Australian Science Communicators Conference 2018

Powerhouse Museum
Sydney

the art *of* science communication

An exhibition of art and design bringing new perspectives on science

This exhibition was made possible by the work of David Harris, curator with support from Kali Madden at ASC. Many thanks to them both.

Additional support given by:

Jo Bailey
Massey University School of Design,
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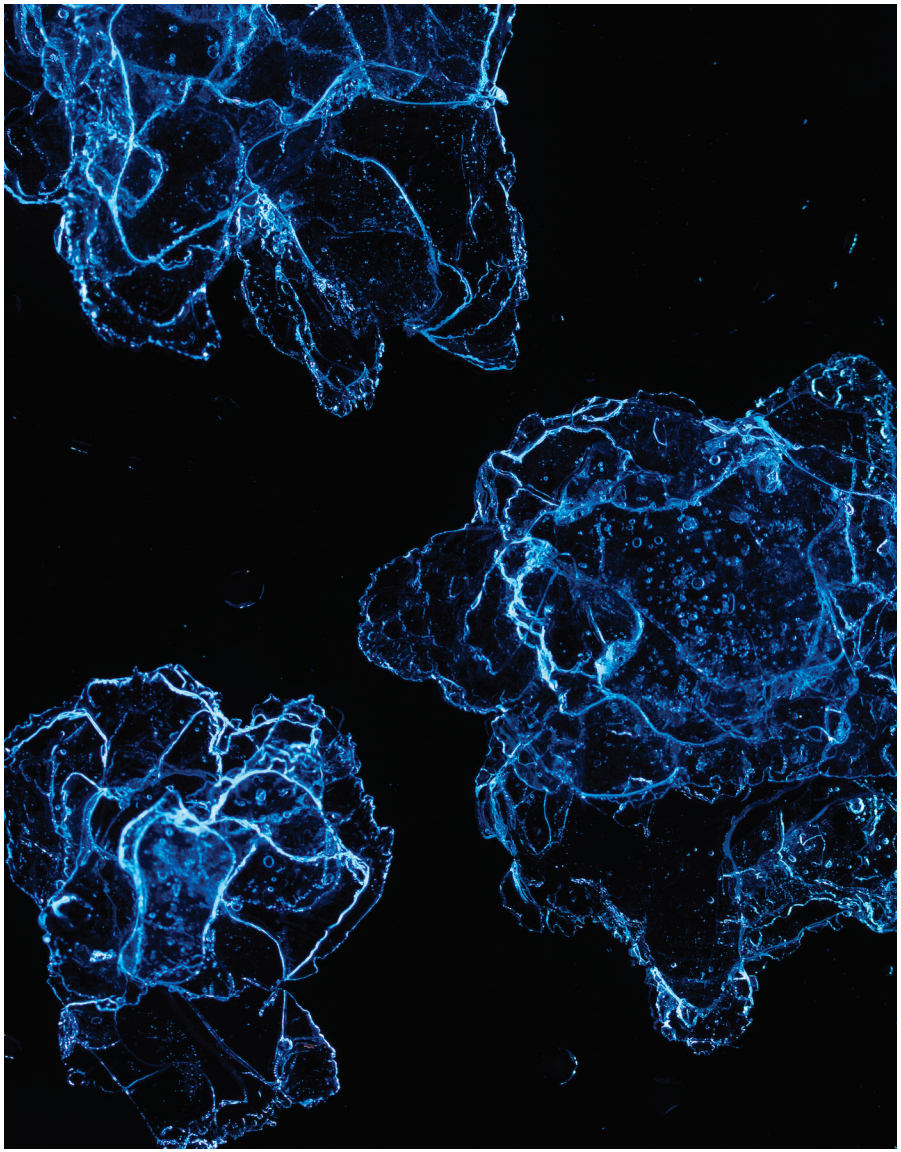
creative.massey.ac.nz

Queensland College of Art
Griffith University
griffith.edu.au/arts-education-law/
queensland-college-art

Curatorial Essay

Image exhibits

Video exhibits



Gabby O'Connor
Antarctic Sea Ice
Platelet Family 01
2016 (Digital photograph)

artsciencedesigncommunication: a liminal space

David Harris, curator

November 2018

Science, art, design, and science communication rub up against each other in a kind of productive friction that is expressed in many forms. Part of this friction is because each of these fields has its own forms of knowledge, modes of thinking, and community of practice. Yes, there are overlaps, similarities, and entanglements but there are undeniably differences, distortions, and even occasional altercations.

Many artists will vehemently defend the idea that science art is distinct from visual science communication and similarly draw a strong distinction between art and design. Some will take the position that art is more evocative than communicative. Or that its semiotic function is more significant than its content function.

Many scientists view art as a tool to be used to communicate, often conflating art with design. Some view science art as the aesthetic mixed with the empirical. Some feel that what is being said is more important than how it is said.

Some of us identify as neither scientist nor artist, some of us as both.

These statements are, of course, generalisations that are provably false in any claim of universality. But these statements of difference provide tools for probing the positions we take due to our experience, education, and location within professional and cultural circles. We can note that these differences arise partly from looking at these fields through different lenses.

The works selected here span forms, modes, and communities. Each work separately can be viewed as both science art and as visual science communication, but the placement will not necessarily be consistent for different people. How we see these works is not inherent in the work. This observation evokes Barthes' "death of the author" applied to the visual, although his claim of irrelevance of the creator's intent is probably a bridge too far for many of the people who will engage with this exhibition.

But it is clear that how we “read” a visual creative work depends on the reader, and as it is with science, there is value in teasing out the way our worldview informs our understanding.

Through all of this, we find places where art and science coalesce. Some similarities come in when we consider that both science and art are ways of knowing and create knowledge systems. This is not to claim, as some have, that reality is contingent or socially constructed. Philosophy does come in, but at a more nuanced level, although neither a typical science education nor art education engages with its complexity.

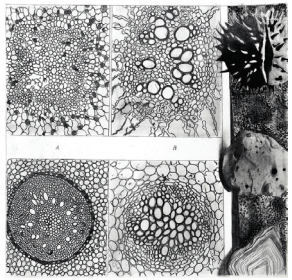
The philosophical position of critical realism can be useful for understanding this interplay. It combines an ontological realism with an epistemic relativism. That is, it accepts an underlying reality of existence but acknowledges that it becomes known, studied, and understood via social and cultural processes. That description doesn’t serve the nuances of the philosophy at all well, but it is a starting point. It is a philosophy that neither scientists nor artists default to, in part due to the fact that philosophical stances within fields tend to be culturally determined rather than exhaustively interrogated.

image exhibits

A, B

Laura Ahola-Young

2018
Graphite on paper
12 inches x 12 inches



My work centers on my attempt to pay attention to signage in the natural world.

Through mark making, I am attempting to capture singular instances of temporary phenomena, consciously and unconsciously transcribing patterns. I research and study murmurations, swarms and flocks and attempt to mimic the movements and flow through meticulous and labored marks. I have named my most recent collection of paintings Prodromes in relation to an internal, social, structural and organizational system of signage and warnings.

Through painting and drawing, I am attempting to capture these instances of signs as symptoms: fleeting, a speck, a circumstance, a neural, biological, philosophical, sensory occasion. Parts of images are sacrificed to the whole. It is this — what is possible and what must be destroyed– that has led me to research visually and intellectually this phenomenon in the natural world. Through readings and self study of microbiology, nanotechnology, physics and diseases I am trying to recreate the poetry of science. My work reflects my desire for absolutes and claims none — as art can do while trying to embody the truths in the mysteries of science. For me, knowledge is always asking additional questions.

Biography

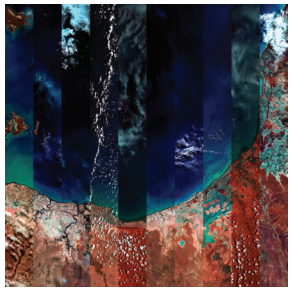
Laura Ahola-Young received her MFA from San Jose State University in 2001. She currently resides in Pocatello, Idaho where she is an Associate Professor of Art at Idaho State University. Originally from northern Minnesota, Laura has been influenced by landscapes, winters, ice and resilience. She is currently developing work that incorporates scientific research, the Pacific Northwest and personal narrative.

lauraaholayoung.com

12 Months Over the Gulf of Carpentaria

Grayson Cooke

2017
Digital image



For the past 40 years, NASA Landsat satellites have orbited the Earth. Performing what is known as ‘remote sensing’, they use sensors that record both visible and infrared light, to produce data used by geoscientists and the private sector to track environmental change over time.

12 Months Over the Gulf of Carpentaria is precisely that: a time-lapse mosaic of satellite images over the Gulf, showing the changing atmospheric conditions over a period of a year.

Produced through a partnership with Geoscience Australia and the Digital Earth Australia platform, this image is part of an ongoing exploration of how creative uses of satellite data can both reinforce the environmental monitoring function of the Landsat program and introduce new conceptual and artistic dimensions.

This project seeks to release satellite imaging from a directly instrumental purpose, fostering a way of knowing that acknowledges our connectivity to and feeling for the world.

Biography

Born in New Zealand and based in Australia, Grayson Cooke is an interdisciplinary scholar and media artist, Associate Professor of Media in the School of Arts and Social Sciences at Southern Cross University. Grayson has presented media art and live audio-visual performance works in Australia and internationally, and he has exhibited and performed in major international festivals such as the Japan Media Arts Festival, the WRO Media Art Biennale, the Imagine Science Film Festival in New York, VIDEOFORMES in France and the Currents New Media festival in Santa Fe. As a scholar he has published widely in academic journals, and he is also an associate editor for the scholarly journal *Transformations*. He holds an interdisciplinary PhD from Concordia University in Montreal.

graysoncooke.com

The Hydrological Cycle

Rikke Darling

2018
Mixed media on canvas
70cm x 70cm

A circle is definite and harmonious and is seen as a completion. A circle can symbolize the stages of water, wheel of life or form the framework for our everyday life, our thoughts or growth. Our existence can be perceived as concentric circles — from one self and one's family to nature and the universe.

Humans and everything in the world are inextricably linked. Patterns in nature occur in fractal geometry, where they are embedded in each other and recur in things large and small. The fractal patterns apply to both nature's simple organisms and the more complex ones, and thus, they apply to us humans as well.

Biography

Rikke Darling examines and expresses thoughts about the world in her art. She reduces a scientific or an aesthetic concept down to fewer or simpler elements with the purpose of closer examination. She uses this reductionistic approach in her art in regards to both shape and colors, where she examines the individual components in order to reveal a more complex phenomenon. She seeks to evoke a sensual and emotional realization in the observer.

rikkedarling.com
instagram.com/artistrikkedarling

Tolleraceae Terra pervertere

Donna Davis

2017
Pigment print on Hahnemühle fine art rag
[Adaptation/Mutation series]

The *Adaptation/Mutation* series explores imagined ecological adaptations in the age of the Anthropocene; juxtaposing futurist ideas of natural evolution with human imposed organic-hybrid modifications to facilitate species survival beyond the current epoch. Placing fungi in the role of protagonist, the work reflects on possible future ecological adaptations and interventions within the natural world to remedy environmental damage.

Tolleraceae Terra pervertere forms part of a series of imagined portraits that depict a group of biological hybrid organisms (both plant and fungi) that have naturally adapted to suit new environmental conditions, whilst also proving beneficial to alleviate some of human-kind errors such as water acidity, waste and air pollution. The work was created as part of a collaborative project that explored dialogues between academic research and the creative imagination, see:
textjournal.com.au/speciss/issue52/Fechner&Chandler&Davis.pdf

Biography

Donna Davis is a multi-discipline artist intrigued with the idea of connection; her work explores intersections between art and science with a particular focus on natural and social ecosystems. Often collaborating with ecologists, botanists and mycologists, Donna explores new ways to creatively interpret ecological data; working across sculpture, assemblage, installation and digital media to create works that capture and create sites of environmental observation. By providing new ways of 'seeing', Donna aims to challenge ecological discourse and promote environmental conservation.

Donna has undertaken a number of residencies with organisations such as the Queensland Herbarium, Brisbane Botanic Gardens, Tanks Art Centre and the Department of Environment and Science (DES). She holds a Bachelor of Arts (ART) from Curtin University and has works held in both public and private collections. She has exhibited widely in both solo and selected group exhibitions; and had her work feature in state and national touring exhibitions.

donnadavisartist.weebly.com/artworks.html

Shirty Science

Michelle Day & Joe Kaczmarski

The science

Joe studies the structure and function of protein molecules. Proteins can be thought of as the cell's machines; they carry out almost all the cellular processes that are required for life. Some proteins pump chemicals across cell membranes or transport chemicals around the cell, while others speed up vital biochemical reactions such as the breakdown of food, DNA replication, or photosynthesis. By studying the shape of these molecular machines, we can understand how these proteins work, and come up with ways to engineer them for useful applications. One protein that Joe studies is involved in the transport of inorganic carbon in photosynthetic cyanobacteria. Transferring these proteins into crop plants, such as wheat and rice, could help to improve food crop yields.

The art

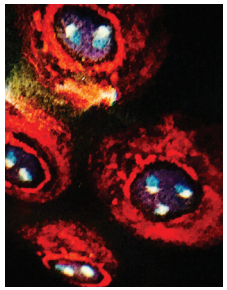
Through an alternative take on botanical illustration Michelle has attempted to capture Joe's fascination with proteins. By incorporating elements of machinery into the organic forms she illustrates Joe's perception of proteins as moving and behaving like machinery — like a living factory. The botanical illustration style reminds us that today's exploration into the micro world continues to be as wild and wondrous as when explorers sailed around the world to discover new life. There is so much still to explore and discover.

About Shirty Science

Shirty Science brings artists and scientists together to create shirts about their research. Founded by science communicator Madison Hartill-Law, Shirty Science aims to spark conversations about real scientific research and help shift the perception that a scientist has to be a nerdy guy in a lab coat. Scientists and artists are paired through a speed dating workshop and then have a month to develop a design, each shirt is then available to purchase online.

shirtyscience.com
twitter.com/shirtyscience

Peering Deep Within My Pathology



Ellen Hanauer

2018
Felting
5" x 7" (127mm x 177mm)

For the past 30 years, I have been creating sci-art sculpture and installations inspired by my love of anatomy and biology. My curiosity has led me to discover worlds within worlds, often the subject matter of the scientific and medical communities. My fascination with the inner workings of the human body is also reflected in the cosmos and I have been inspired to make these connections and depict them in my work. I have utilized magnification and various lenses, often under UV lighting, to distort and alter how I see the world. This has allowed me to expand my palette and my vision. The very technologies that scientists and doctors rely on in their labs to advance the understanding of human biology have served to influence my work. Through my association and collaboration with scientists, I have influenced theirs as well and I hope this mutual dialogue continues.

Biography

Ellen Hanauer is a sculptor and installation artist who has focused much of her work on sci-art, gender issues, and interior spatial relationships of the natural world. In the past four years, she has worked primarily in fiber. Her training in the cadaver labs has continued to influence her visual vocabulary over the past 30 years. She has exhibited nationally and internationally in museums, universities, and galleries in many solo and group exhibitions. Hanauer's work has been included at Montsalvat in Eltham Victoria, at the 3rd BioMedical Conference in Sophia, Bulgaria, and at Oxford University, UK, where she was awarded their First Theoretical Prize. She has been featured in SciArt Magazine and she recently returned from a bio residency at Lakeside Labs in Iowa, USA. Hanauer has received many national commissions including one at Rockefeller Center, New York City, and her works are in many museums and corporate collections.

ellenhanauer.com

Murray@the Valley lithographic citronella artist book

Nicola Hooper

2017
Hand coloured lithographs with encaustic citronella cover
13.5x25cm Folded

The sentinel chickens are the first line of defence against mosquito borne viruses.

This mosquito repellent artist book was inspired by a trip to visit the sentinel chickens at Baringhup West, VIC in March 2017. This visit coinsided with an outbreak of Ross River Fever in Melbourne and the subsequent increase in funding for the sentinel chicken program by the Victorian Government.

This lithographic artist book uses created rhymes and drawings as narrative tools. It considers the perception of animals used in fables and folklore (nursery rhymes) in the context of fear of zoonoses. It is suggested that these rhymes can act as cautionary tales that prevent children and adults from acting in ways which could be harmful and reinforcing the need to use insect repellents to protect against mosquito borne viruses.

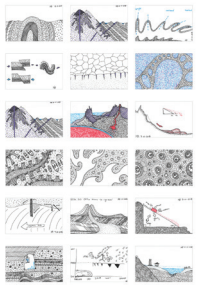
Biography

Nicola Hooper is currently undertaking a Doctorate of Visual Art at Griffith University's QCA campus. She holds a Master of Visual Arts with class 1 honors. Hooper uses drawing and lithography as a narrative tool to consider human's fear of animal hosts in the context of their association with zoonoses. She draws parallels to their representation in tales and rhymes as a way to understand the natural world.

She has been the recipient of several awards: 2017 Rio Tinto Prize Digital Winner and 2015 Qld Regional Art Awards Watercolour Winner. Hooper has been a finalist in a number of national prizes: Waterhouse Art Science prize, Hazelhurst works on Paper, Libris Artist Book, and Fremantle Print to name but a few. Her work has been exhibited extensively and is held in public and private collections.

nicolahooper.com

Geoscience Card Catalogue



Mika McKinnon

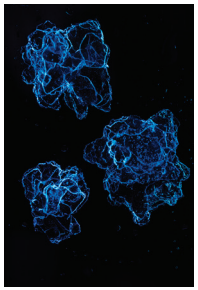
1–31 October 2018
Ink on index cards
3 inches x 5 inches

Geoscience is simplicity masked in complexity, with easily-understood concepts buried in the chaos of real-world outcrops and arcane jargon. Understanding the stories rocks whisper is an exercise is pairing down to essentials, whether that's accepting the constraints of fixed-dimension canvas and a limited assortment of pens or patiently revisiting the same idea in greater detail at each iteration.

Biography
Mika McKinnon is a geophysicist, disaster researcher, scientist for fiction, irrepressible communicator, and occasional artist. She gets a bit too gleeful about room, pets rocks, and has an extensive pen collection.

twitter.com/mikamckinnon
Instagram.com/mika.mckinnon

Antarctic Sea Ice Platelet Family 01



Gabby O'Connor

2016
Digital photograph

Antarctic Sea Ice Platelet Family 01 is part of a body of work developed from an art and science collaborative research project. In 2015 and 2016, O'Connor spent several weeks in Antarctica working in a shipping container laboratory on four-metre thick sea ice over 500 m deep McMurdo Sound, 60 km from Scott Base. As an interdisciplinary researcher, O'Connor made art, collected measurement data, and documented the activities of K13, a NZ oceanography team. The sea-ice platelets depicted are the product of sub zero fresh water entering the marine space and flash freezing into ice crystals. The range in size from 10mm x .05 mm thick to the size of a dinner plate and the rough texture that they add to the underside of the sea ice effects the way the ocean mixes. This is part of a long-term art+science collaboration looking at the intersections between the two disciplines.

Biography

Gabby O'Connor is an artist and transdisciplinary researcher with training in sculpture and an interest in science communication and community; often transforming everyday materials into beautiful and complex artworks that communicate sophisticated ideas. O'Connor often works collaboratively: from cutting-edge scientists to community groups. Her work act as a bridge between art and science — conveying the imagination and research required of both worlds.

Gabby O'Connor is a PhD researcher at Auckland University with a scholarship from the Sustainable Seas National Science Challenge researching intersections between art, science, education and community. She is originally from Melbourne where she did a BFA at the Victorian College of the Arts-Melbourne University and completed a Masters of fine arts at COFA UNSW.

She is currently based at NIWA in Wellington.

gabbyoconnor.squarespace.com

The price of the age

Jason O'Hara

2018
Photograph (2016 and 2018)

A diptych constructed of images taken in and near the historic hut at Cape Evans in Antarctica. On the left is a detail of the scientific equipment within the hut and the right-hand image captures the nearby memorial cross.

The hut is best known for Captain Robert Falcon Scott's British Antarctic (Terra Nova) Expedition 1910–1913 which ended with his fatal attempt for the South Pole. It was also used by the support team for Sir Ernest Shackleton's Imperial Trans-Antarctic Expedition in 1915. The cross on the nearby Wind Vane Hill marks the deaths of three members of that 1915 team and serves as a chilling reminder of the price so often paid in the name of science during the so-called "heroic age".

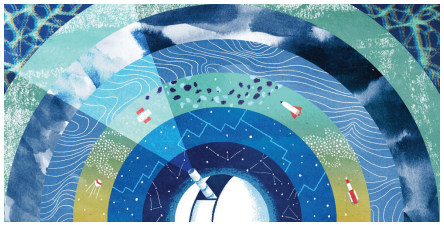
Biography

Jason O'Hara is an internationally exhibited and awarded designer, photographer and documentary maker based at Massey University's School of Design in Wellington, New Zealand. An expert in visual narrative, his work seeks to extend existing forms of science communication using human-centred design methodology to confront, engage, inform and enable new audiences in science and environmental topics. He was instrumental in a major 2011 art-science project in New Zealand's Kermadec region and has been to Antarctica twice working with science teams in the field.

jasonohara.co.nz
instagram.com/iamjasonohara

Mapping the Universe

Catherine Pape



2018
Digital illustration

This illustration was created in response to the article *Creating an Atlas of our Universe* by Lisa Drummond which appeared in the Australian science magazine Lateral in June 2018. The article charts humanity's efforts to understand and map our place in the universe. In the earliest times when the only instrument available to us was the naked eye, we observed the stars and grouped them into constellations, often inspired by myths and legends, and used the stars as a method of charting the years and seasons. With the advent of technology, more and more secrets of the universe are being revealed as we can see both further away, and further back in time, than ever before.

The far reaches of our universe are described in terms such as waves, clouds, strands and laments, represented here by different textures receding into the distance, with the colours inspired by neon-bright false-colour scientific graphs and diagrams.

lateralmag.com/articles/issue-27/creating-an-atlas-of-our-universe

Biography

Catherine Pape is an artist and illustrator based in Leeds, UK. With a 1st class degree in BA(Hons) Illustration from the University of Creative Arts, she has a particular interest in editorial illustration and for presenting information and stories in an engaging and beautiful way, with an eye for celebrating the mundane. More of her work can be viewed at:

catherinepape.co.uk
instagram.com/catherinenoel

Before the Eternal Silence

Joy Peng

2016
New media (interactive installation)
265 (h) x 281 (w) X 192 (d) cm

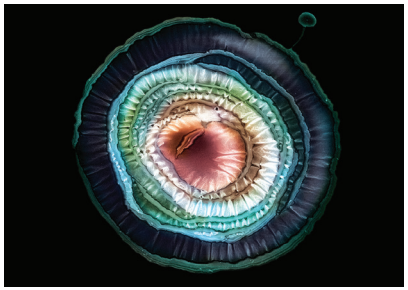
Before the Eternal Silence is a time-based installation that uses the past eighteen years of environmental data to explore the belief that the destruction of human habitation is getting worse and worse, and emphasize the interconnected influence between humans and our environment. The operation of the installation is inspired by the feedback loop system. The interaction of the data is based on speculating a scenario that the situation of our environment is getting worse as the days go on. The installation uses the rose in *The Little Prince* as the metaphor for humans and nature. The purpose of the project aims to call attention to the deterioration of nature and to remind the viewer of our place within the symbiotic relationship of the world around us.

Biography

As a multimedia artist, Joy's work relates to nature. Always marveling at nature, Joy majored in science during undergrad years. While pursuing her MFA degree at Parsons School of Design, Joy was intrigued by the vigorous power of technology in broadening people's imaginations. Her passion lies in bringing art and technology together in a fascinating way that can touch, provoke and engage our everyday life.

joyjoypeng.com

Colour32



Anastasia Tyurina

2017
Digital image

Colour32 is an interpreted scientific photograph made by a Scanning Electron Microscope of a microscale drop of Brisbane River water that aims to draw attention to the qualities of water through enhanced visual details that aid in the interpretation of water samples.

Artistic manipulation of a scientific process through experimenting with the SEM fuses science and technology with art and proposes a new meaning for what such images can say about water to a viewer.

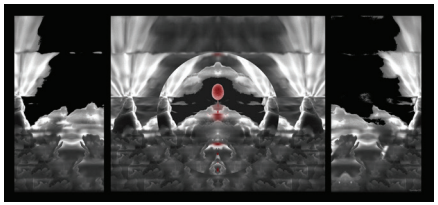
Biography

Anastasia Tyurina is a new media artist, currently an Associate Professor at the National Research University of Electronic Technology, Moscow and a sessional academic at Queensland College of Art, Griffith University, Brisbane. She holds a PhD in the interdisciplinary field of Artistic Photomicrography from QCA, Griffith University.

Throughout her academic and artistic career, Anastasia has been interested in obtaining new knowledge of the relationship between science and art. Therefore, she uses scientific machines, particularly X-ray devices and microscopes, in a variety of art projects. By exploring the interplay between the indexical and iconic modalities in the process of evaluating scientific photomicrographs, Anastasia tries to imbue them with new meanings and thus turn scientific photography into a creative source of communication to a general public. Anastasia is a regular contributor to festivals, exhibitions, and conferences in the Art & Science category.

gccar.com.au/griffith-centre-for-creative-arts-research/members/higher-degree-research/anastasia-tyurina

First Life



Nancy Gruver Van Wagoner

2017
Digital print on backlit film
24 inches x 48 inches

First Life was inspired by the sum of the microscopic processes that gave rise to the momentous—LUCA, the Last Universal Common Ancestor of all life. The work is an intricate collage of scanning electron microscope images from my research, reconfigured create a conceptual vista of the scientific story of creation while giving reverence to the actual materials of Earth (fragments of feldspar, volcanic glass, and clays) that played a role in creating an environment for life to begin (represented by the single bacterium).

Fabricated as a digital image, the work may be modified as new scientific discoveries are made that may change this view of the world.

Biography

Nancy Gruver Van Wagoner is a Canada-based artist and professor of geology, working at the interface between art and science. With her work, presented in multiple media and installation, she shares a lifetime of exploring and imaging the planet for her research to create new ways of understanding Earth, and the inextricable connections between the minuscule and the enormous, the vast yet fleeting trajectory of time, and individuality within a collective destiny and precarious habitat.

Gruver Van Wagoner's work has been exhibited internationally including shows in New York, Vancouver, and Los Angeles. She has also studied volcanoes globally, and was a visiting professor in art and science with the Universities of Gujrat in Pakistan, and Chiang Mai in Thailand. Gruver Van Wagoner holds a Master of Fine Arts degree from the School of Visual Arts in New York, and a PhD in Geology from Dalhousie University, Canada.

earthartscience.com

video exhibits

Beautiful and Dangerous

CSIRO

25 May 2018 – 16 June 2018
Vivid Sydney
Video projection

Every breath of air, every sip of water, everything we eat is awash with vast numbers of astonishingly small viruses and bacteria, each evolved as strikingly beautiful geometric forms, but some are amongst our most dangerous enemies. In 2018, CSIRO collaborated with Vivid Sydney to create a light installation that gives you an up close and personal encounter with the infectious biological agents that most affect human health — magnified to spectacular scale. This animation provides a unique and engaging glimpse into some of the research being done to combat infection as CSIRO – Australia's national science agency, the Garvan Institute, and medical institutes worldwide.

Biography

CSIRO's Vivid Sydney team included:

Leonie Herson (Lead animator). Sydney-based biomedical animator and medical illustrator

Drew Berry (Animation mentor). Emmy and BAFTA award-winning biomedical animator; based at the Walter & Eliza Hall Institute of Medical Research in Melbourne.

Christopher Hammang (Animation consultant). Sydney-based, emerging biomedical animator and visual educator; based at The University of Sydney and part of CSIRO's Data61.

Richard Tamplenizza (Music Producer/Composer). Producer, composer and songwriter from Sydney, Australia. Best known for his work as a member of award-winning hip hop group The Herd (Elefant Traks).

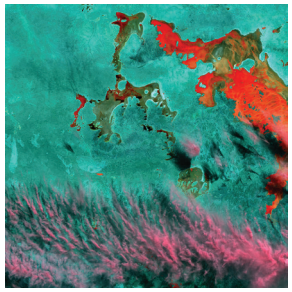
Seán O'Donoghue (Producer & Scientific Consultant). Award-winning researcher in biological data visualisation; based in Sydney at CSIRO's Data61, Garvan Institute of Medical Research, and UNSW.

facebook.com/CSIROnews
twitter.com/CSIROnews

Open Air

Grayson Cooke

2018
HD single-channel video
68 minutes



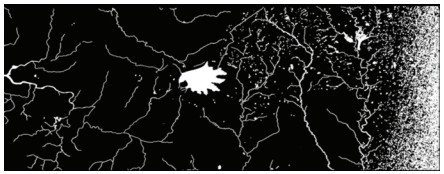
Open Air is a visual music project by media artist Grayson Cooke, a visual setting of the 2013 album "Open" by Australian cult band The Necks. It is also a form of creative earth imaging; it combines timelapse Landsat satellite imagery of Australia, with macro aerial photography of the paintings and processes of Australian painter Emma Walker. Together, these two vastly different forms of aerial earth imaging combine to produce a complex picture of a changing planet.

Biography

Born in New Zealand and based in Australia, Grayson Cooke is an interdisciplinary scholar and media artist, Associate Professor of Media in the School of Arts and Social Sciences at Southern Cross University. Grayson has presented media art and live audio-visual performance works in Australia and internationally, and he has exhibited and performed in major international festivals such as the Japan Media Arts Festival, the WRO Media Art Biennale, the Imagine Science Film Festival in New York, VIDEOFORMES in France and the Currents New Media festival in Santa Fe. As a scholar he has published widely in academic journals, and he is also an associate editor for the scholarly journal *Transformations*. He holds an interdisciplinary PhD from Concordia University in Montreal.

graysoncooke.com

Drawing Water IV



Drawing Water 2006 (detail)
Pen and ink on tracing paper, scanned, digitally printed on paper 150gsm and hand coloured
600x3600mm

Jacqueline Gothe

2016
Looped HD projection with sound
3:16 duration

The connection between the Blue Mountains and the waterways of Sydney is hard to visualise. This work allows the viewer to move from the Pacific Ocean through the complex waterways of Sydney to the foothills of the Blue Mountains.

The map that is the ground for the tracing is made up of three topographic maps produced by Department of Lands Geocentric Datum of Australia 1994 (GDA94: Sydney Heads 9130-2N, Parramatta River 9130-3N and Prospect 9030-2N). The dimensions of the drawing from these three maps is 600mm wide and 3.6 metres long and is created on a specially designed table. The drawing is then scanned and digitally animated with an audio track. The foundation of the sound is the human voice singing the note G as a single tone that holds the human breath.

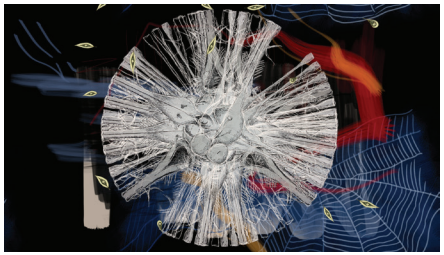
Biography

Dr Jacqueline Gothe is Associate Professor in Visual Communication Design at University of Technology Sydney. Her research approach emphasizes research through design as a knowledge creating paradigm directed towards transdisciplinary understanding in interdisciplinary and cultural collaborations. She is currently working in partnership with Firesticks Alliance an Indigenous-led network that mentors, shares and supports the revival of cultural burning practices in natural resource and fire management contexts. This work has been recognised by the International Institute of Information Design (IIID).

Jacqueline extends the impact of her work through participation in numerous public exhibitions investigating various media platforms including using video in 360 degree environments to provide an emotional and immersive experience that traverse cultural boundaries. These narrative forms enable the viewers to experience landscape as a cultural and biophysical entity informed by Indigenous perspectives and highlight her concerns for shared understanding through storytelling.

uts.edu.au/staff/jacqueline.gothe

Representing Fieldwork (no. I)



Alinta Krauth

2018
Hand-drawn digital animation and generative animation
Excerpt from longer piece

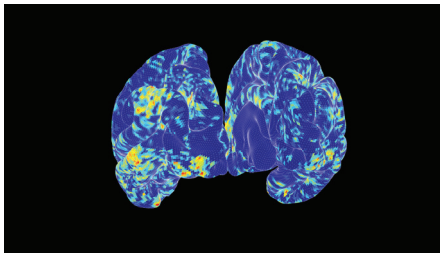
The world's creatures sense their *umwelt* (environment) in differing ways. These are senses honed to fit their world. However, with a rapidly changing climate, some species are having to cope with changes placed upon their senses. Some examples include bats being less able to 'see' through echolocation due to rising humidity levels in Germany, lizards losing their ability to sense the chemical signals of mates in the Chilean mountains, upsets to wild horse proprioception in New Zealand due to the wet, and heat affecting the ability of woodlice in the United Kingdom to move and communicate through thigmokinesis. Some of the scientific studies involved in such research is fieldwork, others involve future predictive modelling. After consulting a range of scientific studies, the artwork presented here uses digital animation to represent this world of confusion and changing *umwelten* for creatures whose ability to sense are affected by human-led climate change. This work specifically employs anthropocentric aesthetic techniques reminiscent of contemporary painting to create an abstract and artistic 2D realm.

Biography

Alinta Krauth is a new media art researcher and practitioner. She attempts to use her practice to highlight environmental degradation, where she has worked alongside, and has been inspired by, a range of scientific disciplines. Themes of previous works include: non-human sentient senses morphed by a changing climate, biofeedback on vegetal and geomorphic bodies, walking as proprioceptive act, meme language and the body, and the connection between gravity and proprioception in music listening. Recent exhibitions include 'Under-Mine' at Art Laboratory Berlin, Transmediale Festival Vorspiel program, Piksel Festival Norway, White Night Melbourne Australia, and live interactive solo events in the forests of Australia and Scandinavia.

ephemerlab.com
facebook.com/alintaland
instagram.com/alinta_art

Rest/full



Dan Lloyd

2017
Interactive video

Rest/full displays brain activity in real time of a subject doing...nothing. The instructions to the volunteer were simply to rest in the scanner with eyes open. The scanner, using functional MRI, took a highly detailed 3D image of the brain every second. Rest/full extracts just the cerebral cortex for animation. At every point on the cortex, as brain activity increases the color brightens and reddens.

In this animation, we see the ceaseless and all-over activity of the brain even at rest. Or to put it another way, the brain is never at rest. Or in still other words, our conscious life never pauses in the unwinding and unfolding story that is each of us.

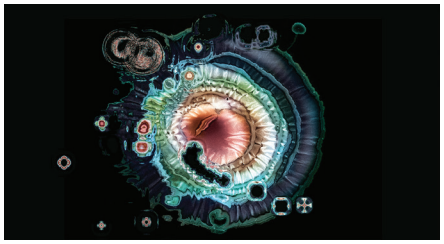
(Data courtesy of the Human Connectome Project. Processed and visualized using Matlab, by D. Lloyd.)

Biography

Dan Lloyd is the Thomas C. Brownell Professor of Philosophy and a Professor of Neuroscience at Trinity College, Connecticut. He is the author/editor of *Subjective Time: The philosophy, psychology, and neuroscience of temporality* (co-edited with Valtteri Arstila), MIT Press, 2014; *Radiant Cool: a novel theory of consciousness*, an exploration of consciousness presented as noir detective fiction, MIT Press, 2004; and *Simple Minds*, a philosophical examination of scientific approaches to the mind and brain. Bradford Books/MIT Press, 1989. He has presented his animations and sonifications of brain activity in the US, Great Britain, Europe, and (now) Australia.

youtube.com/dlloyd1984

Colour32



Anastasia Tyurina

2017
Interactive video

Colour32 transforms into a live picture, producing varying forms of ripple that seem both ordered and random at the same time. It offers a layered meaning, providing with the opportunity of experiencing the fluid and animated qualities of the effects that connects with these qualities in the subject matter: water. The addition of the animation introduced by the ripple effect is the expanded mode of 'reading' or appreciation. As well as offering a visual engagement, the work offers an embodied engagement: an important connection to the material significance of water in our lives.

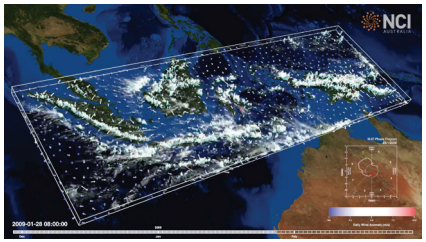
Biography

Anastasia Tyurina is a new media artist, currently an Associate Professor at the National Research University of Electronic Technology, Moscow and a sessional academic at Queensland College of Art, Griffith University, Brisbane. She holds a PhD in the interdisciplinary field of Artistic Photomicrography from QCA, Griffith University.

Throughout her academic and artistic career, Anastasia has been interested in obtaining new knowledge of the relationship between science and art. Therefore, she uses scientific machines, particularly X-ray devices and microscopes, in a variety of art projects. By exploring the interplay between the indexical and iconic modalities in the process of evaluating scientific photomicrographs, Anastasia tries to imbue them with new meanings and thus turn scientific photography into a creative source of communication to a general public. Anastasia is a regular contributor to festivals, exhibitions, and conferences in the Art & Science category.

gccar.com.au/griffith-centre-for-creative-arts-research/members/higher-degree-research/anastasia-tyurina

The Madden Julian Oscillation and the Maritime Continent: A Perfect Storm



Drew Whitehouse &
Claire Vincent

2018
3:54 video

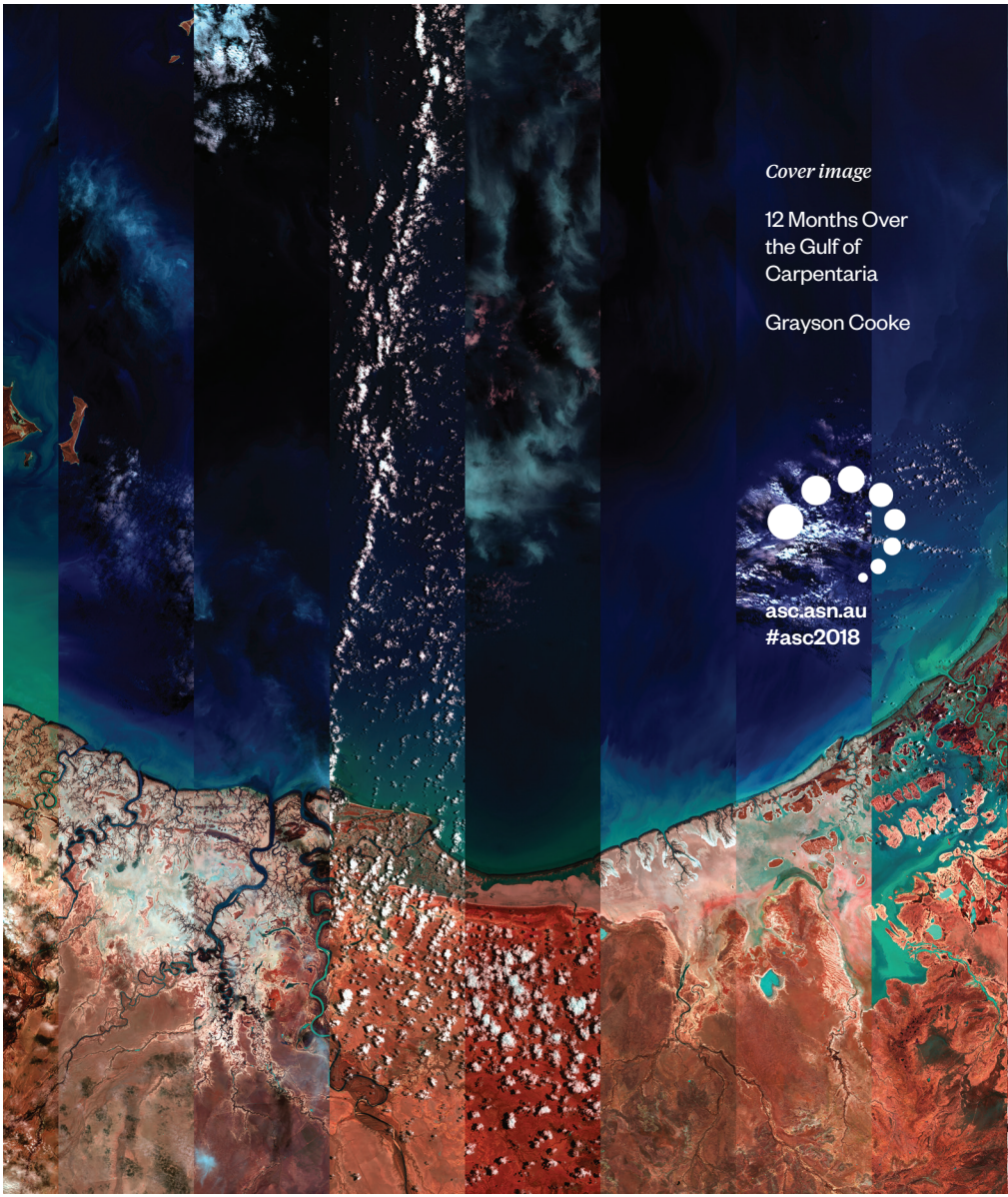
Scientific visualisation based on simulations run with the Weather Research and Forecasting model, with inputs from the ERA-Interim Reanalysis and the Real-time Global Sea Surface Temperature analysis for the period December 2008 – February 2009

This video is the product of a collaboration between Dr Claire Vincent from the University of Melbourne and the Australian Research Council Centre of Excellence in Climate System Science and Drew Whitehouse from the NCI Australia VizLab. NCI Australia provided the supercomputing, data storage, data management and visualisation expertise that Dr Vincent needed to run her large scale climate models. Her focus on the Maritime Continent region produced rich, valuable data that could be turned into this striking and scientifically accurate visualisation. The video format makes it easy to highlight certain elements of the modelling and showcase the level of detail that the models produce.

Biography

The National Computational Infrastructure's VizLab has been producing scientific visualisations in collaboration with research partners for over 15 years. From ocean modelling to weather simulations, materials science and much more, the VizLab team take research data and produce scientifically accurate imagery that provides a different way of engaging with three-dimensional data. Located within Australia's leading supercomputer and data facility, the VizLab works with researchers as they design and run their experiments, and present their results to the world.

bit.ly/2JKUu0E



Cover image

12 Months Over the Gulf of Carpentaria

Grayson Cooke

asc.asn.au
#asc2018