LANGUAGE OF THE CELL
THE INTERPLAY OF
ART, MUSIC & SCIENCE

CULTURAL PROGRAM

OPEN HOUSE FESTIVAL
EXHIBITION:
STILL POINTS & SEA BEAMS
SUNDAY 10 SEPTEMBER
2023

EXHIBITION
NEW MUSICAL WORKS
& LECTURE PROGRAM
WEDNESDAY 20 SEPT
6PM

CENTRE OF THE CELL
NEURON POD

LANGUAGE OF THE CELL
CULTURAL PROGRAM

EXHIBITION
STILL POINTS & SEA BEAMS
ARTIST JAMES DEAN DIAMOND
CURATOR SAMIA ASHRAF

LECTURE PROGRAMME

FIELDS OF FICTION
SCIENTIST DR JON BAXTER
& ARTISTS IN RESIDENCE, JAMES & SAMIA

NEW MUSICAL WORKS
LISTENING TO THE CELL: THE MUSIC OF SCIENCE
MILTON MERMIKIDES
GRESHAM PROFESSOR OF MUSIC

WHOSE UP SIDE DOWN,
US OR THE BATS ?
PHOTOGRAPHER TIM FLACH

PANEL DISCUSSION CHAIRED BY DIRECTOR
CENTRE OF THE CELL, PROFESSOR FRANCES BALKWILL OBE

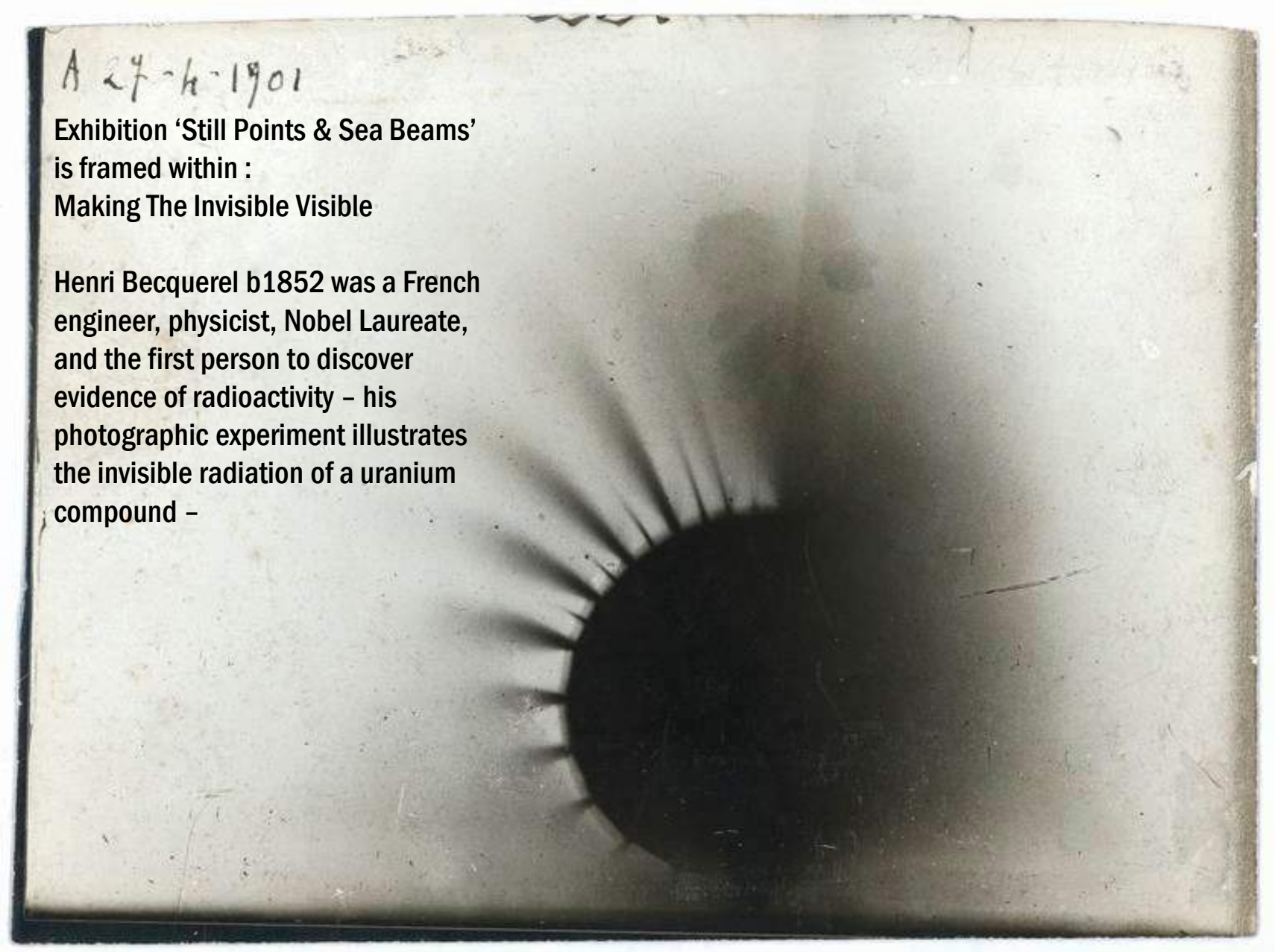
- STILL POINTS & SEA BEAMS

- Project Intention

Artist, James Dean Diamond's research project *Still Points and Sea Beams* is a biomolecular world of dynamic entwining light photons. Using the city as an amphitheatre of light possibilities, Diamond's lens-based practice responds to the battlefield that is DNA.

- James and curator Samia Ashraf have completed a four-year artist residency at the Baxter Lab, Genome Damage and Stability Centre, School of Life Sciences, University of Sussex - an international centre of excellence for research into how DNA is replicated and maintained.

- For the Centre of the Cell, 'Language of the Cell' cultural program James's body of photographic work will be translated into an 8-minute moving piece, as a site-specific artwork to inhabit the Neuron Pod.



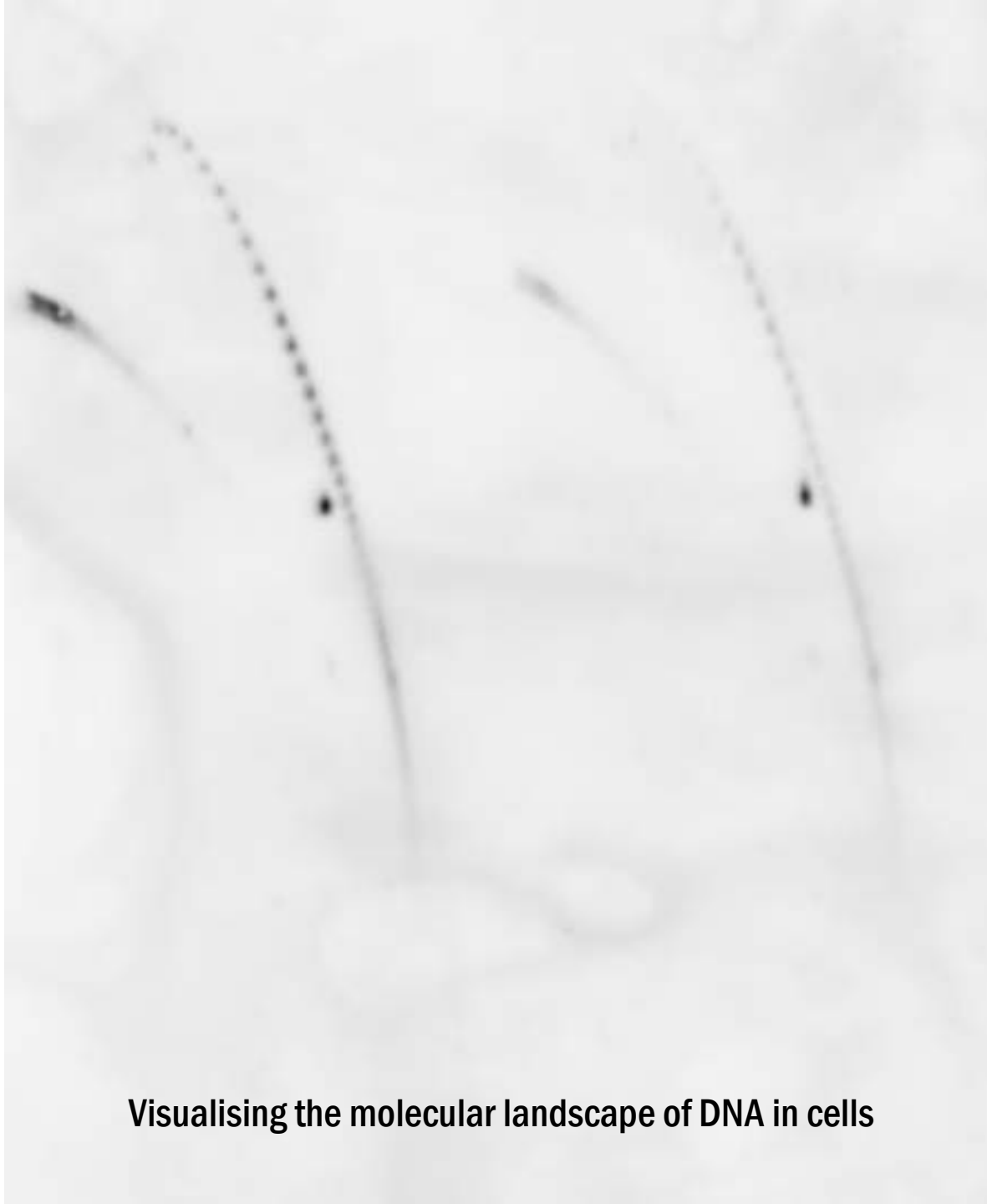
Exhibition ‘Still Points & Sea Beams’
is framed within :
Making The Invisible Visible

Henri Becquerel b1852 was a French engineer, physicist, Nobel Laureate, and the first person to discover evidence of radioactivity – his photographic experiment illustrates the invisible radiation of a uranium compound –

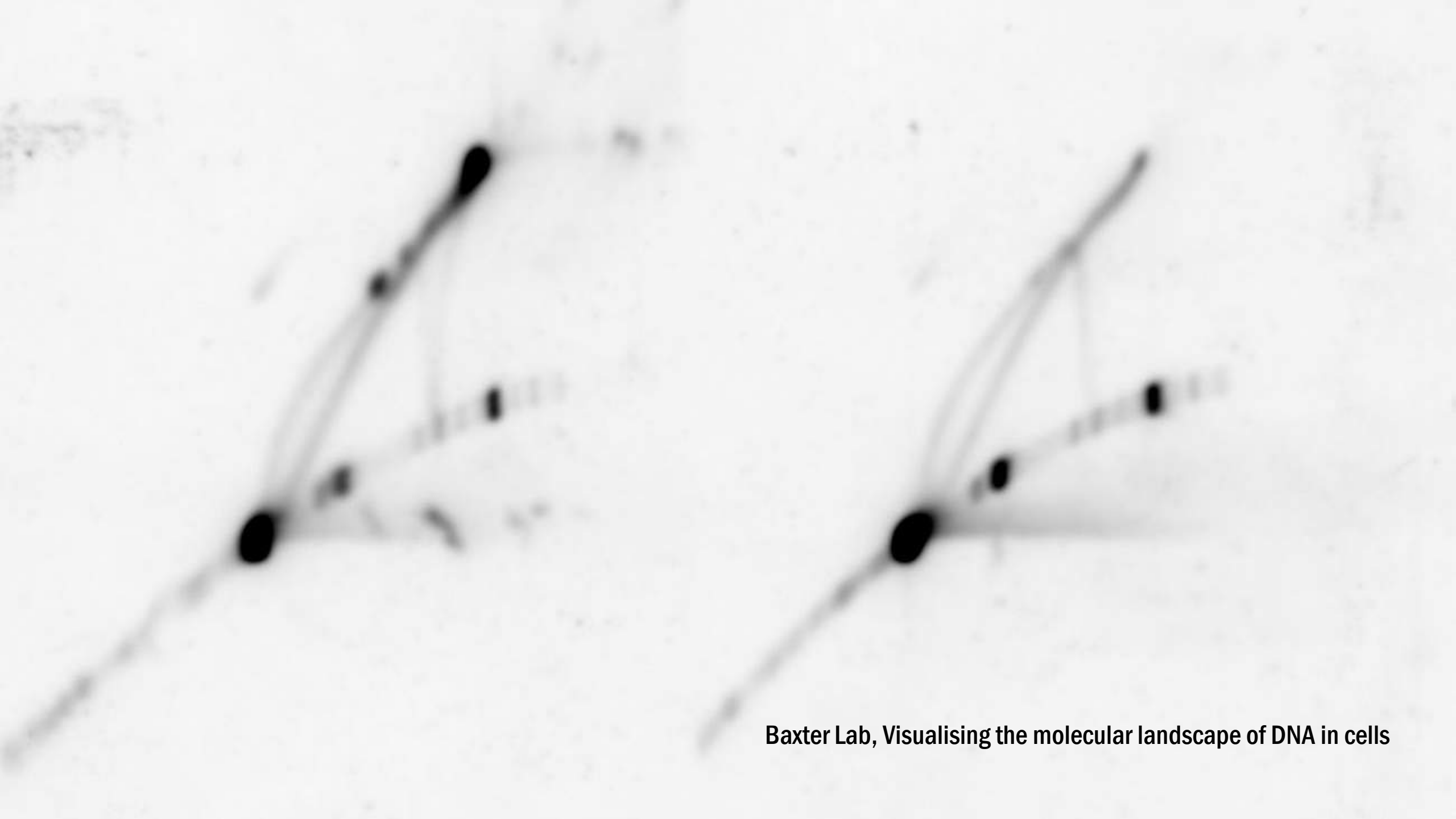
BAXTER LAB

GENOME DAMAGE AND
STABILITY CENTRE

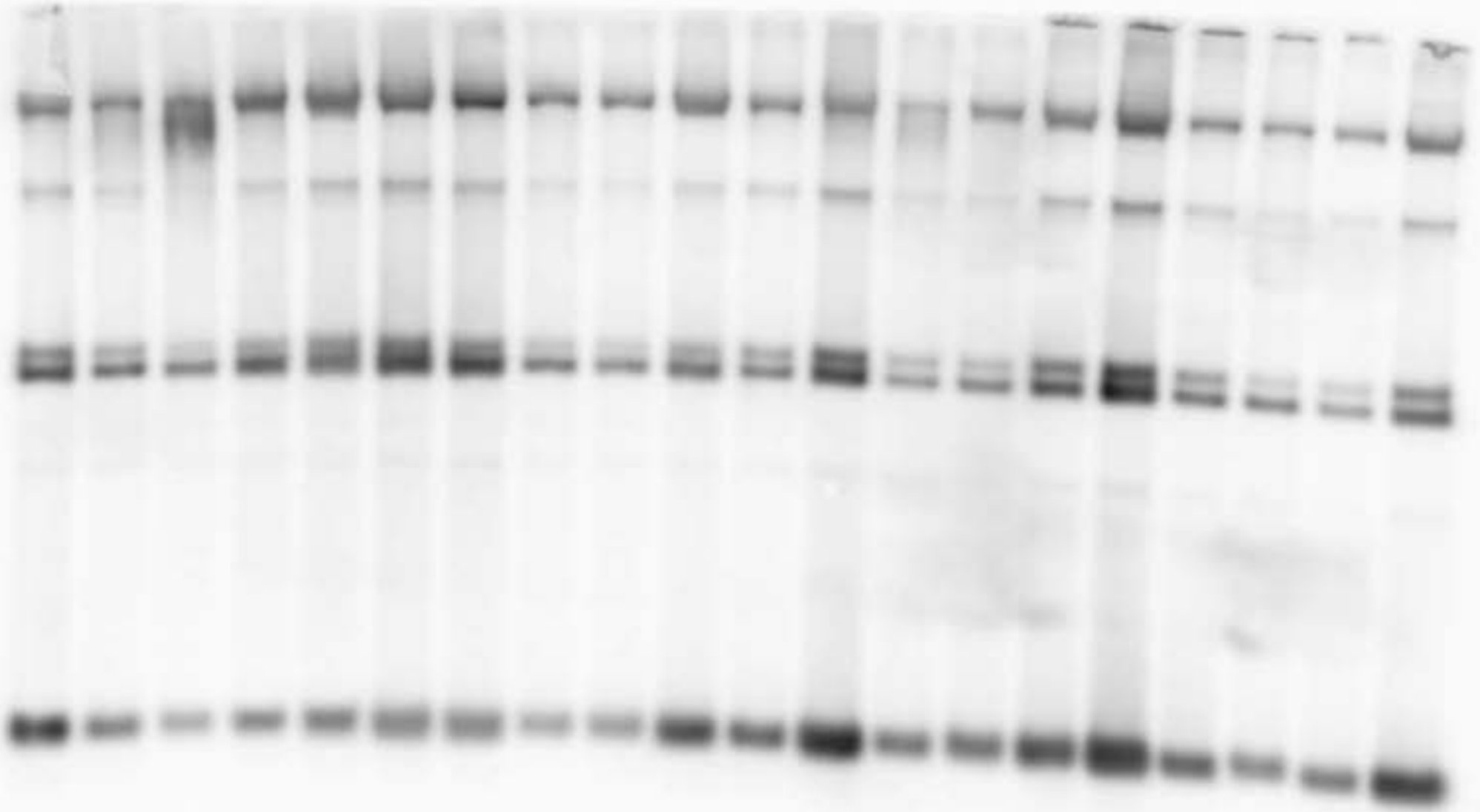
SCHOOL OF LIFE SCIENCES
UNIVERSITY OF SUSSEX



Visualising the molecular landscape of DNA in cells



Baxter Lab, Visualising the molecular landscape of DNA in cells



Baxter Lab, Visualising the molecular landscape of DNA in cells

STILL POINTS & SEA BEAMS

A Fragile Complexity

JAMES DEAN DIAMOND | STILL POINTS & SEA BEAMS
CURATED BY SAMIA ASHRAF

In *Still Points and Sea Beams* we enter a biomolecular world, a vortex enveloped by a cacophony of undulating, centripetal energy forces - revealed in the suspension of time. Dynamic entwining light photons, simultaneously become a reality, as both, the constructs of a metropolis and the suggestions of cellular activity. Emanating from British artist, James Dean Diamond's research on the dialogue between art, science and politics, this lens-based practice explores the complexity and fragility of deoxyribonucleic acid (DNA), the basis of life as we know it today. His investigation questions, *what does it mean to be human and how do we repair and rehabilitate our damaged world.*

Diamond and curator Samia Ashraf have completed a four-year artist residency at the Baxter Lab, School of Life Sciences, University of Sussex - an international centre of excellence for research into how DNA is replicated and maintained. It has been a tremendous privilege to collaborate with the genomic scientists and reflect upon ideas relating to life cycles of damage, mutation and regeneration – and to grasp the colossal number of cells generated in each human life: c30-40 trillion (equivalent to 70 bn km) are compressed and coiled into the DNA.

Dimitrios Pandermalis, the late director of the Acropolis Museum, Athens, spoke of the Empyrean as the intersection of art meeting science – its dictionary definition is a conceptual place, the dwelling site of celestial beings, so divine, they're made of pure light – and this notion of light as a representation of hope is a core theme underpinning the work. Our intention is to establish a collective vocabulary through the interplay of the fields of art and science – 'life is re-envisioned through the prism of the imagination'[1], to consider imagination as a resource and art as a catalyst for understanding and exploring these multifaceted issues.

Diamond's art *Still Points and Sea Beams* responds to a battlefield that is DNA – a war zone envisioned through cellular and urban environments. Transcending darkness, a prevailing humanity resides in the work, it is a memorial to people affected by conflict - according to the UNHCR, the number of forcibly displaced people in 2022 exceeds 100 million.

Diamond describes himself as a street photographer using the city as an amphitheatre of light possibilities. Shooting 'in camera' with film and digital capture in London and Athens, Diamond employs numerous methods to expand the potential of the medium. Approaching a scene, he calculates the distribution of light from each surface, with multiple exposures – up to 200 exposures within a single frame. This innovative method destroys the film emulsion, dismantles the city and accumulates highly concentrated marks that coexist in a state of concurrent erasure and construction, in line with characteristics of DNA. The visual language oscillates between the slippage of the physical, abstract and impressionistic – it is a compelling journey narrated through the 52 black-and-white prints, each measuring up to 97cm x 250cm, offering the audience a truly immersive experience.

Inspiration is mapped from cultural references**,** comprising French physicist/Nobel laureate, Antoine Henri Becquerel's (1852–1908) 1896 photograph visualising the deadly radiation emitting from uranium salts – an illuminating example of the medium's capacity to expose the invisible nature of science. Secondly, peregrinating to the destruction of Homs, Syria, to the war-torn images by British photojournalist, Don McCullin. Among the silent debris, the presence of a minaret of a mosque stands erect and largely intact, evoking the continuation of a spiritual plane, the earth as a sacred place. Diamond alludes to the composer/virtuoso pianist, Sergei Rachmaninoff's (1873–1943) symphonic 1909 poem, Piano Concerto No. 3, which speaks of the arresting power of monochromatic imagery.

In seeking to translate the interweaving communication and interaction of the billions of molecules, Diamond's intensely orchestrated panoramas present a place partially known. With a prevailing reality of damage, Diamond embraces the possibility of repair for a future existence and the recognition of the value of circularity on which our world is built – a world of interaction with a history of collaboration.

1. Cecilia Alemani, The Milk of Dreams Biennale Arte 2022, La Biennale di Venezia, Short Guide, p39, April 2022


STILL POINTS & SEA BEAMS

ABOUT JAMES DEAN DIAMOND

After an earlier career as an electronics and mechanical engineer, British artist James Dean Diamond (b.1968) embarked on a BA in Photography at London College of Communication, then an MA in Fine Art at the University of Brighton. Pursuing excellence in the field, Diamond's experimental practice gives visual expression to the flux of energy while shooting across London, Paris, Zagreb, Athens, Copenhagen, Malmo, Venice and Berlin. His large-scale photographic installations become environments of ectoplasmic form.

Diamond's *Still Points & Sea Beams* has been nominated for the *Prix Pictet's 10th cycle, 'Human',* - a research project resulting from a four-year Artist-in-Residence programme with long-term collaborator, curator Samia Ashraf - at the Baxter Lab, Genome Damage & Stability Centre, School of Life Sciences, University of Sussex. Molecular biologist Dr Jon Baxter states that Diamond's photography powerfully communicates the intense activity of cellular processes: 'the challenges, the damage and the subsequent recovery; processes that sit at the heart of what it means to exist. I was taken aback by the parallels between Diamond's deeply multi-layered work and the indirect experimentation carried out by the scientists in my lab. His ethereal images seem to resemble the very pathways that we think occur in cells and on DNA. Interpreting Diamonds' work has provided me with a visual language to work through some of my own scientific interpretations, making me a better scientist and more able to communicate the importance of our work at the lab to colleagues and a wider audience.'

Diamond's artwork is in international private and public collections, including the Head of the European Parliament (London office), members of the Tate Modern Acquisitions Committee and members of Yale School of Art, Dean's Council - and his exhibitions at the European Commission's, 12 Star Gallery (London), Art Athina (Athens), elsewhere in Europe and in New York have been very well received by critics and public alike. His work features widely in arts media – including, LENSCRATCH, Elephant, Art in America, Creative Boom, ArtRabbit, Mount Kimbie/NTS Radio, Crime, Media & Culture, Loupe, C&, BJP and is supported by the British Council.

Recipient of a three-year Polaroid Sponsorship Award for Innovation, 'University of the Arts London Student of the Year' and Kodak prize, Diamond also guest lectures at universities. His work has been commissioned by the 'Financial Times', 'Harpers & Queen', 'The Telegraph', Levi's, Selfridges, BMW, DKNY, UPS, MTV, Hewlett Packard, Credit Suisse and Zurich Cantonal Bank & many more.

IntoUniversity, an education charity for disadvantaged young people, invited Diamond and Ashraf to be the inaugural artist mentors on the Khadija Saye Arts Programme, for which they delivered a masterclass titled, *Imagination is a Resource.* Recently, they contributed to a symposium of cross-disciplinary perspectives, *People & Water* at Kings College London.

Battlefield

ABOUT DR JON BAXTER

Dr Jon Baxter obtained his PhD in 2002 working with Professor Dame Amanda Fisher on epigenetics in lymphocytes. Following this, he moved to studying DNA replication in budding yeast with John Diffley, a molecular biologist at the Cancer Research UK Clare Hall Laboratories, currently the Associate Research Director at the Francis Crick Institute. This project started a longstanding interest in how DNA topology affects DNA replication and other DNA metabolic processes.

Jon established his Baxter laboratory in the Genome Damage and Stability Centre at the University of Sussex in 2010. Combining classical plasmid replication techniques, yeast genetics and genome-wide chromosome structural assays such as Hi-C, the Baxter lab aims to understand how DNA topological changes influence genome stability during both DNA replication and chromosome segregation.

ABOUT SAMIA ASHRAF

Curator Samia Ashraf has completed a 4-year Artist Residency with artist James Dean Diamond at the University of Sussex, Baxter Lab, Genome Damage and Stability Centre, School of Life Sciences – an international centre of excellence for research into how DNA is replicated and maintained. Collaborating with the genomic scientists to reflect upon ideas relating to life cycles of damage, mutation and regeneration. Their research project has been nominated for the *Prix Pictet's 10th cycle, 'Human'.*

Having trained as an artist at UMASS and Brown University USA, Samia graduated from Central St Martins School of Art & Design with a BA Fine Art Printmaking & Photomedia and an MA in Museum & Gallery Management from City University London. With extensive experience of working across the visual arts, craft and media sector, Samia acts as a Mentor at the Crafts Council, curates a programme of work, as well as support the development of practice for emerging, mid-career and established contemporary artists, makers and photographers. She is also a Business Development Adviser to a leading Photographer/Directors Agent for the UK, European & USA territories. Samia's work extends to the research and management of exhibitions, curating widely in the London and Athens, including *Dreaming Of Le Gibet* at the European Commission, London, Art Athina and serves on the committee at Blacks for the visual arts programme for Frieze London 2024. Exhibitions feature in arts media, including Art in America, LENSCRATCH, Financial Times, Elephant, Loupe magazine – the work is in the collections of the European Parliament, members of Tate Modern Acquisitions Committee & members of Yale School of Art and supported by the British Council.

Contributing essays to various publications, Samia coordinates education programmes across broadcast & universities including, a symposium for the critically acclaimed artist Thomas Joshua Cooper at the University of Brighton, MA Fine Art – led a series of guest lectures for the University of Derby, BA Photography and organised/participated in a Christmas Lecture at Ogilvy Health to discuss the intersection of art & science. IntoUniversity, an education charity for disadvantaged young people, invited Samia & James to be the inaugural artist mentors on the Khadija Saye Arts Programme, for which they delivered a masterclass titled, *Imagination is a Resource.* Recently, Samia & James both contributed to a symposium of cross-disciplinary perspectives, *People & Water* organised by Dr. Irene Polinskaya, Reader in Ancient History, Department of Classics & Pro-Vice Dean in Research Culture at Kings College London.


STILL POINTS & SEA BEAMS
Molecule Showers

STILL POINTS & SEA BEAMS

Approaching The Electron Density Field

MILTON MERMIKIDES
LANGUAGE OF THE CELL

Music is often described as a ‘universal language’, able to transmit complex emotions without – and beyond – words, understandable to many despite our geographical origins. However, there is an ancient and persistent idea that music can also be used as a powerful medium to communicate scientific data, with information sourced from the natural world inscribed into its rhythms, melodies and tonal colours.

This talk presents historical and contemporary examples of such sonification and data music and discusses the how and why of such interdisciplinary practice. New works are presented which translate Jon Baxter’s DNA research, artist James Dean Diamond’s lens-based practice and photographer, Tim Flach’s animal portraiture into sound, revealing the hidden music of the biological world.

ABOUT MILTON MERMIKIDES

Milton Mermikides is a composer, guitarist and educator in a wide range of musical styles and collaborates with artists and scientists as diverse as Tim Minchin, Evelyn Glennie, Pat Martino, John Williams, Peter Zinovieff, Professor Morten Kringelbach (Music in the Brain Institute), The Swingle Singers, BBC Young Musician of the Year Laura van der Heijden, Steve Winwood and Brian Eno.

Son of a CERN nuclear physicist, he was raised with an enthusiasm for both the arts and sciences, an eclecticism which has been maintained throughout his teaching, research and creative career. He is a graduate of the London School of Economics (BSc), Berklee College of Music (BMus) and the University of Surrey (PhD). He has lectured, exhibited and given keynote presentations at the Royal Academy of Music, TEDx, Royal Musical Association, European Sleep Research Society, British Sleep Society, St. Bart's Hospital, British Library, Royal Physiological Society, Royal Society of Medicine, Hong Kong Academy of the Performing Arts, The Design Museum, Smithsonian Institute, Glastonbury, Charterhouse School, The Science Museum, Manchester Science Festival, Aldeburgh Music, Ableton's Loop Conference (Berlin) and his work has been featured in the Times Higher Education, BBC Radio 4 *Midweek*, New Scientist, The Guardian, BBC Radio 3 *Music Matters*, BBC World Service and BBC Radio 4 *Inside Science.*

His music, research and graphic art/analyses are published and featured by Oxford University Press, Cambridge University Press, Viribus, Deux Elles, Design Museum, Mute, Extreme and Deutsche Grammophon, and Sony, and he has won awards, scholarships and commendations for writing, teaching, research and his charity work. Milton is Associate Professor in Music at the University of Surrey, Professor of Guitar at the Royal College of Music, Composer-in-Residence at the Centre of Eudaimonia & Human Flourishing (Linacre College, University of Oxford)

Recently appointed the Gresham Professor of Music (2023–) – a historic post established in 1597 giving free public lectures to a global audience. Having published multiple articles in a range of musical topics, his first book *Hidden Music: The Composer's Guide to Sonification* (Cambridge University Press) will be released in late 2023.

WHOSE UP SIDE DOWN, US OR THE BATS ?

PHOTOGRAPHER TIM FLACH

ABOUT TIM FLACH

Tim Flach is an acclaimed photographer known for his captivating and thought-provoking images of the animal kingdom. He has dedicated his career to accurately documenting biodiversity and conveying a heightened sense of empathy towards our planet’s endangered creatures. Flach captures both the power and vulnerability of animals, highlighting their undeniable connection with humans in his work. His photographs have been exhibited worldwide and featured in books, transporting audiences into a new visual perspective on wildlife and conservation.

He has seven major bodies of work concerning different subjects: Equus (2008) the family of animals that goes from Ass to Zebra but is mostly horses, Dogs Gods (2010) focuses on the ever-changing relationship between dogs and humans through the diversity of dog breeds, More Than Human (2012) illuminates the ethical, scientific and political debates that surround our relationships with the natural world, Evolution (2013) a photographic documentation of evolution from the jellyfish in the sea via insects and birds to animals on land, Endangered (2017) images of species on the edge of extinction that are juxtaposed with a narrative that highlights the realities faced by so many species, Who am I? (2019) a children's book that highlights the realities faced by so many endangered species, and Birds (2021) shares the wonderment and beauty of birds in the hope that people relate to them through their character and personality.

Flach is an Honorary Fellow of the Royal Photographic Society and was awarded an Honorary Doctorate from the University of the Arts London (Norwich) in 2013. He is currently an Artist in Residence at The Centre for Eudaimonia and Human Flourishing at the University of Oxford, Linacre College, as well as President of the Association of Photographers since 2019.

THANK YOU

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Find out more -
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