

**JOANA MOLL: 4004
1 AUG - 15 OCT 2021**

A new commission for TPG's Media Wall and [Unthinking.Photography](#), an online resource that explores photography's increasingly automated, networked life.

'What escapes the eye is the most insidious kind of extinction - the extinction of interactions' – Daniel H. Janzen

4004 is a new work from Barcelona/Berlin based artist, Joana Moll, that explores the devastating, yet relatively unexamined, impact of technology on biodiversity. Drawing on previous projects and longstanding research, this new work from Moll sets out to expose the links between the explosion of techno-capitalism, the acceleration of climate change and resulting decline of essential ecosystems.

The project's title, 4004 is taken from the name of the first commercial microprocessor, created 50 years ago in 1971, for the Intel Corporation. Heralded as the most advanced integrated circuit design ever undertaken, the Intel 4004, marked a new era in technological development.

Moll aims to establish a link between the exponential growth of the microprocessor and the decline in both number and diversity of species – in particular insects, who form an essential part of our ecological infrastructure and have been declining at alarming levels, with reports suggesting that a quarter of insects could be wiped out within just a decade.

Moll draws parallels between the internal anatomies and roles of each, showing how both microprocessors and insects are small but key components of larger systems. Despite their tiny size and lack of visibility, the role of insects is central to the structures they are part of. Insects pollinate plants, disperse seeds, maintain soil structure and fertility, control populations of other organisms, and provide a food source for other living organisms. They are the most common animal on the planet who create the biological foundation for all terrestrial ecosystems. In parallel, Microprocessors form the central unit in every computer often including tiny components that work together in an integrated circuit to perform calculations and perform the instructions sent by the programmes. By establishing a correlation between each of their positions in their hierarchical structures Moll then goes on to show how the rapid

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development of one (microprocessors) can be directly related to the decline of the other (insects) through a creative intervention.

Presented on the Gallery's Media Wall, *4004* opens with a dense series of images of insects which fills our vision. Over the two and a half months' duration of the exhibition, the insects are gradually and generatively superseded by microprocessors. The subtle but continuous replacement of the natural order by technological advancement, reflects not only on the cannibalisation of ecologies, but also on the problematics of visibly representing climate change. This is a direct address to the challenges of visualising climate change from an artistic perspective, as the time scale of significant erosion, doesn't necessarily fit into the traditional practices of image making. While differences to the 'artwork' will be hard to notice it on a day by day basis, the change overall will be dramatic. Key moments in the work will be highlighted, for example where the release of specific microprocessors is connected to a piece of contemporary research or news around insect ecologies.

4004 asks what the cost of Silicon Valley's striving for constant growth is and questions how we process and understand the mass of data that is created by these technologies.

This project forms part of a year-long exploration by TPG's digital programme, *Imagin(in)g Networks* and can also be viewed on unthinking.photography. Additionally it relates to further activities taking place over the summer, including a new commission from **Disnovation** (*Shadow Growth*, as part of their project *Degrowth*) alongside other online elements.

Moll's previous works, including *Co2GLE* and *The Hidden Life of an Amazon User* explore the hidden ecological costs of the internet's most used tracking services.

-ENDS-

Press Contacts

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Notes to Editors:

Joana Moll is a Barcelona/Berlin-based artist and researcher. Her work critically explores the way technocapitalist narratives affect the alphabetization of machines, humans, and ecosystems. Her main research topics include Internet geopolitics, data materiality, surveillance, techno colonialism, online tracking, social profiling, and interfaces.

She has presented her work in renowned institutions, museums, universities and festivals around the world such as Venice Biennale, MAXXI, MMOMA, Laboral, CCCB, ZKM, Ars Electronica, Bozar, HeK, Photographer's Gallery, Science Gallery, Korean Cultural Foundation Center, Chronus Art Center, University of Cambridge, Goldsmiths University of London, New York University, Georgetown University, University of Illinois, Aarhus University, Rutgers University, Concordia University, ETH Zürich, École d'Art d'Aix en Provence, British Computer Society, The New School, CPDP, Transmediale, FILE and ISEA among many others. Her work has been featured on The Financial Times, Der Spiegel, National Geographic, Quartz, Wired, Vice, The New Inquiry, Netzpolitik, El Mundo, O'Globo, La Repubblica, Fast Company, NBC or MIT Press. She is the co-founder and director of

[Critical Interface Politics Research Group](#) at HANGAR and currently a visiting lecturer at Escola Superior d'Art de Vic (ES), Escola Elisava (ES), and Universität Potsdam (DE).

[Imagin\(in\)g Networks](#) is a programme exploring the existing and potential networks that use images to enable human and machine interactions. Over the course of a year, the social, political, technological and environmental impacts of image networks will be examined through artist commissions, texts, workshops and events.

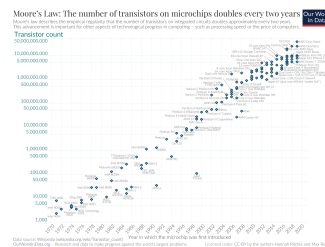
The influence that images and visual information have had on the way we live and our understanding of our surroundings has grown exponentially. Since the birth of the photographic image in the 19th century, images have had a dominant role in our lives right up to modern day communications from news to entertainment. Digital technology, and in particular, the Internet has further accelerated this process. At a time when visual data accounts for most of the total online traffic, the Internet has radically altered the affect and position of images.

Notes on biodiversity

- <https://www.bbc.co.uk/news/science-environment-52399373>
- <https://www.nhm.ac.uk/discover/news/2019/february/the-world-s-insect-populations-are-plummeting-everywhere-we-look.html#:~:text=It%20has%20revealed%20that%20over,at%20least%202.5%25%20per%20year.> “Two years ago, it was reported that the biomass of flying insects in German nature reserves had [fallen by three quarters](#). What’s more, just last year one team found that ground insects in Puerto Rico [had declined by 98%](#). “

Chronology of microprocessors

- https://en.wikipedia.org/wiki/Microprocessor_chronology (scale diagram)



Moore's Law

- https://en.wikipedia.org/wiki/Moore%27s_law

Jevon's Efficiency

- https://en.wikipedia.org/wiki/Jevons_paradox

“In 1865, the English economist [William Stanley Jevons](#) observed that technological improvements

that increased the efficiency of coal-use led to the increased consumption of coal in a wide range of industries. He argued that, contrary to common intuition, technological progress could not be relied upon to reduce fuel consumption.” *Basically, making something more efficient often increases its use so that it is used more and the saving in efficiency is eclipsed by its increase of use.*

The Photographers' Gallery

The Photographers' Gallery opened in 1971 in Great Newport Street, London, as the UK's first independent gallery devoted to photography. It was the first public gallery in the UK to exhibit many key names in international photography, including Juergen Teller, Robert Capa, Sebastiano Salgado and Andreas Gursky. The Gallery has also been instrumental in establishing contemporary British photographers, including Martin Parr and Corinne Day. In 2009, the Gallery moved to 16 – 18 Ramillies Street in Soho, the first stage in its plan to create a 21st century home for photography. Following an eighteen months long redevelopment project, the Gallery reopened to the public in 2012. The success of The Photographers' Gallery over the past four decades has helped to establish photography as a recognised art form, introducing new audiences to photography and championing its place at the heart of visual culture. www.thephotographersgallery.org.uk

Visitor Information

(As of 15 July, please check website for latest opening information)

Mon – Closed

Tues – Sat 10.00 - 18.00

Thu 10.00 - 20.00

Sun 11.00 - 18.00

Social media

Instagram: @thephotographersgallery

Twitter: @TPGallery
Facebook: @ThePhotographersGalleryLDN

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