



Affecting Perception

AXNS Collective

Free Seminars

Tuesday 5 March

Dominic ffytche

The Art of Visual Hallucination

Magdalen Road Studios

Wednesday 6 March

Glyn Humphreys

Fractionating vision: what disorders of vision tell us about art

Fusion Arts

Sunday 10 March

Luke Jerram

Art inspired by discoveries in neuroscience

Modern Art Oxford

Tuesday 12 March

Charles Spence

Visual Perception, synaesthesia and art

Science Oxford @Cafe Scientifique

Wednesday 13 March

Fabian Peake

Poetry Reading: Mervyn Peake and Lauren Cooney

Play Reading: An Anagram

Fusion Arts

Wednesday 20 March

Klaus Podoll & JJ Ignatius Brennan

Migraine art: in conversation

Fusion Arts

Sunday 24 March

Sebastian Crutch

William Utermohlen and Alzheimer's disease

Modern Art Oxford

Tuesday 26 March

Simon Baron-Cohen & Jon Adams

Autism, Asperger's and Art: in conversation

Magdalen Road Studios

Thursday 27 March

Jon Sarkin

Not not making art: becoming an artist following a stroke

Fusion Arts

All seminars begin at **6pm** on weekdays and **3pm** on Sundays

For venue details and to book a place online visit:

axnscollective.com/talks

Affecting Perception: Art & Neuroscience looks at the relationship between art and the brain. The exhibition explores how changes in the brain affect an artist's work. By bringing together artists with different neurological conditions, we aim to explore the role of each area of the brain in creating art and the effects of illness on an artist's life and work.

Disorders of the brain can impair our ability to speak, recognise objects, understand emotions, or make logical decisions. Brain disease can also alter the ability to produce art, but it is not always true that the results are 'impaired'; sometimes the art seems to improve.

Each area of the brain is responsible for different tasks, but also collaborates with other areas. The communication is in fact so great it is virtually impossible to isolate one area as completely responsible for one function. But little is known about which areas of the brain are involved in creating art. There is not thought to be one 'art' area but rather art involves the use of many existing areas which carry out basic functions like attention and cognition. We are asking how changes to these areas affect art?

Biological brain changes can sometimes seem to have similar symptoms to mental illnesses, such as depression or schizophrenia. But it is important to highlight that the two are very different. *Affecting Perception* focuses on artists who suffer from these biological or 'organic' conditions of the brain such as stroke and dementia, as well as developmental conditions such as autism.

Combining the worlds of art and science can cause controversy. Some believe that exploring how the brain creates art devalues the final object. Or that attributing a person's new-found creativity to brain damage undermines their skill. The scientific approach does not presume to provide an answer to human creativity but instead hopes to widen the debate and contribute to the many factors that form art interpretation.

Awake Craniotomy, St George's Tooting. This video, recorded by one of the curators, shows a patient undergoing a craniotomy by neurosurgeon Henry Marsh at St George's Hospital, Tooting. After suffering a single severe seizure, Marc was diagnosed with a slow growing brain tumour called an oligodendroma. The size of a golf ball, it was formed of cells which support nerve cells (oligodendriocytes). It was in his left hemisphere, between the occipital and temporal cortices, the areas required for vision and reading. The surgeons created an opening while Marc was anaesthetized. He was then woken up for the rest of the operation to ensure important areas were not damaged. He felt no pain, as the brain does not have any nerve endings.

Marc was asked to identify a red dot on a large bull's-eye screen. If he reported that the dot disappeared when the surgeons stimulated an area of his brain with an electric current, they knew that this was part of his visual cortex. Marc also read aloud an excerpt from Alice in Wonderland, and when he faltered, they knew they were then stimulating an area involved in reading. The procedure went well, the tumour was removed and Marc has made a full recovery. He kindly gave his permission for this video to be shown.

Jon Adams is a contemporary artist whose work explores themes of hidden disability in Asperger's and dyslexia. His art reveals his naturally systematic thinking: his inclination and ability to uncover systems within everyday interactions and landscapes. He is currently collaborating in a research project with Professor Simon Baron-Cohen, director of the Autism Research Centre, at the University of Cambridge. In this residency Jon Adams sets out on a personal, artistic and scientific investigation of his own Asperger syndrome.

J.J. Ignatius Brennan, known for his surrealist paintings, began his artistic career as a boy by painting the migraine experiences, which still plague him today. He experienced hallucinations of zigzags and triangles, and his visual field would split into a mosaic. Parts of his body would appear grossly enlarged, or duplicated, and he sometimes experienced total loss of 3D vision. His works reveal the visual hallucinations and express the sensations that accompany the attacks. Brennan won first prize for his triptych, *Migraine Man*, in the fourth National Migraine Art competition in 1992.

Tom Eyre is a local Oxford artist who has Asperger's syndrome. His work explores his relationship with the natural world. Tom often has strange experiences where he cannot remember what things look like, or identify objects. The images he paints are what appear to him in the moment of creation: the object appears without meaning or identity and he simply paints its shape and form. His experiences could be described as a kind of transient visual agnosia.

Yoshimasa Kato & Yuichi Ito are two contemporary artists from Japan interested in exploring science through the medium of art. Included in the exhibition is a film of their 2007 installation, *White Lives On Speaker*, an interactive piece that enables spectators to see their brain waves. An EEG recording of alpha and beta waves generated from the spectator's brain are converted and played through a speaker filled with potato starch. The starch is liquid when stationary but when stimulated by sound takes on a form and a life of its own. This sculpture enables Kato and Ito to give the otherwise invisible brain waves tangible properties.

Jason Padgett is a number theorist and artist with Acquired Savant syndrome. Following a brutal attack by muggers he began to notice a change in his perception of the world. Everywhere he looked he saw complex mathematical formulas visually embedded in the scenes and objects around him. Translated into the highly complex and remarkably beautiful diagrams displayed in the exhibition, his unique representations of abstract mathematics are examples of how closely art and science relate. Padgett had no previous formal training in mathematics or a university degree. A series of brain scans, by a research team in Finland, showed areas of damage had forced other areas of his brain to compensate.

Mervyn Peake was an accomplished artist, poet, novelist and playwright. He is the author of the Gormenghast novels, and illustrator of Lewis Carroll's *The Hunting of the Snark* and *Alice in Wonderland*. He is thought to have suffered from a rare form of dementia: known as Dementia with Lewy Bodies. His drawing abilities remained preserved until his death, though his skill varied from piece to piece, perhaps reflecting the lapses in attention and awareness that he suffered as a result of the dementia.

Cecil Riley: born 1917 in Cornwall, Cecil Riley started painting when he was 10 years old and went on to train at the Slade School of Art. He has had a successful career and is still working today. After developing macular degeneration, which left large patches of blindness in his visual field, he developed 'Charles Bonnet syndrome', a condition that causes patients with visual loss to have complex hallucinations. Despite the deep anxiety they caused, Riley developed an interest in his hallucinations and began to paint what he saw, finding that the cathartic effect of painting them reduced their frequency.

Jon Sarkin works in a wide variety of styles, from text-based streams-of-consciousness, portraiture, landscapes, and cartoons to collage, photography, poetry and music. The removal of a section of the left hemisphere after a severe stroke left Sarkin a different person. --- >

Jon Sarkin (contd.) After many months in recovery, he developed an overwhelming urge to draw and paint, and his perception of the world was altered radically. Since this incident he has had a meteoric artistic career: his work has been featured in *The Daily Telegraph*, BBC TV and radio, *The New Yorker*, and his life rights have been purchased by Paramount Pictures.

William Utermohlen studied at the Pennsylvania Academy of Fine Arts and the Ruskin School of Art in Oxford. In 1995, he was diagnosed with Alzheimer's disease and began to paint a series of self-portraits, encouraged by his nurse Ron Isaacs, trying to understand what was happening to his mind. These works are unique examples in the history of art and medicine of an artist consciously responding to his apprehension of oncoming dementia. Poignant expressions of his fear and increasing isolation, they provide a moving insight into his gradual mental decline.

Nicholas Wade is an artist and emeritus professor in the psychology department of the University of Dundee in Scotland. Wade has published widely on perception and vision and has collaborated with artists such as Patrick Hughes and Calum Colvin. His research interests include the representation of space and motion in human vision and the relationship between visual science and visual art. One of his aims is to foster a closer association between the graphical language of art and the interpretative language of science.

George Widener is an autistic savant who has an obsession with, and a remarkable ability to recall historical facts and statistics. He is able to calculate the day of the week for any given date over hundreds of years. Widener plots the information he amasses in highly intricate drawings, akin to mapping. Raised in a working class background in an era in which autism was little understood, Widener's condition remained undiagnosed until adulthood. Despite producing thousands of drawings, he did not reveal his work until he was in his 30s. Now a celebrated artist, his work is featured in collections across the world.

Affecting Perception: Art & Neuroscience

2 – 31 March, 2013

FREE EXHIBITION & SEMINARS

O3 Gallery, Oxford Castle, Oxford OX1 1AY

www.o3gallery.co.uk

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