A Digital Ecologies Conference

2–3 February 2026

THE VISUAL POLITICS OF DIGITAL ECOLOGIES

Cheng Kar Shun Digital Hub, Jesus College, University of Oxford

TECH LIFE LAB

DE

Digital Hub

THE VISUAL POLITICS OF DIGITAL ECOLOGIES

As environmental degradation accelerates globally, Nature is becoming increasingly mediated through screens, sensors, and simulations: datafied, downloaded, and deciphered; saved, stored, and shared. Emerging technologies create novel visual regimes through which humans encounter, imagine, and interpret the other-than-human world. These visual regimes are technical; but they also refashion ecological aesthetics, shaping how environments are perceived, valued, and ultimately cared for. Wildlife webcams promise unmediated intimacy with living beings, while artificial intelligence (AI) fabricates hallucinatory ecologies untethered from the web of life. "Digital twins" offer ecosystems from an impossible nowhere-everywhere vantage (a rearticulated 'god trick'), while Virtual and Augmented Reality technologies layer and curate space and attention at the whim of their designers. From TikTok feeds to satellite imagery, these proliferating techniques of visualisation not only mediate ecological knowledge but also stage new aesthetic and political relations between humans and their environments.

Visualisation practices—often employed uncritically or devoid of social, cultural, and historical context—form a key part of emergent forms of modelling, prediction, and analysis in science, engineering, and architecture. Emergent visualisation practices are not neutral. They carry material, affective, and political implications for increasingly precarious ecologies. The implications of these practices, therefore, fundamentally alter the politics of environmental governance and knowledge. From the advertising boards of property developers to contemporary documentary film, this emerging visual regime is characterised by, among other things, curation, artificiality, and abundance. What is at stake, then, in this evolving visual politics of ecologies? How might we characterise this emerging visual regime? How is nature visually presented?

The Visual Politics of Digital Ecologies will collectively explore visual metaphors, practices, spaces, and scales prevalent in the mediation of more-than-human worlds to interrogate how digital technologies are refashioning ecological aesthetics. The two-day conference will showcase contributions from academics, artists, and practitioners. Papers will speak to a particular action of visualisation, including: capturing, compositing, rendering, mining, mirroring, and more.

We are delighted to welcome Joanna Zylinska (Professor of Media Philosophy + Critical Digital Practice, Department of Digital Humanities at King's College London) and Alexandra Daisy Ginsberg (Recent recipient of the S+T+ARTS Grand Prize and internationally renowned multimedia artist) as our keynotes.

Following the conference, we will publish an experimental lexicon on the visual politics of digital ecologies with cultural geography (un)limited editions, an open-access press. The lexicon will consist of short essays (one to one-thousand words) and creative submissions.

We welcome submissions from participants, attendees, and others, and will be in touch with more information following the conference.

This event is part of the Cheng Kar Shun Digital Hub Programme with support from: the School of Geography and the Environment; Jesus College, Oxford; St John's College, Oxford; and the Economic and Social Research Council (ESRC). The organising team includes Jonathon Turnbull, Adam Searle, Pauline Chasseray-Peraldi, Janina Schupp, Ben Platt, Gillian Rose and the Digital Ecologies Research Group.

We are looking forward to an inspired and inspiring conference!
The Visual Politics of Digital Ecologies Organisers

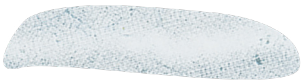
ABOUT DIGITAL ECOLOGIES

Digital Ecologies is an interdisciplinary and international research group fostering critical conversations at the interface of more-than-human and digital geographies, political ecology, digital humanities, and media studies to understand the mediation of more-than-human worlds. Our current members include Jonathon Turnbull, Adam Searle, Pauline Chasseray-Peraldi, Oscar Hartman Davies, Jenny Dodsworth, Henry Anderson-Elliott, Karolina Uskakovych, Noemi Duroux. At the core of our research is a commitment to empirically exploring what we term 'digital entanglement', a condition in which digital technologies have become constitutive of modes of living in more-than-human worlds. It is commonly assumed that digital technologies disengage or separate humans from nature, yet myriad examples point to the opposite: that digital technologies, in certain contexts, can foster convivial human-nonhuman relations. Yet we do not simply affirm technologies' convivial capacities, remaining attentive to the directions in which technological trajectories are pointed and the speeds at which they unfurl. Collectively, we are committed to exploring digital human-nonhuman relations as always situated, fraught, and complex; where outcomes are never entirely determined in advance. We believe this work is crucial in the current conjuncture of techno-utopian and techno-dystopian hyperbole.

Our first book—Digital ecologies: Mediating more-than-human worlds—explores forms of digital entanglement across diverse geographical contexts, published by Manchester University Press in 2024. Our past research and events have been kindly supported by the Vital Geographies research group at the Department of Geography at Cambridge, King's College (University of Cambridge), the University of Bonn, the University of Nottingham, the Leverhulme Centre for Nature Recovery, the German Research Foundation (project number 446600467), the European Research Council (grant number 949577), the Oslo School of Environmental Humanities, and the Technological Life research cluster at the School of Geography and the Environment, University of Oxford. You can read more about the Digital Ecologies team here: http://www.digicologies.com/about/team/. We also maintain an active blog on our website. Submissions are very welcome!

To keep informed on our research and future events, follow us on Bluesky or Instagram (@digicologies). Any questions, drop us an email at team@digicologies.com.

02.02 (MONDAY)



9:45 *Doors open & welcome coffee*

10:00 Film screening: Tropical Depression,
Alexander Walmsley (2024, 31 mins)

10:30 Introduction To The Visual Politics Of Digital Ecologies
Janina Schupp and Jonathon Turnbull

10:45-12:15 PANEL 1 — ILLUMINATIONS

Lauren Chang / Colouring
Mariana Marangoni / Solarising
Alaz Okudan / Negativity
Lachlan Kenneally / Resolution

12:15 *Lunch break*
Film screening: OCCLUSION,
Theo Stanley and Stephen Cornford (2025, 20 mins)

13:15 Installation: Unpredictable Atmosphere,
Lucia Rebolino (2025, 5 mins, on loop)

13:30-15:00 PANEL 2 — CIRCULATIONS

Martin Francisco Saps / Circulating
Louis Pille-Schneider / Capturing
Calum Mitchell / Forming
Philippine Coutau / Timing

15:00 *Coffee break*
Film screening: OCCLUSION,
Theo Stanley and Stephen Cornford
(2025, 20 mins)

15:30-17:00 PANEL 3 — GENERATIONS

Maya Livio / Rendering
Gabriele Colombo / Averaging
Pascal Glissmann / Mining
Brett Mommersteeg / Listening

17:00 *Move to St John's College*

17:30-19:00 KEYNOTE: Joanna Zylinska
Followed by wine reception + canapés

03.02 (TUESDAY)

9:15	*Doors open & welcome coffee*
9:30-11:30	PANEL 4 — IMMEDIACIES Noemi Duroux / Fathoming Valentin Via Vàzquez / Mirroring Qiaodan Liu (Jordan) / Temporalising George Themistokleous / Compositing
11:00	*Coffee Break*
11:30-13:30	KEYNOTE: Alexandra Daisy Ginsberg *Closing reception*

KEYNOTES

Joanna Zylinska is a writer, artist, curator and Professor of Media Philosophy + Critical Digital Practice at King's College London. She is an author of a number of books – including The Perception Machine: Our Photographic Future Between the Eye and AI (MIT Press, 2023, open access), The End of Man: A Feminist Counterapocalypse (University of Minnesota Press, 2018; open access) and Minimal Ethics for the Anthropocene (Open Humanities Press, 2014, open access). Her own art practice involves experimenting with different kinds of image-based media. She is currently researching new image ecologies, while trying to map out scenarios for alternative futures.

photo: Thierry Bal

Dr Alexandra Daisy Ginsberg, b. 1982, London, is a multidisciplinary artist known for complex projects that challenge our understanding of "nature" by collaborating with scientists and using emerging technologies. Her recent works include rebuilding the dawn chorus using machine learning, resurrecting the smell of extinct flowers, and simulating the wilding of Mars. Ginsberg's recurring focus is on the intersection of art, ecology, and technology. In 2023, she won the S+T+ARTS Grand Prize – Artistic Exploration for her experimental interspecies living artwork, Pollinator Pathmaker. Her work is exhibited globally at institutions including MoMA New York, the Centre Pompidou, and the Royal Academy of Arts. Her pieces are also held in permanent collections, including the Art Institute of Chicago and the Cooper Hewitt Smithsonian Design Museum. Recent commissions include a large-scale video installation for Google's Gradient Canopy office in Mountain View and an 8-metre tapestry for London's Design Museum.

BIOGRAPHIES AND ABSTRACTS

COLOURING

Digital technologies colour our contemporary experience of more-than-human worlds, both metaphorically as essential parts of our aesthetic experience and literally as tools that can digitally manipulate colour. New cameras, photography techniques, and digital post-processing allows for the direct manipulation, addition, and subtraction of particular colours to achieve a desired result, for example increasing contrast and brightness for nature documentary-esque spectacle. I focus on the use of colour as a critical quality that shapes the perception, understanding, and engagement with more-than-human worlds.

This contribution explores the digital and analog manipulation of colour in visualisation practices of animal research in the dark. Researchers have developed a range of techniques to study animals in the dark. In the lab, researchers can use red light to conduct observations and experiments, claiming that certain species are insensitive to red light. Others use infrared technology in the field to track and monitor species in real time. Colour is added in post-processing for descriptive, analytical, and aesthetic purposes. Among other qualities, these new technologies enable scientists to play with light, colour, and time. They make the invisible visible while simultaneously constructing new nighttime aesthetics through the digital eye. The visualisation practices of dark spaces allow scientists to shape scientific understandings of animals and their spaces and produce new affective and aesthetic experiences, simultaneously revealing and concealing aspects of the dark. These technologies and their applications raise important political questions: Who gets to see in the dark? And what do they get to see?

Lauren Chang is interested in the relationship between technology, senses, and the more-than-human. She is a DPhil student at the School of Geography and the Environment, University of Oxford.

AVERAGING

As generative visual AI tools like Midjourney and DALL·E become part of everyday image-making practices, they are reshaping how ecological concepts are visually represented, influencing how biodiversity, landscapes, and more-than-human worlds appear in our collective imagination. This contribution examines averaging as a central logic through which generative AI operates: AI models learn probabilistic distributions from training data and generate images by sampling from these distributions. AI-generated images can thus be understood as a form of synthetic average or 'mean images' (Steyerl, 2023): plausible interpolations within the distribution of images and captions that constitute a model's training data. This sampling mechanism foregrounds common associations over outliers and produces sanitized and homogenized outputs. Through a comparative case study of how different AI models visualize the concept of biodiversity, this contribution conceptualizes averaging both as an operational logic of AI and as an epistemic affordance. First, the averaging tendencies of AI models constrain the

variety of nature imagery circulating in our visual culture, contributing to homogenized ecological imaginaries that obscure the plurality, messiness, and precariousness of actual ecosystems. The statistical pull toward visual "centers" erases ecological outliers and the very diversity that biodiversity aims to represent. Second, averaging also offers epistemic opportunities: the averaged nature of AI-generated images provides a unique glimpse into the semantic and visual geometries of the training datasets and latent spaces that are otherwise too vast and often undisclosed to scrutinize comprehensively. The paper concludes by advocating for prompt literacy as a critical practice: a means to interrogate and potentially subvert the averaging tendencies of generative AI, cultivating alternative ecological imaginaries beyond the statistically probable center.

Gabriele Colombo is an Assistant Professor in the Department of Design at Politecnico di Milano and a member of the DensityDesign Lab. Previously, he was a Postdoctoral Researcher in the Department of Digital Humanities at King's College London. He is also affiliated with the Visual Methodologies Collective at the Amsterdam University of Applied Sciences. He is the co-author, with Sabine Niederer, of Visual Methods for Digital Research (Polity, 2024), and, with Michele Mauri, of Mapping Urban Biodiversity on the Web: Debates, Perceptions, and Engagement (Mimesis, 2025).

TIMING

The temporal visualisation of ecosystems has never been neutral. The hegemony of a supposedly objective, universal, and unidirectional measurement of time has legitimised restoration projects that 'accelerate' degraded landscapes towards their presumed modern destinies. Yet time is neither rational, unique nor linear. On the contrary, it endures, it folds, it crumbles, it is plural. As ecological data accumulate, digitisation produces new ways of sensing the multiple temporalities that nature is made of.

Through a case study in British Woodlands, this paper explores how digital animation creates alternative visual regimes for understanding eco-temporalities. Drawing on Derrida's concept of différance, it argues that moving images can visualise the persistent influence of historical disturbances on present woodlands - the spectres in the woods. These animations layer temporal heterogeneity through transparency and superimposition, making visible what statistical models compress or hide: how past grazing, coppicing, colonialism, forced enclosure, or warfare have shaped woodland composition and structure despite being no longer directly observable.

This visual approach challenges the linear logic that frames young stands as steps toward ancient ones, instead presenting each forest community as carrying its own temporal trajectories. Creative digital methods thus become a way to notice and tell socio-ecological stories across timescales. Attending to multiple temporalities can reframe restoration as nurturing the interplay of disturbances that produce diverse woodlands. Such visualisation aims to expand the temporal imagination available to conservation practice, making space - and time - for other ways of being with the landscapes.

Philippine Coutau tells stories of biodiversity, food, and people to show that imagination and hope can, on good days, resist despair and help envision other futures. She enjoys breaking disciplinary boundaries, convinced that the

more knowledges we mix, the merrier. A recent graduate of Oxford's MSc in Biodiversity Conservation and Management, she now works with a small NGO, advocating for environmental and social justice.

FATHOMING*

The deep sea is facing a moment of accelerated technoscientific presence. While hundreds of species are discovered in the deep sea each year, these ecosystems face threats such as climate change, bottom trawling, and the impending deep-sea mining industry. This paper examines the visual politics of how these inaccessible more-than-human worlds are rendered fathomable to a wider public audience through contemporary digital mediation. Drawing on visual-analytic and art-based participatory methods, I analyse the Schmidt Ocean Institute's livestreamed research dives alongside its Artists-at-Sea residency to trace how deep-sea imagery is produced, circulated, remediated, and affectively encountered. I show how livestreamed research dives generate a saturation of socio-technological presence in the deep ocean, while the dark, slow, and elemental conditions of the deep sea in turn reshape and 'saturate' the digital media that attempt to capture it. Artistic engagements foster elemental atmospheres, revealing embodied and reflective modes of relating to deep-sea environments beyond scientific spectacle. Developing the concept of digital saturation, the paper argues that digitally mediated deep-sea imagery highlights the vibrant, diffuse, and discrete more-than-human worlds that exceed representational capture. The visual frontier of deep-sea imagery, I suggest, opens possibilities for a science communication that is both humble in uncertainty and vibrant in its immediacy and affective force.

*in oceanography, a fathom refers to a measure of ocean depth based originally on the span of a sailors outstretched arms.

Noemi Duroux (She/They) is an independent researcher interested in the intersection of digital and more-than-human lives and is a member of the Digital Ecologies research collective. Her master's research looks at the interaction between digital ecologies and elemental geographies in the context of how deep-sea ecologies are made visible and interactive in public engagement initiatives.

MINING

The visual representation of the more-than-human requires as much input as it does output—not to mention a witness, whether human or otherwise. Every image begins underground. Before it becomes light, color, or code, it is matter: silica sand fused into glass, lithium dissolved in salt flats, cobalt smelted into circuits. Our technologies of vision are geological before they are digital, and each act of visualization depends on extraction—of resources, of data, of meaning. The more we look, the more we dig. The screen is less a window onto the world than a cross-section of it: a thin geological surface where soil meets signal, and where the earth itself becomes an interface for seeing, sensing, and imagining the more-than-human.

In my ongoing research Soil to Signal: The Atlas of Speculative Mineralogy, the act of mining becomes both a method and a metaphor for how digital technologies see the earth. The project revisits seventeenth- and eighteenth-century naturalist practices through

neural networks and generative algorithms, creating a dialogue between early scientific illustration and AI-generated imagery. During field expeditions, I collect both natural specimens and anthropogenic materials. While geological samples trace local strata, human-made substances carry complex global histories across manufacturing networks—an inversion of traditional expeditions where the objects, not the observer, travel. Infused with the performative absurdity of Fluxus instruction scores, the project constructs synthetic minerals that expose how machine vision inherits the extractive gaze of mining. What are the ethics of seeing when vision itself becomes extractive? Can machine learning imagine the earth otherwise, without consuming it? And could a new geo-aesthetic emerge—one that designs with the ground rather than over it, transforming extraction into attention?

Pascal Glissmann is a designer, media artist, and educator whose research explores the intersections of visual culture, ecology, and media infrastructures. He is co-director of the Observational Practices Lab at The New School and full-time faculty in Communication Design at Parsons School of Design. His ongoing project Soil to Signal: The Atlas of Speculative Mineralogy investigates the material and computational entanglements of design, geology, and machine vision through fieldwork, AI image.

RESOLUTION

Due to increasing density and distribution of wild deer populations in the UK (and associated economic, ecological, and biosecurity impacts) deer management efforts—primarily selective culling—are intensifying. Deer, in response, are increasingly nocturnal. This novel behavioural shift exploits spatiotemporal niches structured by licensing under the Deer Act 1991—times and places where culling can or cannot take place. To counteract this, deer managers are turning to digital night-vision rifle scopes which enable them to shoot at night (under license). These scopes amplify ambient light to generate an enhanced monochrome image. However, due to the optical noise introduced into the image during this process, it makes it difficult for stalkers to reliably identify the morphological differences between fallow buck fawns/yearlings (less than two years old) and fallow does—the latter being the primary target of population management efforts.

Night-vision scopes, then, flatten the distinctive visual qualities required for identification and effective deer management. As a result, in the empirical case under study (a landscape-scale group night license conservation pilot), too many male fallow fawns/yearlings have been culled, exacerbating imbalances in herd sex-age composition and ultimately undermining management aims. This paper, in demonstrating that visual technologies can simultaneously illuminate (make present) and obscure (efface difference), suggests an emergent biopolitics of resolution in conservation and more-than-human governance. While novel visual technologies open out fields of action and intervention to stabilise discordant ecologies, we see here too that their outcomes can be uncertain.

Lachlan Kenneally is a third-year PhD candidate based at the University of Greenwich, as part of the UK Food Systems Centre for Doctoral Training. His research explores the practices and politics of governing overpopulated/invasive entities through facilitating their consumption. To do so, he is examining the changing nature of human-deer relations in southern England; focusing on

how deer management and the social life of venison are being (re-)orchestrated through strategic material-semiotic interventions into the legibility, killability, and edibility of deer. He is also interested in the potential of speculative and arts-based methods for thinking-feeling overpopulation and invasiveness otherwise; and is collaborating with the speculative arts-design group Nonhuman Nonsense

RENDERING

In this visual essay, I explore how nonhuman animals are rendered by AI systems. Here, 'rendering' does multiple forms of work, opening up questions on how nonhuman animals are made into data and metadata, how they are depicted and computationally processed, and how they are extracted from, as in the process of rendering fat. I begin with an early history of nonhuman data, close-reading foundational camera-trapping texts to trace forms of photographic rendering and ask what they reveal about the underlying logics of more-than-human capture. From rendering on photographic plates, I move to rendering via AI systems, focusing on automated video-analysis techniques for camera-trap footage. How has rendering been newly enacted in these computational contexts? Finally, drawing on ongoing research with field biologists on the multispecies harms of data centers in Data Center Alley, Virginia, the largest concentration of data centers on earth, I consider how the data centers powering AI themselves render the nonhuman world, endangering at-risk species through catastrophic land-use practices. Throughout, I argue that critical analyses of AI's relational assemblages must take nonhuman lives seriously—not as peripheral referents, but as constitutive participants and casualties of the ecotechnical formations that AI produces.

Maya Livio is Assistant Professor of Climate, Environmental Justice, Media & Communication at American University. Her research, writing, media-making, and curation probe at the contact zones between ecosystems and technological systems. Her interdisciplinary work has been published and featured in New Media & Society, e-flux Journal, the Washington Post, NPR, Contemporary Art Review Los Angeles, and books from Amherst College Press and Punctum Press, among others, and her work has been supported by organizations such as Andy Warhol Foundation for the Arts, Redline Contemporary Art Center, Labocine, and Fermynwoods Contemporary Art (UK). Livio has commissioned and programmed new media as Curator of MediaLive, an annual international festival at Boulder Museum of Contemporary Art (BMoCA), and old media as Curator of the Media Archaeology Lab, a collecting institution for historical technologies. In 2025—2026, Livio is curator of Data Rich, Dirt Poor at BMoCA. She was the 2024 Researcher-in-Residence at the MAK Center for Art & Architecture & the SOM Foundation and in 2023, she was Art + Research Resident at Caltech and the Huntington Library. She holds a PhD from the University of Colorado, Boulder and MA from the University of Amsterdam.

TEMPORALIZING

This paper proposes *temporalizing* as a critical visual operation in contemporary digital ecologies. Rather than treating time as an external, homogeneous flow (e.g., frame rate) against which environmental visualisations unfold, it argues that digital visual regimes actively *produce* time: engineering it through sampling intervals, prediction windows, buffering pipelines, and real-time rendering architectures. What appears as seamless liveness is in fact a composition of microtemporal delays, anticipations, and machinic rhythms—temporal operations fundamentally incommensurable with the uneven, discontinuous durations of more-than-human worlds.

Through cross-sectional case studies, the project examines how environmental visualisations—ranging from physically based rendering and real-time simulation/vision systems to operational dashboards and urban or climatic digital twins—encode ecological temporality within their operative logics. These systems stabilise environments not by depicting their temporal rhythms, but *by temporalizing vision itself*: smoothing discontinuities, enforcing synchrony, and folding speculative futures into an ever-operational present. In doing so, they privilege machinic microtemporality as the default ecology and treat visualisation as a perceptual infrastructure oriented toward human-centred operation, thereby subordinating non-aligned rhythms, multispecies durations, and environmental lag to computational cadence.

Approaching these systems through a media-ecological and posthuman temporal framework, the paper reframes digital ecological visualisation as a politics of time: a field in which engineered temporal regimes determine what becomes visible, legible, or actionable as ecology. Temporalizing thus reveals how visualisations do not simply record and represent environmental processes. They compose visibility through machinic rhythms that overwrite non-synchronous ecological durations. Rather than naturalising these reductions, the paper argues that attending to their incommensurabilities opens space for imagining visual practices capable of accommodating multiple, uneven, and more-than-human temporalities.

Qiaodan Liu (Jordan) is a PhD candidate in Media Studies at the School of Creative Media, City University of Hong Kong. Trained in architecture, architectural theory, and art history, he approaches visual media through material, environmental, and ecological perspectives. His research explores the intersections of visual culture, contemporary visual technologies—particularly 3D computer graphics and vision—and general ecology, focusing on how technological environments produce both modern and non-modern regimes of visibility and subjectivity. His current project investigates real-time 3D as an infrastructure of contemporary environmentality.

SOLARISING

This paper examines solarization, the photographic technique in which extreme overexposure produces tonal inversion, as a critical framework for rethinking the political ecologies of digital media. Contemporary computational infrastructures are increasingly shaped by light, from fibre-optic networks to millions of subpixels on a screen. This luminous aesthetic fosters an illusory ethereality, obscuring the material extractions,

energy consumption, and ecological damage on which it relies. Such ideals echo a Western-centric Enlightenment tradition that allegorizes light as pure reason.

Solarization offers a vital counter-orientation by revealing how excess light destabilizes meaning, producing its negative double. This inversion critically unsettles the solar utopianism prevalent in permacomputing and degrowth movements, which often position the sun as the ultimate ethical and clean energy source. Such projects risk reproducing the very heliocentric logic of surplus and endless expansion that underpins technocapitalism.

To move beyond these limits, the paper turns to chthonic and terrestrial imaginaries. Drawing from Saturnian alchemy and Anna Tsing's multispecies entanglements, it embraces matter as active, generative, and metabolic. This aligns with Latour's concept of the terrestrial, framing decomposition, impurity, and metamorphosis as sites of cosmogenic force. These concepts resonate with experiments in mud and compost-based power, where resistance emerges from deep soil entanglement. Through this lens, solarization becomes a methodology for reimagining digital media ecologies as grounded and materially responsive, opening pathways for computation free from heliocentric captivity.

Mariana Marangoni is a Brazilian artist and researcher based in London. She is currently a PhD student at the UAL Creative Computing Institute and a Lecturer in MA Interaction Design at the London College of Communication. Her work critically examines digital materiality and its socio-ecological implications through a wide range of media, including installations, web-based experiments, and visual poetry. Recent projects focus on reimagining computational paradigms for an increasingly exhausted planet. She has given talks and exhibited internationally at institutions and platforms such as the Victoria and Albert Museum (UK), Rhizome.org, Ars Electronica (AT), Mesh Festival (CH), Transmediale (DE), and AMRO (AT).

FORMING

As landscapes transition under the pressures of climate change and biodiversity loss, digital visualisation tools are increasingly used to depict new ecological futures. This paper challenges the tendency to present ecological futures as fixed, technological displays, positioning visualisation instead as a negotiable practice that facilitates collective sensemaking and dialogue. Drawing on a systematic review of landscape visualisation literature, a tendency toward visual regimes that privilege realism and persuasion was identified while simultaneously overlooking complex biodiversity dynamics, land use conflict, and social equity.

In response, the research introduces a new methodological experiment that, whilst highly contextual, bridges a mix of both local and global dynamics, translates biological and geospatial data into immersive 3D environments for nature recovery. Using the Maximum Environmental Distance (MED) method to ensure representativeness across environmental gradients, the work translates biological and geospatial data into ecological grammars that underpin visual design. Rather than depicting data literally, these grammars define the range of plausible ecological expression within the virtual world, ensuring that visualisations remain materially grounded yet perceptually open. These virtual spaces become arenas of negotiation where stakeholders may encounter, contest, and negotiate ecological change. By intertwining biological and geo-spatial data, embodiment through virtual reality, and

perception, the work repositions visualisation as a means of quantum social change, repositioning visualisation as a medium of relational awareness rather than prediction, where shifting perception becomes the first movement toward systemic transformation.

Calum Mitchell has a background in Urbanism and Landscape Architecture and is currently pursuing a PhD in the Department of Biology at Aarhus University. His research explores how immersive 3D visualisations affect stakeholder perceptions of landscapes in transition. Working within the transdisciplinary environments of Sustainscapes (Centre for Sustainable Landscapes Under Global Change) and Landcraft (Centre for Landscape Research in Sustainable Agricultural Futures), his work bridges design, ecology, and social inquiry, with a focus on the evolving relationships between people and landscapes.

LISTENING

Noise maps have become the primary media in which environmental noise is known and governed. In the EU, for instance, the Environmental Noise Directive necessitates that noise maps are produced every five years. As representations, however, it is not clear what they represent: they are not based on measurements but calculations (cf. Zittoun 2006); they refer only to averages and tendencies; and consist of (contested) gradients of colour that are said to resemble sonic experiences called annoying. In other words, noise maps convert perceptual experiences of sound into visible objects to be observed. They do not represent, but render noise visible (cf. Paul Klee) through a particular regime of visibility. Drawing on ethnographic fieldwork with a noise observatory, interviews with technicians, and archival research in Paris, this talk explores the unstable relations between these two sensory registers in noise maps. Engaging distinctions that Gilles Deleuze, in his work on painting (2024; 2003), makes between the analogical and the digital, and modulation and articulation/code, noise maps are read "against the grain" (Hustak and Myers 2012) to describe how similitude is generated through non-resembling means and in analogical relations (cf. Zhang 2020). It is interested in how noises are "heard" through modulations of colour, how sensory experiences emerge in pixels and grids, and how affects are grafted onto code. This talk is interested not only in the way that noise maps "rend" the experience of noise into its image (Myers 2014) but generate indeterminate experiences of perception (Peterson 2021) that represent noise not as object, but as analogical relations between sensory registers.

Brett Mommersteeg is a postdoc at Humboldt University in Berlin. He currently studies waves, sound and electromagnetic, and has published on architecture, acoustics, listening and confusion.

NEGATIVITY

What does photochemical dwelling reveal about image-making's material dependencies in digital ecologies? Dwelling in the darkroom, lingering with latent images, and inverting negative to positive are supplanted by racing with light, swift circulation, and instantaneous processing. Han argues that acceleration and the dismantling of negativity are intrinsically linked in contemporary society (2015, p. 2). To optimise information

circulation, negativity hindering efficiency is removed or buried. This dismantling extends to eliminating the photographic negative and dwelling with it. The photochemical negative is ground for human and more-than-human dwelling. Cattle and pigs are exploited to extract gelatine, which binds silver halide crystals on film. Given correct conditions, fungus thrives on gelatine. Fungal growth reveals photochemical dwelling's material paradox: animal exploitation ensures film's functioning but also organismic growth. Fungi digest the gelatine substrate, allowing exploited animals to haunt human archives through biological reclamation. Through decomposition, cattle and pigs rendered into industrial material become active participants in the medium's undoing. This is negativity as material consequence.

Where digital technologies hide extractive relations in invisible infrastructures, the photochemical negative makes exploitation and decomposition visibly, palpably present. To dwell with the negative is to dwell with bodies rendered into binder and fungi reclaiming organic matter. Digital acceleration eliminates dwelling not by avoiding exploitation (mineral extraction can be equally violent) but by rendering it invisible, outsourced elsewhere. The question is not which medium is better, but what making images means when all methods require extraction, and what we can know about complicity based on what each process allows us to see.

Alaz Okudan is a researcher and an artist with a background in photography, media, and visual studies. Alaz is interested in hidden, neglected, and marginal stories from the history of visual technologies. Currently, his interests revolve around the concepts of primitive media and poor images, focusing on alternative forms of creative expression. He enjoys looking at infra-ordinary aspects of life that lie beneath the threshold of everyday attention through the lens of visual media. His ongoing PhD investigation at the University of Galway's Centre for Creative Technologies focuses on the cultural and artistic implications of accidents and failures in visual generative AI practice. He is concerned with ecological and social impact of commercial technologies. He experiments both in analogue and digital forms of image-making, seeking ways for hybrid modes of expression. He lives in Galway, Ireland and roams the streets of the city.

CAPTURING

In this paper, I explore the visual politics of digital ecologies through the polysemic notion of 'capture' in the context of artisanal fisheries in Senegal. Between 2023 and 2024, I conducted 12-months fieldwork there along the land-sea continuum, including with purse seining crews — some of the most capital- and labor-intensive that are operating along the country's seaboard. While at sea, it time and again struck me that fishers' outings were seldom just about capturing fish. For at present, fishing in Senegal appears to be also about visually capturing one's fish catch by means of a smartphone, before bringing it into (virtually unbound) digital circulation. Back on land or within data range at sea, the men indeed often share their images of fish — either photographs or videos — via TikTok. The doings of fishers' double capture of fish, then, are multiple. For one, overlayed as they are with visual filters but also with Senegalese mbalax music — if not Muslim religious chants, the men's TikTok images of fish catches partake in both a situated aestheticization and

appropriation of West African Atlantic Ocean ecologies. For another, fishers' affectively charged images act as everyday archives, which attest to their enduring fishing prowess in a challenging environment at the margins of state de/regulation. In Senegal, capturing fish thus points to a distinct politics of in/visibility around the more-than-human world; fishers are inserting a digitally staged fish abundance into a saturated global flow of ever multiplying images, albeit from their own geography of considerable material scarcity.

Louis Pille-Schneider is a third-year PhD Fellow at the University of Bergen, Norway. His dissertation explores the artisanal fishery for sardinellas—a sardine-like fish species—in and off the shores of Senegal's largest fishing town. He conducted approximately twelve months of fieldwork both at sea and on land, enabling an ethnographic account of fisherfolk's relationships with live fish in their Atlantic milieu, as well as the production and circulation of multiple sardinella-based commodities originating along this segment of the West African seaboard. His work engages notions of biopolitics, commodification, kinship, oceanic materiality, and spirituality to examine how and why this long-stressed fishery endures in the present.

CIRCULATING

This paper examines the contemporary development of the cuy (guinea pig) economy through digital ecologies forged by Ecuadorian migrants in New York and their families in Ecuador. Over the past few years, platforms like TikTok have played a crucial role in connecting these communities, enabling the circulation of images, videos, and narratives that link migrants and their families back home through cuy breeders, slaughterers, shipping companies and street vendors, all mediated through digital platforms. This translocal circulation facilitates a new kind of multispecies relationship, where cuy functions not only as sustenance but as a symbol of migrant resilience, identity, and shared belonging. Drawing on Turnbull et al.'s (2023) digital ecologies framework—materialities, encounters, and governance—the article explores how TikTok mediates human/more-than-human entanglements across geographies. TikTok acts not merely as a representational platform but as a space of affective and economic exchanges where migrants perform care, humor, and cultural negotiation involving both living and non-living cuys. These digitally-mediated interactions reconfigure relations between humans and animals, shifting the boundaries and roles of nonhuman agents within urban and transnational migrant contexts. The ongoing academic research builds directly on a published journalistic account, illustrating how platforms like TikTok fundamentally shape the complex human and nonhuman relationships that connect New York and the Andes. This study contributes to broader debates on digital ecologies by showcasing the active role of social media in constructing migrant multispecies ecologies and translocal connectivity.

Martin Francisco Saps is a writer, researcher and urbanist who is currently a PhD candidate in Urban Studies at King's College. His work sits at the intersection of political geography and urban studies, drawing heavily on ethnographic and "netnographic" research methods. He is also Social Editor of Urban Geography and has published in Urban Studies and Political Geography. His work has also appeared in non-academic outlets like Vittles, Jewish Currents,

and The Wick where he writes on cities, culture, and migration, as well as on anti-Zionism and Palestine/Israel.

COMPOSITING

This paper examines how 'live' computational compositing—a process of layering and algorithmic reconstruction—reproduces the visual politics of more-than-human ecologies in post-conflict environments. Centred on *Operating Table*, an interactive installation situated in the UN-controlled Buffer Zone in Nicosia, the project stages an encounter in which participants confront composited, three-dimensional projections of themselves alongside aninaccessible landscape produced through machinic vision. Digital technologies are mobilised to generate live stereoscopic images that collapse corporeal presence within restricted ecological territories. Technically, the installation employs both DSLR and infrared cameras to produce images that are continuously segmented from their surroundings and remapped as a three-dimensional depth-image. A custom live-coding interface orchestrates multiple data streams—field recordings, infrared scans, and photographic documentation from within the Buffer Zone.

These datasets centre on sensored digital photographs of human participants and infrared recordings of cats that traverse the militarised border zones, their heat signatures intermittently captured as they cross checkpoints, fences, and ruined thresholds inaccessible to humans. These movements are procedurally recombined in real time to generate shifting foreground–background relationships, producing an unstable composite ecology in which machinic vision, human and animal bodies intersect.

The post-conflict site—an area of proliferating, and largely unseen, visualities within the carcasses of abandoned buildings—is thus made 'visible'. Through digital compositing, unexpected encounters between human and nonhuman agents emerge, revealing how screens, sensors, and simulations mediate ecological perception in territories shaped by colonial division. *Operating Table* argues for an expanded environmental imagination attentive to the hybrid, layered, and politically charged regimes through which digital technologies produce—and distort—environmental perceptions.

George Themistokleous is an architect, writer, multidisciplinary theorist, and the founder of Para-sight <para-sight.net>. He teaches design-studio and theory at Norwich University of the Arts. His research explores the spatio-temporal environments of the digitized subject via assemblages of older and emerging visual media, in relation to modes of digital control. George's custom-made devices, participatory multimedia installations, and writing have been presented and exhibited internationally. His current interactive media installation – the operating table – responds to notions of identity in Nicosia's borderlands.

MIRRORING

This paper proposes mirroring as an action of visualisation that links structural landscape film to contemporary live-streaming ecologies of the natural world. It focuses on James Benning, Peter Hutton and Chris Welsby, whose durational films organise lakes, skies and rivers through fixed frames, long takes and, in Welsby's case, camera systems coupled

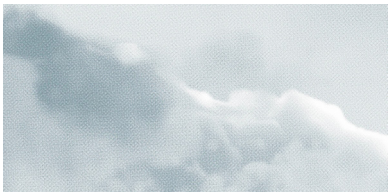
to wind and tides. In these works, film functions as a temporal mirror: environmental change inscribes itself directly as shifts in light, weather and sound, foregrounding the material limits of recording and the asymmetry between human time and ecological time.

The paper then turns to slow-TV broadcasts of waterways, 24/7 landscape webcams (EarthCam) and live nature feeds (Explore.org), where forests, coasts and rivers are continuously mirrored as digital streams. Codecs, bitrates, interfaces and recommendation systems intervene in this mirroring, formatting "nature" as a channel to be tuned into, left running in the background, clipped and shared.

It argues that what is at stake in this evolving visual politics of ecologies is the platformisation of environmental perception: the relocation of ecological seeing into infrastructures geared towards attention capture, data extraction and remote management. The emerging visual regime is characterised by continuous, infrastructural mirroring in which nature is presented simultaneously as soothing spectacle, ambient wallpaper and real-time sensor of planetary change. In these live digital images, ecology appears less as a stable scene than as a managed flow of signals (always on, always elsewhere) through which viewers encounter distant environments while rarely seeing the technical and political systems that make such mirroring possible.

Valentin Via Vàzquez (Barcelona, 1993) is a curator, video essayist, and predoctoral researcher. He is a doctoral student in anthropology and communication at Rovira i Virgili University, with a thesis focused on new imaginaries in Spanish documentary and experimental cinema. He trained in film curating (Elías Querejeta Zine Eskola, 2019-2020) and holds a master's degree in contemporary film and audiovisual studies from Pompeu Fabra University (2019). One of his latest projects has been the artistic direction and curation of the Casa de Lava meetings on non-fiction cinema. During his professional career, he has curated a series of online screenings at Movimcat under the name "Urban Landscapes" (2020) on contemporary experimental cinema and the representation of the urban landscape. She has published in various scientific journals such as L'Atalante, Tecmerin, In media res, and Catalan Journal of Communication. She has been a member of the programming team for the Barcelona International Women's Film Festival (2016-2019) as well as a programmer for the REC International Film Festival in Tarragona, which focuses on debut films. She has also been part of Loop Barcelona's research and communication team. He has participated in the collective video art exhibition "Otras luces" (Other Lights) (Iruña - 2019) as well as in the masterclass with María Cañas on archiving under the name "Dios es una mujer, o un robot, o una perra" (God is a woman, or a robot, or a bitch) (Donostia - 2020). He has been a member of the research project "Their past is always present" in colaboration with LUX and Cinenova to recover and archive the work of Annabel Nicolson.

SCREENINGS



Tropical Depression
Alexander Walmsley *(2024, 31mins)* **Main room digital hub**

Tropical Depression is a documentary film installation that follows the 2023-2024 tropical cyclone season in the southern hemisphere. The film follows 21 different cyclones over the course of 5 months as they make their ways across the Indian and Pacific Oceans, comparing these "natural" phenomena with the historical, contemporary and speculative practice of weather manipulation and hurricane seeding. The film draws on a range of visual sources, including found footage and webcams, but most singularly footage taken from within the game Microsoft Flight Simulator, where such tropical storms are generated in realtime using live data from weather stations across the world. This is combined with text elements composed primarily of scientific weather reports taken from the Joint Typhoon Warning Center, an arm of the US Navy. Presented over three channels, the work seeks not so much to draw attention to the effects of climate change on tropical storms but rather to explore the aesthetic implications of documentary filmmaking that uses not lens-based but pure data-generated imagery.

Alexander Walmsley (b. 1992) is a filmmaker and media artist with a particular interest in the landscapes of the real and the virtual. His recent work has been shown at the Daejeon Biennale of Arts and Sciences, Tirana Art Lab, Sharjah Art Foundation, The Photographers' Gallery, and Athens Digital Art Festival. He was a commissioned artist for the Albanian pavilion of the 59th Venice Biennale and was shortlisted for the Deloitte Photo Grant in 2023 and Istanbul 212 Photography Prize in 2021. He is currently a lecturer at the Film University Konrad Wolf in Potsdam, Germany, where is also undertaking an artistic PhD on the subject of computational time and the representation of the earth.

Occlusion
Theo Stanley and Stephen Cornford **Breakout room**
(2025, 20 mins)

Does precision blind us to what we cannot see? This is the central question at the heart of Occlusion, an experimental art-science film about terrestrial laser scanning (TLS), an increasingly popular technology used to map, measure, and monitor forests. By creating highly accurate maps of forest structure, TLS offers incredible new opportunities for

scientists, who can transport the complexity of forest growth from the world to the lab. But it also creates new opportunities for extraction and exploitation. Weaving together archival material with moving images of forests - both material and virtual - Occlusion situates the development of laser scanning technologies within wider histories of extraction, measurement, and Western modes of seeing nature. The film is a warning, a celebration, a diatribe, a meditation, and a call to think critically about the convincing power of beauty in environmental governance.

The film was developed in close collaboration with Berlin-based research collectives leading the scientific field of TLS. The Digital Ecologies conference is Occlusion's debut screening.

Dr. Theo Stanley is an environmental geographer based at the University of Southampton. Dr. Stephen Cornford is a contemporary artist and senior lecturer at Winchester School of Art.

Unpredictable Atmosphere
Lucia Rebolino in collaboration with Riccardo Petrini, Audio: Lorenzo Urgesi
(2025, 5 mins, on loop)

Main room, both projectors (ground floor and digital hub)

Unpredictable Atmosphere reimagines the internet as an optical device to unfold climate models in digital space. It addresses the limitations of AI foundation models in climate forecasting, which often ignore outliers—extreme weather events such as hurricanes—that push the atmosphere to its breaking point. These events represent phenomena that cannot be fully modelled and remain hidden in AI's blind spots. Unpredictable Atmosphere views the atmosphere as an archive of transformation, much like an architectural object, preserving technological residues. It crumbles conventions and explores how outliers in counter-modelling practices can reshape our understanding of climate, weather, and space. Work conceived and produced thanks to the programme Biennale College Architettura 2024–25, La Biennale di Venezia.

Lucia Rebolino is an artist, architect, and computational designer weaving science and art into counter-cartography, data, and web-based aesthetics. She is a researcher at Forensic Architecture in London, focusing on environmental justice investigations; an artist-in-residence at the Nieuwe Instituut; and a Fellow at TBA21, focusing on applied critical ecologies and climate imagery. Her work on prediction and climate models has been featured in e-flux and exhibited at the 19th Venice Architecture Biennale (2025). Her research-based artistic practice explores technology-driven screen performances, and she has lectured at cultural and academic institutions including MoMA, Medialab Matadero, Columbia University, the Royal College of Art, and ETH Zurich.

PRACTICAL INFO

Locations:

Cheng Kar Shun, Digital Hub, Jesus College, University of Oxford. Enter via Market Street (Opposite Wagamama's)

St John's College, St Giles', Oxford, OX1 3JP. Use this GoogleMap link if you need to – don't search for the college or you'll get sent to a back entrance.

Contact details for emergencies:

Jonny's phone number: +447581222672