

# Jake Elwes WORKS 2020

Zizi - Queering the Dataset

Cusp

Latent Space

Closed Loop

dada da ta

Digital Whispers

Auto Encoded Buddha

Machine Learning Porn

Digital Caress

Porn Saturation

Solid State

Taking a Phone for a Walk

# Zizi - Queering the Dataset

*2019, multi-channel digital video,*

*135 minute loop*

*Edition of 7 + 2 artist proofs*

*plus 3 multi channel site specific versions*

'Zizi - Queering the Dataset' aims to tackle the lack of representation and diversity in the training datasets often used by facial recognition systems. The video was made by disrupting these systems\* and re-training them with the addition of drag and gender fluid faces found online. This causes the weights inside the neural network to shift away from the normative identities it was originally trained on and into a space of queerness. 'Zizi - Queering The Dataset' lets us peek inside the machine learning system and visualise what the neural network has (and hasn't) learnt. The work is a celebration of difference and ambiguity, which invites us to reflect on bias in our data driven society.

\*A Style-Based Generator Architecture for Generative Adversarial Networks (2019)

*Instagram @zizidrag - machine learning generated captions and looks trained on drag profiles.*

*Zizi was originally commissioned as a seven channel video installation by Experiential AI at Edinburgh Futures Institute and Inspace.*

*Presented as site specific video installation with between 3 and 10 projected video channels.*



4 stills from Zizi - Queering the Dataset 2019

# CUSP

*2019, 4K digital video with audio,  
13 minute loop  
Edition of 5 + 2 artist proofs*

A familiar childhood location on the Essex marshes is reframed by inserting images randomly generated by a neural network (GAN\*) into this tidal landscape.

Initially trained on a photographic dataset, the machine proceeds to learn the embedded qualities of different marsh birds, in the process revealing forms that fluctuate between species, with unanticipated variations emerging without reference to human systems of classification.

Birds have been actively selected from among the images conceived by the neural network, and then combined into a single animation that migrates from bird to bird, accompanied by a soundscape of artificially generated bird song. The final work records these generated forms as they are projected, using a portable perspex screen, across the mudflats in Landermere Creek. The work both augments and disrupts the natural ecology of the location, as flocks of native birds enter a visual dialogue with these artificial ones.

\*Neural networks are programming models which are biologically inspired and learn from observing data. GANs (generative adversarial networks) are neural networks which learn to mimic through generation and refinement.



Still from CUSP 2019



Installation shot of CUSP,  
Zabludowicz collection 2019

# Latent Space

*2017, digital video, 45 minute loop*

*Edition of 5 + 2 artist proofs*

Special thanks to Anh Nguyen et al. at Evolving-AI  
for their work on GANs.

In artificial intelligence 'Latent Space' refers to a mathematical space which maps what a neural network has learnt from training images. Once it has been trained it understands all images of trees as existing in a specific area, and all images of birds in another.

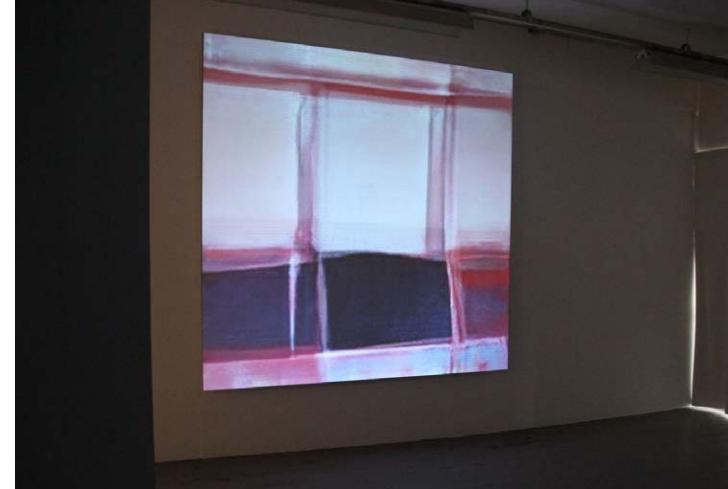
The neural network can be reverse engineered to create fake images from these coordinates\*. But what if it was given a new path to travel between these recognisable points, instead moving through the in-between space?

Latent Space is a video snap-shot of an A.I. algorithm in its infancy trained using 14.2 million photographs\*\* continuously producing new images.

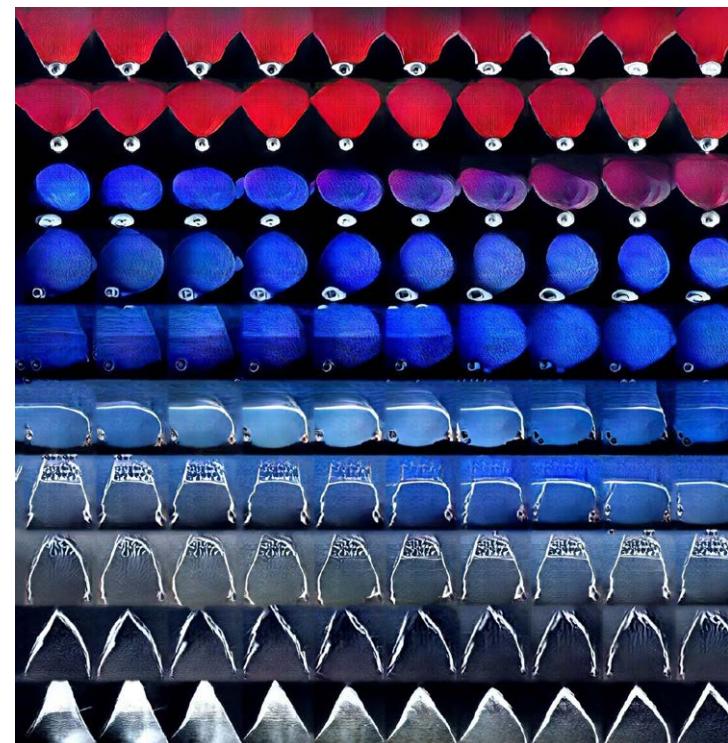
\*Plug & Play Generative Networks: Conditional Iterative Generation of Images in Latent Space (2016)

\*\* ImageNet: A Large-Scale Hierarchical Image Database (2009)

Special thanks to Anh Nguyen et al. at Evolving-AI for their research.



Installation image of Latent Space at the Slade Degree Show 2017



Sequence of frames from Latent Space

# Closed Loop

*2017, 2-channel digital video,  
200 minute loop  
Edition of 5 + 2 artist proofs*

Closed Loop is a recording of two artificial intelligence models conversing with each other – one with words the other with images – in a never-ending feedback loop. The words of one describe the images of the other, which then seeks to describe the words with a fresh image... Two neural networks getting lost in their own nuances, sparking and branching off each other as they converse in a perpetual game of AI Chinese whispers.

Two neural networks: a language captioning recurrent neural network writing what it sees in the images generated, and a generative neural network generating images responding to the words generated.

Two datasets to train the algorithms: a dataset of 4.1 million captioned images to train a language network, and the Imagenet dataset of 14.2 million photographs to train the image generator network.

*Collaborative project with Roland Arnoldt. Special thanks to Anh Nguyen et al. at Evolving-AI for their work on GANs.*



Installation image of Closed Loop at the Slade Degree Show 2017



Single channel rendering of two channel video installation

# dada da ta

2016, Digital Video, 20 minute loop

Edition of 5 + 2 artist proofs

In 'dada da ta' over 50 hours of interviews have been sourced from YouTube then processed using the IBM Watson AI speech to text programme to transcribe the interviews and a custom-made computer programme to extract in time order the instances of the participants speaking in numbers and then remove the words from the source videos – leaving the interview's chronology intact yet reduced to a stream of numbers:

"One, one billion, one million, one hundred million, two billion, one, two hundred, ten thousand, eighteen thousand, two, two, two, ten, fifteen, nine thousand." Elon Musk.



Stills from dada da ta



Installation image of  
dada da ta at Swiss  
Mobilair 2017

# Digital Whispers

*2016, mixed media (raspberry pi computer, LCD screen, speaker and custom program), 60x50x10 cm  
Edition of 3 + 2 artist proofs*

Tweets in a 2 mile radius of the pieces' installation are displayed on an LCD screen while the computer simultaneously whispers the tweets as a live performance.



Installation image of Digital Whispers at Swiss Mobiliar, Bern 2017



Installation image of Digital Whispers at the Bloomberg New Contemporaries, Baltic 2017

# Auto Encoded Buddha

*2016, mixed media (monitor, computer  
running customised A.I. software, buddha)  
Edition of 3 + 2 artist proofs*

Hommage to Nam June Paik's 'TV Buddha' 1976.  
Collaboration with Roland Arnoldt.

A Buddha statue watches the computer  
attempting to draw its own image. An artificial  
intelligence model was trained on 5000 images  
of Buddha, yet the computer struggles to depict  
the Buddha's essence.



Installation image of Auto  
Encoded Buddha, Slade 2016

# Machine Learning Porn

*2016, digital video, 12 minute loop*

*Edition of 5 + 2 artist proofs*

*Inspiration from Gabriel Goh.*

A convolutional neural network, an AI, was trained using Yahoo's explicit content model for identifying pornography, which learnt by being fed a database of thousands of graphic images. The neural network was then re-engineered to generate pornography from scratch.

Machine Learning Porn is a 12 minute looped film that records the AI's pornographic fantasies.



12 non-consecutive stills from  
Machine Learning Porn



Installation render of Machine  
Learning Porn

# Digital Caress

*2015, large format inkjet prints on  
aluminium sheet, 110x60cm  
Series of 9 unique prints*

These gestures are the residue on the screen of an iPhone from human touch (the grease of one's finger). The gestures and twitches are often recognisable according to the app. For example, the swiping left and right of Tinder, and the imprint of stubble from a phone call. Each image derives from a different app, displaying the material remnants of interacting with a virtual window.



Tinder



Calculator



Facebook



Camera



Grindr



Instagram



Phone



Sketchbook



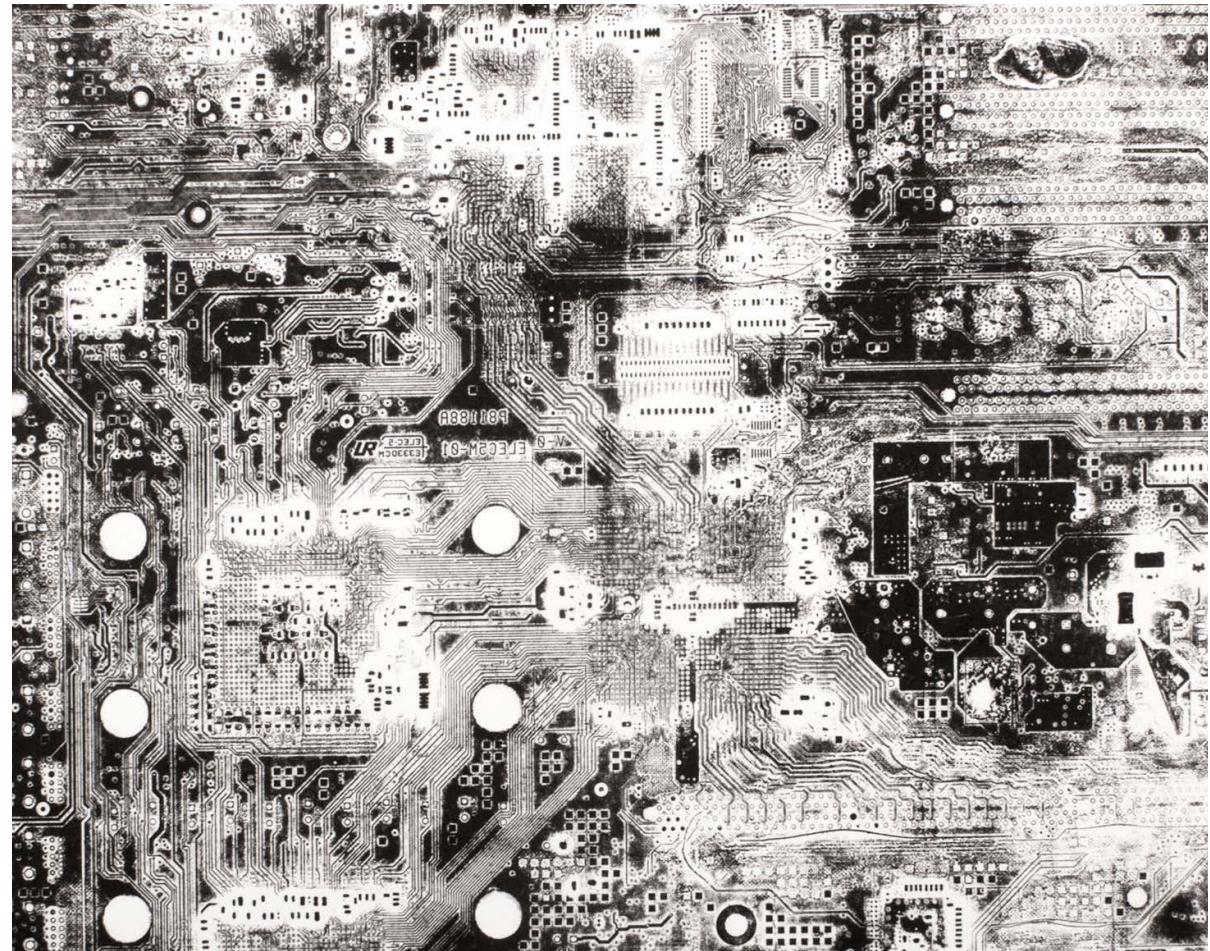
Tinder

# Solid State

*2015, Relief and Intaglio Prints, 35x27cm  
& 24x19cm*

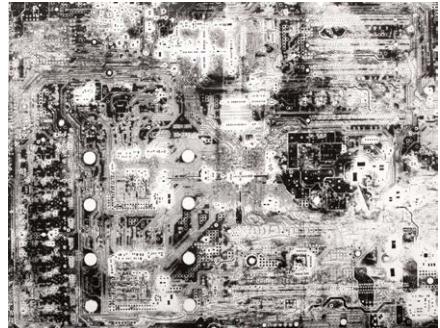
*Series of 8 and 6 unique prints*

Relief and Intaglio prints made directly from circuit board surfaces. The circuit boards were prepared by burning to remove components then run through a printing press.



Solid State, Component Series #1

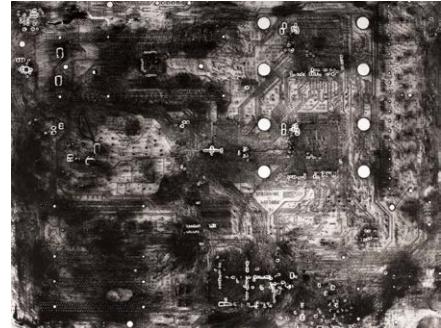
*Solid State, Component Series - plate size 35x27cm*



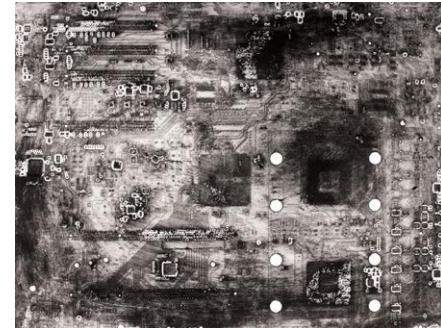
Solid State #1



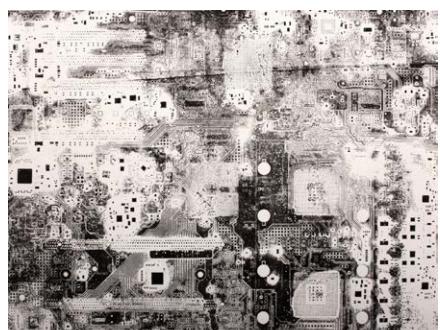
Solid State #2



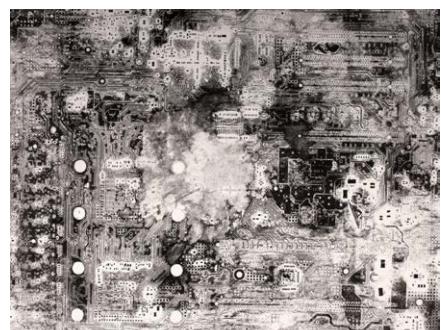
Solid State #3



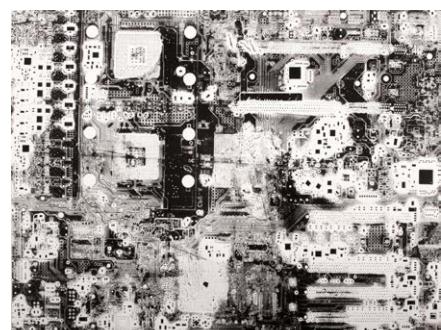
Solid State #4



Solid State #5



Solid State #6

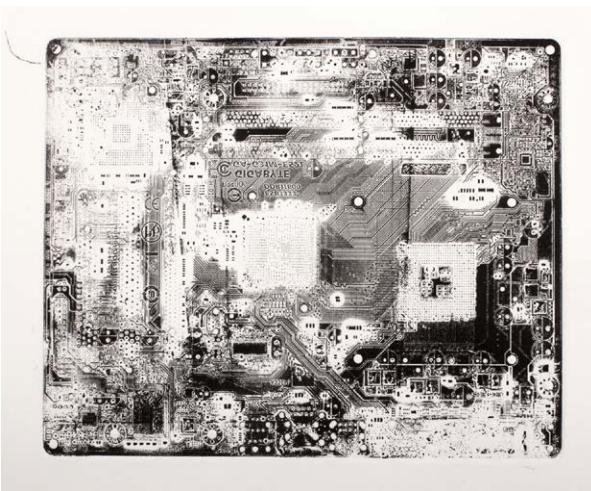


Solid State #7

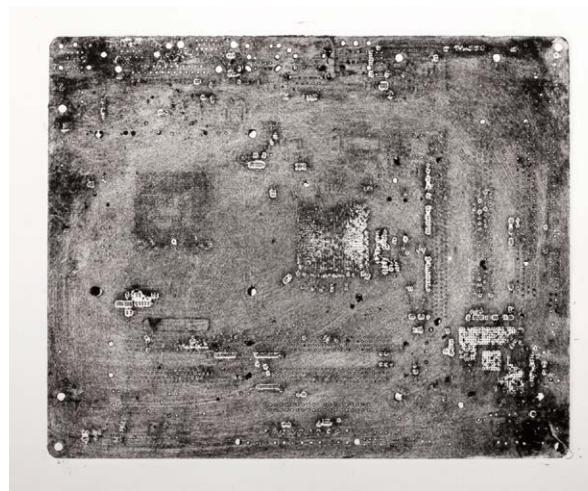


Solid State #8

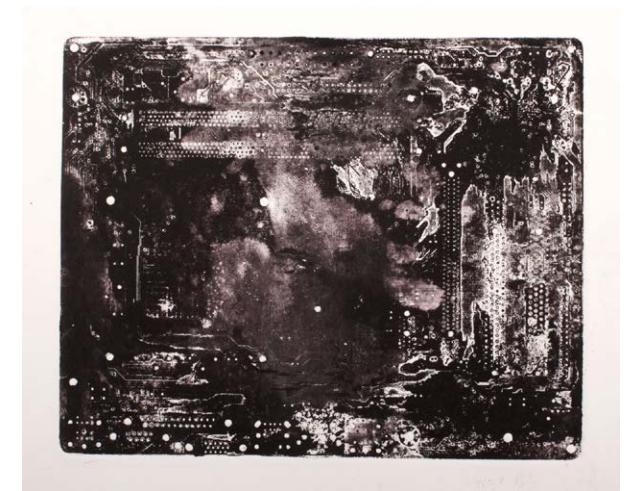
*Solid State, Circuit Series - plate size 24x19cm*



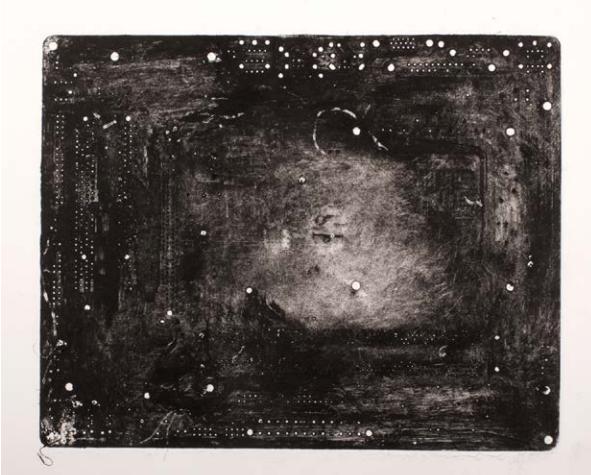
Circuit #1



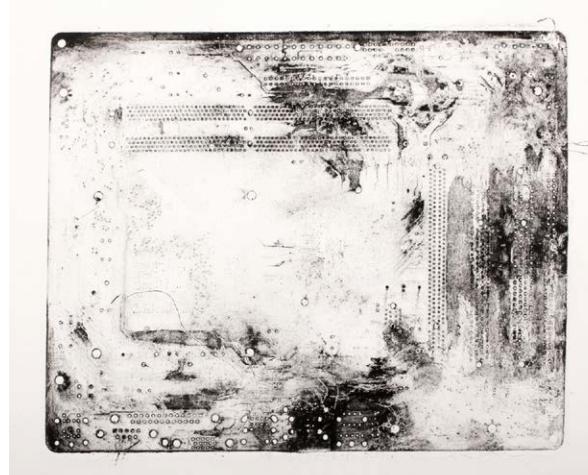
Circuit #2



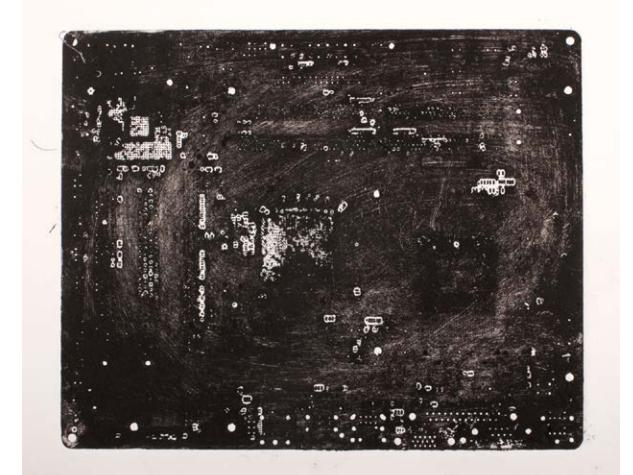
Circuit #3



Circuit #4



Circuit #5



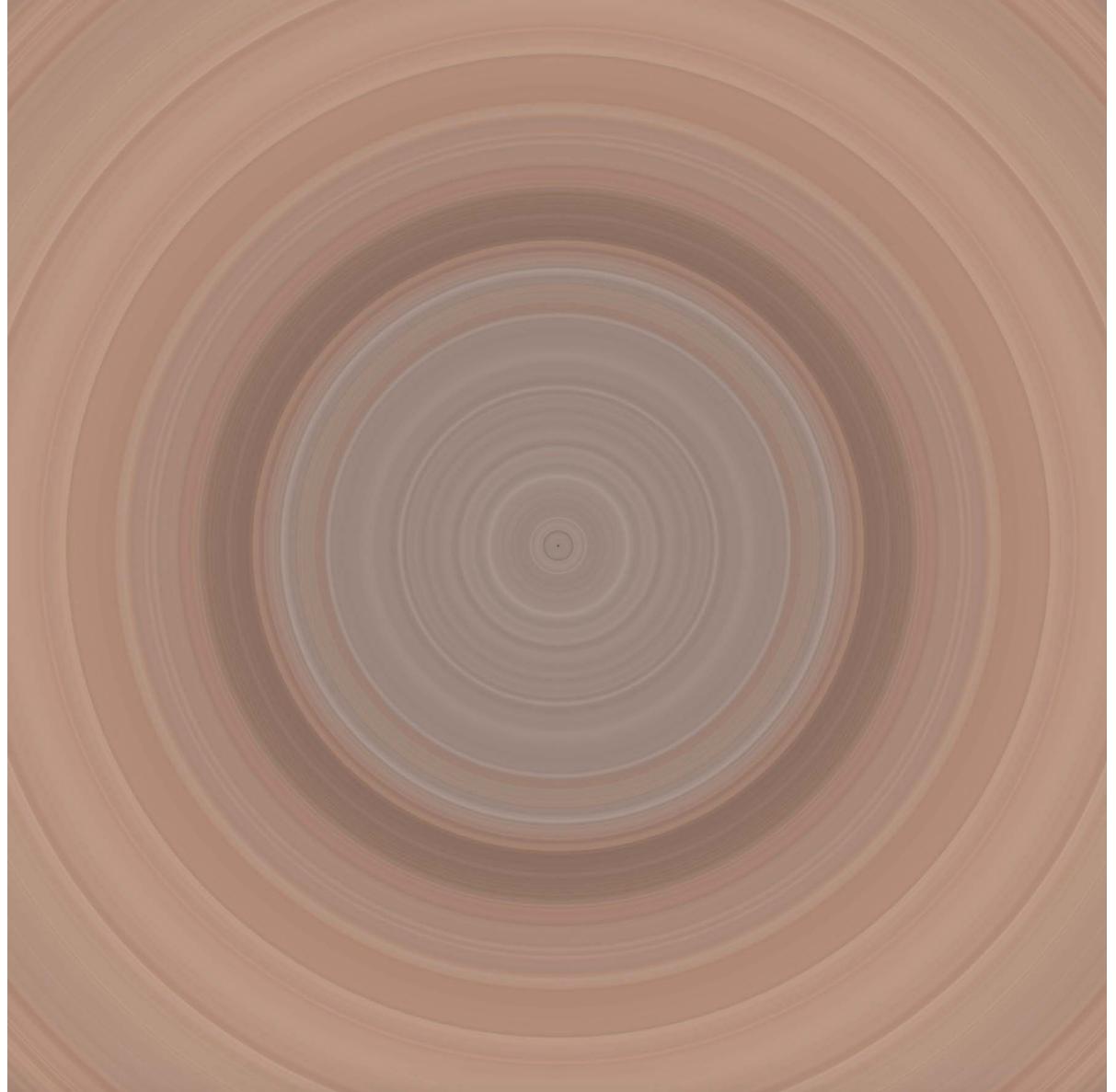
Circuit #6

# Porn Saturation

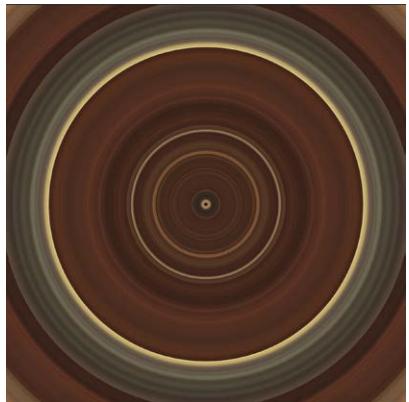
*2015, inkjet prints, pearl paper, 55x55cm*

*Series of ten unique prints*

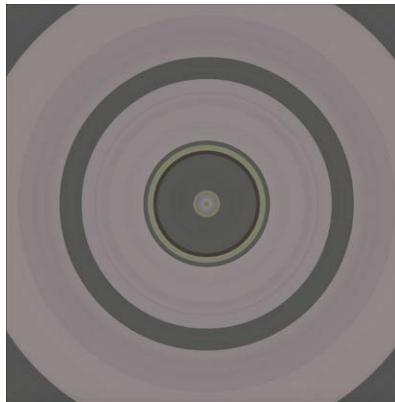
Each concentric circle represents the average colour (emanating outwards from the start of the clip) for the 10 most viewed pornographic videos on the internet.



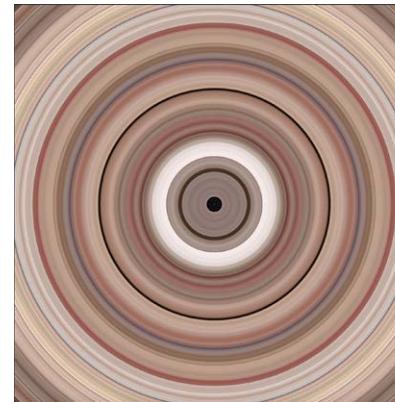
Porn Saturation #8  
36,355,897 – CHARITY TAKES IT HARD FOR AN ANAL  
CREAMPIE



Porn Saturation #1  
139,352,631 – KIM  
KARDASHIAN SEX  
TAPE WITH RAY J



Porn Saturation #2  
49,150,362 – MILF  
FUCKS DAUGHTERS  
BOYFRIEND



Porn Saturation #3  
48,868,179 – TEEN  
MOM FARRAH  
ABRAHAM SEX  
VIDEO



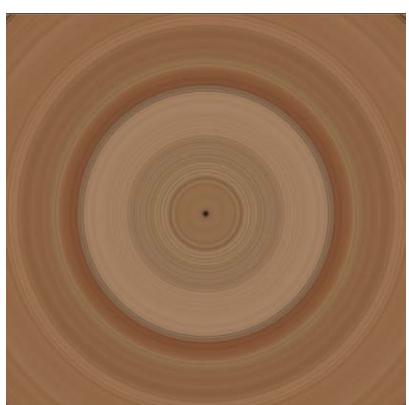
Porn Saturation #4  
45,300,861 – KIM  
K SEX TAPE PART  
2 – PORNHUB  
EXCLUSIVE



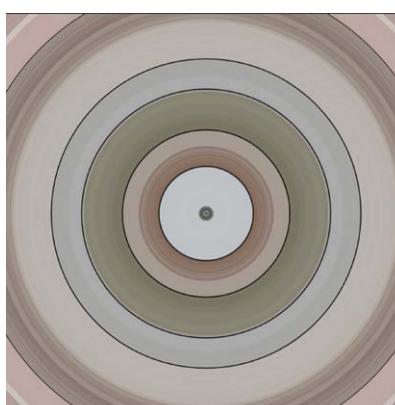
Porn Saturation #5  
43,589,343 – TEEN  
LATINA SQUIRTS  
WHILE GETTING  
CREAMPIED



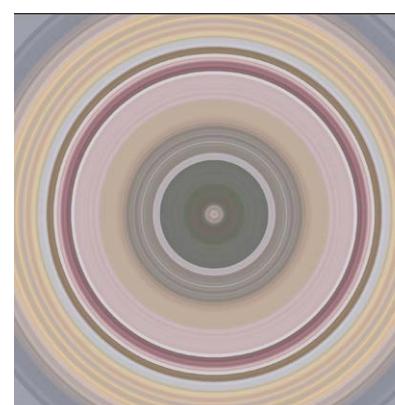
Porn Saturation #6  
40,051,505 –  
INTENSE ANAL  
FUCKING



Porn Saturation #7  
37,991,743 – BIG  
BOOBS SHIONE  
COOPER RIDES  
MARK'S STIFF DICK



Porn Saturation #9  
33,950,378 –  
EXXXTRASMALL  
– STEP BROTHER  
TAKES ADVANTAGE  
OF LITTLE SISTER

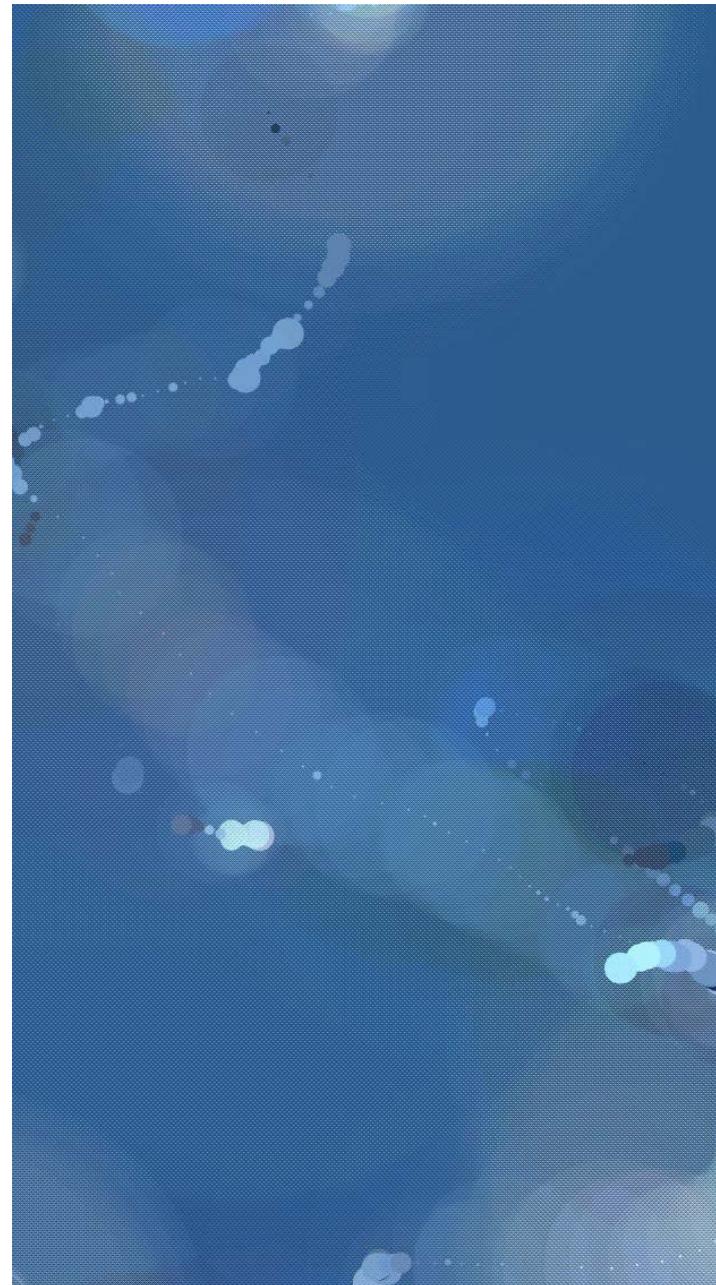


Porn Saturation #10  
30,745,787 – MIA  
KHALIFA STEPMOM  
JULIANA VEGA  
FUCKS AND SUCKS  
HER BOYFRIENDS  
COCK

# Taking a Phone for a Walk

*2015, inkjet prints, somerset paper,  
55x30cm, containing 5 individual  
mounted prints.*  
*Series of 3 + 1 artist proof*

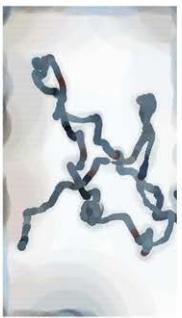
iPhone app which generates images solely from the motion and colours from the camera. The app captures the experience of three walks, similar to that of a memory image. Walks from Central London, Hampstead Heath and Chicago.



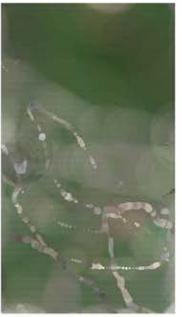
12 stills taken from random  
points of Latent Space



Take a Phone for a Walk #1  
Five Walks around Bloomsbury, London



Take a Phone for a Walk #2  
Five Walks in Downtown Chicago



Take a Phone for a Walk #3  
Five Walks around Hampstead Heath, London