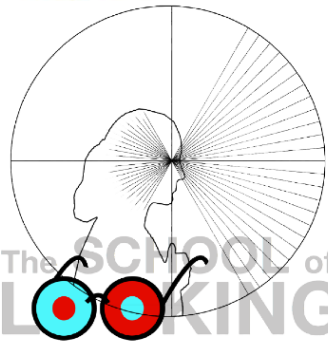


<https://crawfordartgallery.ie/school-of-looking-invisible-light/>

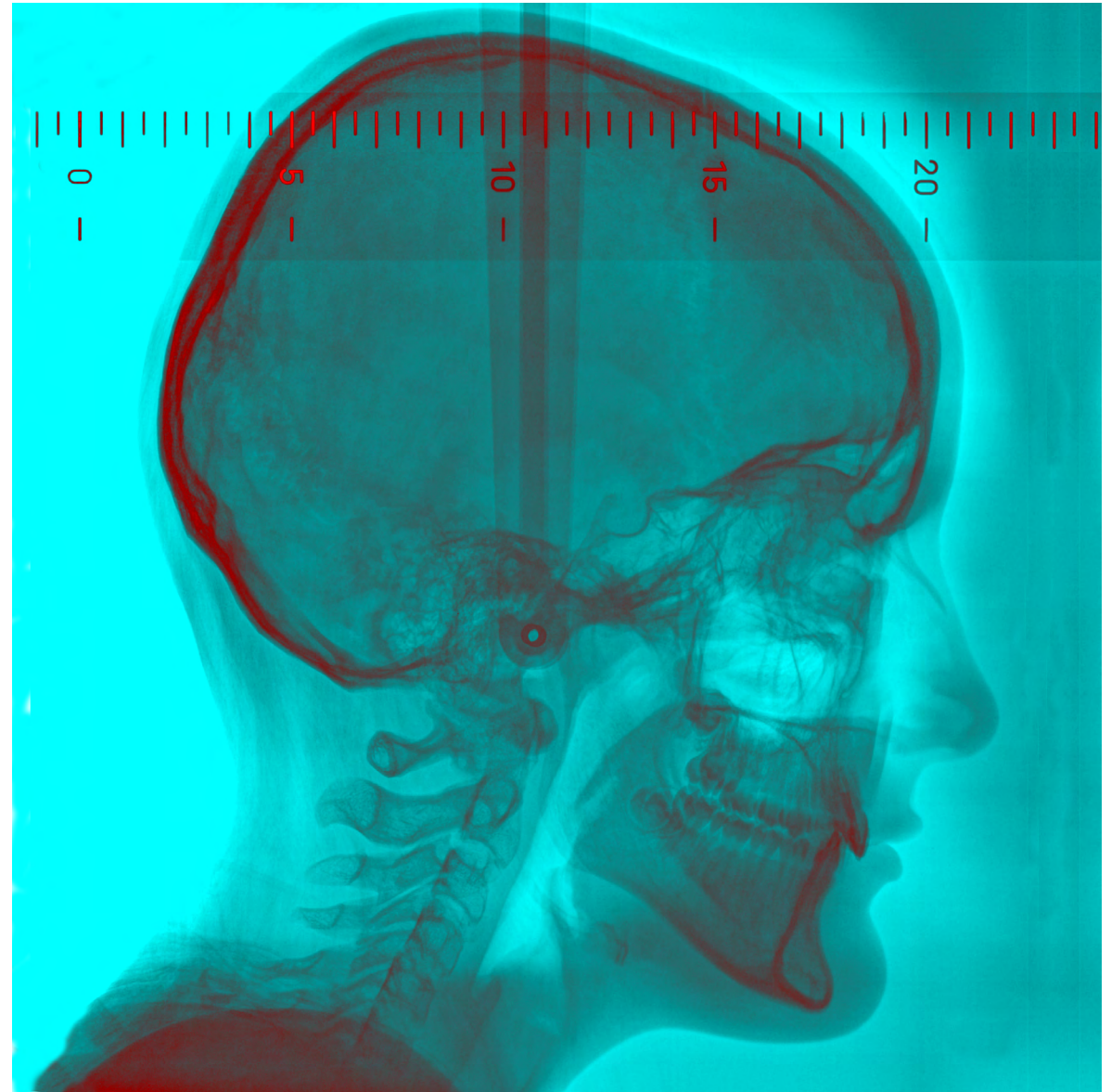
**Crawford
Art
Gallery**

07 OCT
29 NOV
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INVISIBLE light



www.schooloflooking.org/InvisibleLight/



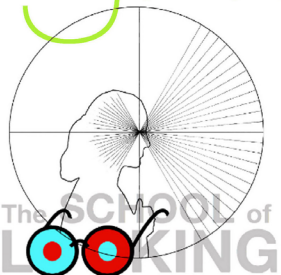
*GAMMA RAYS, X RAYS, ULTRAVIOLET, INFRARED, MICROWAVES, RADIOWAVES...
all of these are light. Light that is invisible to our eyes, although scientific instruments like X ray machines, thermal cameras or radio telescopes now make much of it visible. We associate the imagery with medicine, communication, security, astronomy and other specialist fields. This exhibition is about making invisible light into visual art.*

Crawford Art Gallery

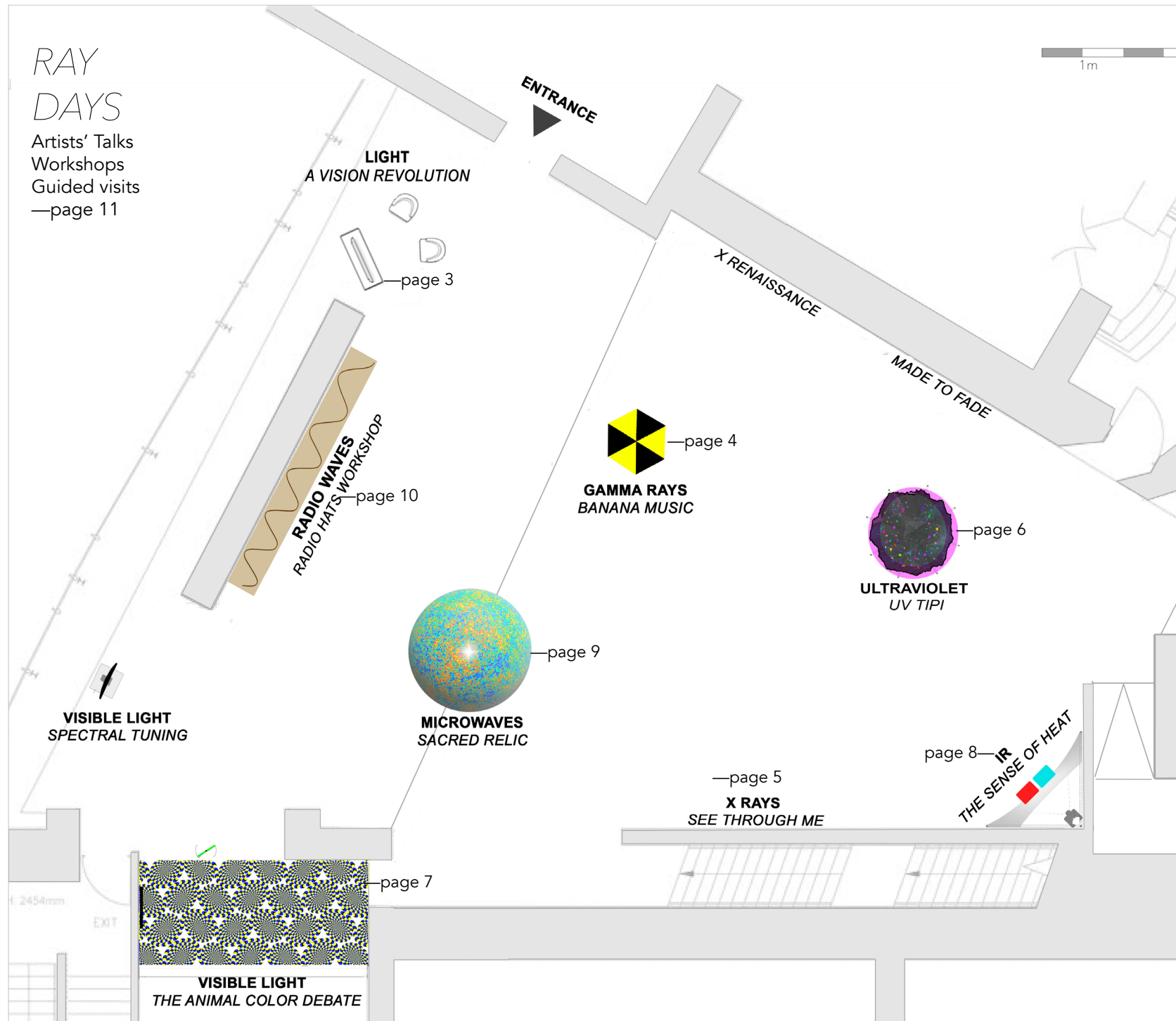
EXHIBITION PLAN



INVISIBLE
light



RAY
DAYS
Artists' Talks
Workshops
Guided visits
—page 11



GAYMA KIRBY UV VISIBLE IR MICRO RADIO

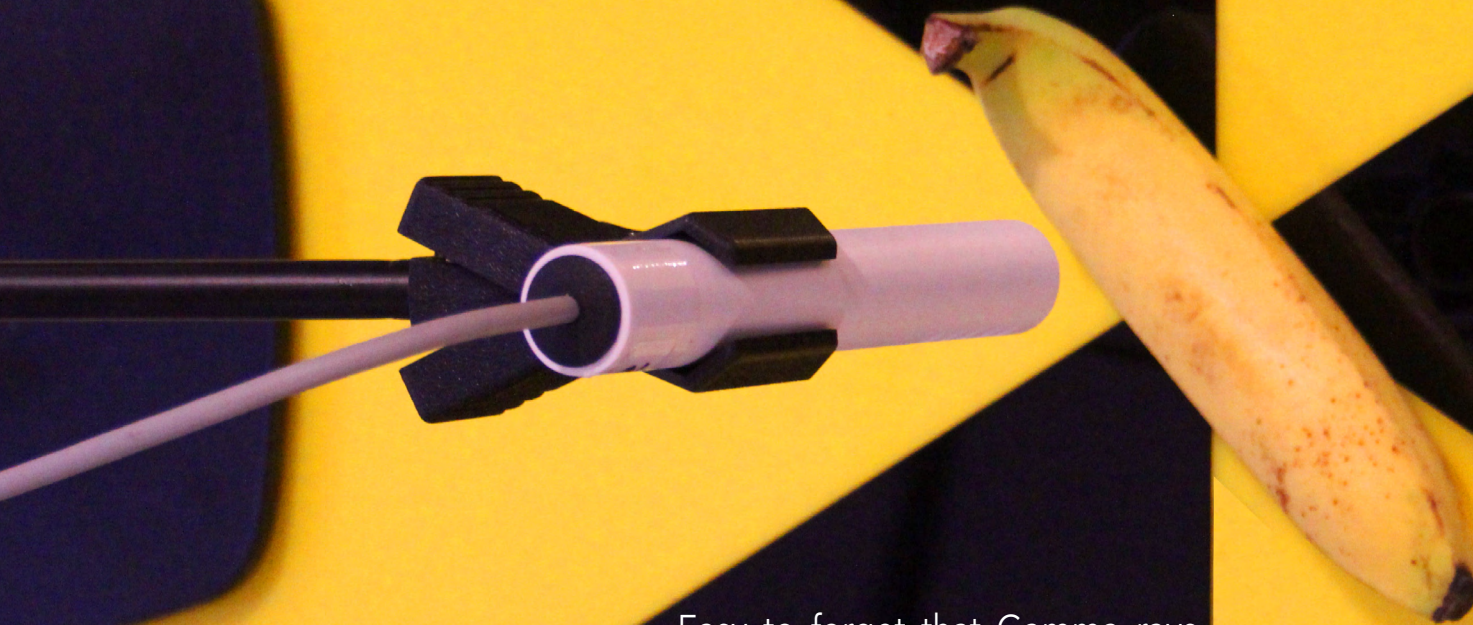
a vision revolution

In 1666 a young Isaac Newton made his first inquiry into the nature of light. Shining a ray of sunlight through a prism, he was able to produce an array of colour. But he was unable to explain why the prism revealed this spectrum, and he was unaware of all the light that our eyes cannot see. In the centuries that followed scientists

SEVEN TALKS BY THE SCHOOL OF LOOKING

would slowly discover this invisible light that fills the universe, and this light would reveal the secrets of the universe to them. In seven talks, Anne Cleary and Denis Connolly introduce us to the history of light - 400 years of discovery and experiment, from Newton to Einstein and beyond...

BANANA MUSIC radiation from a banana creates music



GAMMA

Easy to forget that Gamma rays are a form of light - if we think of these rays at all, we think of them as nuclear radiation (which is correct), with little impact on our everyday world. A banana is a rare source of gamma radiation which is emitted in tiny - and therefore safe - quantities by the potassium in the fruit. This work is about making this most subtle light source perceptible.



SEE THROUGH ME

*X-RAYS COLLECTED BY THE ARTISTS,
FRIENDS AND FAMILY TO COLLAGE THE
HUMAN BODY FROM HEAD TO TOE IN
TRANSPARENCY*

A conventional X ray image is a black and white photographic film exposed to invisible light from a cathode tube emitting high energy, high frequency light that penetrates matter opaque to visible light. Though they are negative images, they appear natural to us: white bone, dark tissue. Departing from this monochrome tradition, these images - the result of a collaborative project begun during lock-down in March 2020 - are printed as duotones, using contrasting, complementary colours to create highly coloured prints that are neither negative nor positive.

UV Tipi

A CONTEMPLATIVE ENVIRONMENT OF
FLOURESCENT MINERALS, PIGMENTS
AND FABRICS

UV light is visible to some animals, in particular to foraging insects and birds. Should we then consider this light as colour? And is it possible for us to represent or even imagine colour that our own eyes have never seen? There are cameras that can capture invisible colours and display them to us as visible colours, but a more natural form of translation is the fluorescence of materials that absorb UV and emit visible light.

www.schooloflooking.org/InvisibleLight/UV.html



Most mammals are dichromats, seeing two colours - blue and yellow - a simpler colour space than our own trichromatic vision, with its rich landscape of primary and secondary hues. But exactly what colours any animal can see will always be unknown unless we can find some way to ask them directly...



THE ANIMAL COLOUR DEBATE

a lighthearted investigation of the colours animals see



THE SENSE OF HEAT

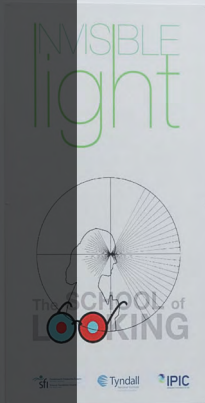
Things get hot when their molecules vibrate, and when they do, they give off electromagnetic radiation.

The faster the molecules vibrate, the higher the frequency (and the shorter the wavelength) of that radiation. The sun is very hot and emits high frequency radiation in the part of the spectrum that we can see. The molecules in our own bodies are lower in temperature and vibrate more slowly, giving off electromagnetic radiation mainly in the infrared region.



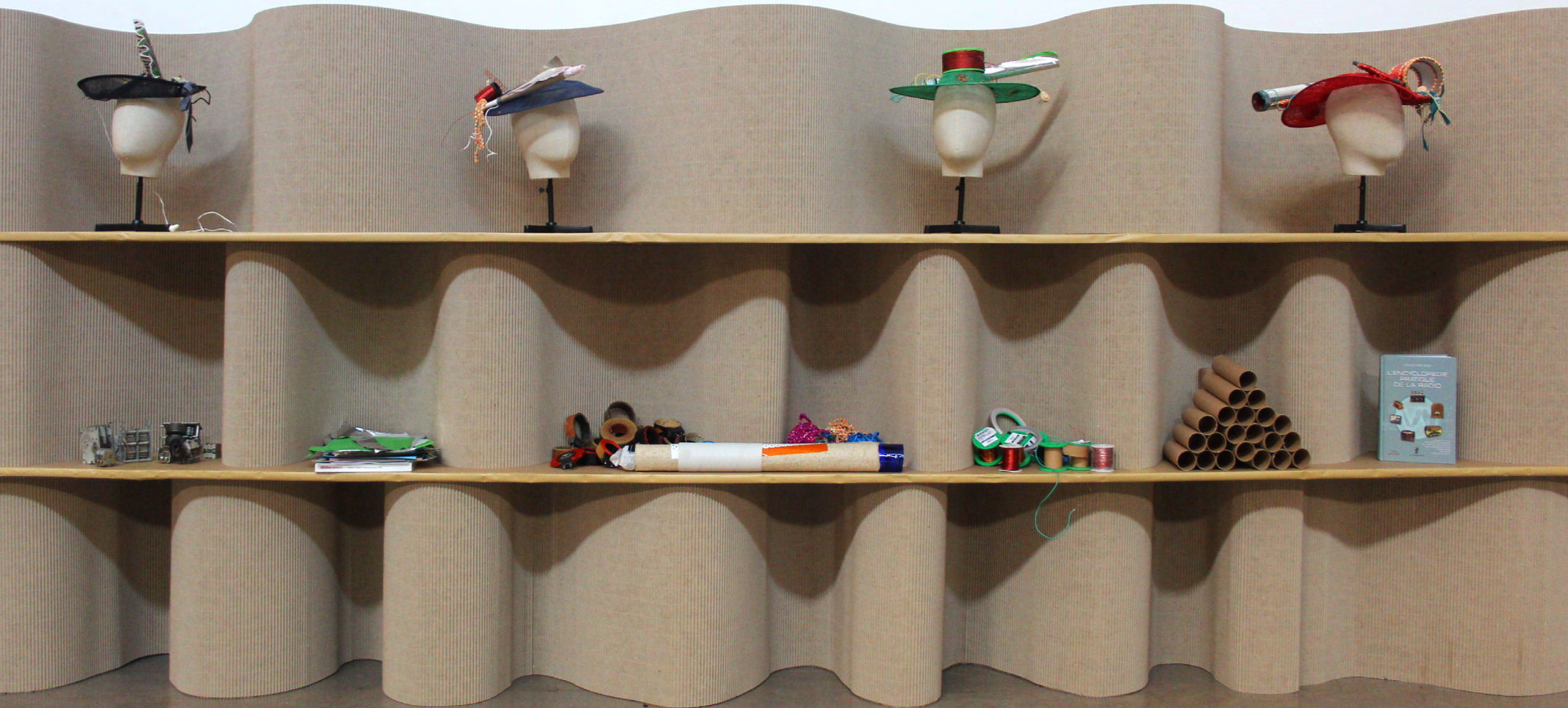
SACRED RELIC

The Cosmic Microwave Background is the oldest light in the universe. Once impossibly bright and hot, it has cooled to less than three degrees above absolute zero and faded to invisible microwaves. But it is still there - a true relic of the beginning of everything: the surface of a sphere which we observe from its very centre; the horizon of the observable universe; the beginning of time; the end of space...



People have been building crystal radio receivers since the early days of radio. These devices need no external power and there is an enormous sculptural freedom in the way the coil, the capacitor and the

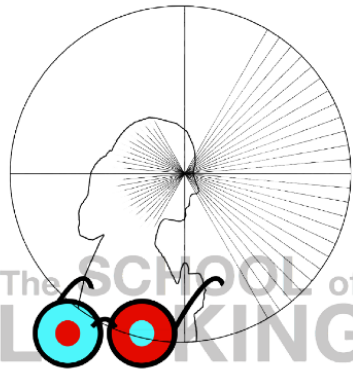
antenna can be elaborated to tune into AM radio signals that can be listened to using earphones. This work is the result of a joyful experiment in marrying this technology with the art of millinery.



**Crawford
Art
Gallery**

7 OCTOBER - 29 NOVEMBER 2020

INVISIBLE
light



The SCHOOL of
LOOKING

RAY
DAYS
TALKS
GUIDED VISITS

Every Thursday, 1pm

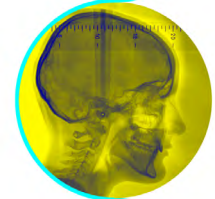
<https://www.eventbrite.ie/o/crawford-art-gallery-15384679145>



The *Invisible Light* exhibition - at the Crawford Art Gallery from 7 October to 29 November - explores all the light in the universe that our eyes cannot see. Every Thursday the artists are present to lead workshops, talks and guided visits accompanied by some of their scientific collaborators. Each of these "RAY DAYS" focuses on a different form of invisible light, from the mysterious gamma ray to the familiar radio wave.



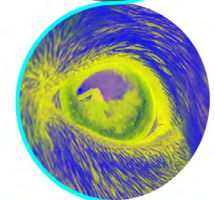
GAMMA
08/10



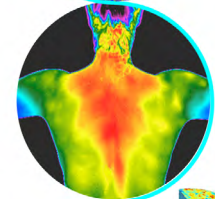
X RAYS
15/10



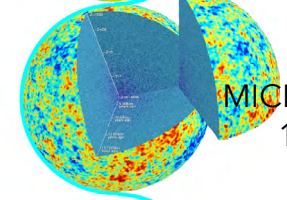
UV
22/10



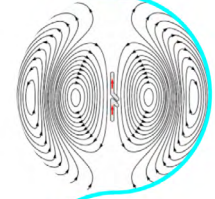
VISIBLE
29/10



IR
05/11



MICROWAVE
12/11



RADIO
19/11