

Exhibition

Carbon Meets Silicon II

Liggett, S. et al

This is an exhibition held at Oriel Sycharth Gallery, Wrexham Glyndŵr University, Wrexham, UK, 12-15 September 2017

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ITA(17) CAR BON MEETS SIL CON

Oriel Sycharth Gallery

12th September - 8th December 2017



ITA17

Seventh International Conference on
Internet Technologies & Applications



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CARBON

Don Braisby

Daniel Buzzo

Antonio D'Amato

David Dobson

Seiza Friedrich

**localStyle
(Marlena Novak & Jay Alan Yim)**

Lord Black Art

Manoli Moriaty & Lucie Lee

**Chris Meigh-Andrews, Alan Summers
& Tom McGuirk**

Joanna Neil

Ioana Pioaru

John Gordon Swogger

Jonathan Weinel

SILICON

Private View Monday 11 September, 6pm

Carbon Meets Silicon is a biennial exhibition and symposium that is part of the 7th International conference on Internet Technologies and Applications ITA (17) held at Wrexham Glyndwr University. The exhibition theme uses carbon and silicon as metaphors for the changing face of art practice in the digital age. Carbon references the materiality of the art object and silicon references how an artwork's physical presence is questioned in the light of new media, resulting in the digital or virtual bringing artists closer to scientists and engineers.

The focus for this year is Arts/Science/Technology Collaborations and the exhibition brings together the work of sixteen diverse artists, scientists and technologists working in a range of media who have all in some way collaborated via ideas with specialists outside of their immediate field of enquiry.

To understand the complexity of the world we need to utilise the cognitive evolutionary tools developed through both scientific and artistic thinking. Science allows us to understand causality, predictions and rationality; art gives us expression, surprise and has the capacity to change minds. Collaborations between the arts and sciences have a long history of interdependence, but also tension and antipathy. Acknowledging the things we don't know we don't know, to quote Rumsfeld 'the unknown unknowns' [1], is as important as knowing the known unknowns and Crew's approach to knowledge sums it up nicely. He said that we should follow:

"the ethic of respecting that which is known, acknowledging what is still unknown and acting as if one cared about the difference"
[2]

Today we must re-frame our perceptions to ensure this dualism does not set artists and scientists apart. Global challenges are better understood with a diverse team of researchers from both the arts and sciences working on solutions together. Collaboration can result in new approaches to core issues that may underlie developmental problems.

"Third culture starts when artists become scientists, when science paints the future, when systems are predictive and when politicians become poets." [3]

In 1963 the influential scientist and novelist C.P Snow's book *The Two Cultures* and the Scientific Revolution was published outlining an optimistic view of the sometimes difficult relationship that exists between science and the arts [4]. Schneiderman (2016) advances the case for combining applied and basic research work to put the arts on an equal footing with science. Holzbaur (2012) recognised new paradigms for multi-disciplinary, inter-disciplinary and trans-disciplinary collaboration with an understanding that if you think beyond traditional disciplines you can impact societal change [5]. The generation of new knowledge often arises on the boundaries of disciplines rather than within them. This exhibition and symposium explores the well-established discourse that exists between artists, scientist and technologists and how this symbiotic relationship has brought new understandings to the world.

Selected for this exhibition are: Antonio D'Amato, Daniel Buzzo, Don Braisby, David Dobson, Seiza Friedrich, localStyle (Jay Alan Yim and Marlena Novak), Lord Black Art, Manoli Moriaty and Lucie Lee, Ioana Ploaru, Alan Summers and Chris Meigh-Andrew, John Swogger, Joanna Neil, Jon Weinel.

REFERENCES

- [1] Rumsfeld, D. (2002) "Defense.gov News Transcript: DoD News Briefing – Secretary Rumsfeld and Gen. Myers, United States Department of Defense (defense.gov)"
- [2] Crews, F. (2006). *Follies of the Wise*, Shoemaker and Hoard. Emeryville, CA.
- [3] Matthias Horx (2012) Keynote Speaker ELIA Biennial Conference: Art, Science and Society 8-12 Nov, Hosted by the University of Applied Arts, Vienna.
- [4] Snow, C. P. (1959) *The Two Cultures*. Cambridge University Press, Cambridge, UK. ISBN 0-521-45730-0
- [5] Earnshaw R.A (2017). Holzbaur, U.D. (2012) and Schneiderman (2016) cited in: *Art Design and Technology: Collaboration and Implementation*, Springer, Switzerland, Chapter 2. Independent Working, Collaboration and Team Activity, p 9-19

**THERE IS
NO SCIENCE
WITHOUT
FANCY, AND
NO ART
WITHOUT
FACTS**

(VALDIMIR NABOKOV 1966)

In 2000 the English novelist and poet A. S. Byatt wrote the preface to *Strange and Charmed: Science and the Contemporary Visual Arts*, a book produced by the Calouste Gulbenkian Foundation containing essays on Art and Science, 'the two cultures' by eminent academics including Martin Kemp, Wrexham Glyndwr University Honorary Fellow. Byatt succinctly quantified our contemporary fascination with science as 'out of concern for our own health and environment... the perennial human need for understanding, contemplation of our place in the order of things, a sense of complexity and mystery, an inkling perhaps of the order of those things which are not ourselves'.

She sketched a brief history of the visual arts' aspect of practical science – from the link between physical exploration and art, colour theory and traditional pigments to Sigmar Polke's experimental and toxic chemical combinations. I liked this material and optical emphasis, which is often underestimated in the Art/Science debate. More typically, she listed 'what is now available to artists - cameras and optic fibres, radioactive isotopes and x-ray films, microscopes, telescopes and cellular materials', acknowledging the significance of video art, installation and the web.

In the book's foreword Sian Ede proposed: 'There is no natural reason to link science and the visual arts. There is also no reason why not. In a post modern culture any two unrelated subjects can be held up against each other simply for intellectual diversion. But what's the point?' For the Gulbenkian Foundation's Arts Programme the concern was funding and social responsibility and the emerging surge of interest in 'Art and Science'. Genuine innovation, knowledge and understanding of science can influence the practice of contemporary art and conversely contemporary art can influence the practice of science.

This mantra had wings. Acknowledging a fertile and diverse terrain at the time, Ede predicted 'it may well turn out to be a new and significant area of activity'. Seventeen years on it is certainly that, but where are we now in that evolution? We have newer technology, wider material possibility, greater transparency and democracy of information, more theories and perhaps a deeper faith in our ability to solve our problems scientifically. But have we really established links and conversations between artists and scientists? Does research mean the same to us both?

Have these conversations evolved within education? The Laboratory at the Ruskin School of Drawing and Fine Art at the University of Oxford was an early Art/Science platform and it is now possible to study for an MA in Art and Science at UAL. The Slade School of Fine Art, appointed their own UCL Professor of Earth Sciences as Scientist in Residence in 2017. Changes take time to affect the established order, but there are many Art/Science initiatives – the Arts and Humanities Research Council has a dedicated website for Science and Culture, the Evening Standard an online forum (The art v science debate: your views) and the Wellcome Trust Arts Awards to name a few. New opportunities – future possibilities, conversations, the search for just-rightness, the 'coherence' that both artists and scientists recognise – excite me.

Four years ago with Sue Liggett, artist and Reader in Art and Design, we hosted, in the Oriol Sycharth Gallery, an exhibition of artists working with a focus on science to accompany the International Conference on Internet Technologies and Applications initiated by Wrexham Glyndwr University. This biennial conference draws together researchers and developers from academia and industry across all fields of internet computing, engineering, art and design.

The subsequent exhibition and symposium in 2015 (Carbon meets Silicon) established a platform for conversation and exchanges of research. Those events formed the basis for this year's theme focusing on Arts/Science/Technology collaborations – with artworks 'in conversation' within the gallery and a symposium to further the discourse on two cultures so significantly established and entwined within contemporary art.

This will be Oriol Sycharth Gallery's last exhibition, a fitting testament to its programme of regional, national and international artists working individually and collaboratively to advance contemporary art, education and culture.

Professor Estelle Thompson

Don Braisby

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I. STATEMENT

There has been a decline in the teaching of intaglio etching since the 1990s that coincided with growing concerns about the environmental, health and cost implications of using nitric acid in educational institutions.

Electro-etching is a branch of electrometallurgy that was first patented and extensively written about as a safe replacement for nitric acid etching in 1841. There had been little or no interest shown or expressed in electro-etching as a fine art printmaking process until a hundred and fifty years later when, at a conference on safe printmaking in 1994, it was described as being 'the safest method of intaglio etching'. Despite the claims that it is a safer, more cost effective and provides a superior etched line to acid and its alternatives, to date it has had little impact on the teaching or practice of fine art etching in the U.K.

Braisby adopted a practice led approach to research that involved an examination of the electrochemical processes involved in the process of making artworks. A key finding was that electro-etching does not tire over time, unlike the other alternatives to acid etching. The research verified that electro-etching is safe and is the most cost-effective way for artists to etch, copper, mild steel, zinc and aluminium. Electrolysis can be used to add or deposit metal onto metal, or any other surface that has been made conductive, this unique quality extends its potential beyond those possible with other etching and plate making processes, and has creative implication for other arts.

The piece chosen for this exhibition has been made by a process known as 'electrotyping'. Electrotyping is an electrochemical process that reproduces an exact copy of a model. As with metal casting a mould is made of the model to be reproduced, in this case the mould was made of latex. The inside of the mould is made electrically conductive by coating it with a very thin layer of graphite powder. The conductive surface is attached to a wire that is connected to the negative terminal of a battery and mould is suspended in an electrolyte. The positive terminal is connected to a copper electrode that is suspended parallel to the face of the mould. Through the process of electrolysis, the face of the mould becomes plated with copper.

II. BIOGRAPHY

Don Braisby is an artist printmaker working in North Wales and is Artist in Residence at Wrexham Glyndwr University School of Creative Arts. He has a, B.A. (First Class Hons) in illustration, an M.A. (with distinction) in art practice. Braisby completed his PhD With University of Wales in 2017. The title of his thesis was 'How Can the Development and use of Galvanic Etching Techniques Enhance the work of Artist Printmakers?'

His work has been exhibited in Touring exhibition South Australia, Memorial Gallery Wrexham, Mall Gallery London, Urban Retreat Gallery Dublin, and Print Fest Ulverston. Solo Shows at: Oriel Sycharth gallery Wrexham, Editions Contemporary Art Gallery Liverpool.



This print was made from a copy of a plate made by electrolysis.

Daniel Buzzo

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I. WHAT DO WE KNOW OF TIME WHEN ALL WE CAN KNOW FOR REAL IS NOW?: A DUAL SCREEN GENERATIVE VIDEO ARTWORK

"How long is a moment? How does a moment feel? What is the past, what is the future?"

The Moments project investigates the perceptual length of 'a moment' of attention and of the historical tension between the argument for and against time in the universe. Using real-time generative video editing techniques the multi-screen installation work remixes, collates and presents an infinite series of moments. The audience positioned between the internal and the external experience of time.

'With scientific estimates of what a perceptual 'moment' often hovering between three and four seconds but opinions across the worlds of art, perception, philosophy and cognition often disagree widely. (Bitbol 1994) The project investigated just how long a 'moment' might be and then asks the question;

what is it to see the now, remember the past and anticipate the future, though we can conceive of the things, are they truly real, do we truly experience them?

The 'moments' project recorded instances of noticing, moments of attention, short interstitial glances where you realize, you notice, that a moment has occurred. Collating video since early 2014 the project has so far recorded close to a thousand separate video clips. Contrasting this huge library of intimate moments of 'attention and 'presence' is a series of extended walking self-portrait video 'derives' inspired by Guy Debord, the French situationist and would-be father of psycho geography. Extended walks through the streets of Hong Kong and Kowloon were filmed over a two week period in 2015. In the video material the viewer sees a central character, the walker, moving through the neon metropolis city-scape and crowded back alleys in continuous framed shots.

Using real-time evolutionary algorithms to select, edit, compile and present each discrete 'moment' this dynamic dual-screen installation situates the viewer in the centre of the emotional, philosophical and phenomenological debate on the existence and substance of time and lived experience. (Lorenz & Bevernage 2013). On one screen discrete moments of sense and attention, on the other a continuous central figure surrounded at every moment by a maelstrom of temporal shift in one of the most complex cities in the world. Creating a temporal deep map in the style of William Least Heat-Moon's Psycho geographic Cartographies of both a place and a time. At the same time weaving the challenge of input-output time. Where author, actors, reader and audience's timelines circle each other. (Paik 1976) (Buzzo 2013).

Time, connected and fractured confronts the viewer with the challenge of participation, a challenge of narratives of perception encased in visible temporal flux.

II. BIOGRAPHY

I am an artist, designer, researcher and educator working with new media and creative technologies. My primary interests are in video art, generative media, interaction design and interdisciplinary research in arts and technology. An alumnus of the Telematic Fine Art programme under Roy Ascott and the Design Interactions studio founded by Gillian Crampton Smith at the Royal College of Art my work has been shown widely including; Computer Art Congress, ISEA, ACM Multimedia, Victoria and Albert Museum Digital Futures, BBC Television, Artists Television Access, San Francisco. Act Up, New York. LSE, London and appeared in publications as diverse as The Face, The Guardian and Revolver. I write, exhibit and present internationally on art and creative technologies.

My art practice is involved with lens based and time based media and is an integral part of my research into the Perceptions and Representations of time in Digital Media.



Daniel Buzzo: Video Still, Derive Through Hong Kong.

Antonio D'Amato

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I. RADIATING OUT OF THE DARK INFINITUDE OF AVAILABLE VIBRATIONS

Data Purification

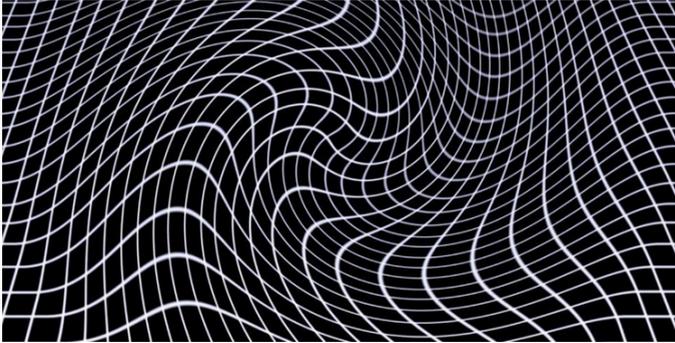
So hard to understand, so hard to detect. On February the 11th 2016 the official announcement came: gravitational waves were confirmed to be observed. A grand reward for physicians and a huge result in Physics development. "We have detected gravitational waves... We did it".

These were the words that resounded in all radio and tv news. But how does this short moment of public revelation relate to the lengthy and heavy effort to arrive to this conclusion? How do the months of data purification and processing relate to the brief instant two binary black holes merge to create a short sweep, a gravitational wave? And how does the billion-year travel of this feeble sweep relate to the few seconds it took for the news to break into all countries of our planet?

This piece explores the heavy data processing necessary to filter out the infinitude of information coming from the outer universe, in a purification process that leads to the feeble sweep signal finally heard as expected by generation of scientists. The title of the piece is taken from an interview to Steve Reich by J. Cott.

II. BIOGRAPHY

Antonio D'amato graduated at conservatory in Piano, Harpsichord, Music for Multimedia, Music Pedagogy and Electronic Music. He also studied Composition for eight years, Bassoon for three years, Baroque Organ, Audio Engineering, Ondes Martenot in Strasbourg and Paris, and later Sonology at ESMUC in Barcelona. Some of his instrumental works are published by Forton Music, U.K. His first electronic composition was selected for a performance during the ICMC 2012 Conference. In summer 2015 he was trainee at ExperimentalStudio des SWR in Freiburg, and in 2016 at ZKM in Karlsruhe. His works have been performed in Australia, Austria, Belgium, Brazil, Canada, France, Germany, Greece, Ireland, Italy, Japan, Mexico, Slovenia, Sweden, Taiwan, UK and USA.



Gravitational Waves.

David Dobson

Earth Materials at University College London

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I. PMM COFFEE TABLE

This work takes the interplay between science and craft as its starting point. The parts are all made from teak and oak salvaged from benches removed from working laboratories during refurbishments. In their various stains and blemishes, they contain a visual record of the experiments performed on them.

The drive towards automation (and modernism) in the sciences can be seen in the replacement of traditionally crafted wooden laboratory furniture with, often much less suitable, synthetic composites. By creating new well-crafted pieces from the waste products of this process I reaffirm the history of the craft-science association.

The association with science is formalised by the use of symmetry operators to allow the classification of the table to one of the 17 planar symmetry (or wallpaper) groups – in this case the two-fold axis and 2 mirror planes in the table comprise the Pmm symmetry group. The offset in the crosspieces destroys the four-fold symmetry operator and stops the table from being a member of the P4m supergroup.

II. BIOGRAPHY

David Dobson is professor of Earth Materials at University College London and Scientist in Residence at the Slade School of Fine Art. Self-taught as a furniture maker and relief printmaker he is a member of the Society of Wood Engravers and has exhibited his prints in individual and group shows across the UK and abroad. His work is in private and public collections.



Pmm Table.

Seiza Friedrich

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I. CHAOS (HOMAGE TO J.M.W. TURNER AND H.S.T) 112X174 13/05/2016

This painting is based on the appropriation of Turner's Snow Storm-Steam-Boat off a Harbour's Mouth, 1842, overlaid with a H.S.T. (Hubble Space Telescope) image - the Rosette Nebula. My fascination came from the way in which the shapes of the two merged so perfectly together, because of the reoccurring patterns of spirals in nature on unimaginably different scales. It's intriguing that the spiral can be both incredibly destructive and chaotic - like in Turner's painting, but simultaneously essential for the creation of stars, galaxies, solar systems, and planets like the one we inhabit. In the case of the Rosette Nebula, the 'petals' (of the rose shape) are a stellar nursery, whose symmetrical shape is sculpted by the radiation and winds from the cluster of young stars in the centre. The duality of chaos and calm is one of the things I find most fascinating, and hope to depict in this painting.

In astronomical photography, the colour comes from placing coloured glass filters (such as red, green, blue etc.) in the telescope, so the detector only receives the colour of light that the selected filter allows through. Seeing colours this way, is different to how you see colours on a television or computer screen, where the colours are in the form of pixels - all colours simultaneously (Professor Chris Impey).

This method of using coloured filters is somewhat similar to using coloured glazes on a painting - it controls which wavelengths of light pass through the filters, and in the case of a painting, which also reflect back to the viewer's eye.

Turner did not use colour in a unifying way, but rather to distinguish between objects. Gage (2000, p165) writes that "Turner was concerned first of all with the capacity of colour to convey an idea rather than with the sensations of darkness and light". This is similar to the way in which Hubble uses colour to differentiate between either the different layers used in the image, (especially when the different layers are various different wavelengths) or between the different elements and compounds in the image.

II. BIOGRAPHY

Seiza Friedrich is an artist who is infatuated with astronomy and the origins of our planet and species. Her work combines images from the Hubble Space Telescope and J.M.W. Turner paintings to produce large scale oil paintings, illustrating the sea as a metaphor for space-time, and encapsulate something of the sublime in chaos and calm. She uses traditional techniques because of her fascination with the alchemy/chemistry of paint. She has a BA(Hons) in Fine Art from Wrexham Glyndwr University and starts a Masters in Fine Art at the University of Chester in September 2017.

III. REFERENCES

Impey, C (Professor) Lectures written by Professor Chris Impey, Distinguished Professor and Deputy Head, Astronomy, University of Arizona, available at Coursera.

Gage, J. (2000) Colour and meaning: Art, science and symbolism. London: Thames & Hudson; p. 165



Chaos, oil on canvas.

localStyle

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I. EXTREME ENVIRONMENTS | SITE AND SOUND

These two sets of videos are examples of science-themed works that we have produced since 2009, although our involvement with topics such as these have been manifest for more than a decade. **Extreme Environments** brings together three moving-image works: **Frontier** (2009-10), **Coast** (2009/17), and **Station 504, Mare Australis Subglacius, Enceladus, Saturn** (2014). In past presentations, these have often been exhibited as looping video installations, either independently, or in the case of *Frontier* and *Coast*, as an alternating video 'diptych'. Together they explore the interstice between representation and concept, form and formlessness. In keeping with the intrinsically unstable nature of 'uncharted terrain', they maintain an atmosphere where the viewer is left to ask where and when this uninhabited space is situated. The terrain itself is 'under erasure', unstable and alchemically in transition from solid to fluid.

Station 504, Mare Australis Subglacius, Enceladus, Saturn (2014): One of Saturn's 62 moons — Enceladus — is covered by a layer of ice 20 miles thick, and scientists announced in 2014 that it has a sea of liquid water underneath the ice at its south pole. This ocean may be more than five miles deep, and possibly the source of geysers of ice crystals that have been observed shooting out of fissures in the polar region into space. The Cassini space probe has detected methane and carbon dioxide in these plumes, which extend at least 110 miles from the surface. This is remarkable as the moon itself is only 300 miles in diameter. To exobiologists, the possibility of extraterrestrial life in our solar system centers on four bodies; of them, only Enceladus is currently known to possess the four essential ingredients for Earth-like life: liquid water, energy (in this case the friction from tidal forces pulling on the moon), carbon and nitrogen. Our piece imagines a future research station located at the south pole of Enceladus, and discoveries we can only speculate on at present.

By contrast, **Site and Sound** comprises two documentary videos, **scale** and **Bird**, where interactive installation environments were created to focus on both site and sound of the Eurasian Blackbird, and the sonified electric fields of Amazonian electric-knife fish.

scale, the interspecies art and science collaboration between localStyle and neurobiologist/engineer Malcolm MacIver, involves live electric fish from the Amazon River Basin. Twelve different species of these fish comprise a 'choir' whose sonified electrical fields provide the source tones for an immersive audiovisual environment via audience interaction. The Eurasian Blackbird is featured in the documentary footage of **Bird**, presenting the interactive audio-video installation as realized through localStyle's collaboration with engineer and artist, Jesus Duran.

II. BIOGRAPHY

The collaborative localStyle was founded in Amsterdam in 2000 by Marlena Novak and Jay Alan Yim. Their intermedia practice includes video, sound installation, interactive installations, live performance with electronics, and audience participation. Their goal is to use the senses to interrogate complacent acceptance of existing assumptions, and their projects explore how territories and boundaries—whether physical or intangible—are constructed, interpreted, and negotiated, via themes as varied as issues of trespass, the mating behavior of hermaphroditic marine flatworms, the sonification of electric fish from the Amazon, and experimental Eurasian blackbird grammar. These works have been presented in festivals, museums, galleries, and alternative venues in more than forty cities worldwide. Novak is an Adjunct Assistant Professor at the School of the Art Institute of Chicago, and Yim is a faculty member at Northwestern University.



localStyle: Frontier-still.

Lord Black Art

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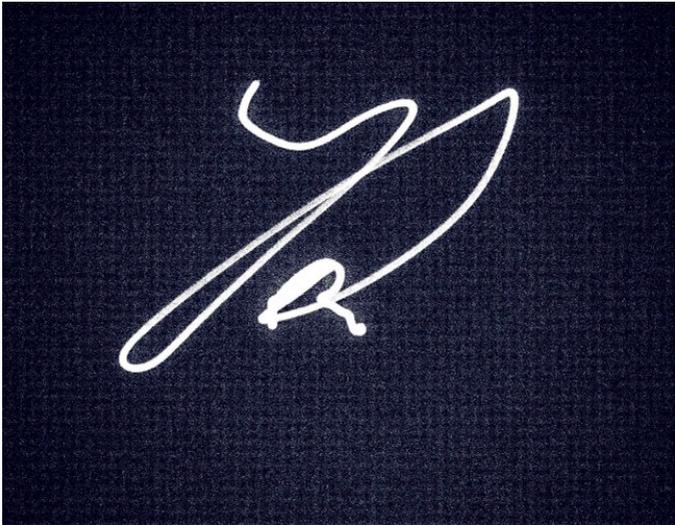
I. VOYAGER PROBE

This work is a response to the Voyager Probe and explores the following concepts:

- The Voyager probe has been travelling through the solar system for 40 years and has now entered interstellar space.
- The signals Voyager sends are becoming weaker and weaker, and eventually we will lose contact with the probe altogether.
- However, our knowledge of Voyager's journey into outer space will still have a causal effect on us, even after contact is lost (i.e. our thoughts are different believing that Voyager is travelling through space, that they would be if we didn't believe this).
- It is this notion, of being simultaneously connected and disconnected (entanglement, if the term is used loosely).

II. BIOGRAPHY

Lord Black is an artists who takes a multidisciplinary approach to his practice using painting, performance, film/video, sculpture and sound to make artworks. He is also a published musician and somewhat of a phenomenon in the world of Extreme Metal, writing and performing with Onesetcold under the Italian record label Wormholedeath. His artwork has featured on the BBC Science Café and has been shown in various venues including Undegun, Wrexham, and Oriel Sycharth Wrexham. He graduated from Wrexham Glyndwr University in 2016 with a first class degree in fine art.



Photograph drawing with a star in the Sky.

Manoli Moriaty

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Lucie Lee

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I. DeviceD

DeviceD is a multimedia work aiming to address the often invisible effects digital communications have on users and their mental health, and aims to highlight the barrier between what we experience in private and what we allow to be communicated in public during our social media interactions. Combining an interactive audiovisual installation and a durational performance, a caged dancer wears an array of bidirectional feedback sensors and reacts to tactile instructions determined by social media interactions.

The system monitors geographically specific social media interactions and interprets key messages and interactions into performance instructions for the performer through a series of servomotors. In turn, the performer's movements are converted into control data for the audiovisual generating system. Visitors are able to influence the performer and audiovisual content in an implicit or explicit manner, by interacting on social media through their mobile devices.

II. BIOGRAPHY

Manoli Moriaty is a composer, performance maker, and academic researcher. His practice focuses on interdisciplinary collaboration and is informed by themes of in/determinism, collective action, and human-machine integration. He has collaborated with dancers, choreographers, actors, and electronic musicians towards producing works in a diverse range of formats, including live mixed-media performances, interactive installations, and electroacoustic compositions. His work has been presented internationally at contemporary art festivals, academic conferences, and new music concerts, and has received support by Arts Council England, Sound & Music, and IdeasTap.

Lucie Lee – a dance artist, practitioner, choreographer, performer and academic. She is specialising in contemporary dance technique (Release and Cunningham), improvisation and contact improvisation, physical theatre, performance skills and runs integrated creative workshops for children and adults with learning disabilities. The Lucie Lee Dance Company is an emerging professional Dance Theatre Company, which embrace the use of digital technologies in their dance performances. The company produces experimental dance theatre and site-specific works. We also deliver dance, chorographic and digital lab workshops in education and community through our Outreach programme through Justify Move Dance Academy.



DeviceD.

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Tom McGuirk

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Chris Meigh-Andrews

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I. IN DARWIN'S GARDEN

"In Darwin's Garden" is a video installation that has been developed from digital images produced during a series of visits made to Down House, the former home of Charles Darwin, during 2010-2012. This work is centred on a set of time-lapse sequences and digital photographs of the ancient mulberry tree that grows close to the rear elevation of the house.

This tree and its location can be seen to be representative of the relationship between the domestic life of the Darwin Family, the garden as a site for the careful and systematic observation of natural processes and the slow but inevitable change in the cycle of life and the seasons. This venerable tree was alive and growing both before and during the time that Charles Darwin and his family inhabited the house and although it is still alive at this time, the tree is now in the final phase of its life. An aspect of this project centres on having a dynamic digital experience of the tree after its death. This tree provides a special link across time back to Charles Darwin, his theories, work and ideas and his fascination with the forces of nature.

Four time-lapse cameras were sited in positions around the tree to record its growth and associated human activity over a period of twelve months. The resulting images have been combined with additional conventional digital photographs to produce a sequential and spatial experience of the tree and its immediate environment.

The installation developed from this visual material presents a complex multiple image and time-lapse view of the mulberry tree as it grows and changes throughout the year and through the seasons. Situated within a full size replica of the framework of the man-made structures that now support the slowly dying tree, the work produces a view of the tree in both physical and virtual space that can be explored and engaged using augmented reality technologies.

II. BIOGRAPHIES

Alan Summers is a practising designer and educator whose principal research practice explores the understanding of experiential systems and cultural knowledge upon the design and implementation of 3D environments. Exploring the crossover of real world and digital realities, his practice using augmented technologies creates palimpsests where culture and experiential knowledge can be questioned. His research questions the ubiquity of Western Albertian perspectives and the influence of Cartesian logic in the development of computer-generated space. This is generating a creative and analytical body of practice to inform the future design of augmented realities, where the logic of a computer-generated space augments the psychophysiological space of the user.

Dr Tom McGuirk is a painter, printmaker and academic. Tom is currently Senior Lecturer in Art Theory/Critical Theory at the University of Chester, UK. He received his education at the National College of Art and Design, Dublin, where he also lectured for many years. He has practiced and exhibited extensively. He has worked in higher and further education in Ireland, Denmark and laterally Britain, in a number of roles including those of lecturer, course coordinator, and as Research Fellow in Fine Art (practice and teaching) in the School of Art and Design, Nottingham Trent University, UK.

Chris Meigh-Andrews is an artist and writer and Emeritus Professor of Electronic & Digital Art at the University of Central Lancashire, UK. He has been exhibiting his video and installation work internationally since the late 1970's and has held numerous artist-in-residence posts in the UK, Canada and Europe. Over recent years he has produced a number of digital video projections and site-specific installations that explore the relationship between iconic or historical photographic images, people or locations and contemporary views, perspectives and visualizations.



In Darwin's Garden.

Joanna Neil

University of Glasgow

University Centre Blackburn College

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I. MOVING TO THE SOUND OF MY THOUGHTS

Using digital technologies to observe, record and reflect on my own predominantly drawing based artistic practice, to question engrained habits and unpick what had become usual and familiar; created new spaces for reflection. This approach, framed as 'digital auto-ethnography', heightened my awareness of my own physicality and impacted on my practice in unexpected ways: informing, at times forming, and ultimately transforming my practice.

'A significant change to my work since stopping the auto-ethnographic projects is that I feel that I have a stronger connection to the way I work, the materials I use and how I want to become more physically part of my work. The auto-ethnographic methodology has performative elements to it; I became an observed performer even if it was to an audience of one.' (Neil 2016)

Moving to the Sound of My Thoughts was conceived as a work to reflect with. It became apparent that what I had previously considered to be an autobiographical practice hadn't really revealed very much about me. As the digital auto-ethnography presented versions of my work and myself that were new, I experienced a new understanding and analysis of my practice and I became drawn to exploring work that did reveal more.

The imagery of me curled up, unclothed is not just about being stripped bare and exposed in the sense of auto-ethnography. The work is about the times when I have felt at my most vulnerable, a depression: feeling weighted down and not able to resist being blown about by the wind or submerged and tossed about beneath water; heavy and weightless in my resistance, stumbling and falling. Several 'performances' including me submerged in a swimming pool and lying on the bed were documented.

*Immovable, gripped with a paralysing fear and sadness
the bed, the first place for comfort
but when the mind and body refuse to move it takes me hostage
I feel mute and only a shade of myself, muted
I am curled heavy on the bed, sinking into it
wanting it to swallow me up
to the floorboards beneath me
I have no resistance*

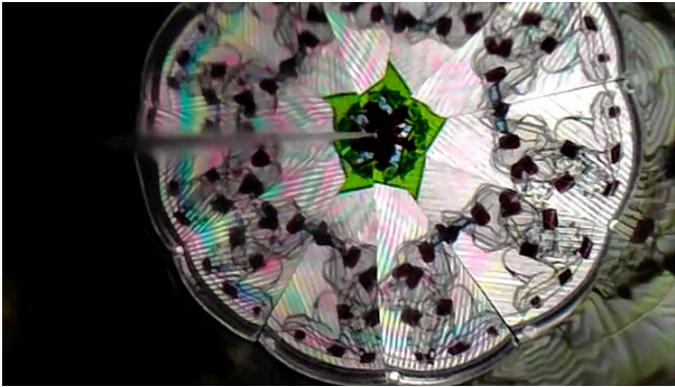
The work for exhibition, presented as a film, uses amplified sound in water technology where the sound becomes visualised as water movement. Contained within the enclosed space are self-portrait drawings from the lying on the bed documentation. A variable rhythm of movement is created from spoken thoughts and simultaneously recorded heartbeat.

II. BIOGRAPHY

Joanna is currently working on her PhD at the University of Glasgow. She is based in the school of Education where she is bringing together her research interests: Arts practice, Education and Technology. She is interested in what can be made visible by reflecting and re-seeing through different media and using digital auto-ethnography as a methodology to do this. She teaches drawing, research methodologies, reflective practice and textiles at University Centre Blackburn College. Drawing is central to her practice, happily moving from pen to sewing machine to digital voice recorder and more recently to performance to explore this.

Research blog: <https://feltlikeit.wordpress.com/>

Digital auto-ethnographic research project: <https://drawnconversation.wordpress.com/>



Still, Colour Kalei do.

Ioana Pioaru

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I. MEDITATION ON A MACHINIC CUBE

Meditation on a Machinic Cube is an installation that comprises 6 linocut prints framed in three double-sided frames and a central sculpture levitating over a custom-made plinth.

The starting point of this project was an artwork I have accomplished in 2015, titled "Insectarium", comprising a series of 10 display boxes showing sculptural ink drawings – a collection of small machinic units arranged into different labyrinthine patterns.

In 2016, I have started planning and designing an artwork along the lines of the "Insectarium" and called this artwork "Meditation on a Machinic Cube". It seemed obvious and quite appealing to convert one of the units of the Insectarium into sculpture. While planning the design, I decided to produce a series of linocuts depicting the unfolded cube.

The resulting artworks – 6 prints (in an edition of 10), each depicting one face of the cube – triggered the idea of displaying them in such way that opposite sides are never visible at the same time, just as it not possible to see opposing faces of a cube simultaneously. This idea was materialised in the double-sided frames that function not just as a display system that illustrates the concept of the "hiding face", but also as horror vacui sculptures in themselves. Thus the frame – a traditionally discrete object that enhances the perception of the artwork without making a statement itself – takes a step forward, acquires a voice and becomes the art work. One could say that the "contamination" of this otherwise neutral space, the expansion of art into the non-art, is indeed a consequence of horror vacui – the fear of emptiness.

Another consequence of using double sided frames is multiplying the perspectives necessary to approach in order to have a complete experience of the work exhibited. By walking into and around an installation, the viewer is, on the one hand, "activated", and on the other hand he/she becomes a "decentered subject" that is denied an ideal spot from which to examine the work, suggesting that there is no one right way of, nor a privileged place for looking at the world, and that one needs to move and search continuously in order to acquire a complete, coherent image of the work. In fact, in the case of my installation, moving around the central piece not only reveals the opposing sides of the cube, but also an (otherwise invisible) chromatic dialogue between the linocuts and the central piece.

II. BIOGRAPHY

Ioana Pioaru is an artist whose recent practice explores the boundary between drawing and sculpture and the ability of sculptural drawing to generate optical illusions. In the works created after 2010, she has approached the theme of horror vacui – a type of imagery characterized by the abundance of visual detail – and started creating works where uninhabited space and inanimate objects appear to replicate or multiply by themselves, imitating the fecundity specific to nature and the organic. She has started to apply the theme of horror vacui to the medium of holography and to explore the capacity of holographic imagery to visually expand physical space.



Meditation on a Machinic Cube.

John Gordon Swogger

Archaeological Illustration

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I. CARBON COMICS

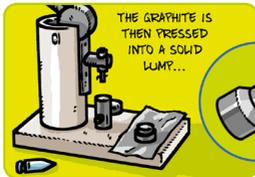
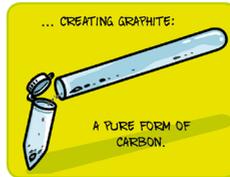
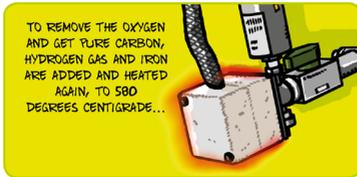
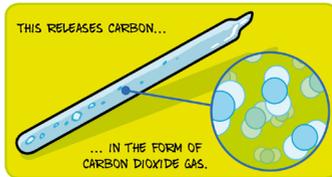
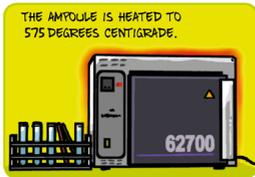
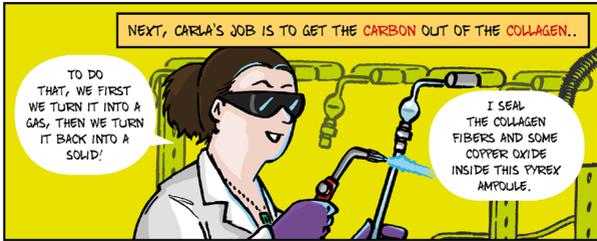
These are panels from a series of three comic books produced for the Center for Applied Isotope Studies (CAIS) at the University of Georgia, USA. They were designed as a public engagement tool to be given to elementary and junior high students (approximately aged 8-14) visiting the laboratory on school trips. The comic books detail the work CAIS undertakes for archaeological clients, including getting carbon-14 dates and doing metallurgical analysis. Using comics allows the explanation of unfamiliar subjects to be supported by visual context, and for complex information to be unpacked into steps and stages. The use of actual CAIS scientists as narrators – many of whom the students will have met on their visit - helps both humanise and ground the often remote and abstract practice of science.

My work as an archaeological illustrator crosses the boundary between art and science. Reading information in traditional scientific and archaeological illustration often depends on a pre-existing familiarity with the subject matter, and this can be problematic in public engagement. Comics, however, allow me as an illustrator to build knowledge and familiarity with an audience “panel-by-panel”. Such explanations can be simplified without being dumbed-down, and can introduce technical and specialist terms and concepts in ways that do not rely on pre-existing familiarity with a subject. As a result, comics are an exceptionally successful way to communicate information about archaeological science and practice, as evidenced by the growing number of topics I am being asked to cover – from local heritage to international antiquities smuggling.

The partnership between art and science that exists within comics is synergistic: the practice of each complements the other. From art practice, a comics creator can draw on a wide range of stylistic expressions to suit the nature of the subject; from science practice, a creator can draw on a range of explanatory modelling and narrative technique. Comics mediates between the two through the use of choices in layout, design, structure and presentation. As a result, comics creators are able to exercise a high degree of control over content – meaning that the end product can be very precisely targeted at a specific audience, ensuring a high level of engagement. As a result, comics can not only make complex information accessible, they can make it more interesting. Comics can thus be used not only to make an audience more knowledgeable about a previously unfamiliar subject, they can be used to make an audience more appreciative.

II. BIOGRAPHY

John G. Swogger is an archaeological illustrator who has worked for the past 25 years on excavations on sites in the Middle East, North Africa, Eastern Europe, and the islands of the Caribbean and the Pacific. He has also worked for many UK-based archaeological projects, museums and heritage organisations, including the Museum of London, CADW, the Princes Regeneration Trust and Liverpool University. He lives on the English-Welsh border; and is currently the author of a weekly series of comic strips about local history and heritage published in the Oswestry Advertiser newspaper.



Jonathan Weinel

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I. TECHNOSHAMANIC VISIONS FROM THE UNDERWORLD II

Technoshamanic Visions from the Underworld II is a psychedelic video installation or 'VJ mix' by Jon Weinel. Drawing upon his research regarding altered states of consciousness and music, the videos are based on visual patterns of hallucination, psychedelic experiences of sound-to-vision synaesthesia, and trance-like states of sensory overload. The work also takes inspiration from visual music; the occult films of Harry Smith and Kenneth Anger; Paul Sharits and Pat O'Neill; acid house VJ mixes; and more.

Technically, the films are made using a process called 'direct animation' (or 'drawn-on film'). Commercial 8mm cine films are wiped by placing them in a plastic bucket of bleach, and are then rinsed in a bathtub, removing most of the emulsion. Inks and paint are then applied to the films, which are then projected and digitized. Other visual materials are also added using various techniques such as stop-motion animation of dead leaves, decalomania, geometric computer animations, pixel-art animations and microscope photography.

For this presentation of Technoshamanic Visions from the Underworld II, the films are mixed live to a soundtrack of psychedelic rock music by 秘部痺丸 Hibushibire (from Osaka, Japan), from their Freak Out Orgasm! album (available on Riot Season records). Sound and vision are combined using the VJ application VDMX, adding audio-reactive effects and using a MIDI mixer as a controller. The output of the live video mix is recorded at 720p, 60fps, using a Blackmagic Hyperdeck Shuttle 2.

The four paintings presented here: Untitled, Ginza Jazz Violence, Da Mystery Ov Jazz Gorons and Squidtrait (Portrait of a Squid) can be seen as sketches or companion pieces to the videos. These are painted to music using an automatic or stream of consciousness approach, and provide one way through which new themes and ideas emerge, which are later developed through the animations.

II. BIOGRAPHY

Originally from Dorset (UK), Jon Weinel is an artist/writer/researcher whose main expertise is in electronic music and audio-visual media. In 2012 he completed his AHRC-funded PhD in Music at Keele University regarding the use of altered states of consciousness as a basis for composing electroacoustic music. His work currently operates within the nexus of sound, psychedelic culture and immersive computer technologies. His creative projects have been presented at a variety of international festivals, while his writings have been published in books, journals and conference proceedings. Jon has held academic posts in the UK at Keele University, Manchester Metropolitan University, Glyndwr University, and Aalborg University, Denmark, where he is currently a Postdoc in Music and Sound. He has written a monograph entitled: Inner Sound: Altered States of Consciousness in Electronic Music and Audio-Visual Media, which will be published by Oxford University Press in 2018.



Video installation still, *Technoshamanic Visions from the Underworld II* (2016-2017).

KEYNOTE SPEAKER

Professor Andy Miah, PhD (@andymiah) is Chair in Science Communication & Future Media, in the School of Environment & Life Sciences, University of Salford, Manchester. He is a Fellow of the Institute for Ethics and Emerging Technologies, USA and Fellow at FACT, the Foundation for Art and Creative Technology, UK. He is author of 'Sport 2.0' (2017, MIT Press), co-editor of 'A Flash of Light' (2016, Royal Society of Chemistry), author of 'Genetically Modified Athletes' (2004 Routledge), co-author with Dr Emma Rich of 'The Medicalization of Cyberspace' (2008, Routledge), Editor of 'Human Futures: Art in an Age of Uncertainty' (2008, Liverpool University Press and FACT), co-author with Dr Beatriz Garcia of 'The Olympics' (2012, Routledge), and co-author of 'The Olympic Movement and New Media' (2014).

Professor Miah's research discusses the intersections of art, ethics, technology and culture and he has published broadly in areas of emerging technologies, particularly related to human enhancement. Professor Miah has published over 150 academic articles in refereed journals, books, magazines, and national media press on the subjects of cyberculture, medicine, technology, and sport. He has also given over 300 major conference presentations and he is often invited to speak about philosophical and ethical issues concerning technology in society.

Professor Miah regularly interviews for a range of major media companies, which have included BBC's Newsnight and Start the Week with Andrew Marr, ABC's The 7:30 Review and CBC's The Hour. He often publishes essays for media outlets, which have included the Huffington Post, Wired, Washington Post, The Guardian, and the Times. He is currently part of a European Commission project called Digital Futures 2050 and has previously been involved with a number of international projects on technological convergence and ethics. He is also part of the Ministerial Advisory Group on Digital Participation in the Scottish Government.

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