

Working Title: Delver

The work will be something that explores the full depth and breadth of the Sankey collection and plays with the physical, tactile nature of photography at the time the Sankey's were working. The bulky cameras, slide film, dark rooms, printing and postcard making machines. So far removed from modern pointing and clicking on our phones.



Leonado.ai created an image of what I'm imagining.

We're planning to construct a large wood and brass machine containing a central screen surrounded by wheels, dials, sliders, switches and other smaller screens.

Using these very manual controls, visitors will visually whizz through the thousands of Sankey images, similar to the experience of using a microfiche reader, making selections by choice or at random. Pulling levers to generate a central artwork or flicking switches to explore individual photos.

Audiences' Generated Dada Collages

A central focus of the work will be a people-powered piece of generative art.

Raspberry Pis will be used to display a screen showing the entire collection of 10,000 images as tiny thumbnails and connect physical controls such as RFID tagged laser-etched blocks, large rotary dials, manual switches and levers. These controls will allow people to select categories, filter, find, discover and randomise images until they have a set of 8 or so they are happy with.

From there more physical controls can be operated to use those images as the source material for the real-time generative artwork.

Images will be digitally cut out and combined to form collages in the style of artists working at the time of the Sankeys such as [Hannah Höch](#) & [Kurt Schwitters](#) (who obviously has a Cumbrian connection).

These scattered photo fragments will be combined with images taken from webcams pointed at the room and trays of objects/newspaper text, to enable the visitor to mix Sankey photos with their own creations to create new glorious Dadaist artworks.



Saving and displaying artworks created by visitors

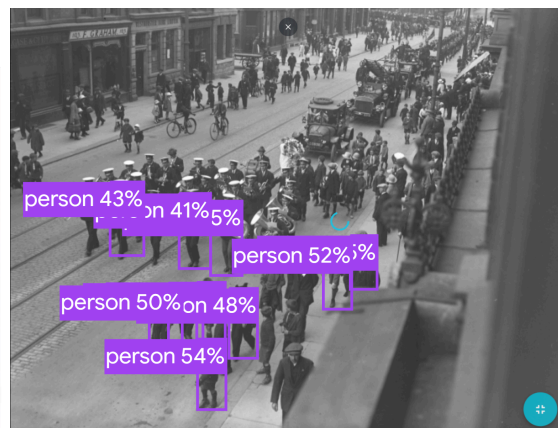
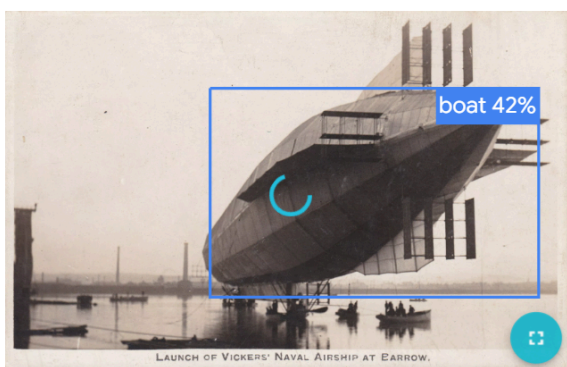
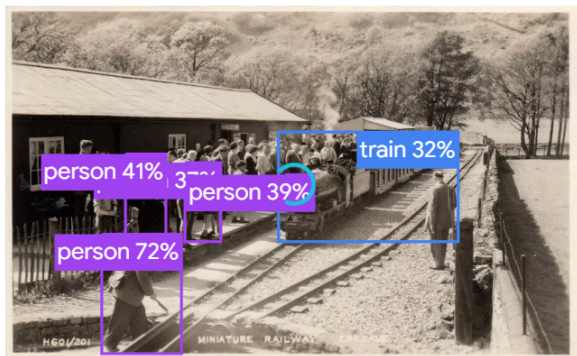
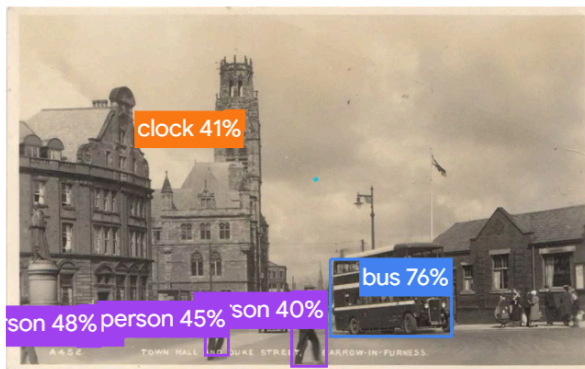
Visitors will have the option to pull a lever to share their generated artwork on the [Sankey archives site](#). Each artwork will be unique and create its own NFT-esque token. Not a true NFT because they won't be cryptographic, but rather completely open text strings from which the artwork can be reproduced. We could perhaps even use a simple system similar to "[What Three Words](#)" so creators can remember or note down the title of their work to find them later on the website.

Technology

Behind the scenes we'll use Google's open source, computer vision framework [MediaPipe](#). This framework uses machine learning to detect objects in image and video. It also provides a pipeline to train a new machine-learning model [specific to the Sankey collection](#).

I'll be learning how to use [MediaPipe](#)'s Object Detection, Image Segmentation and Face Detection to grab elements from the photos for recombination.

Below are a series of images I tested with the existing models. As you can see it thought the airship was a boat. We could train the model to better recognise airships and other features it currently struggles to identify.



WebGL (maybe)

We'll use WebGL to merge the images together onto a central canvas. Otherwise we'll be using the simpler HTML5 2D context Canvas.

Raspberry Pis will be employed to deal with all physical controls and relay information to a PC at the heart of the system. And standard web technologies, html, javascript, nodejs etc to coordinate all the elements and connections to the web.

People-powered Generative art

[Tate definition](#): Generative art is art made using a predetermined system that often includes an element of chance – is usually applied to computer based art.

Our work uses generative art principles, but with the audience introducing the element of chance. Their interactions with the work (through movement, live webcam images or direct control) introduce the randomness to create the art in the moment. With this project we'll be giving the audience the added agency of curation too, choosing the generation they favour for publication.

Usually setting up a generative system like this involves setting up the conditions for artworks to be produced that all share the same underlying DNA, controlled by preset parameters. People would be able to tell the outputs are from the same series of compositions, but each is unique, with its specificity determined by some randomising element. In our case the randomising element will be visitors to the device.

The artworks created will all have a specific identifying code from which they can be recreated exactly. These will form the titles for each visitor-generated work.

I'll be using web technologies to create the generative framework.

Ever evolving 365 day artwork

Alongside the generative art machine, we'll create our own artwork using the same technologies but to create a new piece from the archive every day for a year. This will act as an artwork, a demonstration and publicity all in one.

We'll create an ever-changing artwork that infinitely cycles through the entire collection over the course of a year. We'll set up an [Instagram art bot](#)* (or other social media bot) that automatically posts the artwork generated each day.

*NB This is tricky, because Instagram's api doesn't allow it, [but this article suggests it's possible!](#) There seems to be a [no code alternative method here](#).

Final thought

I want people to experience the depth and richness of the Sankey archive and to see what is there for them to explore and play. I aim to use the non-conformity of the Dada movement to take away any barriers and quash restraints that you have to be an academic or researcher to engage. These photos are snapshots of life to be interacted with and shared, not just observed as if in a museum. These aren't stuffy relics any more than your childhood holiday pics are.