

Max Cooper

Yearning for the Infinite

Doors 8pm

Max Cooper 8.30pm

Llyr 10pm, ClubStage

Rob Clouth 11pm, ClubStage

Please note all timings are approximate and subject to change

Brit Seaton talks to Max Cooper about technology, infinity and working in new forms for this newly commissioned project.

In a time characterised by the limitless creation and storage of data, the weight of the infinite has never been so greatly felt. Our world and its technologies are developing in unprecedented ways, reaching far beyond human comprehension. In his new audio-visual project *Yearning for the Infinite*, electronica and techno producer Max Cooper seeks to embrace the exploration of these boundless unknowns.

Presented as part of the Life Rewired season, *Yearning for the Infinite* responds to a commission from the Barbican, inviting the London-based artist to reflect on emerging technologies and how they are changing society. Tonight's live performance, featuring an immersive multi-surface projection, attempts to capture the overwhelming vastness of infinity within the space of the Barbican Hall.

For fans of Cooper's music, it's no secret that his genre-defying output is influenced by his scientific background and a PhD in computational biology. Finding expression in his emotive electronic vernacular, Cooper's previous studio albums *Human*, *Emergence* and *One Hundred Billion Sparks* are like encoded conversations examining aspects of the human condition and biology. They speak in ambience, glitches and intricate layers.

'The science I love is that which relies on aesthetics to gain an intuitive understanding of an abstract unseen system,' Cooper says. 'Music is much the same, but it's the intuition and feeling which are at the forefront. My science-related interests are more explicitly brought in with the visual stories I write, to which I score each piece of music.'

As for *Yearning for the Infinite*, Cooper's fourth studio album released on his own label Mesh, the starting point was to establish key visual forms for the influence of rapidly developing technology on society. 'Reductionism is my usual tool,' he explains. 'I want to know what the fundamental simplified properties of a system are.'

'I also love micro-structure musically and visually, and simplified building blocks also often have beautiful visual forms. So I took this complex system of humans and their endless pursuit of technology, personal and national growth, knowledge, monetary gain. It all came back to this single property of our nature: yearning for the infinite. It's as much endless toil as it is the beauty of the system in which we exist.'

Cooper shares how working in the audio-visual realm facilitates a far greater capacity for storytelling. 'I spend most of my time thinking and reading about ideas – and adding the visual component has allowed me to integrate ideas much more fully into my work. The visual medium can convey much richer literal information than music can, while the music is great at conveying the associated feelings. Together they make a great tool for communicating things which are hard to put into words.'

Among the language-defying phenomena which Cooper is keen to explore are the processes of branching and replication of life from its first ancestral cell, the growth of data processing devices, the potential infinitude of space around us, as well as time around our brief existence on Earth. Having created the project in chapters, Cooper visualises the infinite as literally as possible via scientific techniques, shown in contrast with the human representation of the same concept.

Cooper sheds light on some of the key chapters: '*Transcendental Tree Map* shows the digits of pi, endlessly and formlessly repeating into a huge branching structure around us, while at the same time representing the perfect simplicity of the circle. *Aleph 2* uses various forms of counting as employed by Georg Cantor in the 1800s to first get a mathematical grip on the concept of infinity, and show that different sizes of infinity can exist.'

Cooper has developed innovative methods for visualising the infinite in this body of work. He shares that each chapter was a challenge, with much to experiment with and learn. 'In particular, the *Aleph 2* chapter showing the aesthetics of Cantor's work was something which took a lot of thought. I think it's the first time it's been done,' he says.

And beyond engaging with nineteenth-century mathematicians, Cooper has brought the expansive project to life with the input of long-standing collaborators. 'Jessica In created a system to visualise Roger Penrose's aperiodic

barbican

tiling system, which can cover an infinite plane without repeating. Andy Lomas has simulated endlessly dividing three-dimensional surfaces, at least to the limits of current graphic rendering systems, while Memo Akten has used machine learning algorithms to artificially recreate and morph between images of vastly different scales, as a means of visualising the potential infinitude of multiversal space.'

Cooper was also keen to situate the topic within a historical context, in particular drawing on traditional mysticism in Judaism. 'It starts with the earliest reference to the infinite that I could find, unsurprisingly in association with deity—the infinite white light of Kabbalah,' he explains, also citing the form of the circle with its infinite rotational symmetry and infinite irrational digits as another source of inspiration.

'The show tells the story of us a part of a system, constrained to endlessly act out our nature, but part of something fundamentally beautiful,' Cooper says, when asked about the philosophy of *Yearning for the Infinite*. 'Too much of modern discourse seems to place people outside of the systems which create them, in that they are right or wrong, good or bad. I think there is hope in seeing things more realistically, and every single one of us as the biased, evolved and socialised machines that we all are.'

Performers

Max Cooper

Llyr

Rob Clouth



The City of London Corporation is the founder and principal funder of the Barbican Centre