



Where I work Geraldine Cox

I studied physics before art school, and, since 2011, I've been the unofficial 'artist-in-residence' at the physics department of Imperial College London. I also work with physicists elsewhere.

Much of my work happens outside my studio, in conversations out in the world. During the pandemic, I've been meeting scientists in London's Hyde Park instead of in their laboratories. This studio in my back garden is where I go to create art or have a think about what I've done. I store completed paintings in big rolls, like those behind me.

On the wall, I mounted the Emily Dickinson poem *I Dwell in Possibility*. Her work is so rich and dense, with multiple layers of meaning. The ambition expressed in this poem inspires me.

I work with different research groups, using art to ask and answer questions – such as how to reconcile light's wave-like and particle-like behaviours – and to communicate about nature. For example, I'm creating a book of pencil drawings to illustrate an experiment that's been used to create super-cold molecules.

I'm also working on a series of big paintings about a famous experiment, called Young's slits, in which light is split into two beams that travel different paths. When those beams reunite and strike a screen, they interfere with each other, producing bright and dark stripes. I'm rendering a version of the experiment that also involves particles of matter. Only when both categories of particle are considered together do the stripes emerge. In my paintings, I represent the patterns of light and matter with triangles and semicircles.

A few of these paintings will appear on 1 March in the magazine *Physics Today*.

During the pandemic, I've also been developing online art–science programmes for children. In one of them, the children use spectrometers to look at the light 'bar codes' unique to different chemical elements and make mobiles to illustrate what they've learnt.

All my work is curiosity-driven, always framed around a question, just like science.

Geraldine Cox is an artist in London.
Interview by Amber Dance.

Photographed for *Nature* by
Leonora Saunders.