

LAS presents: Libby Heaney's *Ent-*Schering Stiftung, Berlin

10 February – 3 April 2022



Libby Heaney, still from Ent-, 2021.

LAS is pleased to announce *Ent*-, a major exhibition by artist and physicist Libby Heaney (b. 1983) at the Schering Stiftung, Berlin from 10 February to 3 April 2022. Commissioned by LAS, Heaney has been experimenting with quantum computing for a number of years. She is the only artist in the world using quantum computing as a functioning artistic medium and *Ent*- will be a 360-degree interactive installation taking quantum computer is yet in existence but the technology has the potential to achieve results and speeds impossible with current computing. *Ent*- will explore the transformative changes quantum computing is expected to wreak on the future of everyday life.

Ent- is a quantum interpretation of the central panel of Hieronymus Bosch's famous triptych *The Garden of Earthly Delights* (c.1490–1510). Visitors will enter a black cube in which a 360-degree projection takes them through the layers of Bosch's painting – sky, buildings and landscapes, and water. Heaney has used quantum code to manipulate and animate her own watercolour paintings, creating hybrid creatures inspired by Bosch's medieval monsters, landscapes that seem to shift and breathe, and exploding structures that float and re-form. Heaney chose to work with watercolour in particular because the bleeding of colours into one another reflects the merging and blurring of the quantum world.

For Heaney, Hieronymus Bosch's adjacent depictions of heaven and hell provide an analogue for the double-edged potential of quantum computing, which is expected to create a leap in the possibilities of computing power, exponentially accelerating surveillance capitalism and disrupting existing encryption methods relied upon for privacy and data protection. Just as *The Garden of Earthly Delights* can be read as both a celebration of and warning against desire, so too does *Ent*-explore the dangers implicit in our desires for new technologies. In placing *Ent*- in a decidedly religious context, Heaney also seeks to explore the ways in which technology can be said to have replaced religion in modern life.



Libby Heaney, still from Ent-, 2021.

Heaney also investigates the positive potential of 'thinking quantum'. One of its most important concepts, quantum superposition, allows particles to exist in multiple states or places at once. Quantum entanglement binds particles together in a particular symbiosis unlike anything in the macroscopic world. For Heaney, thinking in terms of these new pluralities has the potential to break down binary thinking and political polarisation, engendering community thought that might solve global problems as severe as the climate crisis or allow for new paradigms when considering critical issues such as gender identity.

In an entirely new visual language, Heaney creates plural visual effects only possible using quantum computing; digital images become hybrid and fragmented in a blurred, pixelated aesthetic that attempts to represent the layered reality of the quantum world. However, her work does not require previous knowledge of quantum systems and encourages viewers to make their own perception-based, emotional responses to the disconcerting yet invigorating quantum world.

Only a handful of companies globally are developing quantum computers and Heaney has been working with IBM's quantum hardware and Qiskit software, supported by LAS, for three years. Accompanying the exhibition will be a short publication documenting Heaney's collaboration with LAS and including several initial sketches for *Ent*-.

A component part of *Ent*- will also be shown at the ZKM | Center for Art and Media Karlsruhe, as part of *BioMedia: The Age of Media with Life-like Behavior* from 19 December 2021–28 August 2022. *Ent*- will travel in its entirety to arebyte Gallery, London in May 2022.



NOTES TO EDITORS

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Production Credits for Ent-

James B. Stringer, Producer and experience design Jira Duguid, Lead developer Gabriel Stones, Developer Libby Heaney, Quantum computing developer Nabihah Iqbal, Composition (music and sound)

About LAS

LAS is a Berlin-based art foundation that brings together art, technology and science. Committed to new ways of presenting art, LAS commissions experimental projects, both physical and digital, in unconventional spaces. LAS is dedicated to future thinking and light is the foundation's guiding principle – a symbol of imagination, discovery and innovation.

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About Libby Heaney

Libby Heaney is a British artist and lecturer who holds a PhD in Quantum Information Science from the University of Leeds and an MA in Art and Science from Central Saint Martins in London. She has exhibited widely in galleries and institutions in the UK and internationally, including solo exhibitions at Holden Gallery, Manchester (2021); Goethe Institut, London (2019); Emmanuel Church, Loughborough (2021) as part of Radar, Loughborough University's contemporary art programme; and at Non-Space Gallery, Aarhus (2017) as part of their EU Capital of Culture programming. Group shows include RMIT Gallery, Melbourne (2021); Art-Al Festival, Leicester (2021); MUTEK, Montreal (2021); Etopia Center for Art & Technology, Zaragoza (2021); arebyte Gallery, London (online 2020); LUX with Hervisions (online 2020); Tate Modern, London (2016, 2019); ICA, London (2019); V&A, London (2018); Barbican, London (2019); Somerset House, London (2019); Sheffield Documentary Festival (2018); Science Gallery, Dublin (2017, 2018, 2019, 2021); Sonar+D, Barcelona with the British Council (2017); Ars Electronica, Linz (2017); CogX, London (2018); and Telefonica Fundacion, Lima with the British Council (2017).

As well as quantum computing, Heaney's practice incorporates AI and VR technology, using each of these tools critically to investigate how and who they empower and disempower. Often Heaney's work subverts the usual uses of these technologies, forcing them to work against themselves to expose their drawbacks and dangers. Inspired by Surrealism and Dadaism, Heaney's work often incorporates humour and nonsense to investigate subjectivity, truth and perceptions of reality, as well as our seductive relationships with new technologies.

About Schering Stiftung

The Schering Stiftung – Connecting Art and Science

The Schering Stiftung promotes the life sciences, the contemporary arts, as well as scientific and cultural education. A key focus of the Foundation's activities is on projects at the interface of science and art. The Foundation aims to promote the dialogue and exchange between the disciplines. It wants to create a space for new ideas and inject creative ideas into society.

scheringstiftung.de

About arebyte

arebyte leads a pioneering digital art programme at the intersection of new technologies and contemporary culture. From net art's inception in the 90s to more recent innovations in computer technology from VR to AI, the programme invites multiple voices to create multimedia installations at arebyte Gallery, London, and online experiences at arebyte on Screen. arebyte.com twitter

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