DRIVERS

http://www.computer-arts-society.com/

An exhibition of work
by Computer Arts
Society committee
members

INTRODUCTION

Sean Clark, CAS Chair. August 2025
seanc@interactdigitalarts.uk

The Computer Arts Society was established in 1968 with the goal of providing a focal point for artists and technologists interested in the creative potential of computers. Over the years, thousands of people have passed through the Society, with many of these now being recognised as important contributors to the field.

Much of the pioneering work created by our members is documented in the Computer Arts Society's PAGE newsletter (which can be found in PDF form on our website), and more recently, we have begun to run open-call member shows (again, see our website). However, as far as I'm aware, this is the first time the Computer Arts Society has produced an exhibition purely for work by the CAS organising committee. After Stephen Bell proposed the idea, I was intrigued to see what it would look like. As Stephen notes, the exhibition is surprisingly diverse and really pushes the boundary of what people might expect from "computer art".

As well as being an opportunity to show interesting artwork, I very much hope that this exhibition is seen as a "call to action" for new people to become involved in the Computer Arts Society. As you can see, computer art is not a single thing, and artists make use of computers in a wide variety of ways.

If you would like to get involved, be it as an ordinary member or even a new committee member, please get in touch. We are always looking for fresh ideas and approaches, and perhaps you will be featured in one of our future exhibitions.

Contact the Computer Arts Society
Website: www.computer-arts-society.com
Instagram: @computerartsoc
Facebook: facebook.com/groups/Computer.Arts.Society
YouTube: youtube.com/@ComputerArtsSociety

Stephen Bell, Exhibition Curator, August 2025

It has been a privilege to organise this group exhibition of very different types of work by committee members of the Computer Arts Society (CAS).

In a committee meeting some months ago we realised that we did not have an exhibition scheduled immediately after Sue Gollifer's. We did not want the walls of the BCS Moorgate to be empty for any length of time so solving the problem was urgent. There seemed to be no quick and easy solution. Then I remembered how when I taught Fine Art at Reading University, every few years there would be an exhibition of art by the staff. Based on this idea, I suggested that as most of us should be able to find artwork in our collections of our own or others' works, we could swiftly put together an exhibition. The show would incidentally reflect our positions on art and provide an insight into our aesthetics and/or practices.

To my surprise rather than taking work off the shelf, so to speak, it seemed most colleagues choosing to take part proposed exhibiting new or very recent work. So that we now have a show that largely consists of current output and has a more contemporary feel than anticipated. It was not what I had expected, but way better than its initial conception.

I asked the exhibitors to make statements that would indicate the relevance of their practice to their roles as members of the committee. Some chose to make this explicit, some left it to our interpretation of their work to support their bona fides. I think that you will agree that in all cases there is no doubt that the society is in the hands of motivated individuals with a very clear interest in what brings us together.

EXHIBITORS

ANNA DUMITRIU

CATHERINE MASON

DAVID UPTON

ERNEST EDMONDS

GEOFF DAVIS

GRAHAM DIPROSE

PAUL BROWN

SEAN CLARK

STEPHEN BELL

SUE GOLLIFER

ANNA DUMITRIU

Susceptible

This hand-embroidered and beaded digital print on satin features a still image captured from a data-driven artwork visualizing cutting-edge research from the University of Oxford's CRyPTIC Consortium. The research predicts antibiotic resistance in tuberculosis (TB) using genomics.

TB bacilli swarm within a lung, attracted to and destroyed by coloured clouds representing four key antibiotics, illustrating their genetic susceptibility. A further data layer of contrail-like threads, using London Gatwick flight data, maps the travel reduction during the COVID-19 pandemic, powerfully linking microbiology to the urgent need for global health collaboration.

In collaboration with the CRyPTIC Consortium at University of Oxford.
Creative Technologist: Alex May

Precious Cells

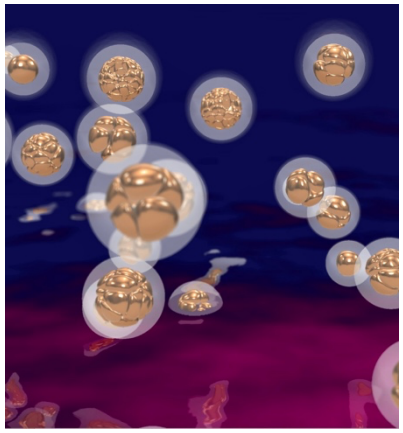
This hand-embroidered and beaded digital print on satin features a still image captured from an interactive artwork exploring the fascinating story of donated human embryos used in scientific research to understand early development and informed by a series of conversations between the artist, patients, and scientists who work with early human embryos at the Gurdon Institute. The golden colour of embryos represents their preciousness.

An interactive version of the work can be accessed via https://annadumitriu.co.uk/portfolio/precious-cells/

In collaboration with Human Developmental Biology Initiative and the Gurdon Institute - University of Cambridge.

Creative Technologist: Alex May

Susceptible



Precious Cells

hand-embroidered and beaded digital prints on satin

CATHERINE MASON

I am exhibiting a poster based on my recent book *Creative Simulations: George Mallen and the Early Computer Arts Society* (Springer 2024 : https://bit.ly/3xdOE58). George Mallen, a pioneer of cybernetic systems and cultural computing applications since 1962, was one of the founders of CAS, along with Alan Sutcliffe and R John Lansdown in 1968. I argue that the historical artwork *Ecogame* of 1970, (led by Mallen and developed cooperatively by members of CAS), provides an important precursor for contemporary creative use of Artificial Intelligence (AI), about using AI in a responsible way, one that is human-centred and socially relevant.

I hope I bring an historical focus to the CAS Committee. I believe that the canon of art history has neglected computer art for too long. This is important because work not codified tends to get written out of cultural history. Computer artists expanded the idea of what art was or could be: they adopted digital technology – arguably the single most profound invention of humanity, and explored innovative artistic uses for it. They laid the foundations of what was to come. My aim is to use history to generate new meanings and insights for contemporary audiences as society continues to navigate challenging questions concerning creativity and technology.

DAVID UPTON

As R Murray Schafer, the sound artist and theorist, said, any soundscape includes 'keynotes'. (“[these are]'''...the anchor or fundamental tone …. although the material may modulate around it, often obscuring its importance”. For over 100 years, diesel engines in buses and taxis have been a keynote of the London soundscape. For a decade or more we have talked about replacing them: now, suddenly, this is really happening. Soon they will be as rare as the sound of hansom cabs.

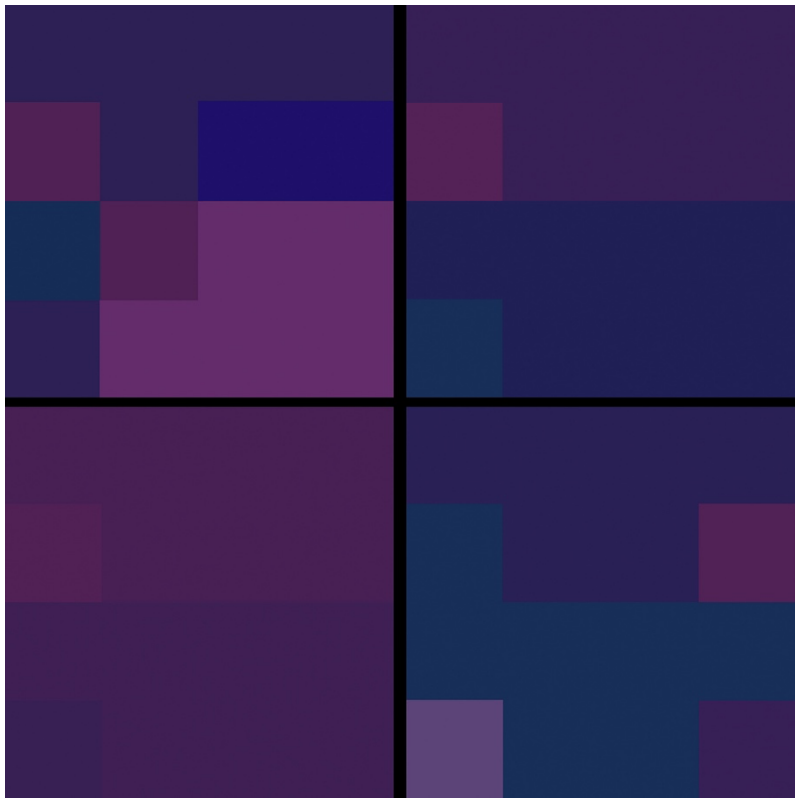
My work is a sound piece, about 5 minutes long, as an mp3, a musical meditation on these diesel sounds. It is divided into three movements, each beginning and ending with the chimes of Big Ben, another significant London sound. The first movement plays with diesel sounds, highlighting their musicality. The second movement uses granular synthesized sound ('microsound') to bring a mythical, heroic echo of the grandeur and gaiety of London since diesel engines first came to our streets. The third movement is simply the long slow death of one single engine as it slows and is finally switched off.

Requiem for London Diesel

Sound artwork by David Upton, 2023

ERNEST EDMONDS

I started to work in the constructivist tradition late in the 1960s and have done so ever since, often extending the constructive methods by writing software. The first time I used a computer in making an artwork was in 1968 and soon after that I joined the Computer Arts Society (CAS). Back in 1970, the late Stroud Cornock (also a very active CAS member) and I presented a conference paper in the CAS section of the Computer Graphics 70 conference at Brunel University. It presented our mission, which was to explore the implications of computing for art making. We identified two primary foci: the exploitation of the potential for interactive art and the need to concentrate on using the technology to amplify, rather than replace, the artist. All of my work includes determining some kind of underlying structure that constrains my choices. That structure can be mathematical, logical or just some collection of rules. In earlier times it might well have been perspective, but today it is often algorithmic or a geometric logic. In my work, these structures have been used to shape geometry, colour, changes over time and interactive behaviour. http://ernestedmonds.com



Four Shaped Forms: Roost B, Digital print on aluminium, 2016,80 x 80 cm.

GEOFF DAVIS

Pattern City extends my algorithmic storytelling, first explored in Story Generator (1985). The focus shifts to moving images: a system cycling through AI-generated illustrations with programmed transitions, overlays, and transformations.

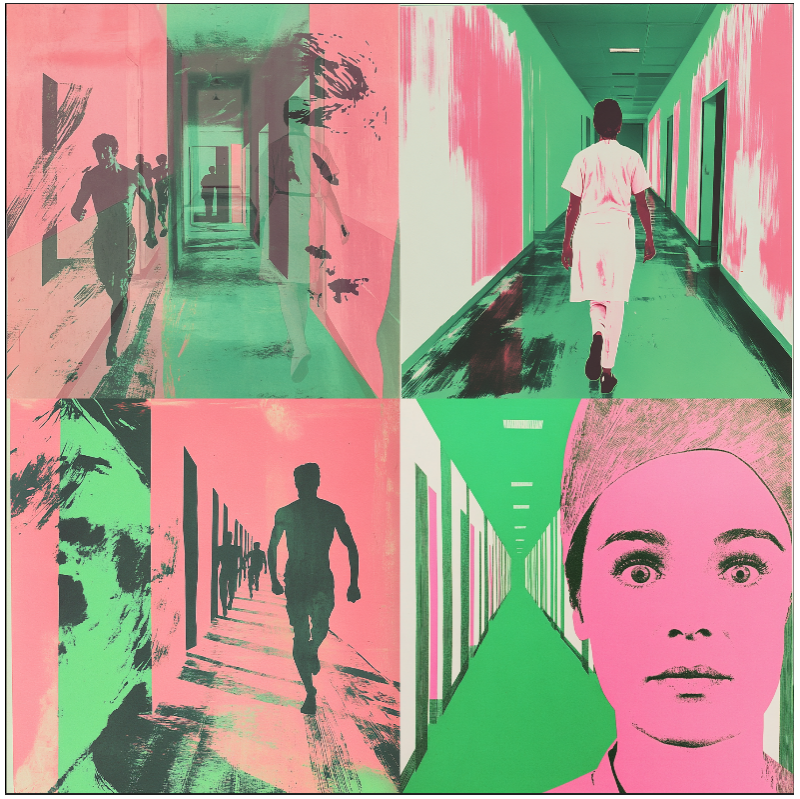
The images came from illustrating my Pattern City novel. The scenes suggest the fractured world of a prison nurse whose life is transformed after an unnatural disaster, as she is drawn into a parallel world of hackers and drifters in a future universal basic income economy.

AI's tendency to overproduce images became a resource. Instead of discarding them, I used multiples to frame sequences, shaping a visual syntax.

The animation is a figurative, ambient art companion to the novel: representational images become atmosphere—colour fields, layered motion, dissolves. Shifting variations resemble constructive memory or imagination, where images remain provisional and change with context. Drawing on film montage and experimental cinema, the work visualises literary theories of open, reader-shaped texts.

Exhibited with Minimal: Pixel Art (1984), which lampoons CGI by drawing one pixel every 20 minutes, contrasting the rarity of early computer images with today's instant abundance of AI worlds.

More information in the booklet accompanying the display and https://geoffdavis.org/art-books-music/



GRAHAM DIPROSE

If one looks at the very beginnings of the Computer Arts Society, the early pioneers were all using the software and hardware in a manner in which the original manufacturers never intended. We pride ourselves on the subversive nature of our CAS digital artists, to this day.

In the early days of digital imaging, the only way of making a panoramic image was to take a series of pictures and try and stitch them together in post-production. Mirrorless cameras allowed a more rapid shooting rate with a better buffer, and developed firmware to allow a series of images to be stitched together 'in camera'.

This simply involved keeping a finger on the button, while panning the camera through about 130 degrees. It was meant for landscapes, where nothing would move during the sequence. Supposing I moved the camera through a much lesser angle in the middle of a busy city street with some people moving and others just sitting still? The result of 'fooling the Fuji firmware' is the 'ghostly, horribly dismembered Street Spirits of Bucharest', that my camera was able to capture, when these poor souls were invisible to all those around them.

Street Spirits I Street Spirits II

Each 40cm x 30cm

Shot in 2017 with new Artwork made for this show in summer 2025

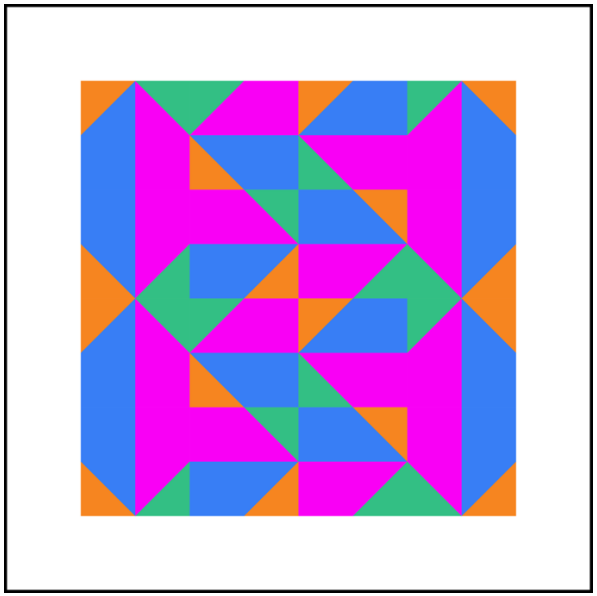
Thanks to Amalia Toyas for typography and layout work

PAUL BROWN

During my 60-year career as an artist my principal concern has been the systematic exploration of surface and, since 1974 my main creative tool has been the computational and generative process. I have established an international reputation in this field of work and am recognised as one of the pioneers of Artificial Life and AI art.

My work is based on a field of computer science called Cellular Automata, which are a part of the origins of A-life and generative AI. They are simple computational agents that can propagate themselves over time and produce emergent behaviour. I write computer code which makes colonies of agents, and they work together to create the artwork on my behalf. I have been investigating this relationship to tiling and symmetry systems since the 1960s, and over the past six decades, I have applied this process to time-based artworks, prints on paper and large-scale public artworks.

The creation of processes like these has always fascinated me: rather than being constructed or designed, my works emerge. I look forward to a future where AI agencies, like the ones I create, will autonomously make artworks without human intervention. The creation of this kind of system remains an ongoing obsession.



4^16-0330211203302112-alt, 2025 from The Melbourne Portfolio

Giclée Print on DiBond, 76.2 x 76.2 cm, edition of 10 with 2 artist's proofs, 2025

SEAN CLARK

My art practice is based around an ongoing exploration of systems thinking, computation, and connectedness. I create digital art systems that are composed of sets of interacting components that self-organise in accordance with predefined organisational rules and processes. When running, my systems develop over time: disorder transforms into order; parts coalesce into wholes; and *Computational Constructs* emerge.

The image presented, titled *250825.1*, is a digital print of the starting state of a network of eight interactive visual systems before they engage in a continuous cycle of exchange and reconstruction. The artwork currently exists as a process running on the artThings computer server. Its current visual state can be accessed by scanning the QR code provided.

Computational Constructs 250825.1
Digital Print, 13” x13”, 2025

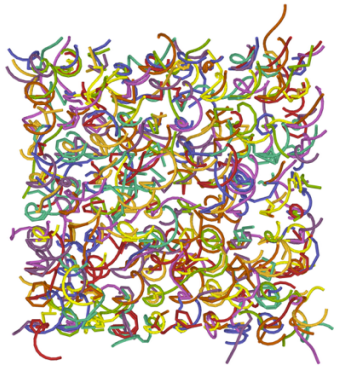
STEPHEN BELL

Before using computer programming, making design decisions using random values from an old one-armed bandit, I had the idea that if extraterrestrials wanted to make contact they might do it by causing mechanisms that normally generated random noise to behave in an orderly fashion. Exploring randomness as a generator I learnt that we project order onto things. Producing computer graphic art, I became fascinated by the ambiguities created when 3D phenomena are perceived as if on a 2D plane, for example in our view of stars, not being able to tell when looking at a constellation which stars are closer or farther away than others. I found myself seeking similar ambiguities in my work.

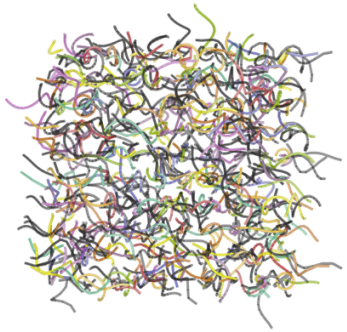
Considering the current marketing of recent forms of AI, it is pertinent to remember how successful, cultists, corrupt politicians and snake oil salesmen for example, have been. We so often only see what we want to, particularly in this Social Media era of explicit siloing and corralling.

The pieces in this exhibition revisit the techniques of my early work, generated using pseudo-random values. We may of course project meaning onto the shapes. Hence my titles for them. You are invited to come up with your own.

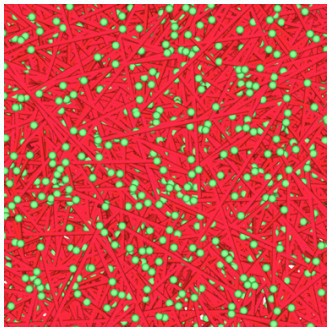
Order



Freedom



Change

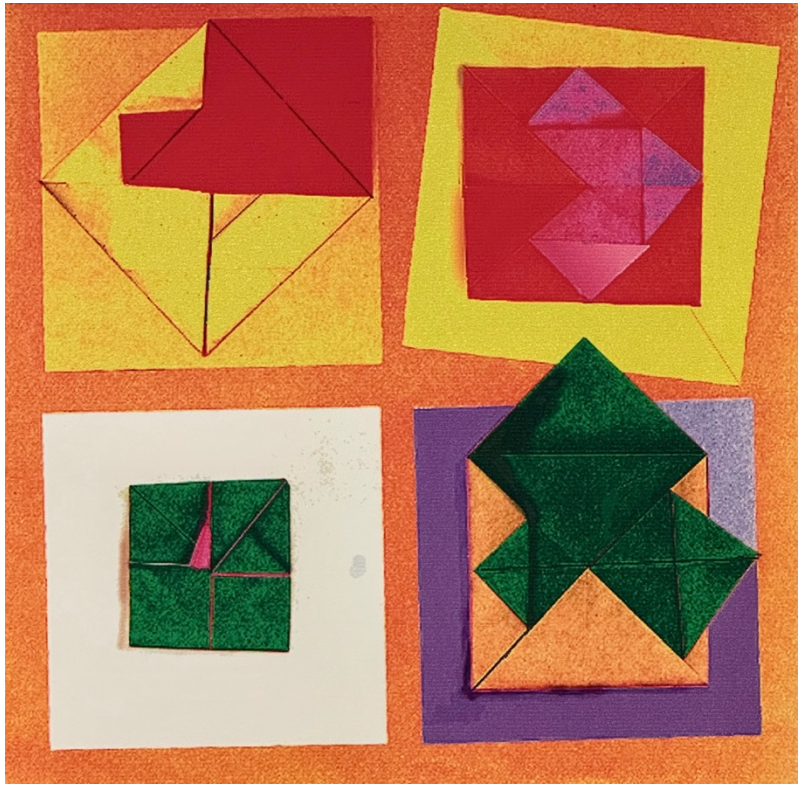


Oodles of Love

Computer Graphic Giclée Prints, 40cm x 40cm 2025

SUE GOLLIFER

I studied painting in the mid-1960s and initially started making prints as a research base for rehearsing colour combinations in paintings. I found that I liked the idea of the screen print because it was so flat that it was impossible to notice layers, it is without expression. Before I was able to access computers, I worked systematically, according to a set of rules, but on paper with numbers, plotting the coordinates, and then I screen-printed. Creating images with software is akin to traditional printmaking as they are both constructed of layers.



Untitled CG8 1994, Digital Print 10” x 10” 1994

Original image constructed out of folded paper, then digitally scanned and colourised

VIDEOS

CORRIDOR VIDEOWALL

ERNEST EDMONDS

Colour Energy

2010/2023

Computer Generated Movie, (1023 version)

PAUL BROWN

4^112 or 2.69599467e67

2025

Videowall, 3840 x 540 px, colour, silent, 10:10 min (loop)

STEPHEN BELL

Aleatory Conjunctions, 50x5x6 Matrix of Helices

2025

CGI animation, samples from potentially infinite piece

ATRIUM

PAUL BROWN

Double Dragon

2025

Video, 3840 x 2160 px, colour, silent, 19:50 min (loop)

STEPHEN BELL

Aleatory Conjunctions, 10x10x6 Matrix of Helices

2025

CGI animation, sample from potentially infinite piece

ABOUT THE EXHIBITORS

ANNA DUMITRIU

Pioneering British BioArtist Anna Dumitriu works at the intersection of art, science, and technology, to create sculptures, digital installations and textile works. Her work links historical narratives to contemporary science, exploring infectious disease, genomics, antibiotic resistance and synthetic biology. She exhibits internationally at venues including ZKM, Ars Electronica, Kunstlerhaus Vienna, and the Picasso Museum. Her work is held in collections including ZKM, Eden Project, and the Science Museum London. She is a leading influential voice in BioArt, exploring complex issues in science and medicine and their cultural and societal impacts.

CATHERINE MASON

I am an independent researcher and writer with over thirty-five years' experience in the art world. Since 2002 my focus has been on recovering the history of computer art. My first book *A Computer in the Art Room: The Origins of British Computer Arts 1950-1980,* (2008, re-issued as an ebook in 2021), uncovered and recorded 60 British artists, many of whom had never had their story in print before. It was the first published comprehensive account of the history of media arts in Britain.

www.catherinemason.co.uk

Instagram: @CathComputerArtHistory

DAVID UPTON

David Upton is interested in subtle differences, in conceptual art, and in discovering unseen patterns and inter-relationships. He embraces the digital world because it offers him such a range of opportunities, such as sound art and computational psychogeography.

After starting his career in the UK Foreign Office, he built up a small, specialised, management consultancy company, which organised crisis simulation exercises all over the world, for several of the world's largest companies. Eventually he realised that he had created far more 'situations' than Guy Debord ever did, and from there it was a short step to becoming a digital artist.

ERNEST EDMONDS

Ernest Edmonds is a pioneer computer artist for whom combining creative arts practice with creative technologies has been a life-long pursuit. In 2017 he won the ACM SIGGRAPH Distinguished Artist Award for Lifetime Achievement in Digital Art. That year he was also awarded the ACM SIGCHI Lifetime Achievement Award for Practice in Human-Computer Interaction. Having shown his work internationally for over 55 years, he has recently exhibited in Venice, Leicester, London, Denver, Chicago, Vancouver, Sydney, Beijing, Shanghai, and Rio de Janeiro. His work is described in the book by Francesca Franco, *Generative Systems Art: The Work of Ernest Edmonds* (Routledge, 2017).

Photo: Ben Shneiderman

GEOFF DAVIS

Geoff Davis is a pioneering digital artist, PEN published author, and AI researcher. In 1984 he founded the Micro Arts Group, releasing generative programs including *Abstract Originals* and *Story Generator* via data cassettes and Prestel teletext, expanding access to computer art. He also published a magazine with works like *Language as a Virus* and *Electronic Beowulf*, fostering an early creative technology community.

His art and story generators have been exhibited across the UK and Europe. Davis holds a Masters in Electronic Arts from Middlesex University and is an AI and Arts researcher at University of the Arts London. He founded the AI Creative Anthology (2023).

PAUL BROWN

Paul Brown is an Anglo-Australian artist and writer who has specialised in art, science & technology since the late 1960s and computational & generative art since the early 1970s. His early work included large-scale lighting works for musicians and performance groups like Meredith Monk and The House, Musica Electronica Viva and Pink Floyd. He has since established an international exhibition record and has created both permanent and temporary public artworks. From 2008-10, he was Chair of the Computer Arts Society (CAS), and is currently their Events Secretary. In 2023, he received the ACM SIGGRAPH Distinguished Artist Award for Lifetime Achievement in Digital Art. Photo: Alex May

http://paul-brown.art

GRAHAM DIPROSE

Graham worked in Commercial Photography for over 40 years and also headed up 'Photography in the Faculty of Design' at UAL, London College of Communication, covering the pioneering changes from 'Analogue' to 'Digital'.

Two documentary projects on the River Thames raised concerns that with rapidly changing technology, our new 'born-digital data images' might not be readable in 50 /100 years time, and his recent published papers about pigment ink printing for safe longer term archiving.

Graham Co-Authored the Photographic Textbook *"Photography: The New Basics"* for T&H and until very recently chaired the EVA London Conference, sponsored by BCS and part of CAS.

SEAN CLARK

Sean Clark is an independent artist, curator, and researcher based in Leicestershire, UK. His artwork explores interaction and connectedness through the construction of audiovisual systems presented on screen, as installations, and as prints.

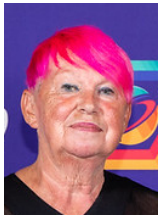
He is the director of Interact Digital Arts, the curator of the Computer Arts Archive and Chair of the Computer Arts Society. He holds a PhD in Computational Art from De Montfort University, where he studied under computer art pioneer Ernest Edmonds. In 2016, he was a co-winner of the Lumen Prize for 3D/Sculpture and the Art.CHI Digital Art Prize.

www.seanclark.org

STEPHEN BELL

Bell first used computer graphics at The Slade in 1977. From 1984-85, as Artist in Residence at the University Kent, Canterbury, he programmed *Smallworld*, an original agent-based generative system which produced abstract images alluding to animal and human behaviour patterns, including conflict and collaboration. Bell's PhD (Loughborough 1991) identified characteristics of interactive art and documented making *Smallworld* interactive. Interactive versions of *Smallworld* were first exhibited in Brighton in 1987 and Middlesbrough and Utrecht in 1988. A founder member of the National Centre for Computer Animation, (NCCA), Bournemouth he taught artists how to use computer technology creatively from 1989 to 2017.
https://stephenbell.art

SUE GOLLIFER



Sue Gollifer (b. 1944) has enjoyed a sixty-year career as an influential expert in the world of digital arts – taking on the roles of an artist, curator, administrator, researcher and academic, including, most notably, at the University of Brighton where she instigated one of the first Master of Arts (MA) post-graduate programmes in Digital Media Arts. In the 1990s she set up the CADE conference (Computers in Art and Design Education) and curated the *ArCade* series of exhibitions - the first UK Open International Biennale Exhibition of Digital Fine Art Prints, which toured internationally. She has sat on numerous advisory boards in this field including ISEA (International Symposium on Electronic Art) where she ran the International H.Q. for 15 years, and SIGGRAPH (the Special Interest Group on Computer Graphics and Interactive Techniques, part of the Association for Computing Machinery in United States), including chairing the art show in 2004. In 2006 she was awarded an iDMAa (International Digital Media Arts Award) for her 'Exceptional Services to the International New Media Community'.

CAS COMMITTEE

President Emeritus: Dr George Mallen
Chair: Dr Sean Clark FBCS
Secretary: David Upton
Treasurer: Laura Traver
Communications: Paul Brown

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Geoff Davis
Anna Dumitriu
Graham Diprose
Prof Ernest Edmonds
Corey Ford
Sue Gollifer
Dr Nick Lambert
Catherine Mason

The exhibition is brought to you by CAS, The Computer Arts Society, a Specialist Group of BCS, The Chartered Institute for IT.

www.bcs.org

www.computer-arts-society.com

Catalogue design: Stephen Bell

Text: by the exhibitors except when otherwise indicated