

# SLEEPLESS



## *Sleepless*

A Visual Interpretation of  
gene functions in the brain  
and the relationship to sleep/  
wake patterns.

Type of output:  
Digital or  
visual media

by  
Ellie Land

Cover:

Digitally-drawn graphs depicting  
data taken from mouse models are  
overlaid on time-lapse photography  
of sunrise. (Film still).

*Photo credit: Ellie Land*

Left:

Link to *Sleepless* on the Silent Signal  
website. <https://www.silentsignal.org/Collaborations/sleepless/>

# CONTENTS

SUMMARY	4
INTRODUCTION	5
PROJECT TIMELINE	6
RESEARCH CHALLENGE	7
CONTEXT	8-9
METHODS & PROCESSES	10-15
DISSEMINATION	16-17
REFERENCES	18
ACKNOWLEDGEMENTS	19

# SUMMARY

Examining links between sleep and mental health, Land conducted a two-year dialogue with scientist Peter Oliver and participatory engagement with the Valerian Nights service user group. The result is a five-minute film *Sleepless*.

The research focused on the translation of biomedical science about gene functions in the brain into artistic work that communicated to a lay audience. It questioned how co-creation methods enrich the research and development phase of animated documentary. It sought to investigate where the line of authorship lies between artists and participants, specifically considering the representation of subjective experiences in the animated interview.

*Sleepless* was commissioned as part of the Silent Signal Project, bringing together artists working with animation and leading biomedical scientists to explore new ways of thinking and developing public engagement with the human body. The nature of Oliver's research requires a disconnection from any engagement with the end user, in this case people suffering from mental health. Co-creation methods were used to disrupt this. The practice-based research addressed issues of the materiality of animated documentary, and particularly its agency and ethics in interrogating content provided by subjects featured within it.

Co-creation methods drove a process of exploration, understanding and engagement, enabling a reflexive dialogue triangulated between Land, Oliver and the service user group. Content was collected through semi-structured interviews and a framework called 'Subject Producers'.

The outcome was a visual interpretation of gene functions in the brain and the relationship to sleep/ wake patterns using interviews, animation and time-lapse photography.

Supported through funding from the Wellcome Trust, the film has been presented in seven group exhibitions including LifeSpace Science Art Research Gallery, Dundee, screened at international film festivals and presented at conferences including Ars Electronica 2017, Linz, Austria. The process of making was exhibited alongside numerous Live Q&A's.

Right:  
Land and Oliver interviewed  
about their process 2016  
<https://www.silentsignal.org/>  
Photo credit: Animate Projects

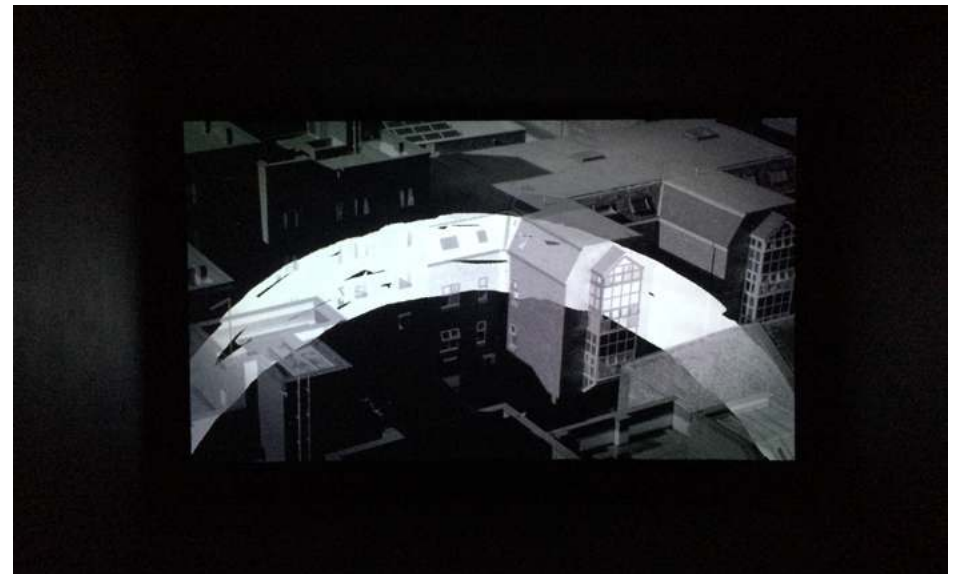


# INTRODUCTION

*Sleepless* is one of six films commissioned as part of the Silent Signal Project. Devised and produced by Animate Projects which champions innovative and independent animation through commissioning animation-led projects for cinema, broadcast, exhibition and online. Animate Projects has made the UK 'an international focal point for animated film making' (David Shrigley).

Right:  
Digital still from *Sleepless*, depicting digital hand-drawn animation composited over time-lapse photography. Exhibited at LifeSpace, Dundee, 2016.

*Photo credit: Ellie Land*



# TIMELINE

2013	2014	2015	2016 to 2019
<p><b>December</b> Animate Projects selects six animation proposals, including Land's proposal.</p>	<p><b>April</b> Land develops the proposal alongside scientist Peter Oliver.</p> <p><b>September</b> The six proposals are pitched to Wellcome Trust to secure a Large Arts Award worth £152,505.</p> <p><b>November</b> Animate Projects is successful in securing the Wellcome Trust Large Arts Award funding. Land is awarded £12,000 of the funding to carry out her research.</p>	<p><b>January - May</b> Land starts research and development.</p> <p>Land meets with mental health charities Launchpad and Chilli Studies and develops the project partnership.</p> <p>Land implements co-creation workshops with the service user group Valarian Knights.</p> <p><b>June</b> Land starts animation production for <i>Sleepless</i>.</p> <p><b>November</b> <i>Sleepless</i> completed.</p>	<p>Dissemination commences: gallery exhibitions, film screenings and conference screenings.</p> <p>Project Website and Science Pack are created.</p>

# RESEARCH CHALLENGE

**Animate Projects posed the following question to Land:**

How do artists translate biomedical science about gene functions in the brain, and its affect on behavioural disorders, into artistic work that communicates to a wider audience?

**During the first few conversations with Scientist Peter Oliver, Land developed her own research question:**

How can the research and development stage of animation production broaden the scope of representation within the 'Animated Interview'?

**Through co-creation workshops with mental health service users, displaying a range of behavioural disorders, a further line of enquiry arose:**

What are the ethical implications of informed consent and authorship when working on an artwork with a group of mental health service users?



Left: Inaugural group exhibition. Quad, Derby 2016. Featuring a large installation of the film and a small exhibition of work in progress. Plus Artist, Scientist Q&A.

*Photo credit: Ellie Land*

# CONTEXT

Land is an international award-winning animation practitioner and is renowned globally for her creative treatment of difficult subjects. Her work is screened internationally at film festivals and exhibited in galleries. Land is at the forefront of animated documentary practice and is regularly invited to speak on panels and be jury at film festivals.

*Sleepless* contributes to Land's on-going body of practice as research in Animated Documentary. Her previous works *Die Andere Seite* (2007) and *Centrefold* (2012) enlisted the animated interview to 'evoke the internal space and portray the invisible' (Wells 1998:22) of subjective experiences.

Land used co-creation methodologies to investigate 'the voice as bearer of truth' (Honesty Roe 2013: 28) and underpin the visuals to situate them closely to experiences of participants' psychological, neurological and functional disorders. Land developed a 'collaborative narrative space' (Kapur 2017:26) and a framework called 'Subject Producers' enabling all stake holders to understand the role of participants' contribution.



Above: Digital still *Sleepless* 2015.

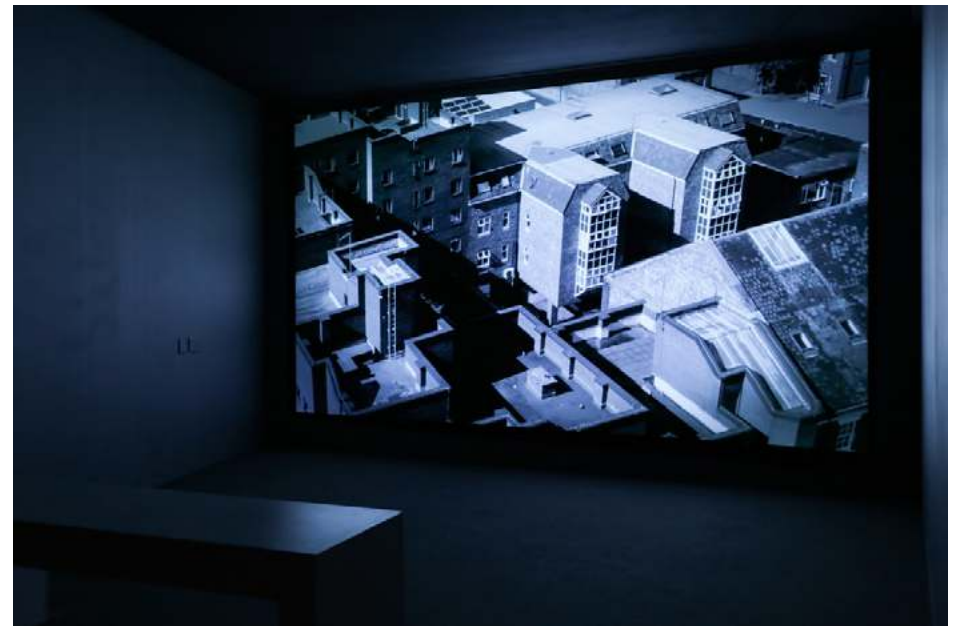
Digital drawing in Photoshop.

*Photo credit: Ellie Land*



The work contributes to discussions on the materiality of animated documentary (Honesty Roe 2013: Ward 2005: Wells 1998) and specifically around the disembodied voice in animated documentary (Nichols: 1991 Renov: 2004, Chion 1999). Land's practice sits alongside the films of Moore 2010, Hodgson 2012, and Tupicoff 1997 in this regard.

Land is the co-convenor of the *Animation Practice as Research* symposium for the *Society for Animation Studies* and she is on the editorial board for the peer-reviewed journal *Animation Practice, Production and Process*. She is also co-creator of [animateddocumentary.com](http://animateddocumentary.com). Her most recent film, *Bathroom Privileges*, won an AHRC Research in Film Award 2020.



Right: *Sleepless*  
large installation at Quad, Derby.  
Photo credit: *Animate Projects*

# METHODS & PROCESSES

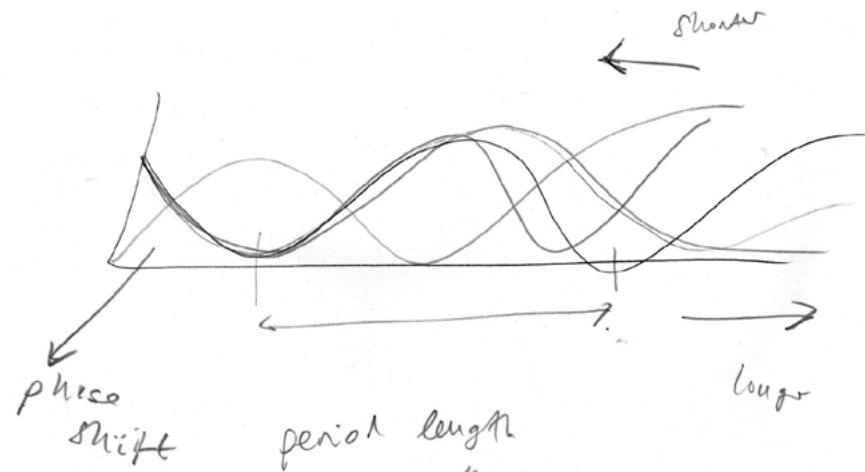
## 1. Dialogue – as a relational learning process

A series of conversations between Land and Oliver, included visits to MRC Functional Genomics Unit in Oxford.

Land investigated Oliver's research process and outcome through a dialogue exchange and drawing.

Regular Skype meetings allowed for reflexive thinking and project development.

Land noted that Oliver's research could be more fully explored through the potential outcomes and its effect on humans. A major outcome of these early discussions was the agreement to include a group of mental health service users to embed deeper understanding of Oliver's research.



Above right: Initial drawings of Circadian Rhythms made by Oliver during the Artist, Scientist dialogues.

*Photo credit: Peter Oliver*

Right: Image of MRC Institute, Oxford University.

*Photo credit: Unknown*



## 2. Co-creation workshops with mental health service user group

Land created a relationship with Launchpad, a charity for mental health service users and Chilli Studios, a user-led creative studio service, both based in Newcastle upon Tyne. Through these organizations Land recruited a group of mental health service users. The organizations also offered support for the project in terms of navigating the group dynamics.

Land developed a series of workshops with nine mental health service users with the aim to:

- Explore the subject area of sleep/awake patterns and deepen the connections between lived experience and the science of genomes.
- Co-design and record narratives around the lived experiences of the participants.



Land used a variety of techniques to stimulate discussion including: semi-structured interviews, peer interviews, storyboarding and stop-motion animation.

The group called themselves ‘The Valerian Nights’.

Far left: Members of The Valerian Nights taking part in pixellation workshops 2015.

*Photo credit: Ellie Land*

Left: Participants created their own short animated responses to disrupted sleep, as part of an intervention to raise and discuss narrative themes.

*Photo credit: Michael McGuire*

## Process

### 1. Iteration

The outcomes of the service user workshops were collected and discussed between Land and Oliver. A narrative plot was formed and semi-structured interviews were conducted by Land to capture specific audio from the participants that would relate to the plot points. The audio was edited on to a timeline in premiere and created the narrative 'backbone' of the film.

Digital drawing and storyboards were used to visualize the response.

Once Storyboards had been agreed between Land, Oliver and the service user group then an iterative cycle of animatics (moving storyboards to sound) were shared over a period of two months and Land responded to the feedback.



Left:  
Selected digital stills taken from an early version of the animatic process, showing the rough drafts of visual responses.

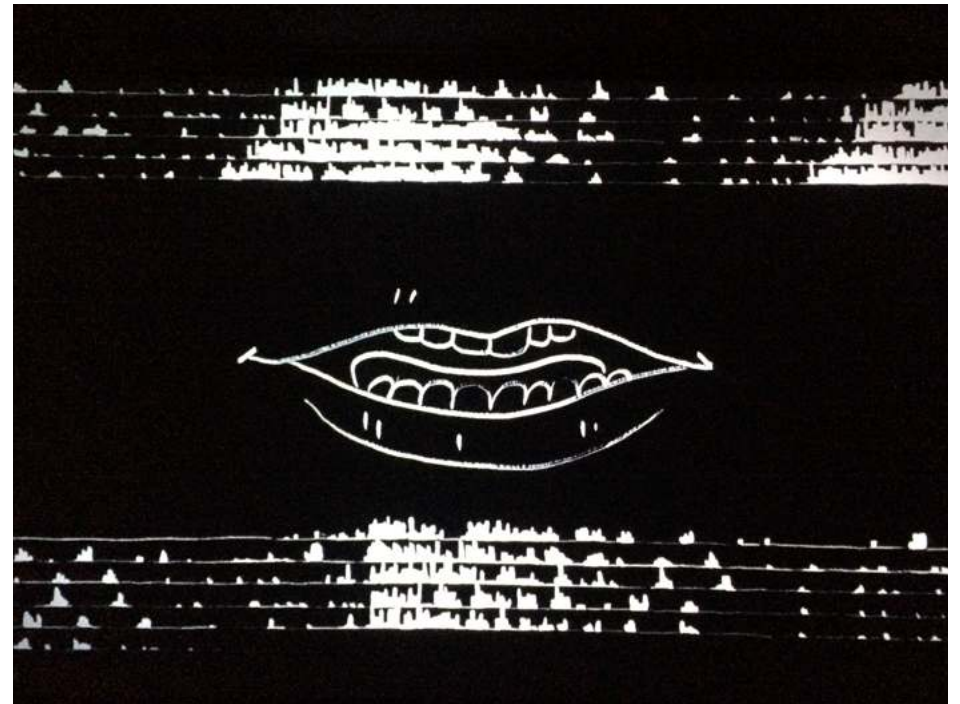
*Photo credit: Ellie Land*

## 2. Edit and Sound – Sync and Desync

One of the continuing themes in the film is circadian rhythms and the human body's natural rhythm. Land sought to address this through the manipulation of the frame rate and frame-by-frame process.

Lip-sync was used to evidence this process, in showing the sound desyncing from the lips speaking the words and vice versa.

Right:  
Digital Film Still from *Sleepless*,  
displaying mouse model data and lip-sync.  
Photo credit: *Ellie Land*





### 3. Production of Animation and Sound recording

2D digitally drawn animation and time-lapse photography was used to replace the animatic images.

The animation was created in Photoshop using a drawing tablet by Land.

The time-lapse photography was created by Fourth Dimension under direction from Land.

The image sequences were composed and edited by Land in Premier.

Right: The final part of the process. Sound Mix session at Teesside University Sound Studio, 2015.

*Photo credit: Ellie Land*



#### **4. Ethics and informed consent**

Some consideration around 'informed consent' was needed in order to include the participants and their contributions, and to work with stakeholders' expectations (Animate Projects and Wellcome).

Land worked with Dr Toby Brandon (Northumbria University) and Alisdair Cameron (Launchpad) to develop a plan that would safeguard the participants, whilst allowing them to have ownership over their own consent.

This involved using the Mental Health Act 2007 to understand and explain informed consent to stakeholders, and to create consent forms that reflected this information to all parties involved.

# DISSEMINATION

## Outcomes:

5 minute film Digital 1080p.  
Website including interviews with artists and scientists.  
Science Guide publication.

## Audience numbers:

50,000 (just under) including 16,800 at live events.

## Breakdown:

The total number of exhibition visitors, event attendees and workshop participants was 16,410.  
In terms of online interaction: a total of 30,500 people visited the Silent Signal website; 2,700 people watched the animations on Vimeo; and 350 people downloaded the Science Guide.

## Conferences:

9 September 2017, screening + presentation Expanded Animation, Ars Electronica, Linz, Austria.

## Exhibitions:

6 February – 6 March 2016, QUAD, Derby.  
19 March – 23 April, Vivid Projects, Birmingham.  
13 May – 25 September, Wellcome Genome Campus, Hinxton.  
30 September – 26 November,  
LifeSpace Science Art Research Gallery, Dundee.  
20 October – 30 October, Manchester Science Festival, University of Salford.  
15 December 2016 – 29 January 2017, Phoenix, Leicester.  
15-27 September, Artience Daejeon 2017, Daejeon, South Korea.

## Screenings and Events:

5 February 2016, Preview + artist's & scientist's Talk, QUAD.  
26 February, symposium, University of Derby.  
15 March, Silent Signal Salon, University of Birmingham.  
18 March, Preview, Vivid Projects, Birmingham.  
1 April, Late Opening, Vivid Projects.  
12 April, Screening, Kunst Kraft Werk, Leipzig, Germany.  
12 May, Preview, Wellcome Genome Campus, Hinxton.  
14 May, Presentation by Producer Abigail Addison, Ecstatic Truth Symposium, RCA, London.  
25 May – 31 May, Exhibition, VIS Vienna Independent Shorts, Vienna, Austria.  
4 June, Workshops run by CSM students, Central Saint Martins, London.  
16 June, Screening and presentations, Central Saint Martins, London.  
1 July, First Thursday, Wellcome Genome Campus.  
4 August, First Thursday, Wellcome Genome Campus.  
21 August, Screening & discussion between Bentley Crudginton, Professor Peter Oliver and Ellie Land, Green Man Festival: Einstein's Garden, Brecon, Wales.  
17-23 September, Installation at the Wellcome Trust, London.  
29 September, Preview, LifeSpace, Dundee.  
16 October, Screening: 9th Imagine Science Film Festival, New York.  
19 November, Talk: Ellie Land, LifeSpace, Dundee.  
24 and 30 May 2017, Screening: Animex, Middlesbrough.  
2 February 2018, Screening: Big Bang Weekend, Wigtown.



**Reviews:**

Selected audience reviews specific to *Sleepless*:

“Made me think more about the benefits of sleep.”

“The most provoking film was about sleep deprivation as I could relate to it.”

“I was intrigued by the video on sleep and sleeplessness and their somatic effects.”

“I think that the “Sleepless” section was quite interesting and it made me understand the body clock more.”

“Sleepless is something I will talk about to other people.”

“The only one I did understand was the sleep deprivation one.”

**Press:**

“Even though none of the artists have let the facts get in the way of a good film, the depth of their collaborations ensure the merit of *Silent Signal* is scientific as well as artistic.”

- Mark Sheerin, ‘Here’s the science: six artists collaborate with six biologists for illuminating show at quad’, *Culture24*, February 2016.

**Commendations:**

“Honourable mention should definitely go to Animate Projects’ *Silent Signal* project which came to fruition this year with six experimental animations produced by collaboration between artists and scientists, immaculately documented on the project’s website.”

- Jez Stewart, ‘The best indie animation of 2016’, *Sight & Sound*, BFI, January 2017.

*Silent Signal* received praise in the science communication arena with the project being longlisted for the NCCPE Engage Competition 2016 and received a Commendation for the Imperial College London President’s Collaboration Award for Excellence in Societal Engagement.

# REFERENCES

Chion (1994) *Audiovision*. New York: Colombia University Press.

Hodgson (2012) *The Trouble with Love and Sex* <https://player.vimeo.com/video/420460413>.

Honess Roe, Annabelle (2013), *Animated Documentary*. London: Palgrave Macmillan.

Kapur (2017) 'Co-creation as Talkback' *I-Docs The Evolving Practices of Interactive Documentary*. London: Wallflower Press.

Moore (2010) *Eyeful of Sound* <https://vimeo.com/11649675>

Nichols (1991) *Representing Reality: Issues and Concepts in Documentary*. Bloomington, Ind.: Indiana Univ. Press.

Wells (2015) *Understanding Animation*. London: Routledge.

Renov (2004) *The Subject Of Documentary*. Minneapolis: University of Minnesota Press.

Tupicoff (1997) *His Mothers Voice*  
[http://www.dennistupicoff.com/mother\\_clip\\_03.html](http://www.dennistupicoff.com/mother_clip_03.html)

# ACKNOWLEDGEMENTS

Abigail Addison (Producer Animate Projects)

Dr Peter Oliver (MRC Institute, Oxford University)

Dr Toby Brandon (Northumbria University)

Alisdair Cameron (Launchpad)

Chilli Studios Newcastle

The Valarian Knights

Northumbria University, Newcastle.  
Art and Design: History, Practice and Theory.

**REF2021** Research  
Excellence  
Framework

