# LAURA JADE Lighting | Art | Science | Design

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Laura Jade is an Australian illumination artist and interaction designer whose work fuses the multidisciplinary fields of art, biology, illumination design, neuroscience and BCI (brain-computer interface) technology to explore new ways of perceiving and interacting with our inner biological processes.

Laura has a multidisciplinary background, holding a Masters in Illumination Design from the University of Technology Sydney, a degree in Fine Art and further studies in biology, science communication, curation and museum studies. Laura is also the creative director of Brainlight, an interactive brain installation that lights up with the power of your mind.

In 2015 Laura completed her Masters of Design alongside a research art residency at Culture at Work linking the multi-disciplinary fields of art, illumination design, neuroscience and brain-computer interface technology through illuminated installations. She was subsequently invited to present a keynote demonstration of her project Brainlight at the 'Hoy Es Diseno' (Design of the Future) conference at ICESI University, Cali Colombia in 2015.

Laura's academic research, *New Ways of Knowing Ourselves. BCI Facilitating Artistic Exploration of Our Biology* has recently been included as a chapter in book *Brain Art: Brain-Computer Interfaces for Artistic Expression*, published by Springer 2019.

In October 2016 Laura was artist in residence at NES studio's in Iceland furthering her research in neuroscience and bio-rhythms and electromagnetic fields. During the same year, she was also artist in residence at the Natural History Museum in Dubrovnik, Croatia, researching the Island of Lokrum and its connection to the preservation of nature through the "psycho-ecology" of curses. Her research resulted in an interactive exhibition at Lazareti Gallery in Dubrovnik. While in Europe, Laura was also invited to exhibit Brainlight at the new media arts festival Ars Electronica in Linz, Austria.

Laura exhibited at the 2017 Athens Digital Art Festival in Greece and was one of six internationally invited artists to create work for the 500 year anniversary of Bach and Martin Luther which resulted in a travelling exhibition shown in the crypt of the Berliner Dom, in Berlin, Germany and Eisenach Cathedral, Germany.

Laura has had her work presented at many Australian festivals including Vivid, BEAMS, Woodford Folk Festival and Sydney Science Festival. She has exhibited at major institutions across Australia, including the Museum of Contemporary Art, The Powerhouse Museum, the Australian Museum, the S.A Natural History Museum and the National Archives in Canberra.

# EDUCATION

2014-2016	MA Illumination Design, University of Technology
2012-2013	Curatorial Museum Studies, University of Sydney
2011-2012	BA Biology & Sci-comm, Macquarie University
2005-2007	BA Fine Art, National Art School, Sydney

# DESIGN EXPERIENCE

#### Festival Designer 2019-2020

#### Cave Urban & Woodford Folk Festival

Décor, concept design and team leading during WWF build to create a new venue called "Dja-Mandji" aimed at youth attendees. The venue included 7 large bamboo woven domes, a mocktail bar and a moss and forest invested outdoor lounge room.

#### Lighting Designer 2019

#### Umwelt Collective, Dance company

Lighting design for the dance group Umwelt Collective, creating emotive and conceptual lighting scenes for their performance "Re-membering" which was performed at the culmination of a residency collaboration at HOTA, Gold Coast.

#### Lighting Designer 2018

#### ELLExMG3

Lighting designer for ELLE magazine for the new MG launch event at Carriageworks, Sydney. An MG car was projection mapped with a live visualisation of neural networks which was controlled via a wireless EEG headset worn by audience members allowing people to control the hue of the car with their mind.

#### Stage Designer 2016 - 2019

#### www.junkyardbeats.com

Theatre Designer for the rhythm group Junkyard Beats. The various stage sets are designed and constructed out of collected recycled materials and have been installed in both indoor and outdoor theatres as well as on a barge that roved Sydney Harbour entertaining audiences around Darling Harbor, Circular Quay and Athol Bay.

#### Lighting Designer 2015 - present

#### www.caveurban.com

Invited as a lighting designer for architectural group Cave Urban as part of the "Special Projects" crew to illuminate bamboo architecture and performance venues (interiors and exterior) for Woodford Folk Festival.

#### Lighting Designer 2012 - 2015

#### www.chippendalecreative.com

Lighting designer for the Creative Chippendale Precinct including BEAMS Festival, Kensington Street Launch Party, Kensington Street Faire, creating immersive environments and playful situations with projections, fabric, interactive artworks and facilitation of BRAINLIGHT.

#### Creator 2015 - present

#### www.brainlight.com.au

Creative director and developer of BRAINLIGHT, an interactive illuminated sculpture used for educational entertainment for

conferences, festivals and events, developed in collaboration with a neuroscientist and software developer.

#### Lighting Designer 2015

Special lighting design and implementation for the Rocky Hill War Memorial in Goulburn for the Anzac Day 100 years event in collaboration with Turkish/Australian Lighting Designer Emrah Baki Ulas.

#### Lighting Designer 2014

Lighting designer of an interactive light and sound installation at Sydney Vivid Light Festival, titled 'Liminal Zone', the design involved the movement and interaction of 400 LED strip lights that were programmed to be activated by passersby in union with 13 minute soundscape.

# AWARDS, RESIDENCIES & SCHOLARSHIPS

2020	Artist in residence at Waverley Artist Studios program
2019	Guest Artist, Cité Internationale Des Arts, Paris France
2019	Carstairs Prize Grant recipient, National Association for the
	Visual Arts (NAVA
2019	Artist in Residence, Woollahra artist studio program
2019	Artist in Residence, World Bamboo conference, India
2016	Artist in Residence, Textile Studios, Blonduos Iceland
2016	Artist in Residence at UR institute, Dubrovnik Natural History
	Museum, Croatia
2016	Artist in Residence at NES Studios, Iceland
2016	Finalist in World Of Wearable Art competition (WOW), NZ
2015	Invited as keynote speaker to the Hoy Es Diseno (Design
	Today) Conference, ICESI University, Cali, Colombia
2015	Art + Science research residency at Culture At Work
2014	Finalist in the Waterhouse Natural History Art Prize, SA
	Museum
2014	Finalist in the Chippendale New World Art Prize, NG Gallery,
	Sydney
2013	Winner of the Toulouse Lautrec portrait competition, National
	Gallery of Australia, Canberra
2012	Awarded "Highly Commended" and chosen for Travelling
	Exhibition, National Archives of Australia, Canberra
2012	"Highly Commended" Waterhouse Natural History Art Prize,
	S.A Museum, Adelaide
2012	Invited to be an artist for the 44th International Artist
	Residency and Symposium, Gyor, Hungary
2012	Woollahra Small Sculpture Prize Finalist, Double Bay, Sydney
2011	Lloyd Rees Youth Art Award Finalist, Lane Cove Gallery,
	Sydney
2011	"Patron Commendation Award" Brain Art Exhibition, Global
	Gallery, Sydney
2004	Scholarship, Life Drawing Short Course, National Art
	School, Sydney

2003 Drawing and Illustration, Short Course Scholarship, Whitehouse Institute of Fashion and Design, Sydney

# SELECTED EXHIBITIONS

- 2020 *Micro-Botany of Iceland*, Bondi Pavilion group show, Sydney
- 2019 Brainlight 2.0, Light Night festival, Leeds, UK
- 2019 *Mini Brainlight*, It feels like home project, Woollahra, Sydney
- 2019 Micro- Botany of Iceland, TWELVE exhibition, Art Est, Sydney
- 2018 Brainlight, MG3 X ELLE event, Carriageworks, Sydney
- 2018 Brainlight, collaborative performance with Sydney Art Quartet, The Yellow House, Sydney
- 2017 Brainlight, GOGBOT Festival, Enschede, Netherlands
- 2017 *Baptism*, celebrating the 500 Year Anniversary of Martin Luther, Berlin Cathedral Crypt & Einsenach Cathedral Crypt, Germany
- 2017 Brainlight, Athens Digital Art Festival, Greece
- 2017 'When we were kids...' 'VIVID Festival, Sydney
- 2017 *Micro-Botany Of Iceland*, Miniature group show, Collab Gallery, Sydney
- 2017 Brainlight, Illuminate Festival, Wagga Wagga
- 2016 *World Of Wearable Art* (WOW) Museum, Wellington, New Zealand.
- 2016 *Interacting Art*, Raumschiff Gallery, Ars Electronica Festival, Linz, Austria
- 2016 The Mysterious World of Underground Science Exhibition, Lazareti, Dubrovnik, Croatia
- 2016 A Night Of Disruptive Ideas, Vivid Festival, Cell Block Theatre, NAS, Sydney
- 2015 *Hoy Es Diseno* (Design Today) Conference, ICESI University, Cali, Colombia
- 2015 BRAIN LIGHT, Artbar, Museum of Contemporary Art
- 2015 BRAIN LIGHT, Kensington St Faire & Beams Festival
- 2015 BRAIN LIGHT, Powerhouse Museum, Maker Faire, Sydney
- 2015 BRAIN LIGHT, Australian Museum, Sydney
- 2015 Brain Light Project launch, Accelerator Gallery
- 2015 Scientia |Art + Science, Art Est. Gallery, Sydney
- 2015 Fractured Infinity, Light Art Exhibition, Gallery Lane Cove
- 2014 The Liminal Zone, Vivid Festival, Sydney
- 2014 *Luciferin,* Chippendale New Word Art Prize, NG Gallery, Sydney
- 2014 What is Light?, Infinity Room Installation, Brand X Gallery
- 2014 *White Parazoa III*, National Archives of Australia, Waterhouse Art Prize travelling exhibition
- 2013 White Parazoa III, Accelerator Gallery, Sydney
- 2013 *White Parazoa III*, Waterhouse Natural Science Prize, SA Museum, Adelaide
- 2013 White Parazoa- series II, Hub Gallery, Sydney

2013	White Parazoa, series II, Graphis Fine Art
	Gallery, Woollahra, Sydney
2012	White Parazoa- Cabinets of Curios, National
	Archives of Australia, Canberra
2012	White Parazoa- Cabinets of Curios Waterhouse
	Natural History Art Prize, S.A Museum, Adelaide
2012	44th International Art Residency, Napoleon
	Museum, Hungary
2012	White Parazoa- Cabinets of Curios, Lane Cove
	Gallery
2011	White Parazoa- Cabinets of Curios, Woollahra Small
	Sculpture Prize, Double Bay, Sydney
2011	Skull, Lloyd Rees Youth Art Award, Lane Cove
	Gallery, Sydney
2011	Portrayal, Solo Exhibition, Lane Cove Gallery
2011	Brain Art, Group Exhibition, Global Gallery,
	Sydney
2010	Shop Art, London Graphic Centre Covent Garden, London
2008	Stapled to the Ceiling, Stoic Gallery, Sydney

2007 Graduation Show, National Art School, Sydney

Concept Images showing experimentation of layered projection interactions:









Past Works:



# Baptism, 2017

Exhibition Preview: https://vimeo.com/227743676

Baptism Artwork Video that was displayed inside the installation featuring soundtrack by Jan Kreusel: <u>https://vimeo.com/208972208</u>

Baptism is an audio visual installation commissioned as part of the EXCHANGE – BACHLUTHER touring exhibition for the 500th anniversary of the Reformation. The anniversary was a major event in Germany and brought together artists and engineers from Australia and Germany. The heart of the exhibition featured 6 totems (display boxes) where each invited artist created a work to be viewed through small aperture eye pieces. The content of the totems illustrated, illuminated and interrogated each of the 6 elements of Luther's Catechisms: Law, Belief, Prayer, Baptism, Confession, Communion. Each artist collaborated with a sound artist to create a soundscape for each totem experienced through headphones.

Baptism artist statement:

Water has played an important role in religious symbolism. Used for cleansing and purification, water often represents life itself. Those who are Baptised are participating in a ritual that represents an eternal offering that has no beginning or end. A virtue of faith, that is infinite. Carried out in the "name of the Son, The Father and the Holy Spirit" being baptised is coupled with the concept of the Holy Trinity. And like the Holy Trinity possesses three elements, Water has its own trio of mysterious properties: ice, liquid or mist. Its crystalline structure allows it to take on patterned forms; a snowflake akin to an ornate church rose or the Lutheran symbol of the Trinity. Up close the molecule of water is made up of hydrogen and oxygen, both gasses (spirit-like), whose combination creates a liquid substance with such profound properties. Both religiously and scientifically, one drop represents virtues of infinite magnitude.

The artwork contains three viewing apertures, each lead to a different view within the totem. The central aperture features an infinity room of laser cut mirror in the shape of a snow flake/Lutheran church rose, behind which a video plays. The video shows a scene of hot water rising in a mist interacting with particles of whirling snow, to represent the Holy Spirit and the triad of properties of the water molecule. Through the second aperture, one sees a magnified lens distorting a pulsing thread of blue light, whirling in three interlocking circles, creating the Lutheran symbol for the Holy Trinity in out of charged particles of water. The third aperture is created out of a rotating triangular mirrored prism which creates a kaleidoscope view of pulsing blue light.

In the headphones you hear a crying infant being baptised. For a few moments while the baby is submerged, their future life plays out before us through creative sound associations. The soundscape is inspired by Luther's belief in the denial of free will and asks the listener to ponder the question: is life pre-determined?

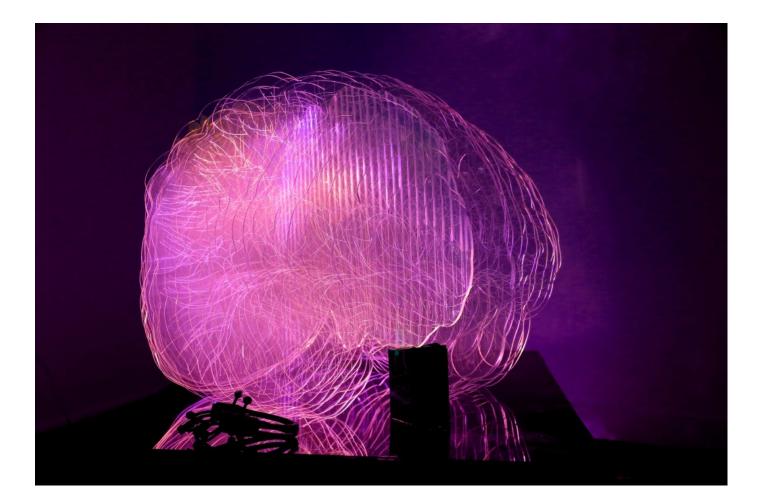
Exhibitions

March 2017 Berliner Dom Cathedral Crypt, Berlin, Germany July 2017 Kunsthaus Reitbahn, Ansbach, Germany August-November 2017 BachHaus Museum, Eisenach, Germany

**Collaborating Artists:** 

Chris Bowman, Cornelius Pöpel, Eva Käsbauer, Marcus Holzmayr, Joana Russo, Jan Krsl, Jamie Lay, Hannes Böck, Michael Day, Laura Jade, tranSTURM, Clare Mcshanag, Rachel Walls Photography

Programming: Michael Kirschner & Sami Sabik



# Brainlight 2015

Launch Video: https://www.youtube.com/watch?v=ZQmA5X47ewU

Brainlight is a large illuminated interactive sculpture that integrates biology, lighting design and BCI technology to explore the hidden aspects of our minds. The installation is controlled with a wireless EMOTIV EPOC+ EEG headset that detects live neural activity which is translated into a light display within the brain sculpture. In real time it visualises the brain frequencies of Theta (3.5–7.5 Hz) as green light, Alpha (7.5–13 Hz) as blue light, and Beta (16–32 Hz) as red light. Brainlight was the major research project for Laura Jade's Masters of Illumination Design at the University of Technology, Sydney and was created during a CULTURE AT WORK 2015 art + science residency program.

#### Collaborators

Health technology expert Peter Simpson-Young, software designer Sam Gentle, creative technologist Sami Sabik & industrial designer Neill Wainwright.

#### Artist Statement:

The universal struggle to express our innermost feelings led me to the question of what it might be like to be able to transfer internal states and emotions to one another through BCI communication. As an artistic exploration, Brainlight uses BCI technology to tune in as best as possible to the unspoken, subtle forms of communication of the electrical activity that produces our thoughts and emotions. Despite the complexity of emotions and the limitations of EEG, I was curious to see if a simplification of live brain activity, symbolically visualised through colour, could communicate a sense of a person's inner reality to an audience and generate a meaningful experience.

Previously, in more traditional art, when an audience views an artwork their own psychological process would be a passive, hidden, private experience. The aim of Brainlight is to harness the brain as the creator of an interactive art experience where no physical interplay is required except for the electrical activity of the mind. The project exposes some key developments in the use of BCI technology for artistic purposes, such as how to accurately collect and process EEG data aesthetically, and what license the artist can take with this data in order to facilitate meaning or allow space for the audience to bring their own meaning to the work.

Various methods for exploring the mind have been used throughout human history. Yet most of us live with very little understanding of the underlying processes within our own minds. Consciousness continues to be one of the more enigmatic

problems for both the natural sciences and philosophy. One of its most perplexing properties is that it materialises as an intimate, subjective, experiential sense of self.

While all art engenders a relationship between the audience and the work, in Brainlight's case, the audience also enters a relationship directly with the self. The artwork transfers neuro-feedback therapy, a technique used to teach self-regulation of brain activity, from a clinical setting to an artistic one by creating a sculpture that aesthetically embodies a live visualisation of brain activity, allowing a participant to have an intimate and unique interaction with their inner selves—to "meet their own mind"—externally. The work aims to facilitate a curiosity to know and sense oneself more intimately, while at the same time explores the creative potential of BCI technologies.

Exhibitions

2019 Light Night Festival, Holy Trinity Church, Leeds, UK

2018 MG3 X ELLE event, Carriageworks, Sydney

2018 Collaborative performance with Sydney Art Quartet, The Yellow House, Sydney

2017 GOGBOT Festival, Enschede, Netherlands 2017 Brainlight, Athens Digital Art Festival, Greece

2017 Illuminate Festival, Wagga Wagga

2016 Interacting Art, Raumschiff, Ars Electronica, Linz, Austria

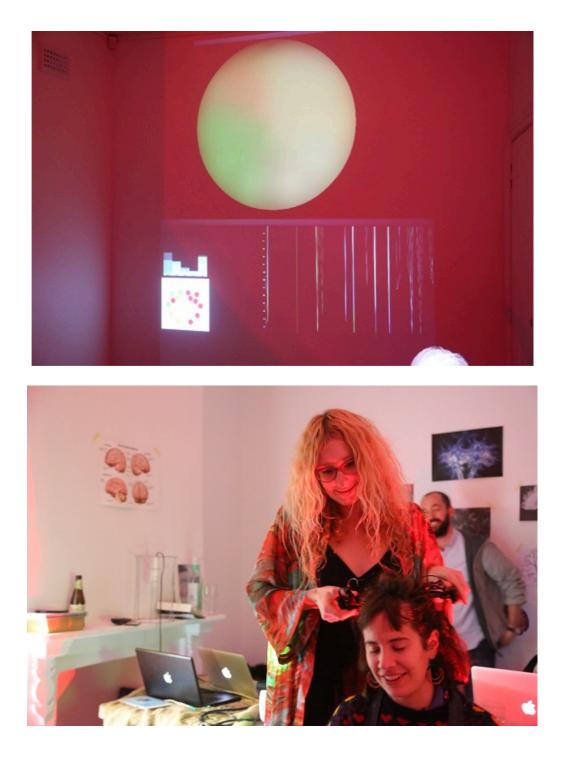
2016 Vivid Festival, A Night Of Disruptive Ideas, Cell Block Theatre, NAS, Sydney

2015 Hoy Es Diseno (Design Today) Conference, ICESI University, Cali, Colombia

2015 Artbar, Museum of Contemporary Art, Sydney

2015 Kensington St Faire & Beams Festival, Sydney 2015 Brainlight, Powerhouse Museum, Maker Faire, Sydney

2015 Australian Museum, Sydney 2015 Brainlight Project Launch, Accelerator Gallery, Culture At Work



# **CEREBRAL ORB**

Cerebral Orb is an interactive installation is controlled with a wireless headset that records the brain's electrical activity and produces a shifting coloured orb of light driven by emotional responses. Collaborating with a neuroscientist, Peter Simpson-Young Research Officer, MDA Australia and software developer and programmer Sam Gentle, the headset has been set to explore three brain frequencies: alpha (Blue, meditation), theta (Green, focus and attention) and beta (Red, excitement/agitation). These are translated into a sun-like orb light display. This technology reveals real-time neural activity, and shows how we can consciously control our brain's bustling electrical activity and witness an internal feedback loop created by our constantly changing perception of the artwork.

## Exhibitions

2015 Accelerator Gallery, Culture At Work, Pyrmont, Sydney



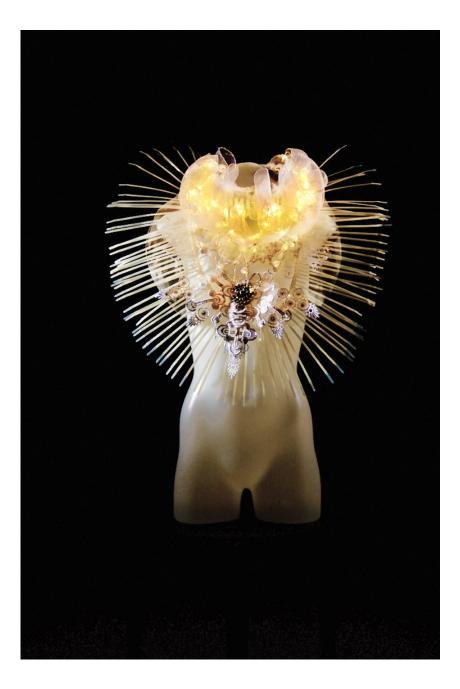


*Kaleido, 2015* Laura Jade & Leslie Marsh

Video: https://vimeo.com/186153216

Kaleido is a video projection series that is one part of an ongoing collaborative project which explores the intersection of an intimate relationship through experimental film. Using multiple projectors, mirrors, lighting and live camera feeds a couple attempt to capture the intimacy of their relationship whilst simultaneously negotiating and exploring new complex technical concepts.

Exhibitions 2015 BEAMS Festival, Sydney, Australia 2015 Kensington Street Fair, Sydney, Australia



# Luciferin, 2014

## Video: https://vimeo.com/102024936

*Luciferin* is a trio of interactive wearable luminaires. Playing upon the term 'enlightenment' the design references neck ruffles from the Elizabethan era and is an exploration of my interests in the fusion of aesthetics, science and technology in wearable computing and performance. The chest piece features an accelerometer programmed by an Arduino to control micro LEDs to illuminate in relation to the wearers movements. As a lighting student I am fascinated by biological organisms that produce their own light- Luciferin is the molecule which produces bioluminescence in nature. The design was also highly inspired by the intricate illustrations of biologist Ernst Haeckel in "Art Forms of Nature" which describe an array of symmetrical and geometrical patterns found in living creatures.

Exhibitions

2016 World of Wearable Art (WOW) Museum, Queens Wharf, Wellington, New Zealand 2014 Sydney Design, Museum Of Applied Arts and Sciences, Sydney, Australia 2014 Chippendale New Word Art Prize, NG Gallery, Sydney, Australia