



**Composing visual music: human traces, from an animator's perspective**

Research Portfolio (REF)  
Dr Julie Watkins

Dr Julie Watkins

Senior Lecturer  
School of Design  
University of Greenwich  
London

[j.watkins@gre.ac.uk](mailto:j.watkins@gre.ac.uk)

## **Composing visual music: human traces, from an animator's perspective**

### **Originality**

This multi-component output expands on the concept of visual music to include embodied visceral affect and a broader visual arts context underpinning the development of a new expanded visual music. This work contributes to a less explored area of research, focusing on composing visual music in the twenty-first century, re-framing modernist traditions in light of post-modern understandings of subjectivity and affect, leading to new understandings in how visual music is perceived, created and displayed.

### **Rigour**

Over six years this research interrogated practices within embodied interaction with sound and image, drawing on interdisciplinary methodologies and modes of knowledge. Know-how, know-what and know-that, were blended using the framework of Practice as Research, iteratively creating, widely sharing and evaluating, before undertaking further investigation, an action research methodology. The project pursued two diametrically opposite modes of composition. Aspiration for a universal language of visual music, via audiovisual synthesis, was evaluated against the premise of expressivity and phenomenological experience. This culminated in a reframing of visual music, freeing it from musical structures, and offering a phenomenological approach to composition that could be particularly apposite for artists, animators and performers.

### **Significance**

Collectively the journal articles, conference papers, installations and films of this multi-component output have been widely disseminated, adding knowledge to creative communities via international journals of contemporary artistic practice and research and in international communities concerned with film, animation, art, music, dance, theatre, immersive environments and the sciences. This research has the potential to benefit scholars, researchers and creative practitioners investigating sound and image relationships, visual music, animation, affective virtual reality and immersive experiences.

300 word statement

Multi-component M-Exhibition + C-Chapter in book + D-Journal article

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## Part 1 Interactive, immersive installations in London

The solo exhibition *Emotion in abstract animation: designing a new form of visual music* was the culmination of the work. Creating the works was vital as the thinking happened through the making. Iteratively creating and disseminating, reflecting on participants' interactions with the immersive installations and their feedback was key to the rigour of the methodology. This enriched practice led to developing original, affective, immersive work and to a new expanded concept and re-framing of visual music.

## Part 2 Book chapter

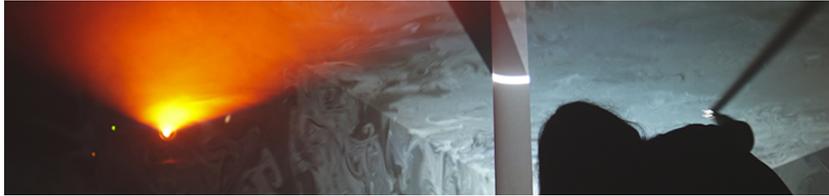
The chapter, *Visual Music and embodied visceral affect*, is the culmination of the written research. It expounds the new and original expanded concept of visual music supported by a theoretical and philosophical framework. Expanded visual music offers a rigorously investigated phenomenological approach to visual music composition that is free of musical structures. Its significance is creative practitioners in fields as diverse as: animation, theatre and affective virtual reality may benefit from this.

## Part 3 Rigour and significant dissemination

Several years of iteratively testing and developing the work, the methodology and the concept, in response to feedback on papers, presentations and work are documented. This demonstrates significant dissemination of the practice to an international and diverse community of both artists and scientists, as well as experts in sound and image relationships and visual music. The practice was well received and I was invited back over many years because of the quality and rigour of my practice & the interest in my field.

## ● EMOTION IN ABSTRACT ANIMATION: DESIGNING A NEW FORM OF VISUAL MUSIC

📅 16th - 18th April 📍 Stephen Lawrence Gallery



*Singing Light (Watkins, 2018) Photo Luca Portik*

*Emotion in Abstract Animation: designing a new form of visual music* by Julie Watkins will feature *Singing Light-1* and *Singing Light-2*.

**Julie Watkins is a PhD Candidate and Senior Lecturer in Film and Television at the University of Greenwich**

*Singing Light-1* will be installed in the Television Studio. In a dark spacious room, a projector throws strong white animations onto the black walls and white flags. A fine haze fills the air. Looking at the walls and flags you see shapes animating as if responding to a voice, but if you step into the animation and look back in the direction of the projector the light forms ever-changing tunnels. Draw your fingers through the mist, touch the light and create shadows, as if touching a running stream. *Singing Light-2* will be transposed in the Gallery by being projected on to multiple translucent screens, allowing a different journey.

*Singing Light* is sung wordlessly and fused with abstract animation through composing motion, using audio-image units, sound and space and celebrating the human voice. It develops a methodology for creating pieces that afford *soft fascination*.

*Singing Light* is the result of a framework I developed for composing visual music from an animator's perspective, to create non-narrative visual music with emotional impact. The significance of the framework is that visual music is freed from musical structures, which opens the visual music composition framework to artists,

*Emotion in Abstract Animation* exhibition page on the Stephen Lawrence Gallery website

For more information visit:

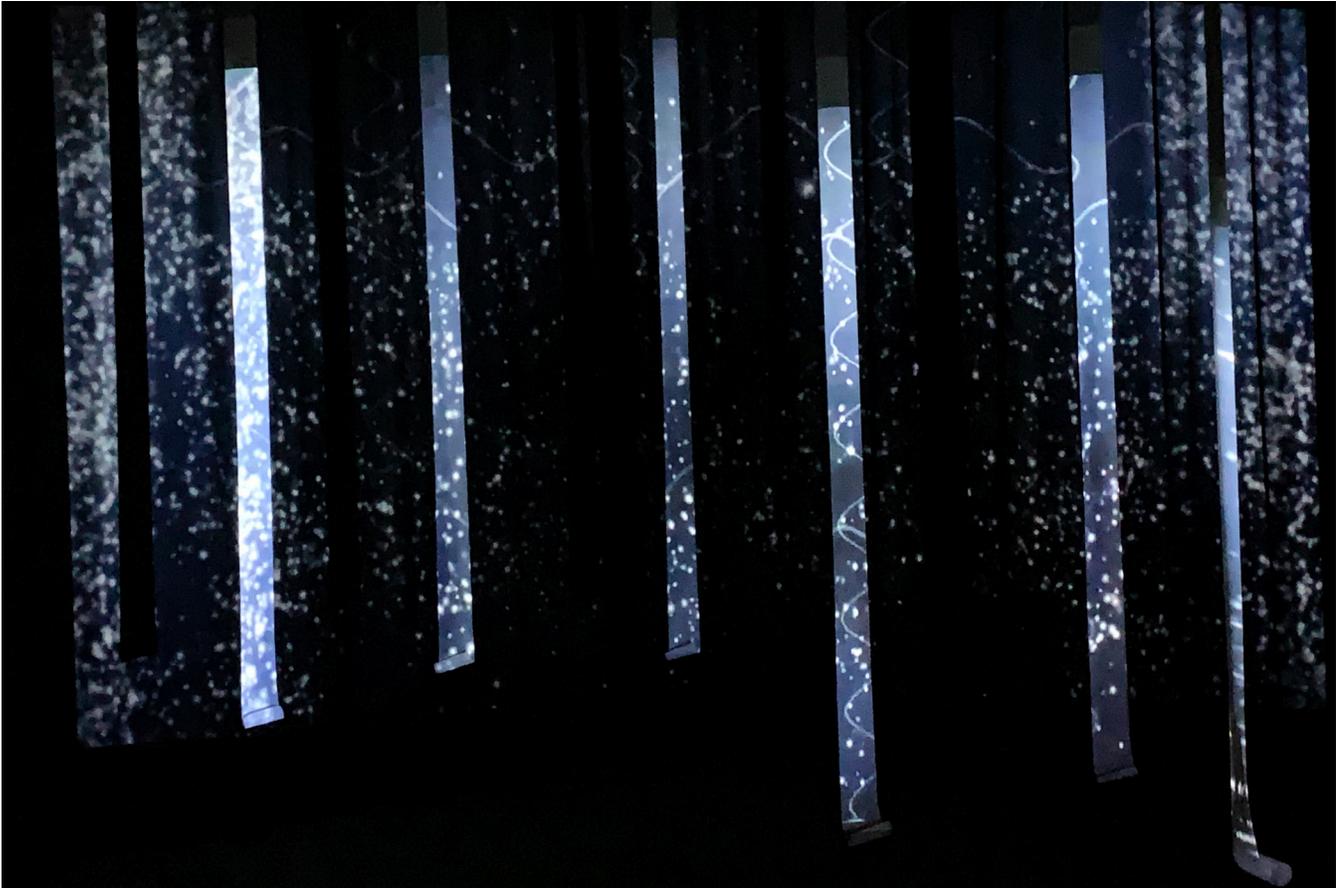
<http://www.greenwichunigalleries.co.uk/emotion-in-abstract-animation-designing-a-new-form-of-visual-music/>



Participants inside *Singing Light 1* in *Emotion in Abstract Animation 2019* Photo Watkins



The participants' view inside *Singing Light 1* in *Emotion in Abstract Animation 2019* Photo Watkins



*Singing Light 1* in Emotion in Abstract Animation 2019 Photo Watkins

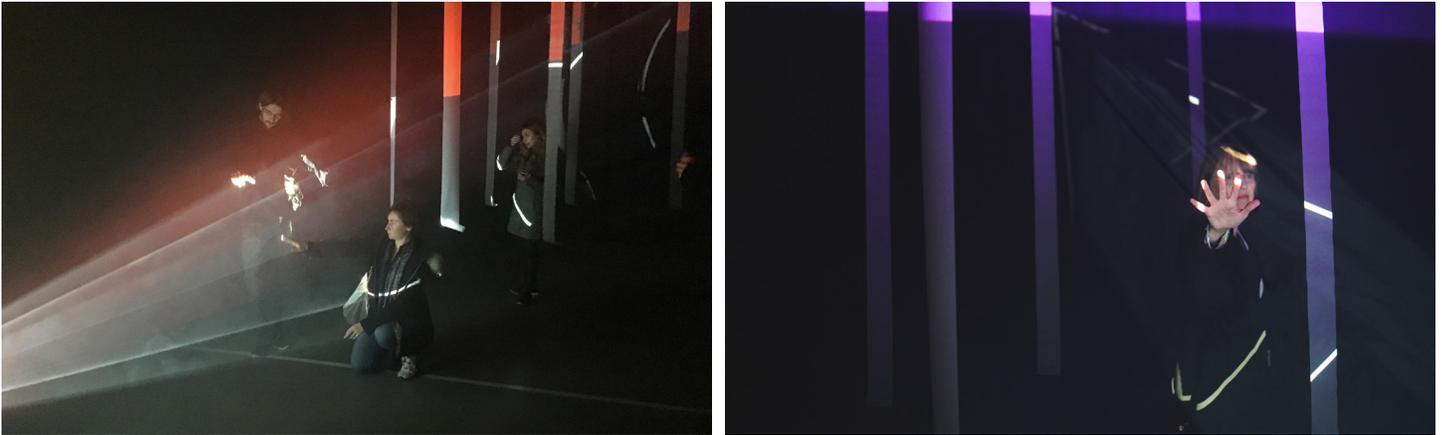


*Singing Light 2* in Emotion in Abstract Animation 2019 Stephen Lawrence Gallery Photo Watkins

## Interactive Installation Output 2 Documentation

05

Interactive installation of *Singing Light 1* 2018 at SOUND/IMAGE 2018 London, at the University of Greenwich



Participants (top and left images) and Watkins (top right image) interacting with *Singing Light 1* interactive installation November 10th and 11th 2018 at SOUND/IMAGE 2018 at the University of Greenwich Photos by Luca Portika for SOUND/IMAGE 2018

Documentation video available on Vimeo <https://vimeo.com/user5379534>

For more information visit <http://www.gre.ac.uk/ach/events/soundimage/conference-archive>

## Interactive Installation Output 3 Documentation

Interactive installation of *Singing Light 2* 2019 at SOUND/IMAGE 2019 London, at the University of Greenwich



Participants interacting with *Singing Light 2* (left image) and opposite view of installation (right image) interactive installation November 9th and 10th 2019 at SOUND/IMAGE 2019 at the University of Greenwich

Photos by Julie Watkins for SOUND/IMAGE 2019

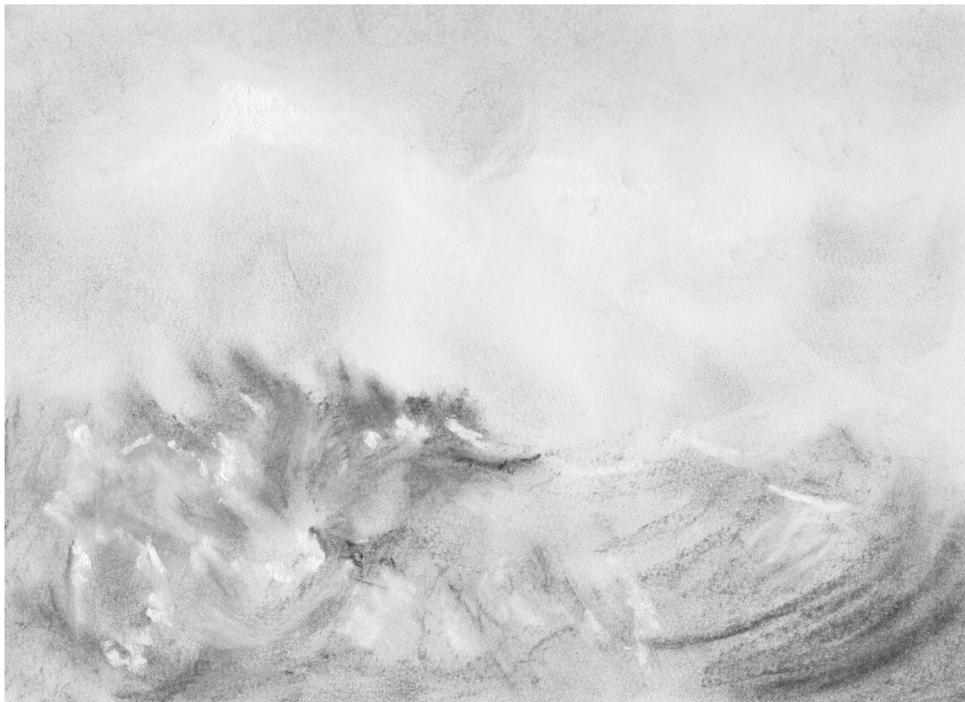
Documentation video available on Vimeo <https://vimeo.com/user5379534>

For more information visit <http://www.gre.ac.uk/ach/events/soundimage/conference-archive>

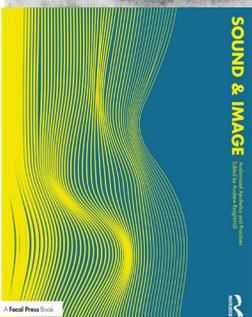
Visual music and embodied visceral affect, chapter 9 in *Sound and Image: Aesthetics and Practices* was published as the culmination of research and scholarship into re-framing visual music and expanding the concept. It provides a wider art context for visual music and offers a phenomenological approach to visual music composition that is free of musical structures, which might benefit artists, animators and performers. It makes an original contribution to the field.

'This chapter seeks to reflect an expanded concept of visual music which includes embodied visceral affect as a key principle. It rejects traditional narratives around the birth of visual music, engaging wider artistic practices and forms of expression, with particular emphasis on the painterly works of J.M.W. Turner. This chapter posits that Turner became a progenitor of visual music when he 'broke' the canvas, and that visual musicians can use this key moment to build a new conceptual foundation of visual music upon the premise of affective expression.'

'In its traditional conception visual music is a thoroughly modernist construct. According to Bruce Elder, the filmmaker and critic: "meditation, contemplation, trance and dream are not incorporated into modernity's model of normative cognition" (Elder 2010: xxvi). As a result, we must make Visual Music wake up. It must awaken from the world it inhabits of abstraction and Cartesian dualism. And stretch its arms out into the physical and embodied world of our experience. By looking beyond the standard histories and formalisations of visual music, artists and composers can draw upon and construct truly affective works, compositions which appreciate the power of communication through embodied immediate experience recognising the key inspirational potential in artistic invocations of the sublime which, as in Turner's paintings so frequently rely upon the articulation and delicate disposition of light. Visual music can be reframed in terms of how it is perceived, how it is created and how it is displayed; visual music can be created anew, an affective artform fit for the 21st century.'



From Visual music and embodied visceral affect: *An impression of Turner's Rough Sea*, charcoal and pastel, Julie Watkins



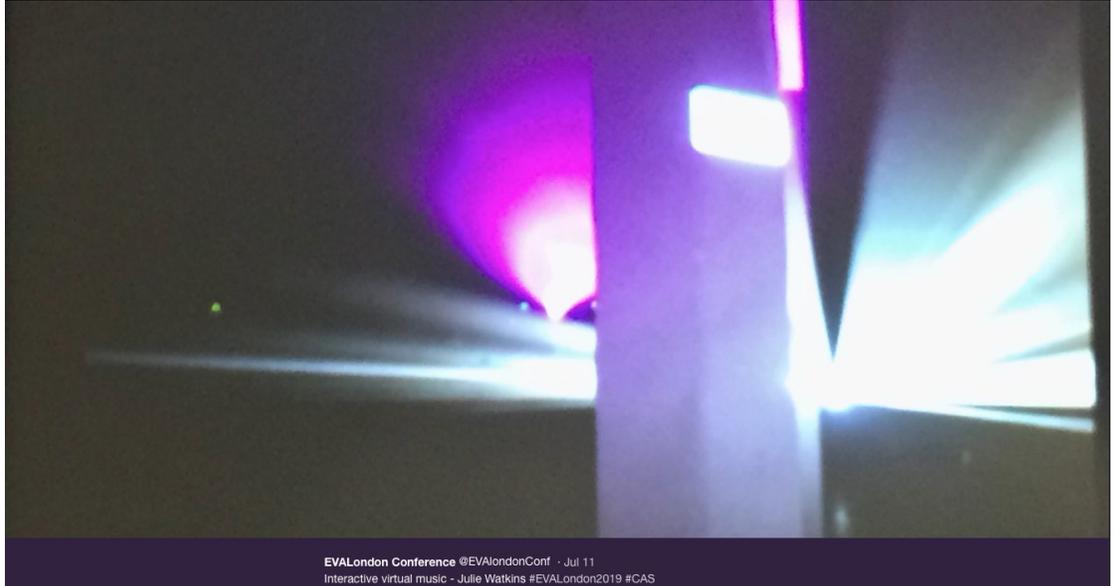
Sound and Image: Aesthetics and Practices Knight-Hill

brings together international artist scholars to explore diverse sound and image practices, applying critical perspectives to interrogate and evaluate both the aesthetics and practices that underpin the audiovisual. This book is ideal for artists, composers and researchers investigating theoretical positions and compositional practices which bring together sound and image.

For more information visit <https://www.routledge.com/Sound-and-Image-Aesthetics-and-Practices/Knight-Hill/p/book/9780367271466>

Over six years, composing based on an aspiration for a universal language of visual music, via audiovisual synthesis, was evaluated against the premise of expressivity and phenomenological experience. The practice was widely disseminated to an international and diverse community of artists and scientists, as well as experts in sound and image relationships and audiovisual practice. Because of the quality of my work, rigour of my practice and the interest in my field I was invited back many times and my work was published as journal articles and in conference proceedings.

## Scientific



<https://twitter.com/EVALondonConf> EVA-London Conference @EVALondonConf - Jul 11 Interactive visual music - Julie Watkins #EVALondon2019 #CAS

EVALondon Conference @EVALondonConf · Jul 11  
Interactive visual music - Julie Watkins #EVALondon2019 #CAS



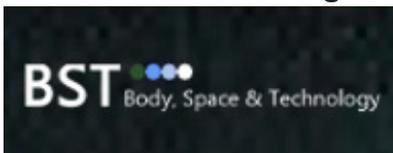
EVA London is an international Electronic Visualisation & the Arts conferences. Its focus is on the development and application of visualisation technologies to various domains, including art, music, dance, theatre and the sciences. EVA London is a conference of the Computer Arts Society (CAS), a specialist group of the BCS Chartered Institute for IT. For more information visit: <http://www.eva-london.org/about/>

## Digital Research in Humanities & Arts



DRHA: Digital Research in the Humanities and Arts bringing together the creators, users, distributors, and custodians of digital research and resources in the arts, design and humanities. For more information visit: <http://www.drha.uk/about/>

## Artistic Practice & Digital Technology



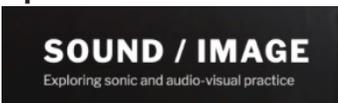
Body, Space & Technology is a leading journal of contemporary artistic practice and research that engage with digital technologies, fostering a global academic community. For more information visit: <https://www.bstjournal.com/about/>

## Specialist: relationship between sound & image



Seeing Sound, at Bath Spa University UK is a practice-led symposium exploring multimedia work which foregrounds the relationship between sound and image. For more information visit: <http://www.seeingsound.co.uk>

## Specialist: sonic and audiovisual practice



The SOUND/IMAGE colloquium, at University of Greenwich, UK, explores sonic and audiovisual practice. For more information visit: <http://www.gre.ac.uk/ach/events/soundimage>

Reading: Animacy, Motion, Emotion  
and Empathy in Visual Music:

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## Papers

Animacy, Motion, Emotion  
and Empathy in Visual Music:  
Enhancing appreciation of  
abstracted animation through  
wordless song

**Author: Julie Watkins** 

## Abstract

This paper will discuss the exploration of key musical and visual parameters with the aim of enhancing the appreciation of Abstracted Animation [1] with varying degrees of animacy. A series of animations were created in response to multiple, wordless, sung, close variations of a song. Carefully delineated, visual parameters and a mapping of visual to audio relationships of the animations afforded insights into key audio-visual intersections and suggested future directions.

Watkins, J., 2016. Animacy, motion, emotion and empathy in visual music: enhancing appreciation of abstracted animation through wordless song. *Body, Space & Technology*, 15

View the article at: <https://www.bstjournal.com/articles/10.16995/bst.20/>

## Papers

# An Investigation into Composing Visual Music Today

**Author:** Julie Watkins 

## Abstract

This paper will discuss an ongoing investigation into developing methodologies for composing new abstract visual music pieces. This practice-based research is historicised in relation to seminal artists whose works have helped to form the canon of visual music and composers, theorists and scientists whose work touches on the same problematic domain. This investigation highlights both the key seminal influences underpinning the new work and the innovations embodied within it. The methodologies developed through creating several visual music pieces over three years are carefully delineated, affording insights into key intersections of abstract visual music, the idea of

## Papers

# Composing Visual Music: Visual Music Practice at the Intersection of Technology, Audio-visual Rhythms and Human Traces

**Author:** [Julie Watkins](#) 

## Abstract

Creators of visual music face the challenge of retaining their own artistic impetus amidst an overwhelming choice of instruments, aesthetics, practice, techniques and technologies brought about by the impinging presence of a vast sea of data and tools. Navigating the data-driven ephemerality of artistic technology and its market-driven constraints by utilising strategies similar to composer Ron Kuivila's (1998) for getting 'under', 'over' and 'into' will be examined with the aim of elucidating methodologies for creating works that other artistic practitioners may find useful.

Leading pioneers of visual music were, of necessity, innovators of technology as well as visual musicians and artists. There is an intrinsic tension between developing new technology in order to re-imagine how music can be made visible and technological pioneers succumbing to the fascination of exploring the technology itself.

Understanding aspects of perception, such as rhythm, is key to developing new technologies and processes in ways that avoid this pitfall and keep the experience of visual music central. Audio-visual synchronisation and rhythm are vital to create, in the seminal computer artist John Whitney's words: 'an art that should look like music sounds' (1980: front dust jacket).

Integrating the body, human traces and especially the human voice into visual music compositions underpins the key objective which is to create work that is non-narrative, 'abstracted animation'<sup>1</sup> (Watkins, 2015), and yet suffused with human presence and emotion. Visual music can be perceived as overly repetitive, cold and alienating if it seems to embody a purely mechanical alignment of music to image, or if it seems disengaged from both human emotions and natural imagery.

This paper is part of an on-going investigation into developing methodologies for composing new abstract visual music pieces and, ultimately, parameters for a visual musical instrument.

Watkins, J., 2018. Composing visual music: visual music practice at the intersection of technology, audio-visual rhythms and human traces. *Body, Space & Technology*, 17(1) pp. 51-75.  
View the article at: <https://www.bstjournal.com/articles/10.16995/bst.296/>



## Creating Affective Visual Music

Authors: [Watkins Julie](#)

Publication date (Print): July 2018

Conference name: Electronic Visualisation and the Arts (EVA)

Conference theme: Electronic Visualisation and the Arts

Conference date: 9 - 13 July 2018

Keywords: [Visual music](#), [Affect](#), [Human traces](#), [Visual structure](#), [Rhythm](#), [Practice-based research](#)

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Abstract

This paper delineates the on-going development of a methodology for creating affective visual music. Visual music is a creative practice that does not split the eye and ear; it problematizes this long-standing duality and seeks to make a singularity. Visual music encompasses many types of output: abstract paintings, time-based performance art such as colour organs, abstract film, projected light shows, art installations of film and expanded cinema (digital media). The impulse to find correspondences between music and visuals and use these to create a new genre has a long history. This practice-based research is historicised and highlights both the key seminal influences underpinning the work and the innovations embodied within it. This paper will discuss experimental, visual music pieces from my own practice (Watkins 2016, 2017, 2018) that employ Ron Kuivila's strategy 'over' technology and seminal works from the visual music canon. Visual music is often approached from the viewpoint of a musical composer, this practice-based research is visually led; visual structures, rather than musical structures, are explored. Visual music can be perceived as overly repetitive, cold and alienating if it has a purely mechanical alignment of music to image, or if it seems disengaged from both human emotions and natural imagery. A key objective is to create work that is non-figurative, non-narrative, pre-language, extra-language, and yet suffused with human presence, to create visual music that is affective.

Presented and published online and in print 2018

Read the full article at: <http://dx.doi.org/10.14236/ewic/EVA2018.70>

RECORD ABSTRACT ARTICLE 

## Interactive Visual Music

Authors: [Julie Watkins](#)

Publication date (Print): July 2019

Conference name: Proceedings of EVA London 2019 (EVA 2019)

Conference theme: Electronic Visualisation and the Arts

Conference date: 8 - 11 July 2019

Keywords: [Visual music](#), [Animation](#), [Human traces](#), [Light](#), [Interactive](#), [Embodied](#), [Installation](#)

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Abstract

How can Visual Music be composed and presented in such an engaging way that it will turn spectators into participants? How to connect a youthful, twenty-first century audience who are keen to update their Instagram story with Visual Music? Visual Music is an art form, which is "an equal and meaningful synthesis of the visible and audible" (Lund & Lund 2009, p.149) and "is typically non-narrative and non-representational" (Evans 2005, p.11). Visual Music is often presented as cinema. Cinema audiences are generally considered to be passive spectators, whose "reactions are pre-programmed by the director, crew, cast and writer" (Mackintosh 2003, p.2). This paper highlights the nexus between, to use McCall's (2004) terms 'the cinematic, the sculptural and the pictorial', with a focus on creating interactive Visual Music installations.

Presented and published online and in print 2019

Read the full article at: <http://dx.doi.org/10.14236/ewic/EVA2019.58>



Presenting *Songs Series Animacy* at DRHA Dublin City University 2015: a Paper, an Installation, a permanent record on Vimeo & in book of Abstracts



Conference Paper *Songs Series Animacy* presented at DRHA 2015

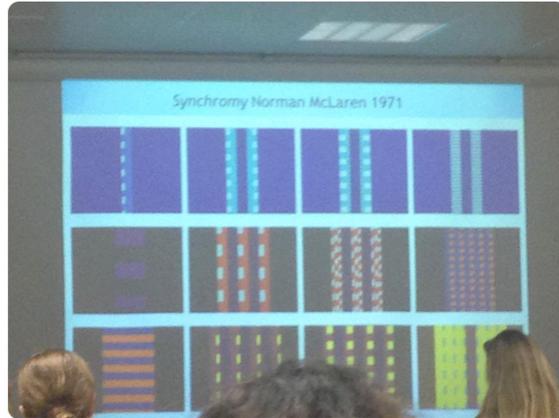


Film *Songs Series Animacy* 2015 looping all evening on two screens in Dublin City University theatre at DRHA 2015



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sonic arts session at #drha2015 Julie Watkins 'Song Series Animacy' The dots & bars represent different notes



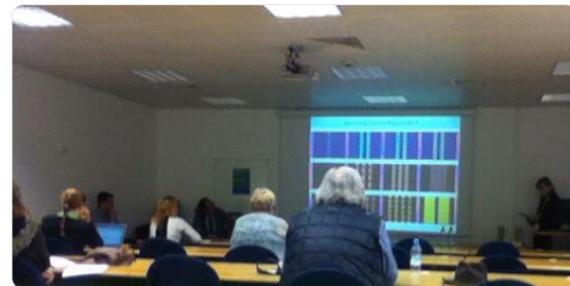
6:55 AM - 1 Sep 2015 from Dublin City, Ireland



Dr Stacey Pitsillides @RestInPixels

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Julie Watkins, discussing Song Series Animation, sonics, anthropomorphism & visual narrative @cpdaUoG #DRHA2015



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DRHA Retweeted



School of Design @SchoolDesignUoG · 1 Sep 2015 Visual sound. j Watkins present high quality research @drha2015 @DublinCityUni #cpdaUog based @UniofGreenwich

From https://twitter.com/drha2015

Abstracts of DRHA Dublin 2015

Song Series Animacy

Julie watkins

Song Series Animacy is a practice-based research project exploring the relationship between motion with intention (1) created in response to the emotion of song and embodied in speed (2), vocal quality (3) and mode. Animacy, the phenomenon of the pattern of movement of 2-D geometric shapes giving the subjective impression that the shape is alive, has long been studied by both animators (4) and neuroscientists (5).

The paper will discuss the development of this investigation through the production of a series of Animacies in response to multiple, wordless, sung variations of two songs. The musical parameters have been chosen that elicit emotional, physiological and psychological responses: the mode, percussive quality and tempo (6). To encapsulate the main emotive

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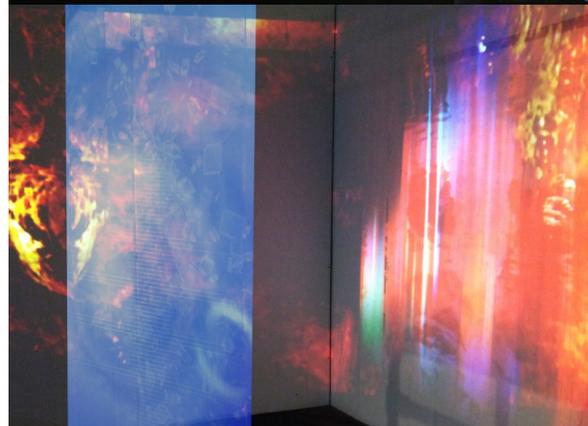
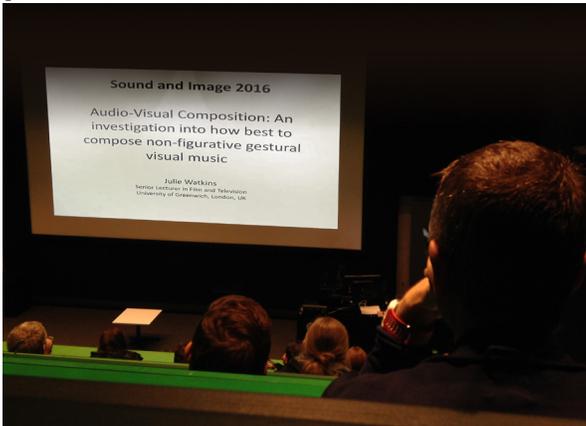
Song Series Animacy Variations 1-9

To see *Song Series Animacy* 2015 visit Vimeo https://vimeo.com/user5379534

## Conference Papers & Installations Outputs 11, 12 Documentation 14

Presenting conference paper *Audio-visual composition: an investigation of how best to compose non-figurative gestural visual music* at SOUND/MAGE at the University of Greenwich 2016:

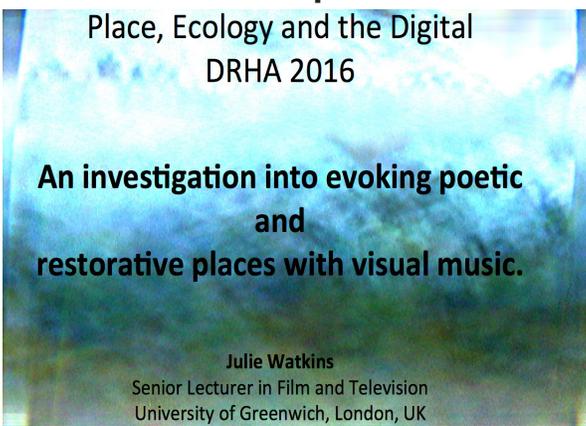
a Paper, two Installations in the Stephen Lawrence Gallery, London UoG and a permanent record of the visual music



Top images: presenting paper, bottom left Waterfall Installation showing *Ambience 1*, *Ambience 2* and *Ambience 3* 2016, bottom right solo Multi-layered Installation of *Ambience 1-2-3* 2016, both in Stephen Lawrence Gallery project space.

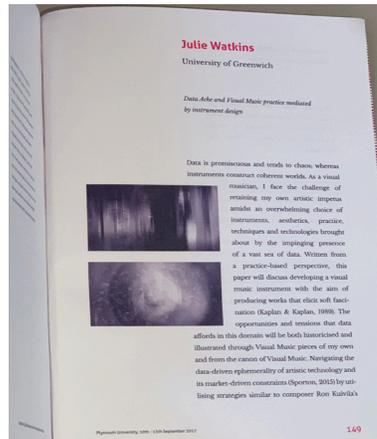
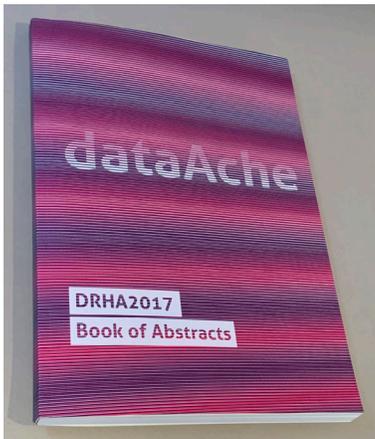
For more information visit <http://www.gre.ac.uk/ach/events/soundimage/conference-archive>

Presenting conference paper *An investigation into evoking poetic and restorative places with visual music* at DHRA University of Brighton 2016: a Paper, presentation of *Ambience 1*, *Reservoir* and a permanent record of the visual music compositions on Vimeo



Presenting paper and *Ambience 1* at DRHA University of Brighton 2016

Presenting conference paper *Data ache and visual music practice meditated by instrument design* at DHRA University of Plymouth 2017: a Paper, presentation of *Ambience 1* and *Ambience 2* and a permanent record of the visual music compositions on Vimeo & paper in the book of Abstracts

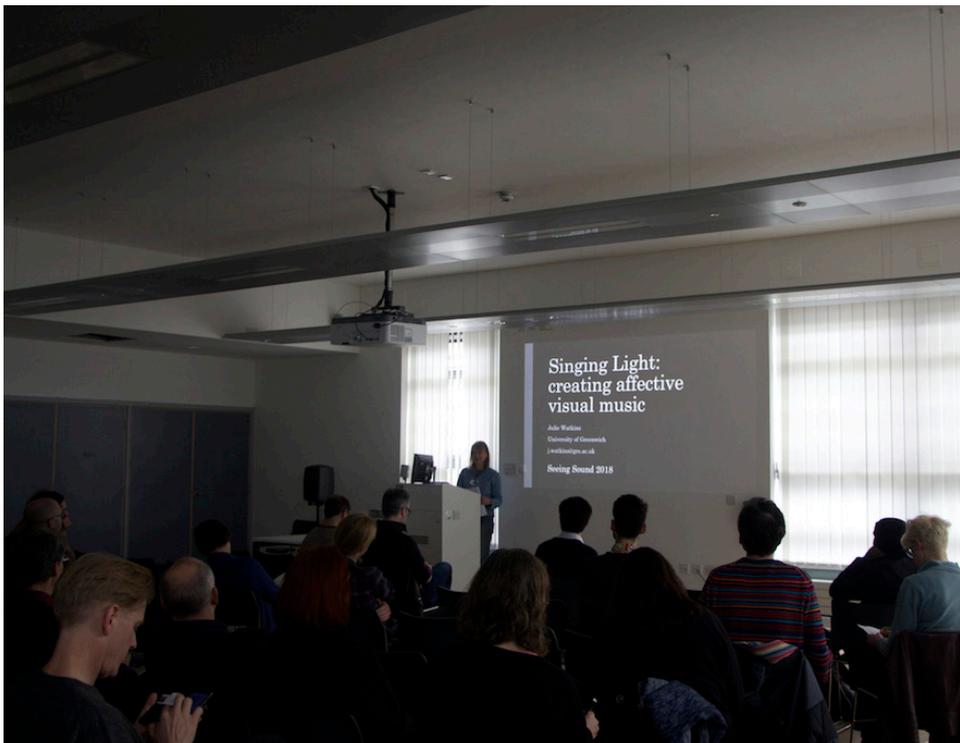


*Data ache and visual music practice meditated by instrument design* in Abstracts of DRHA 2017 University of Plymouth  
To see the films *Ambience 1*, *Ambience 2* and *Ambience 3* visit Vimeo <https://vimeo.com/user5379534>

*Ambience 1* 2016

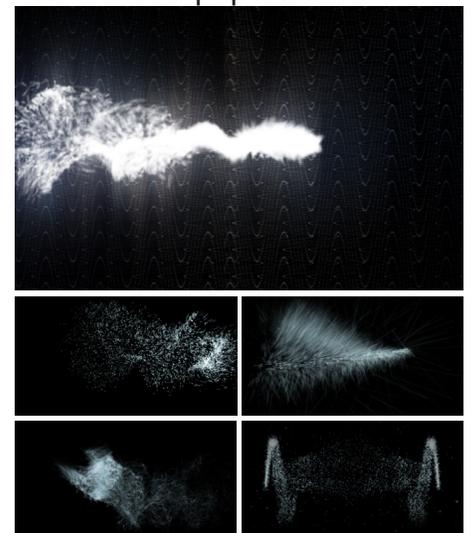
Presenting conference paper *Singing Light: creating affective visual music at Seeing Sound* at Bath Spa University 2018: a Paper, presentation of *Sky 2* 2018 and a permanent record of the visual music composition on Vimeo & paper in Abstracts online

Julie Watkins, University of Greenwich – Singing Light: Visual Music



This paper will discuss composing visual music canon and a framework for composition informed by, but not limited to, the visual musician, I f

From the Abstract online at <http://www.seeingsound.co.uk/2018-papers/>



From <http://www.seeingsound.co.uk/2018-photos/>  
For more information visit <http://www.seeingsound.co.uk/2018>

Stills from *Sky 2* 2018  
Presented with the paper

**Fixed Installation & Presentation Outputs 15, 16 Documentation**  
**Fixed Screen Installation of *Shadow Sounds* 2015 at SOUND/MAGE 2015**  
**in the Stephen Lawrence Gallery, London UoG**

16



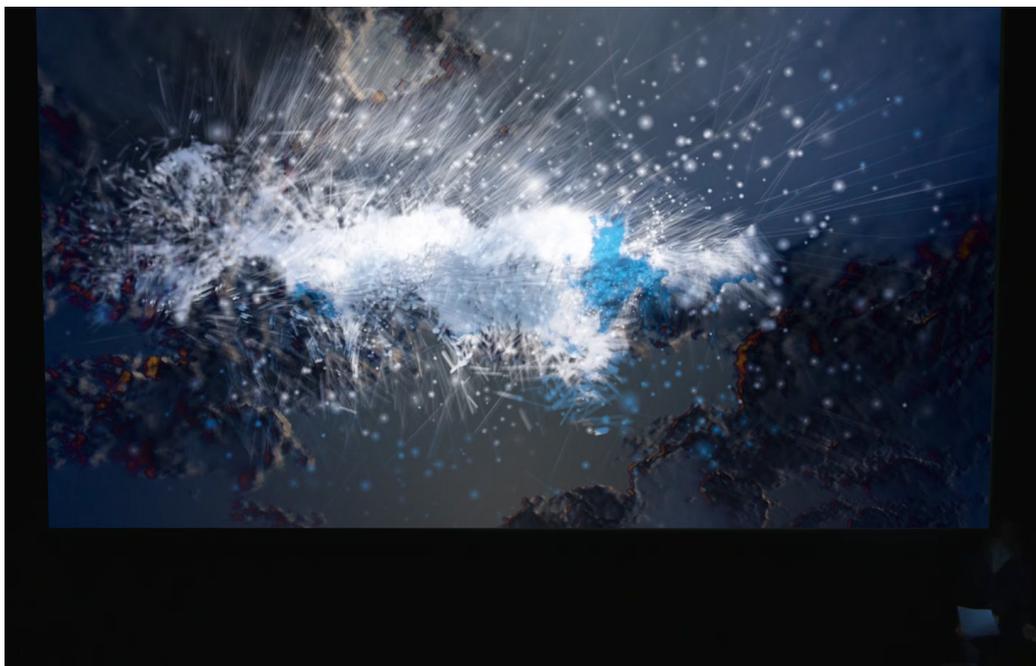
*Shadow Sounds* 2015 is available on Vimeo

<https://vimeo.com/user5379534>

For more information visit

<http://www.gre.ac.uk/ach/events/soundimage/conference-archive>

***Sky* 2017 at SOUND/MAGE 2017 in the theatre at UoG**



Julie Watkins photo of *Sky* 2017 during presentation in the theatre

*Sky* 2017 is available on Vimeo

<https://vimeo.com/user5379534>

For more information visit

<http://www.gre.ac.uk/ach/events/soundimage/conference-archive>

## Fixed Screen Installation of *Horizon* 2014 at DRHA 2014, in the Stephen Lawrence Gallery, London UoG

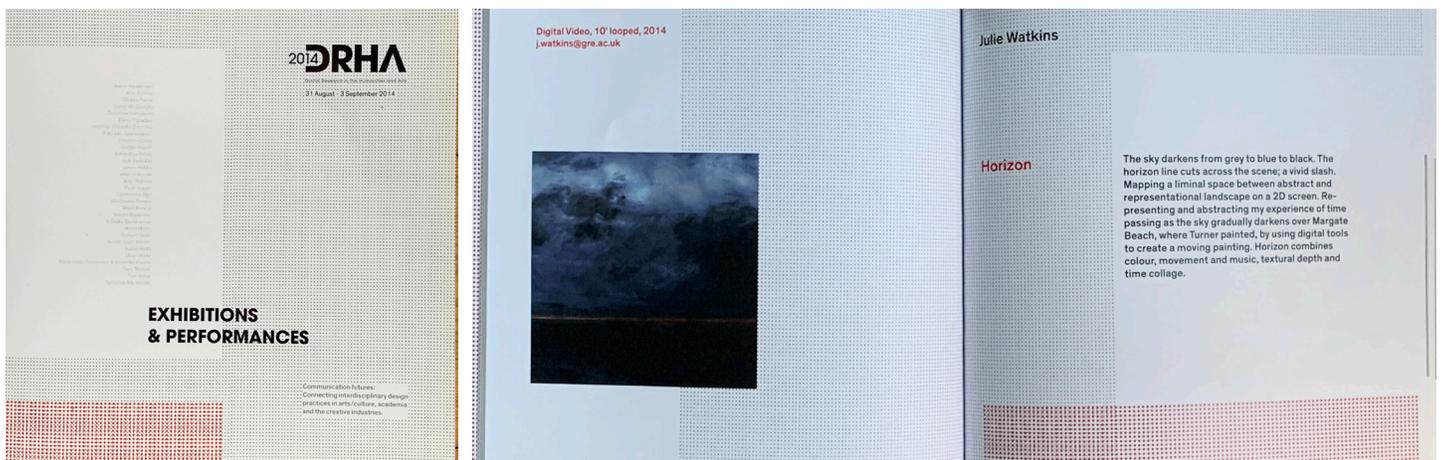


*Horizon* 2014

*Horizon* 2014 is available on Vimeo <https://vimeo.com/user5379534>

For more information visit <http://drha.uk/2014/about/>

The original piece of visual music in this project was inspired by J.M.W. Turner, the artist posited as becoming a progenitor of visual music when he 'broke' the canvas, a key moment in building a new expanded concept of visual music upon the premise of affective expression. This underlines the rigour of using Practice as Research, an action research methodology. The making and the theory are continuously and freshly informing each other on the levels of know-how, know-what and know-that, expanding and deepening the project.



*Horizon* 2014 documented in DRHA 2014 book of Exhibitions & Performances published in print and online