“You mock my blindness?
Let me tell you this.
You with your precious eyes,
You’re blind to the corruption of your life,
To the house you live in,
those you live with.”

(Oedipus, line 468)
**ghost trees**

Ghost Trees is a multi-sensory experience in 3 acts - a question about the overwhelming nature of data and how it can blind us from what's happening to the natural world around us. The viewer moves through 4 spaces which invite them to see, hear and interact with the data which underlies all the visuals.

Beginning with beautiful abstract images, the source of the work (3D laser scans of endangered ecosystems)¹ will slowly be revealed as the viewer journeys from blindness to sight and back again. Is data making us blind to climate change like the fabled Oedipus² play whose protagonist denied the truth blinding himself once he realised what he had done? Nature as data, Data as blindness, Blindness as beauty.

**ACT 1 - PLACE**

**"I look but cannot see"**

**Space 1** - The viewer is introduced to abstract 2D close up images of the cloud points - literally inside of the forest looking out. These images are beautiful yet abstract leaving it ambiguous the origin of the data - Blindness as Beauty.

**ACT 2 - TIME**

**"I touch but cannot feel"**

**Space 2** - Interactive sound corridor: The viewer moves into the interactive sound corridor into a space that is designed to begin the reveal engaging the viewer through sound and touch to become invested in the data. Ambient sound is quietly broadcast, processed bioacoustics recorded from endangered ecosystems, bird calls, wind through trees, insects - morphing from abstract to literal.

Small metal discs painted to match abstract dots from room 1 will be installed on both walls of the corridor. When touched by the viewer these will generate a sound. The sounds will be a mix of music and sound design, bird calls, branches, wind, insects processed to be more experiential. Sitting somewhere between sound design and music. Sounds generated will combine to produce a continually changing generative composition.

**ACT 3 - ACTION**

**"From blindness to sight"**

**Space 3** - Video projection: The experience in this space is eerie for the viewer - a visual and sonic journey through the point cloud imagery of trees and forests or “ghost trees” - as the data points seen in space 1 experienced reveal themselves as a ghostly forest - sitting between real and virtual, ephemeral yet fixed by coordinates.

**ACT 3 - ACTION**

**"Nature as data"**

**Space 4** - The viewer enters a darkened room to the sound of datasets being drawn by a robot plotter. The drawings of the forest and trees are now no longer abstract but are representations rather than the real thing as they no longer exist. The drawing machine is in complete darkness and its previous images are strewn around the space and underfoot.

Footnotes:
1. Scans produce Cloud point files. Simple x,y,z files of point in space as text files. With the advent of LiDAR laser scanning has enabled the acquisition of 3D point clouds in forests and a detailed 3D analysis of forest structures.
2. In the 4th cent BC, play Oedipus the King, Sophocles explores blindness from two angles, physical blindness, and inability to see the truth for the sighted.
3. TERN is Australia’s land ecosystem observatory providing measures of changes in Australia’s ecosystem biodiversity. All datasets are creative commons use. It is part of CSIRO. Site selected are based on their suggestions.
Space 1 - The viewer is introduced to abstract 2D close up images of the cloud points - literally inside of the forest looking out. These images are beautiful yet abstract leaving it ambiguous the origin of the data. Large prints, possible video monitors.
Space 1 - Detail of printout of a point cloud of a single tree. Viewpoint is from within the tree itself.
**Space 1** - Detail of print of printout of a point cloud of a single tree. Viewpoint is from within the tree itself.
Space 3 - Still from video of "Ghost Trees". Link to video [https://vimeo.com/350544303](https://vimeo.com/350544303)
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Space 3 - Still from video of “Ghost Trees”. Link to video [https://vimeo.com/350544303](https://vimeo.com/350544303)
Image 8
Act.2

Space 3 - Still from video of "Ghost Trees". Link to video https://vimeo.com/350544303
Space 4 - The viewer enters a darkened room to the sound of datasets being drawn by a robot plotter.

Space 4 - The drawing machine is in complete darkness and its previous images are strewn around the space and underfoot. Above is example of A3 drawing.
McGrath graduated as an architect in 1994, and lectured in design and digital visualization at the University of New South Wales. Over the last 10 years his paintings have been exhibited in London, Paris and Sydney. He has also trained as a painter by working as a studio assistant to the Neo-renaissance painter Patrick Betaudier in Paris and Arthur Boyd in Australia. His work is equally motivated by the inherent differences and tensions that the marriage of painting and 3D digital video engenders.

For the last 15 years he has been represented by Olsen Gallery with numerous solo shows. Link to catalog of works.

**Solo shows (unless noted)**
- 2018 THE FLOODED Library, Olsen Gallery
- 2016 Ocular/Specula, Olsen Irwin, Sydney
- 2015 Ocular/Fleur, Cat Streery Gallery, Hong Kong
- 2014 Ocular/Fleurs, Olsen Irwin Gallery, Sydney
- 2013 Lacuna/Anamnesis, Olsen Irwin Gallery
- 2013 Sydney International Art Fair, Olsen Irwin Gallery
- 2013 Marnling Press, Group show, Maitland Regional Art Gallery
- 2012 “ex libris”, Cat Streery Gallery, Hong Kong
- 2012 “ex libris”, Tim Olsen Gallery, Sydney
- 2010 “Cranium”, Arteerial Gallery, Group show, Sydney
- 2009 “Ghost Nets”, Sculpture by the Sea, Site specific digital performance, Tamaramma Beach, Sydney, Australia
- 2009 “carriageARTworks”, Carriage Works, Group show, Sydney
- 2009 “Chiaroscuro”, Arteerial Gallery, Group show, Sydney
- 2008 “Recent Work”, Tim Olsen Gallery, Sydney, Australia
- 2007 “Pozzo’s Shadow”, Gibsons Jessop Gallery, Toronto, Canada
- 2005 “Variations on Baroque Ceilings” Michael Carr art gallery, Sydney
- 2003 “Quadrautra” Michael Carr art gallery, Sydney
- 2001 “Infra-red Baroque” Michael Carr art gallery, Sydney
- 1999 “Cusp- a study of folds and flora” Michael Carr art
- 1998 Queen Street Fine Art, Sydney
- 1996 Cite Internationale des Arts, Paris, Solo Exhibition

**Installation and projects that relate to this project:**
Link to videos and installations

- Lacuna/Anamnesis: 2013, Olsen Irwin Gallery, Painting series of Baroque libraries placed in Australian forests.
- **Tidal Vectors:** 2000, digital installation Museum of Sydney, Olympic Arts Festival
  A 3D digital installation of the dynamic shape and motion of Sydney Harbour composed from scientific data of depth soundings and tidal flow vectors. Elements of marine geography and historical reference relating to the harbour are layered to create a poetic metaphor for Sydney and the broader Australian Culture. In collection of ACMI

- **Ghost Nets:** 2009, site specific installation Sculpture by the Sea, Directors award. Projections onto cliffs of Tamarama beach. Link to video

- **Under The Waterline:** 1998, Customs House, collaboration Nicole Ellis. Installation.

**Education**
B. Arch first class honours (UNSW & Architectural Association, London)

**Scholarships / awards**
- 2003 Blake Finalist Exhibition (Sydney)
- 1999 Australian Arts Council new media Commission
- 1999 Sculpture by the Sea Directors Award (Sydney)
- 1998 National Digital Art Award Queensland (Brisbane)
- 1997 NSW Ministry of Arts Project grant
- 1997 Australian Post Graduate Award (Sydney)
- 1996 Moya goring Paris Studio, Cite des Arts. AGNSW Paris
Works/Projects

Rutherford’s Den.
The Arts Centre, Christchurch, NZ.
Music and Audio Producer.
2016 - PRESENT
Permanent science museum celebrating the work of Sir Ernest Rutherford.
Music and sonic articulation of atomic physics. Design and implementation of interactive and experiential exhibits.
https://www.esemprojects.com/project/rutherfords-den/

Arrivals and Departures.
Barangaroo Cutaway. Sydney.
Music and Audio Producer
2015
Multi media experiential exhibition for the opening of Barangaroo headland.
https://www.esemprojects.com/project/arrivals-departures/

Freezing Gold Nanocluster.
Sounds of Matter, University of Vienna
Music Composition.
2018
Interactive installation presenting Musical compositions based on Physics.
Selected best in category of Nucleation.
https://vimeo.com/255836672

Visions of Peace.
Liverpool, Sydney.
Music and Audio Producer.
2018
Public art installation commemorating Liverpool’s role in WW2 History.
Celebrating the continued importance of Peace.
https://www.esemprojects.com/project/visions-of-peace/Bathurst

Winter Festival.
Bathurst, NSW.
Music and Audio Producer
2015 - PRESENT
Regional interactive sound and light festival.
Running for 2 weeks in mid winter attracting 20,000 visitors.
https://www.esemprojects.com/project/illuminate-bathurst-present/

Woolmark
New World Wool. Fosun foundation, Shanghai, China.
— Music Producer, Music Director
2018
Music production for interactive fashion exhibition, celebrating 50 years of wool trade with China.
https://youtu.be/SWDsRoOXLrc

Music and Audio Producer
2016
Ambient musical soundscapes, broadcast throughout exhibition.
Interactive audio/visual exhibits.
Now touring WA.
https://www.sea.museum/2014/12/16/bringing-an-exhibition-to-life-voyage-to-the-deep

Tyrannosaurs
Meet the Family. Australian Museum, Sydney NSW.
Music and Audio Producer
2013
Interactive exhibit for award winning exhibition. Now touring USA.

Deep Oceans
Australian Museum, Sydney NSW.
Music and Audio Producer
2012
Ambient musical soundscapes, broadcast throughout exhibition.
https://australianmuseum.net.au/about/organisation/media-centre/deep-oceans/

EMPLOYMENT

Tactile Music, Sydney : Founder/Company Director.
2006 - PRESENT
Tactile Music http://tactilemusic.com/ is an adaptive B2B music production, curation and audio service company providing solutions for all media, experiential, arts, science, education and fashion segments.