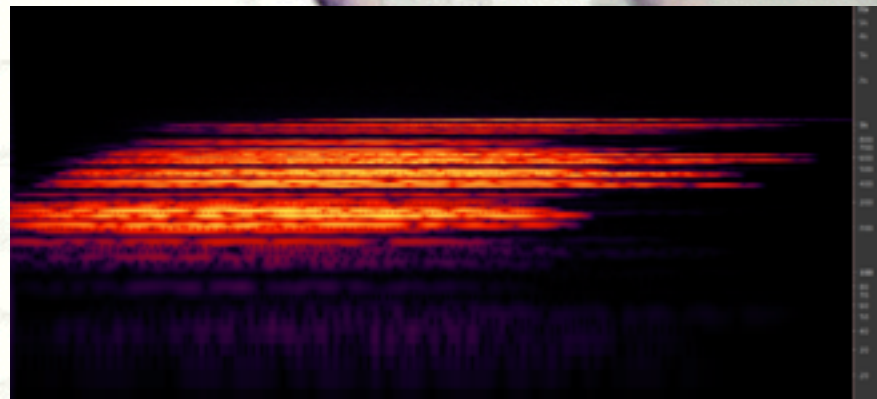
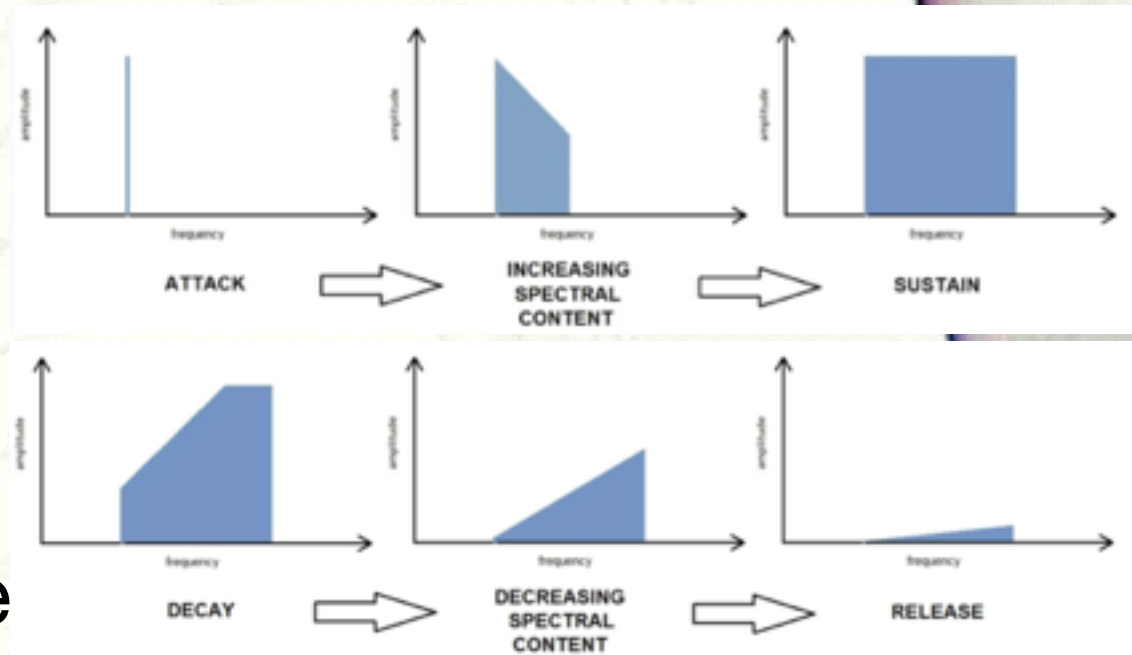


- Input white noise ^
 - Filter through spectral drone maker
- <- Output is a chord like texture



Sound Refraction - Tones to Noise

- The ‘inverse’ process to harmonic filtering
- Input Sine Wave
 - output noisy drone
- *Example excerpts from video*



More information...

- Vimeo
 - <https://vimeo.com/davepayl/>
- NoiseFloor
 - bridge between ‘academic’ electroacoustic and experimental electronica
 - www.noisefloor.co.uk
- Staffordshire University Music Tech
 - http://www.staffs.ac.uk/academic_depts/fsv/facilities/musictech/index.jsp
- Centre for Media Arts and Technology
 - <https://www.staffs.ac.uk/research/cmat/>