Robin Hood Gardens: Rewound

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Abstract

Robin Hood Gardens - Rewound examines how a story can be told using a machine learning algorithm called a Generative Adversarial Network (GAN). We configure the GAN algorithm to reimagine a memory haunted by a recently departed past and the hope for future that never arrived. We cast the neural network as a "ghost" that explores the environment of Robin Hood Gardens estate—one of the iconic utopian social housing projects in London. These algorithmically generated visions aim to untangle the spectral nostalgia for a certain place and time, which the cultural theorist Mark Fisher termed as lost futures.
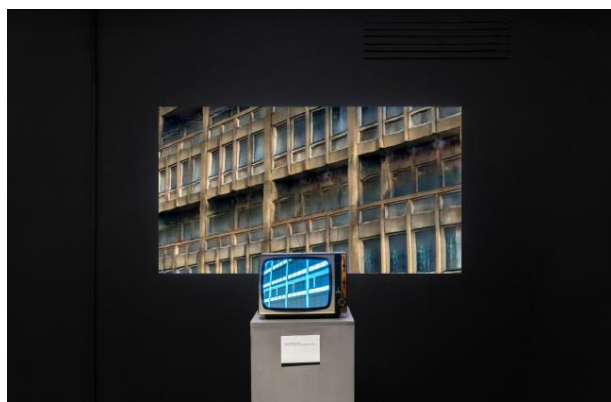
Fig. 1. *Robin Hood Gardens: Rewound*, 2020, Bayliss and Wong, video, Copyright Watermans, Photo credit: Anna Jochymek.

Introduction

Robin Hood Gardens: Rewound is a two-screen video installation and generative visuals by artificial intelligence. This is done through a Generative Adversarial Neural Network (pix2pixHD) trained on a custom photographic image-set. The neural network imagines what Robin Hood Gardens Estate looked like in the past and regenerates an entirely new facade of the iconic estate. Although neural networks have become increasingly important in the field of artificial intelligence, the medium is temporally constrained. They rely on a corpus of training data which itself may be from disparate times and places. As such, they are inherently "of the past" but primed to predict the future.

Drawing from the theory of hauntology, the late cultural theorist Mark Fisher suggested that our contemporary era is haunted by these ghosts of failed utopian aspirations or what he termed "nostalgia of a lost future." *Robin Hood Gardens: Rewound* is an illustration of this paradox in the trajectory of technological progress. The work finds parallels with past endeavors to change the world and the promises of the technological utopianism of today.
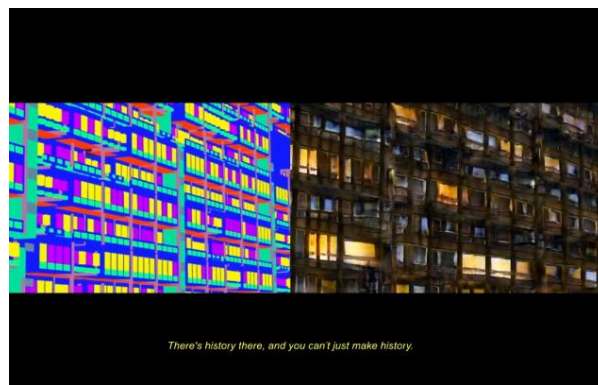

Fig. 2. *Robin Hood Gardens: Rewound*, 2020, Bayliss and Wong, video. © Nathan Bayliss, 2020.

It is the spectral within the generative adversarial network that hints at a useful deconstructive tool to dislodge the static narrative of our world - and our understanding of the present. Mark Fisher's critique of popular culture touches on the static present that is haunted by past media and entertainment.

Taking his view of electronic music as an example of "the confrontation with the cultural impasses and the failure of the future," we answer Fisher's call to action, and in the same hauntological spirit, critically engage with GAN technology to re-open old wounds.

With hauntology as our theoretical framework, we hone in on the rich cultural and social history of Robin Hood Gardens estate in London, as source of material for our exploration. For the narrative structure of the piece, we draw from the book *Regeneration! Conversations, Drawings, Archives & Photographs from Robin Hood Gardens* for a distilled history of the place according to the old inhabitants of the estate. We recorded audio snippets from conversation transcripts in the book for the voice narration in the video.

Technical Processes

We built two datasets based on archival photography of Robin Hood Gardens, including day and night photography. From this we gathered two statistical models of the site which we then used to generate speculative reconfigurations of the site. Images were hand-rotoscoped and labelled. This "blueprint" of RHG was built inside openFrameworks based off a 3D template built in Cinema 4D. We animated in C++, with control over the camera position and animation being set in real-time. The resulting "label sequences" were captured into image sequences. These were fed into an updated Pix2PixHD model at 1024x1024 resolution. The Pix2PixHD results were paired with their Label Input to make a matching A and B pair (one for each screen). The sequence was then edited to create the flow of the film.

For the exhibited installation, we had an analogue television set to alternate between display sequences of GAN generated imagery in monotone colour and the label sequences as the video essay with voice-over narration was projected onto a screen.

Fig. 3. *Robin Hood Gardens: Rewound*, 2020, Bayliss and Wong, video. © Nathan Bayliss, 2020.

References

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Biographies

Eddie Wong obtained his Masters (Computational Arts) from Goldsmiths University in 2019. He has published in Leonardo Journal, SIGGRAPH 2020 and exhibited internationally. Eddie is currently based in Kuala Lumpur.

Nathan Bayliss is a London based artist featured at Somerset House, Lumen and Watermans Gallery, London. He completed his Masters from Goldsmiths University in 2020.