ePic
The official Magazine of the Artworkz Photo Group
Artworkz
Colour
- DAVID & DEBBIE HIBBERT -

Get up
Get out
Get exploring

Colour

- David & Debbie Hibbert -

Colour makes our world more exciting,
magical and beautiful to behold.
This small photographic gallery
showcases colour and includes
some interesting facts.

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COLOUR

Colour (color in America) is a characteristic of light by which we are made aware of colourful objects or light sources. This occurs after light has reflected from a surface or transmitted from a light source such as a globe. Light and Colour is perceived by receptors found in our eyes.

HUE

Hue is a term used to describe dominant colour families. In painting, a hue is the pure colour without tint, tone or shade. White, black and grey are never referred to as a hue. Colour on the other hand is a global term used to describe all colours, hues, tints, tones and shades.

SATURATION

Saturation is a term used to describe the purity or intensity of a colour. It refers to the light intensity of a colour and its distribution across a spectrum of different wavelengths. The smaller the number of wavelengths, the more saturated (pure) the colour is.

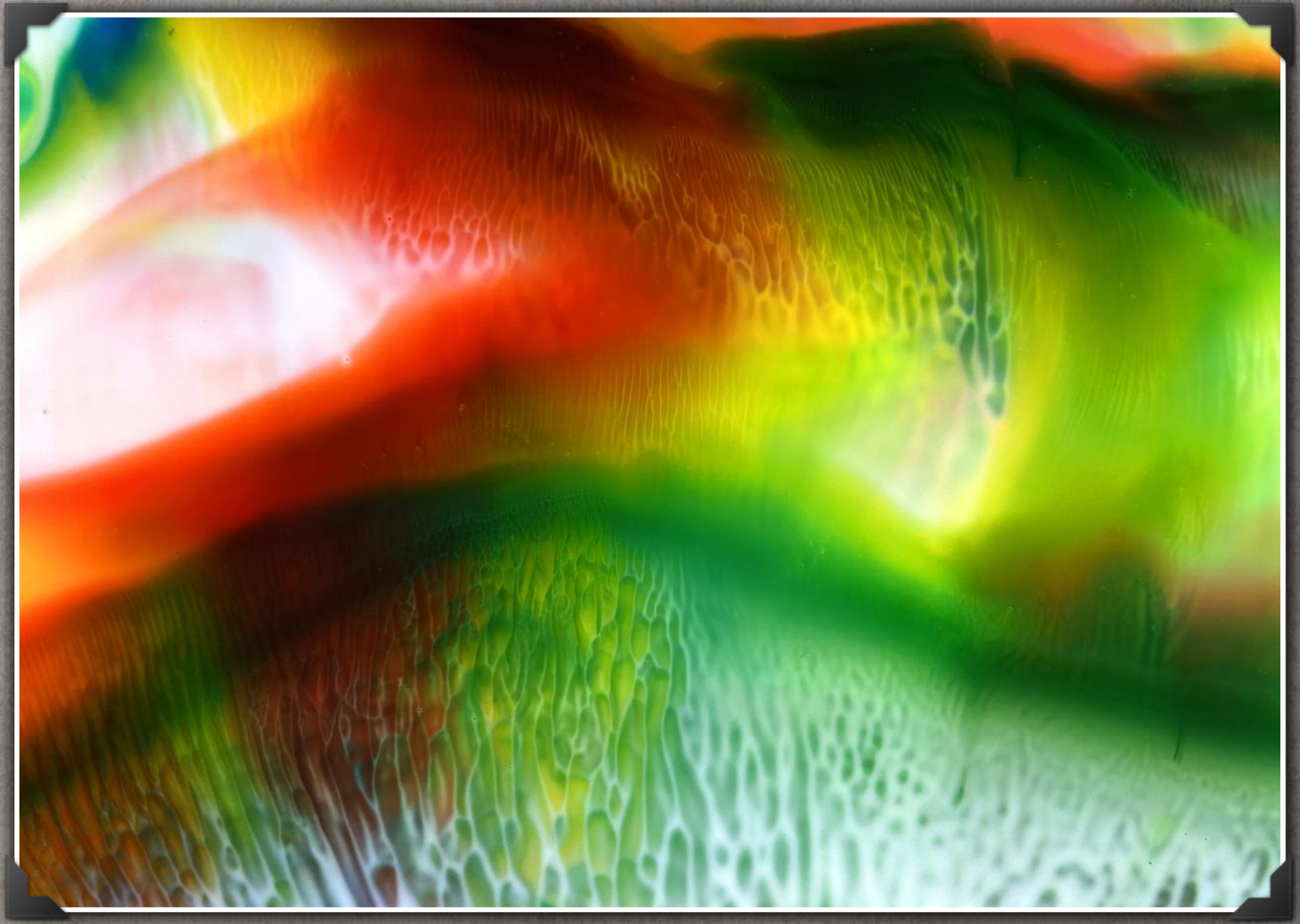
French Toast

ARTIFICIAL

Artificial Colours Made by Man

Fire Works

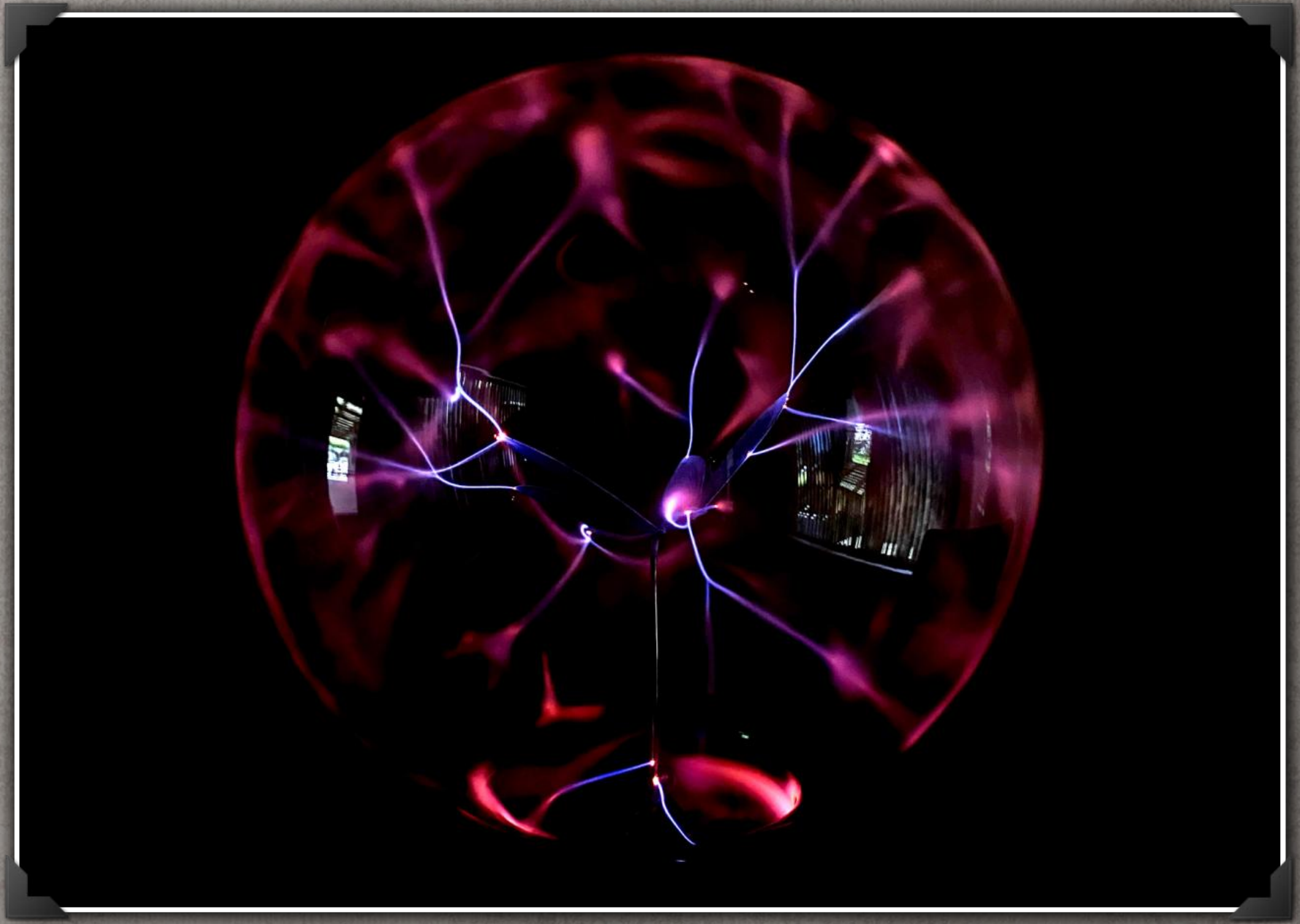
Food Dye in Milk

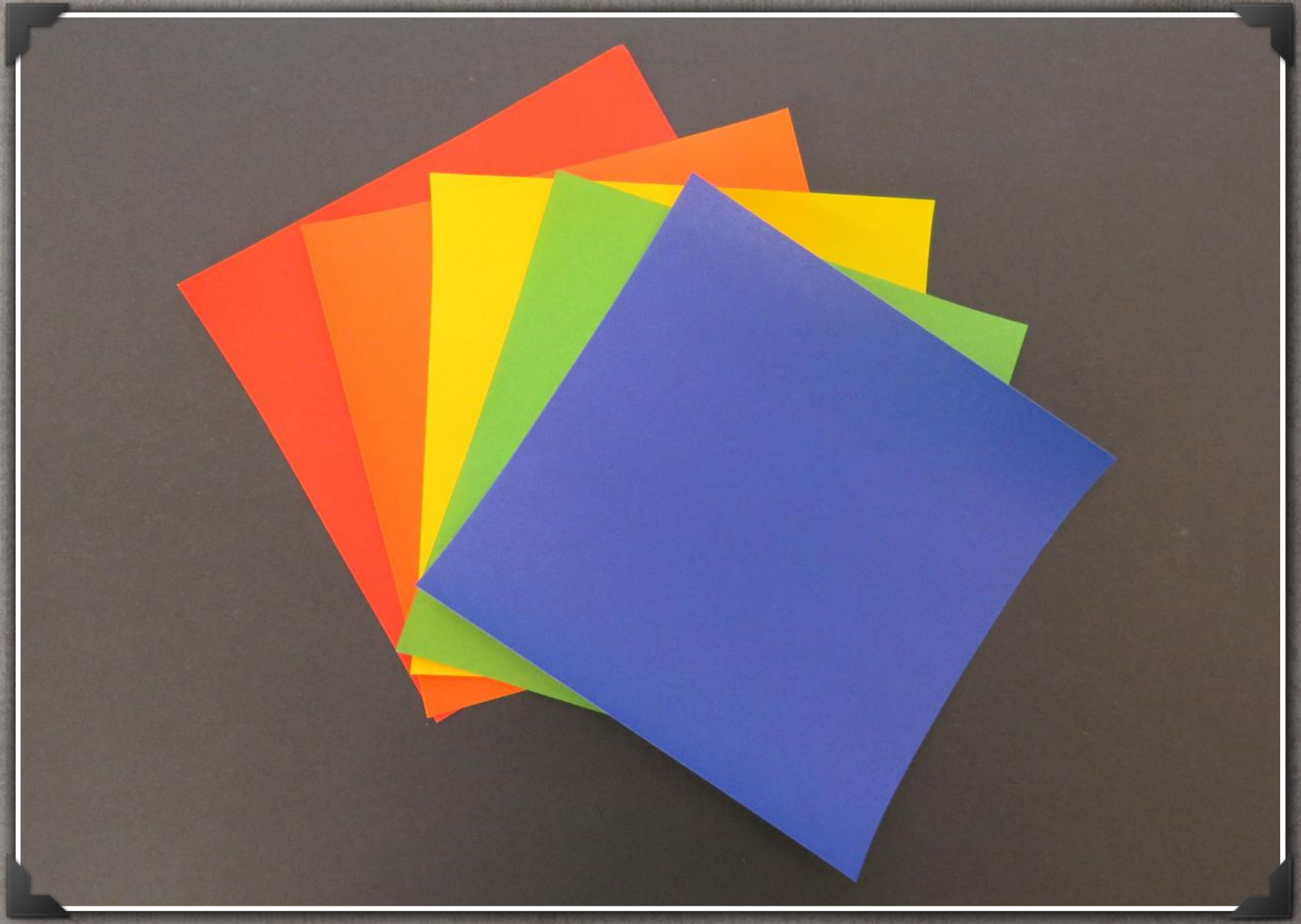


Drops of food dye in milk modified by drops of detergent

Fountain Lights

Plasma Globe



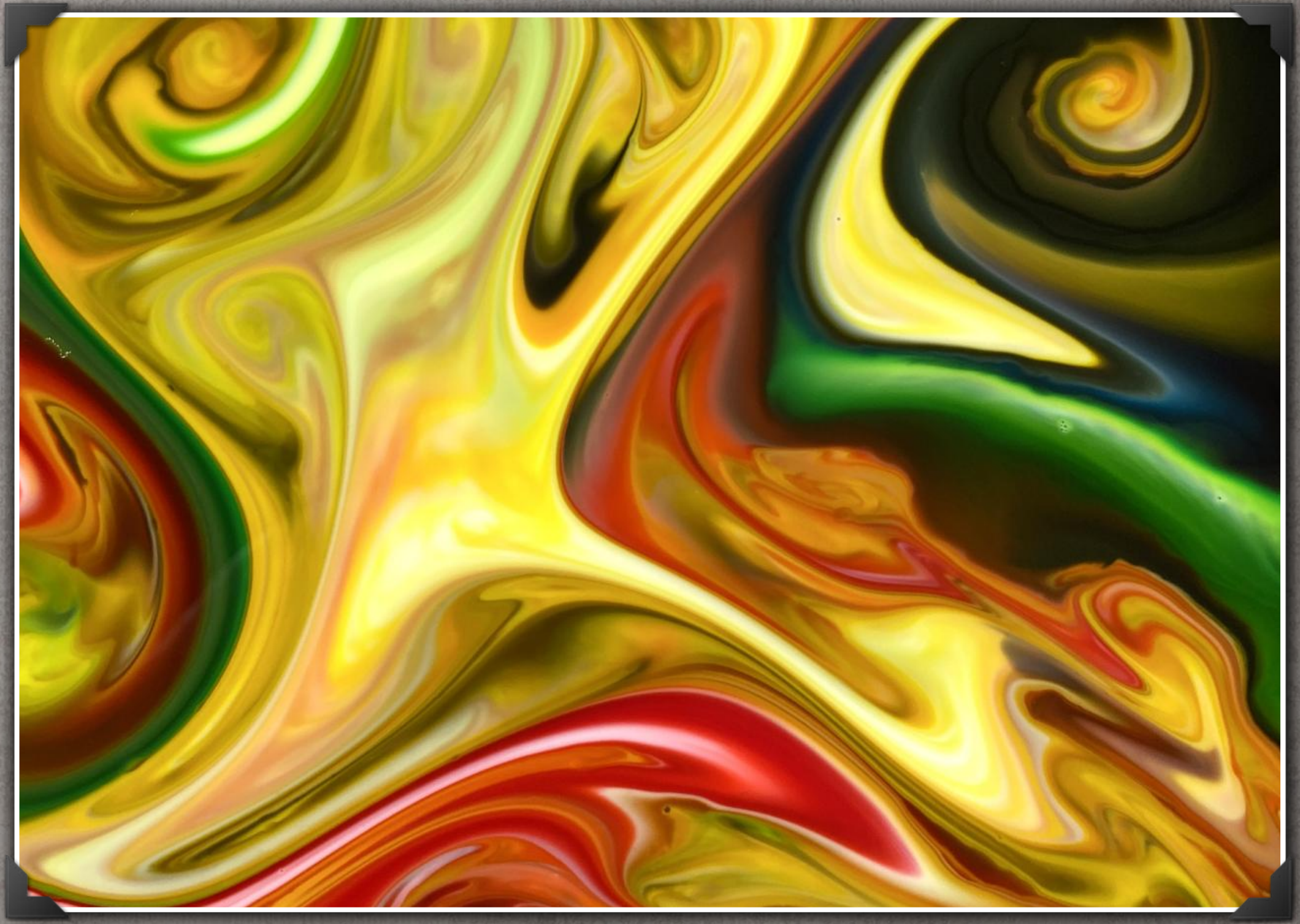


Material

House

Fence and Gate

Food Dye in Milk



Drops of food dye in milk modified by drops of detergent and swirled

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Bird Sculpture

City Lights

Powerline Silhouette

Bikes

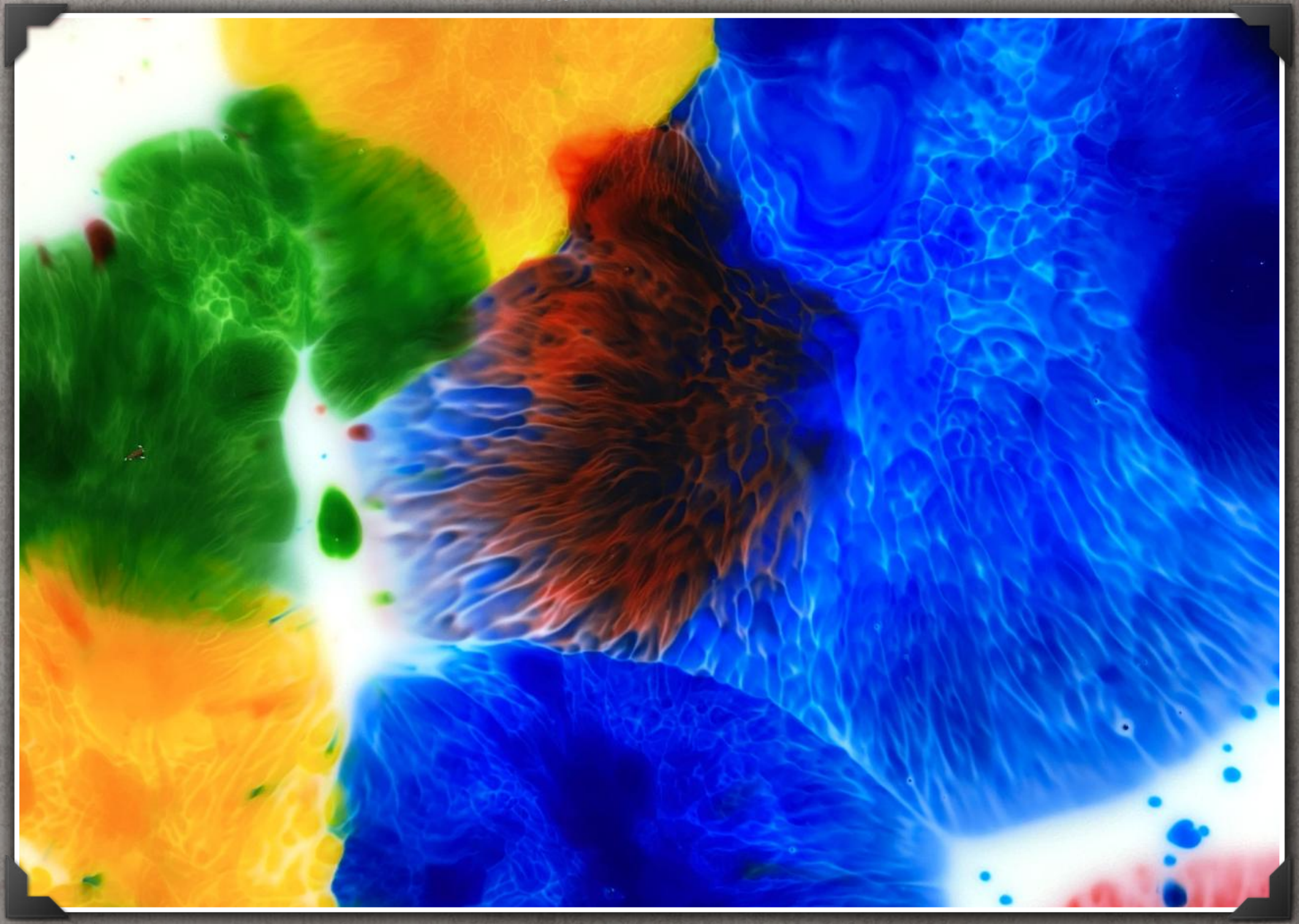
Coloured Match Sticks

Pencils

Car Wash Wax

Lens Flare

Food Dye in Milk



Drops of food dye in milk modified by drops of detergent

Kellogg's
Kellogg's
FROOT LOOPS
A FUN FUEL FOR ADVENTUROUS KIDS
% DAILY INTAKE
Nutrition Information
Ingredients
FROOT LOOPS
FRUIT FLAVOURED CORN, WHEAT AND OAT CEREAL
285g

ARTISTRY

Colours in Art

Tubes of Coloured Paint

Discarded Oil Paints

COLOUR WHEEL

A round chart showing hues (primary colours), as well as secondary colours and tertiary colours in an easy to understand illustration. Colour wheels break colour up into various groups and are often used in artistry and publishing as they can help us select the best colours for our talk.

BASIC RGB ADDITIVE COLOUR WHEEL

Useful for creating digital arts for display on screens

Also known as colour circles, they are a tool for helping artists and publishers to understand colour and select the best colours for their works. There are many different types of illustrations used to show relationships between colours. This chart is one of the more basic and is universally accepted by artists and publishers.

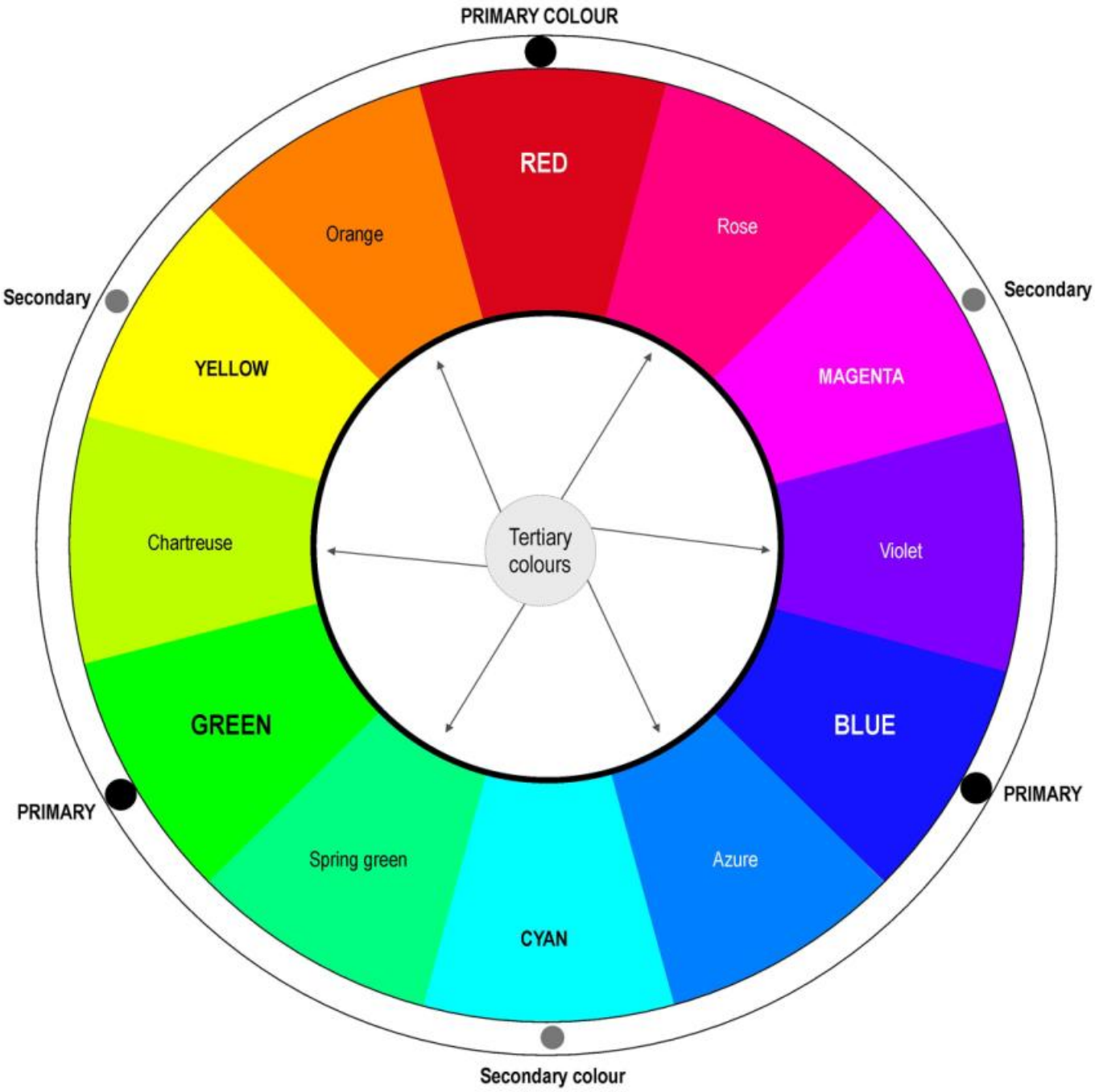
Colour wheels break colour up into various different groups, such as primary colours (hues), secondary colours and tertiary colours. Primary colours are colours that cannot be made by mixing other colours, but can be mixed to make all other colours. For instance mixing red and blue will make the secondary colour magenta. Mixing a primary colour with a secondary colour will create tertiary colours.

Additive wheels such as this one have the primary colours **red**, **blue** and **green (RBG)** equally spaced around the circle.

Secondary (adjoining) colours are **magenta**, **cyan** and **yellow**. Tertiary colours are rose, violet, azure, spring green, chartreuse and orange.

Complimentary colours are colours that are opposite each other on the colour wheel. When used together they will appear most vibrant. This can be done for dramatic effect. Using colours found on the wheel next to each other can be used to create artistic works that are more subtle to the human eye.

Don't be afraid to try different colour combinations and have fun with your creative works.



TINT, TONE & SHADE

Understanding the difference

There are more colours available for use than those few pure and fully saturated colours (hues) found on the edge of colour wheels. Further colour variation is achieved through the use of tints, tones and shades (often referred to as TTS).

Tints
Tints are created when you add white to a hue. For instance adding white to violet creates light pink. Adding white to orange creates peach. These are often likened to the watercolour colours.

Tones
Tones are created when you add grey to a hue. These colours are more unsaturated and considered duller.

Shades
Shades are created when you add black to a hue. This can make the colour darker, richer and create moodiness.

Hues, tints, tones and shades are all valid colours and a seasoned artist is able to create and use them without the use of a colour wheel or TTS chart, due to their knowledge and experience. However using charts such as this one can help artists better visualise where they are taking their creative work.

ORIGINAL HUE

Tints, tones and shades are created by adding white, grey or black to hues, as seen below. Any primary, secondary or tertiary colour can have this process applied to them.

Aboriginal Rock Art Painted in Natural Ochre - Australia's First Art Form

Shown with respect and honouring the first inhabitants of our land and their creative abilities using natural pigments and wetting agents

Early Australian Colonial Scene Painted in Oil Colours from the 1800s

Artist Martha Berkeley, Courtesy NLA

Farming Scene Painted in Modern Oil Colours

Copyright © Artist Peter Matheson

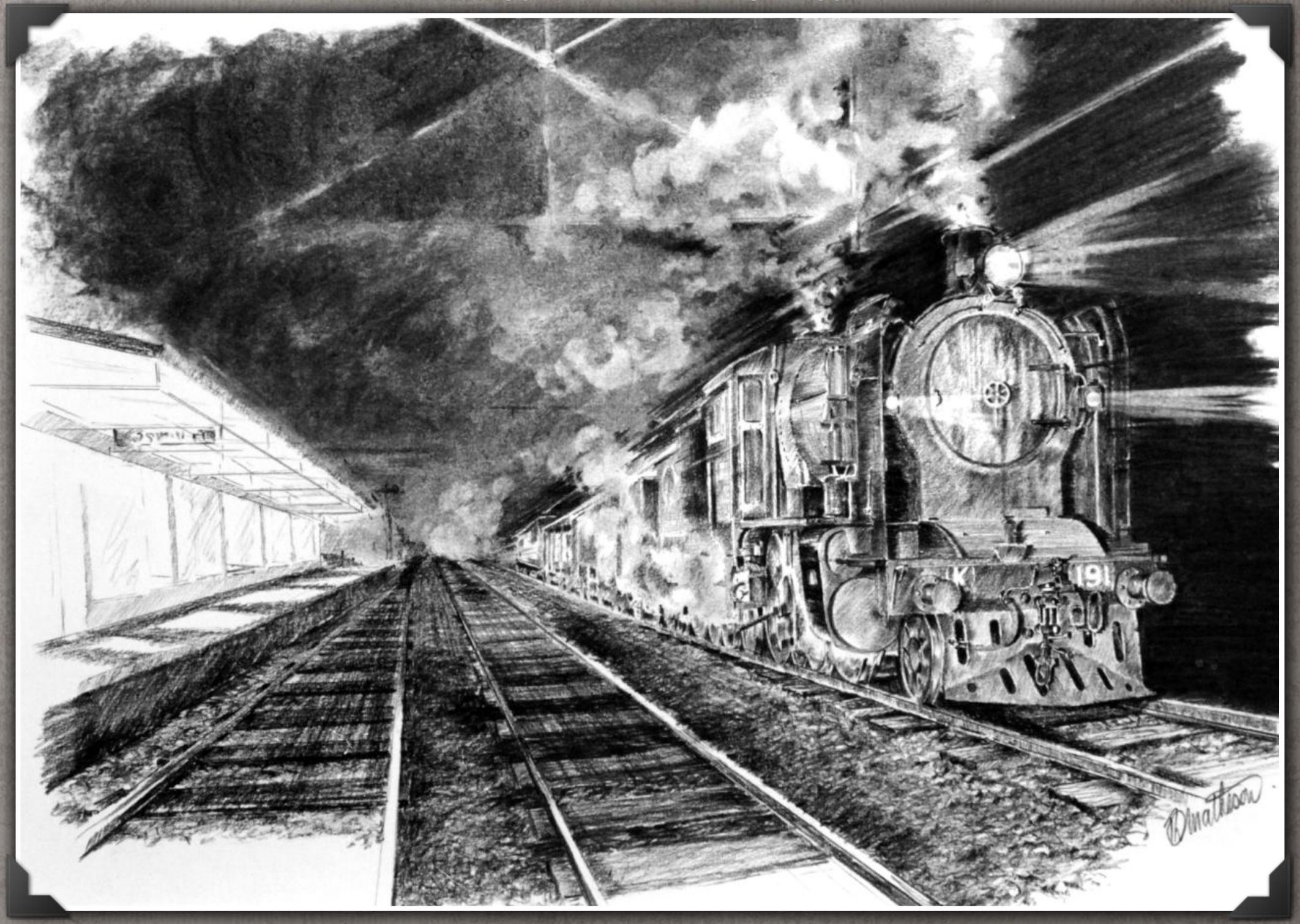
River Scene Painted in Pastels

Copyright © Artist Peter Matheson

Dray Scene Painted in Conte Pencil

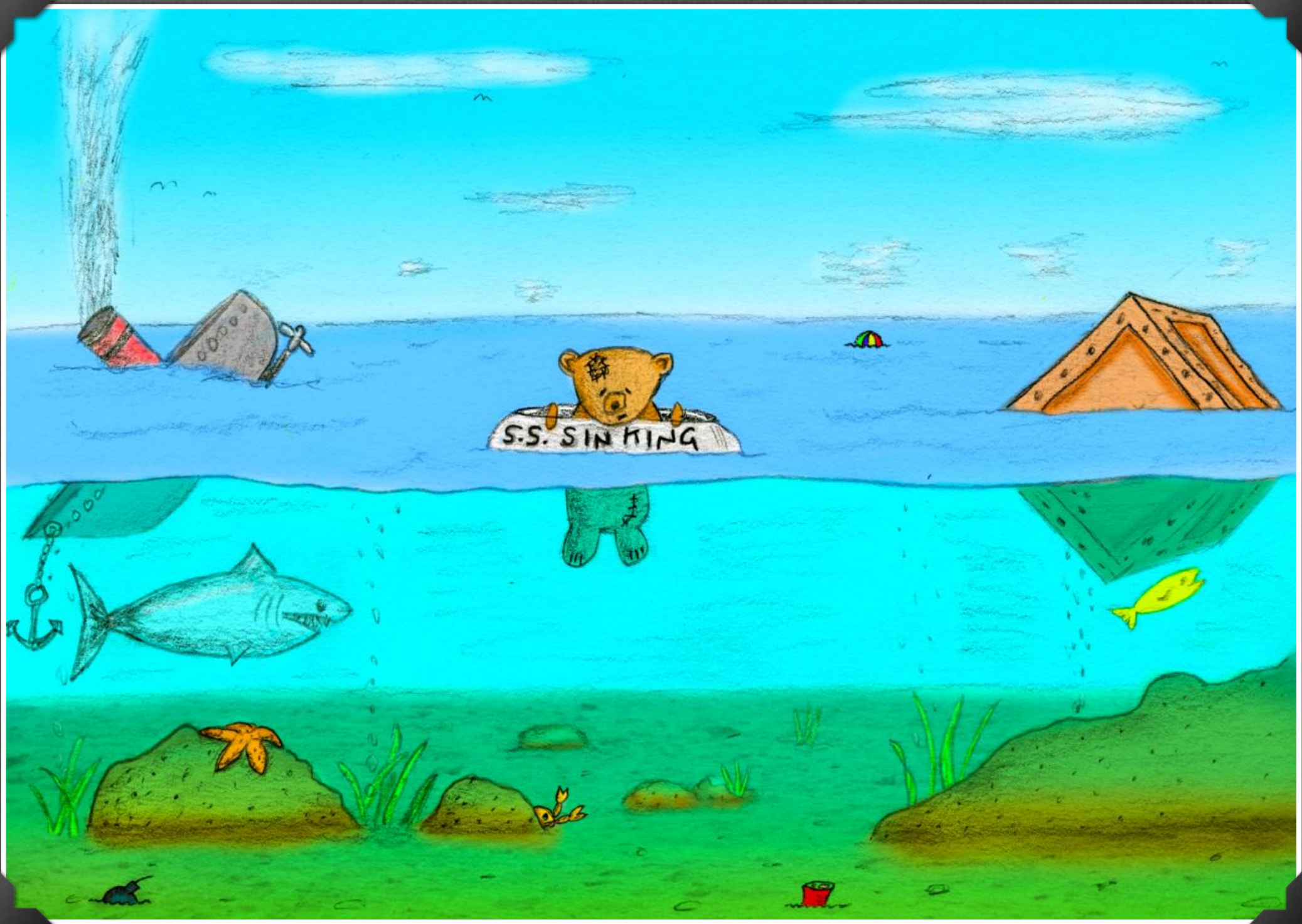
Copyright © Artist Peter Matheson

Train Scene Painted in Charcoal



Copyright © Artist Peter Matheson

PENCIL ILLUSTRATION THEN COLOURED DIGITALLY ON AN IPAD



Copyright © Artist David Hibbert

Very Early Hand Colourised Daguerreotype Photograph in a Display Box

The first publically available photographic process, invented by Louis-Jacques-Mandé Daguerre and introduced worldwide in 1839

Early Hand Colourised Photograph or Yea from the early 1900s

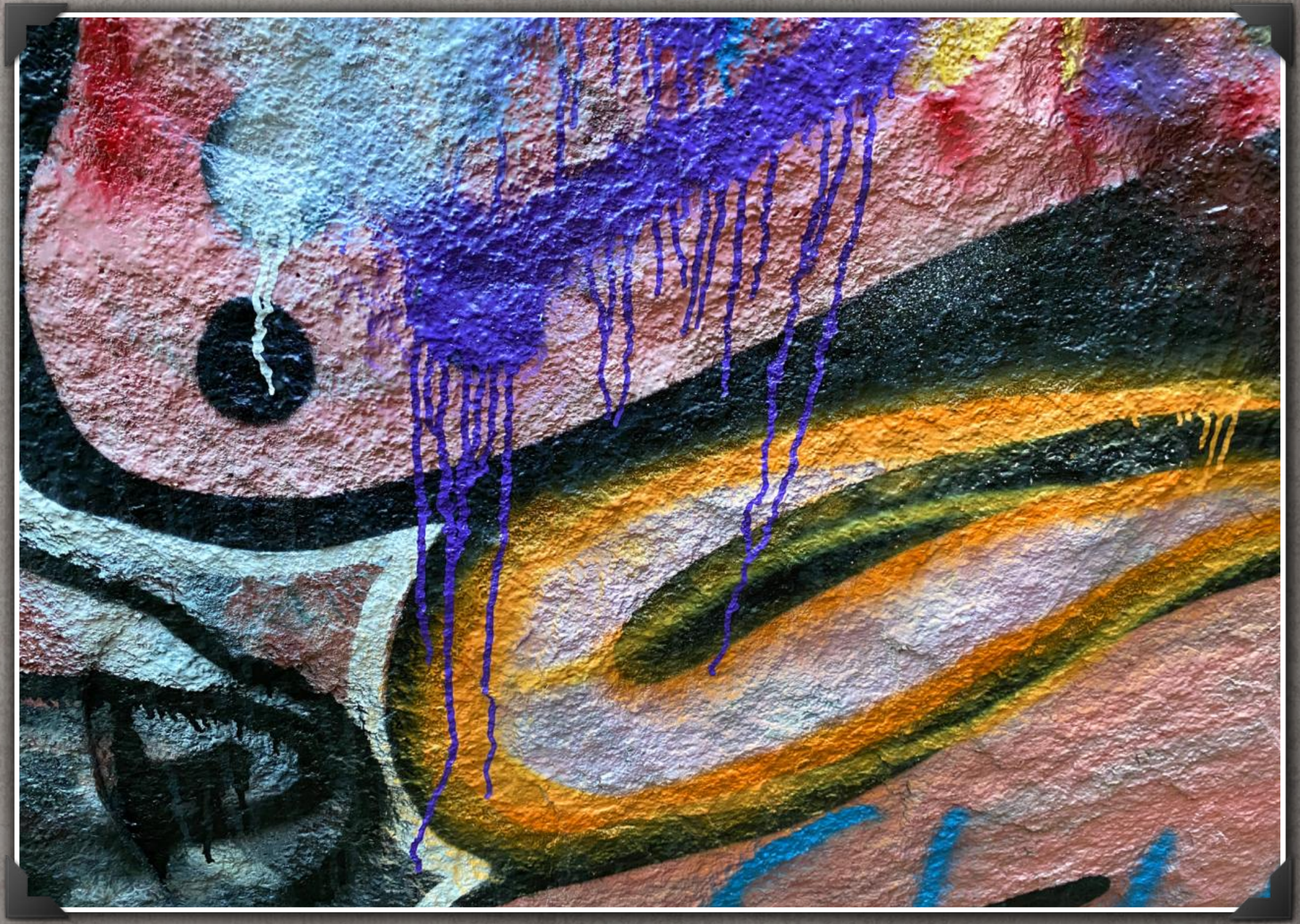
Courtesy State Library Victoria

This first commercially practical and widely successful colour photographic process was known as Autochrome Lumière. It was patented in 1903 in France and first marketed in 1907.

Early Autochrome Lumière (Color Photograph) Taken in 1910

Modern Digital Colour Photograph

Sisters Rocks at Stawell Covered in Colourful Graffiti



NATURE

Colours of Nature

Evening Sunlight Reflecting Off Water Droplets

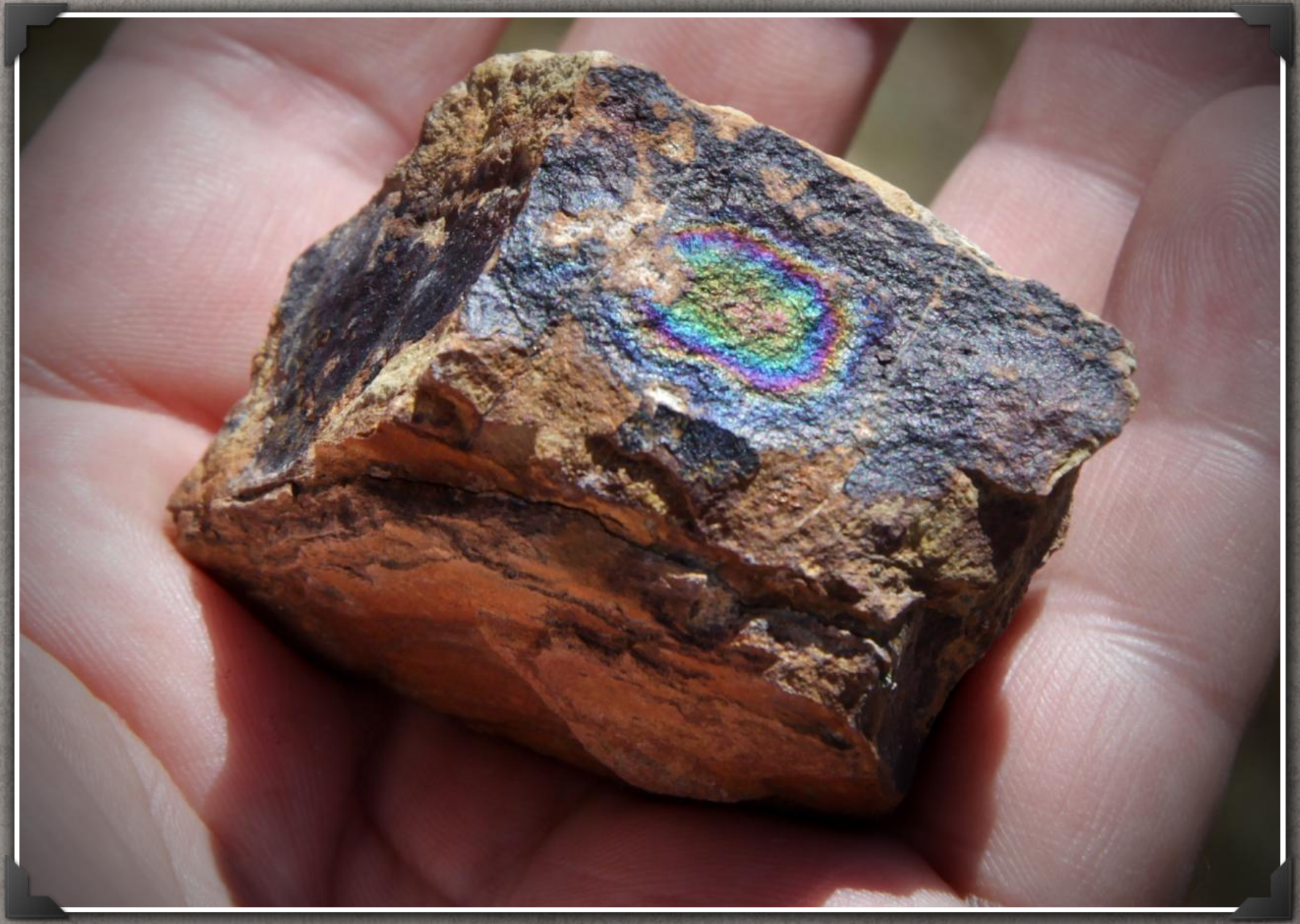
Pomegranate

The belief that bulls love the colour red, is as myth.

SARDINES

Orange Lichen

Rock Mineralization causing Iridescence



UNUSUAL COLOUR NAMES

ROCK

RUBY
PANTONE: 192 C
HEX: #E40046
RGB: (228,0,70)
CMYK: (0,100,62,0)

OPAL
PANTONE: 4170 C
HEX: #A4BDBA
RGB: (164,189,186)
CMYK: (36,11,18,0)

COPPER
PANTONE: 7511 C
HEX: #B77729
RGB: (183,119,41)
CMYK: (3,47,91,22)

EMERALD
PANTONE: 3278 C
HEX: #009B77
RGB: (0,155,119)
CMYK: (100,0,65,0)

GOLD
PANTONE: 7550 C
HEX: #DA9100
RGB: (218,145,0)
CMYK: (0,33,100,15)

JADE
PANTONE: 2251 C
HEX: #00A86B
RGB: (0,168,107)
CMYK: (100,0,36,34)

AMBER
PANTONE: 7548 C
HEX: #FFC600
RGB: (255,198,0)
CMYK: (0,11,100,0)

TURQUOISE
PANTONE: 323
HEX: #005F61
RGB: (0,95,97)
CMYK: (100,00,38,47)

OTHER NAMES

GRAPHITE
PANTONE: 11 C
HEX: #53565b
RGB: (83,86,91)
CMYK: (9,5,0,64)

COPPER
PANTONE: 7511 C
HEX: #B77729;
RGB: (183,119,41)
CMYK: (3,47,91,22)

CYAN
PANTONE: 915 C
HEX: #00BCE3;
RGB: (0,188,227)
CMYK: (100,0,0,0)

HOT PINK
PANTONE: 213 C
HEX: #ff007f;
RGB: (255,0,127)
CMYK: (0,100,50,0)

HAZEL
PANTONE:
HEX: #8E7618
RGB: (142,118,24)
CMYK: (48,71,33)

CERISE
PANTONE: 198 C
HEX: #DF4661;
RGB: (223,70,97)
CMYK: (0,85,41,0)

AMETHYST
PANTONE: 265 C
HEX: #9063CD;
RGB: (54,67,0,0)
CMYK: (144,99,205)

MINT
PANTONE: 351 C
HEX: #A2E4B8;
RGB: (162,228,184)
CMYK: (32,0,33,0)

INDIGO
PANTONE: 3535 C
HEX: #4b0082;
RGB: (75,0,130)
CMYK: (42,100,0,49)

CRIMSON
PANTONE: 201 C
HEX: #9D2235;
RGB: (157,34,53)
CMYK: (0,100,63,31)

MAUVE
PANTONE: 2058 C
HEX: #BB85AB;
RGB: (187,133,171)
CMYK: (22,51,2,1)

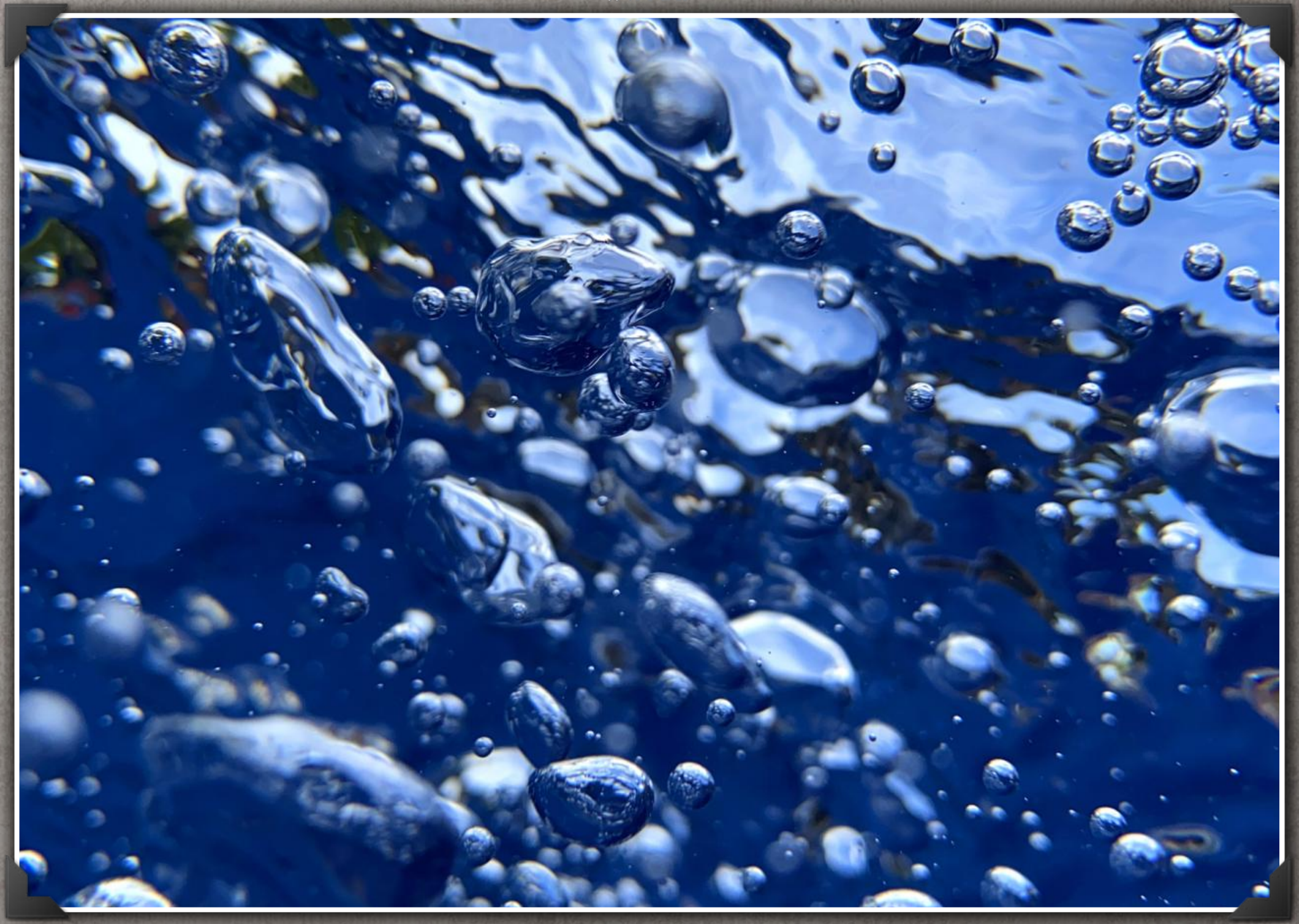
WALNUT
PANTONE: 7508 C
HEX: #E2BB7B
RGB: (226,187,123)
CMYK: (0,17.46,11)

Heathcote Pink Cliffs

Carbonate rich watery solutions were applied by miners to the surface to weaken gold-containing rock. This permanently stained the environment.

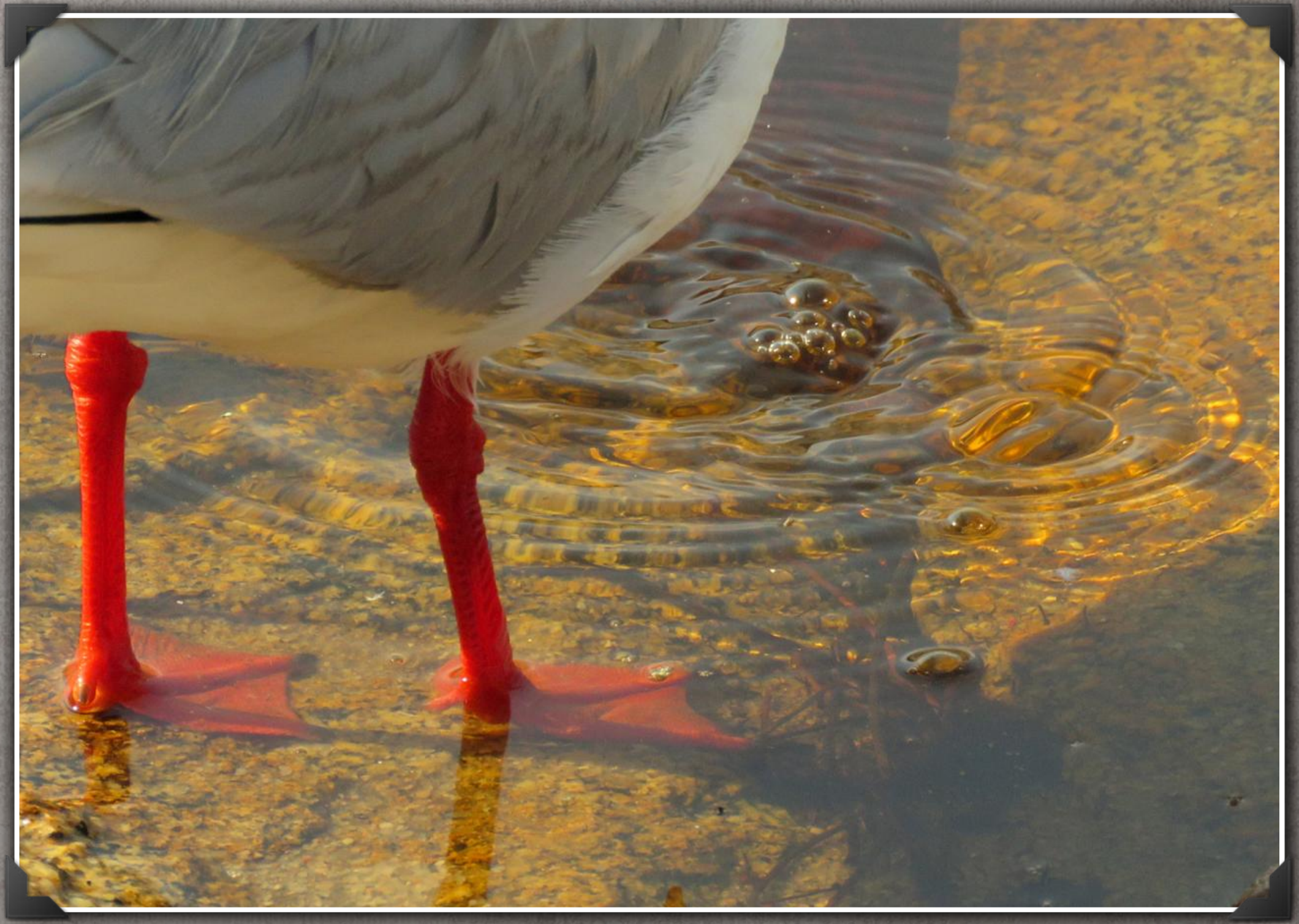
Natural Rock Colour at a Rail Cutting near Avenel

Water



Blue Sky

Feet



Tree Trunk

Sap

Petal

Only around seven percent of flowers in the world are blue, and interestingly, almost all are pollinated without the help of insects. Non-insect pollination is called abiotic pollination and these forms include wind, rain, water and switching methods.

Blue Star (*Chamaescilla corymbosa*) Wildflower

According to various studies, the world's most favourite colour is blue (40 percent). The next favourite is purple (14 percent). As it turns out, not only do humans like blue, but so do mosquitos and horse flies.

When sun rays hit the gases in our upper atmosphere, the blue wavelength is scattered more than other colours and makes the sky appear blue. This unusual light phenomenon is called Rayleigh Scattering.

Gazania

Rainbow Halo (Sundog) around the Sun

Atmospheric Colour Seperation

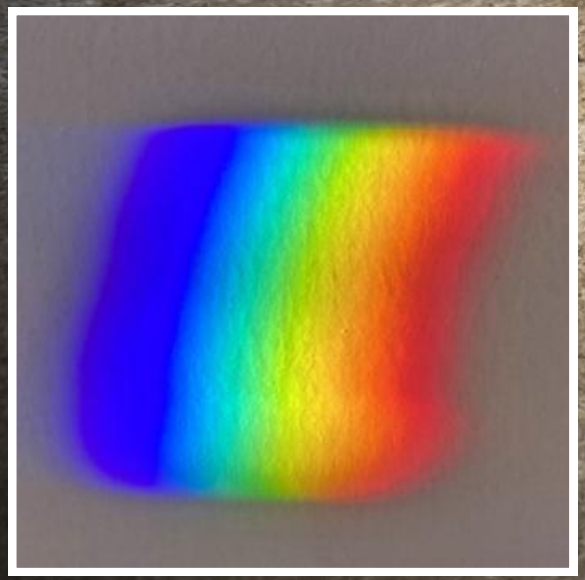
Insect Wings Causing Colour Seperation

Bright yellow is considered to be the most irritating of all colours. It can cause people to feel nausea which is why it is generally avoided in planes. However, it is often used in fast food outlets as it helps motivate patrons to leave the premises quicker. It is also popular at playgrounds to motivate kids.

Yellow Crop

In the early 1670s Isaac Newton discovered that white light was made up of seven different visible colours, and triangular prisms could be used to separate those colours and then re-combine them back into white light. This phenomenon is called light dispersion.

A Prism Dispersing the Seven Visible Colours that Make up White Light



A round mirror is directing sunlight through a narrow slit in a box and onto a prism, which is separating the white light into multiple colours.

When white light enters a prism, it's split into seven different colours due to the colours travelling at different speeds through the prism and bending at different angles. The colours are red, orange, yellow, green, blue, indigo and violet.

RAINBOWS

Colour Separation in the Atmosphere

Rainbow

The colours separated by a prism are also seen in rainbows. In nature, droplets of rain act as tiny prisms which bend the light and cause the colours to be separated and projected.

Rainbow

Rainbow

Rainbow

Rainbow

Rainbow

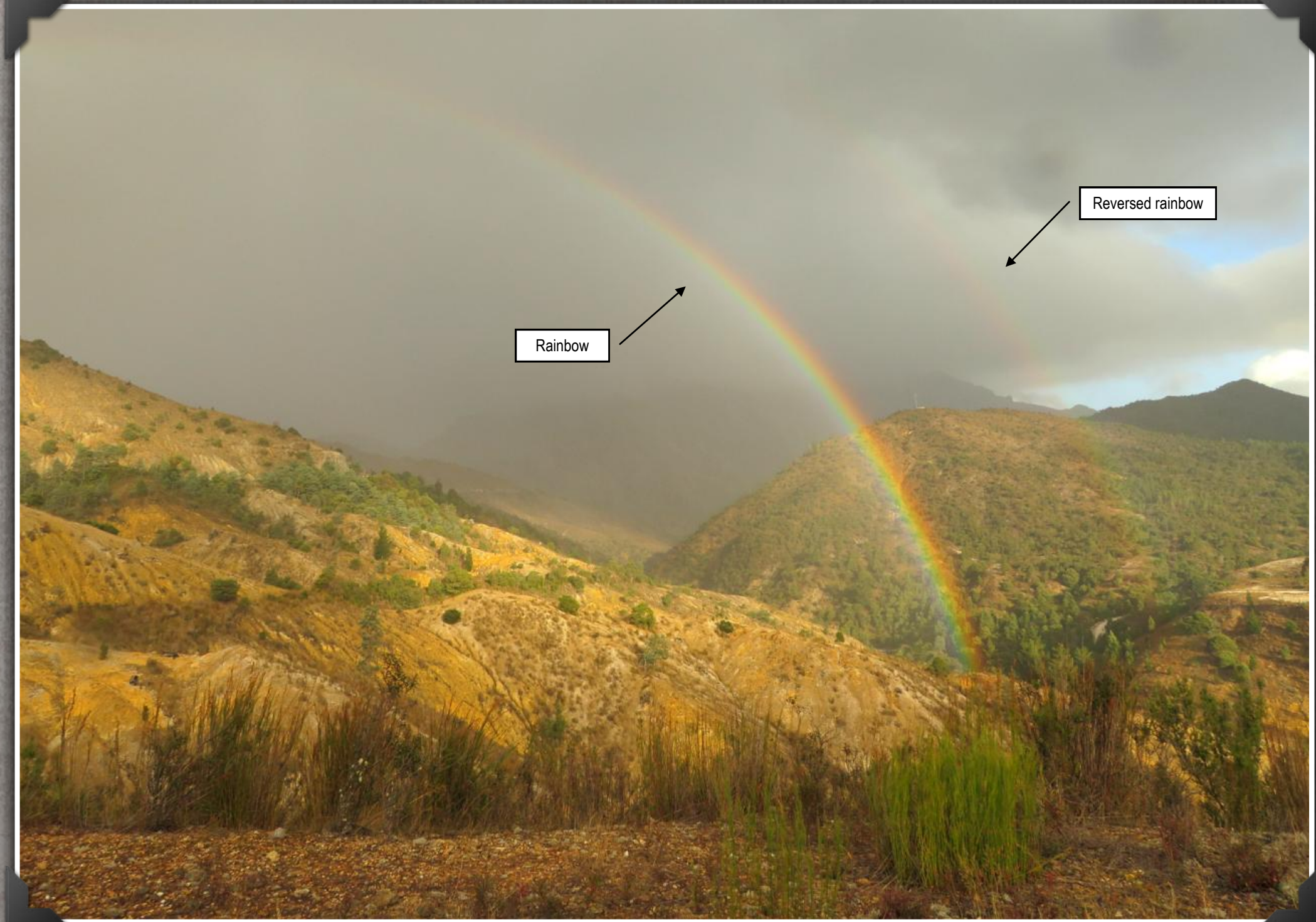
Rainbow

A Rainbow is White Light Emitted from the Sun that has been Split into Seven colors

Rainbows have seven colours, in this order: Red, Orange, Yellow, Green, Blue, Indigo and Violet.

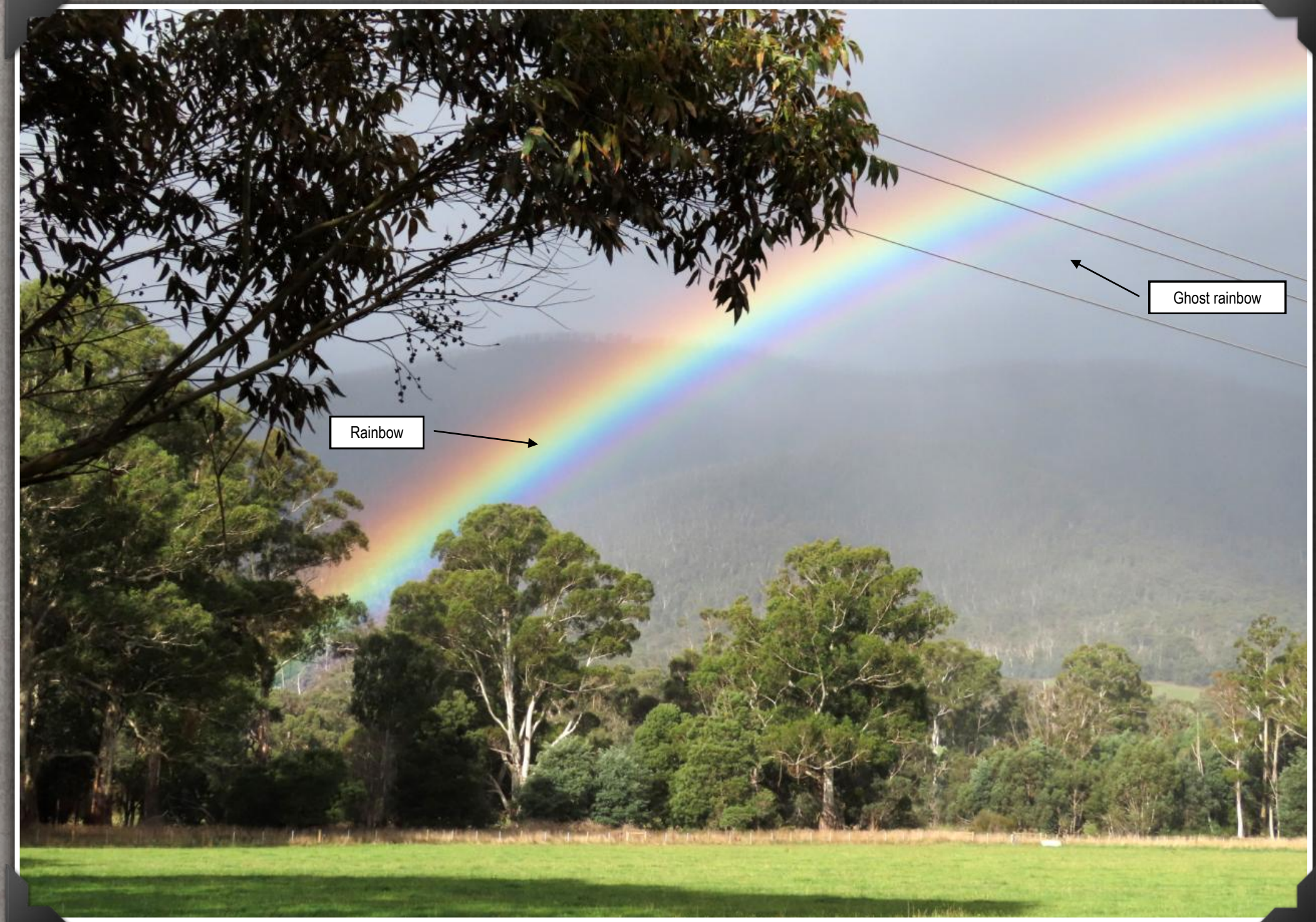
Rainbows are optical illusions formed by the reflection and refraction of sunlight through raindrops. As can be seen in the next photos, two rainbows are sometimes visible at the same time and the second fainter rainbow has its colours revered.

Double Rainbow



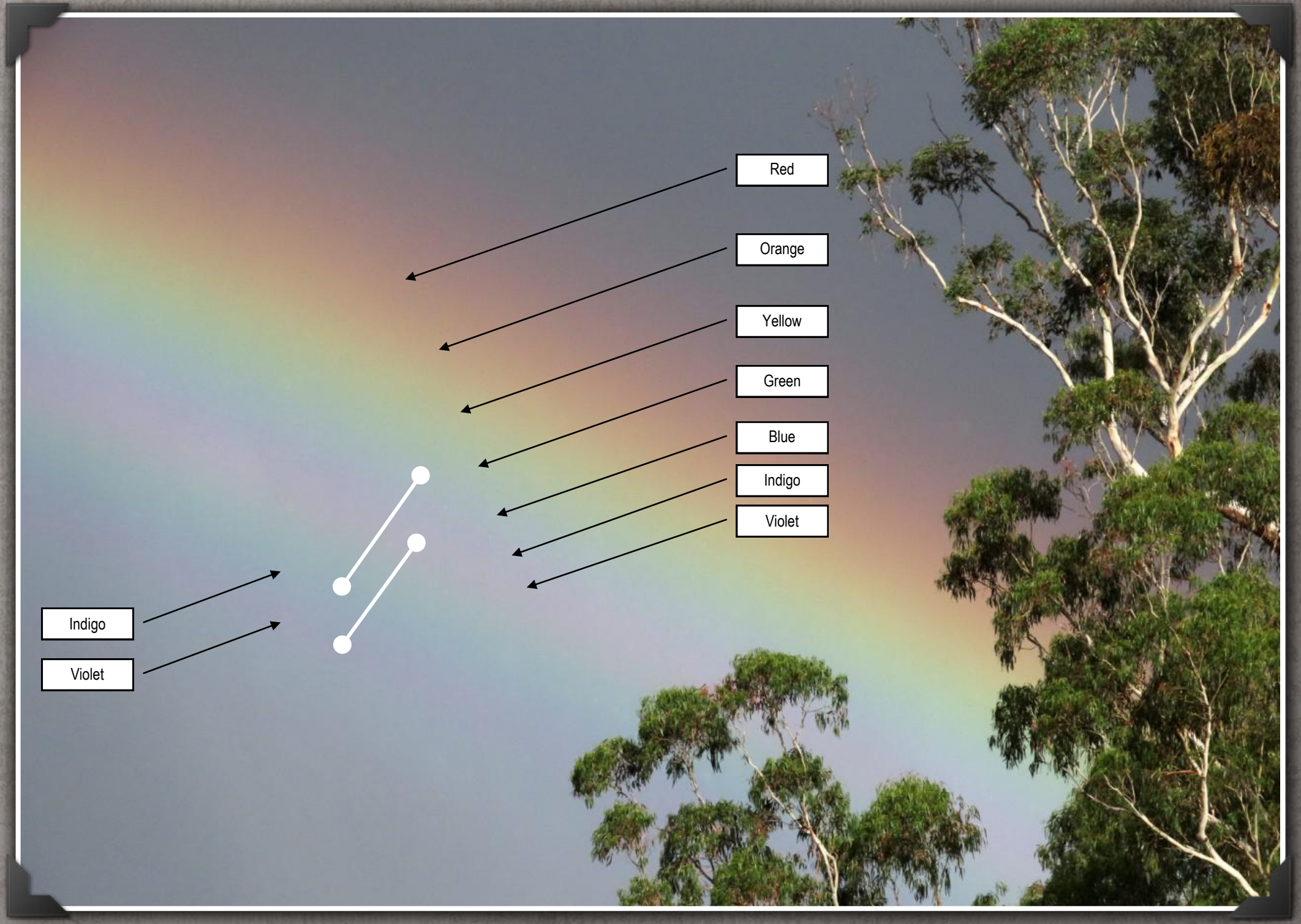
Double Rainbow

A Slight Ghost Rainbow under the Main Rainbow



It is believed that there is a faint rainbow behind and slightly lower than the main rainbow. Three colours are visible.

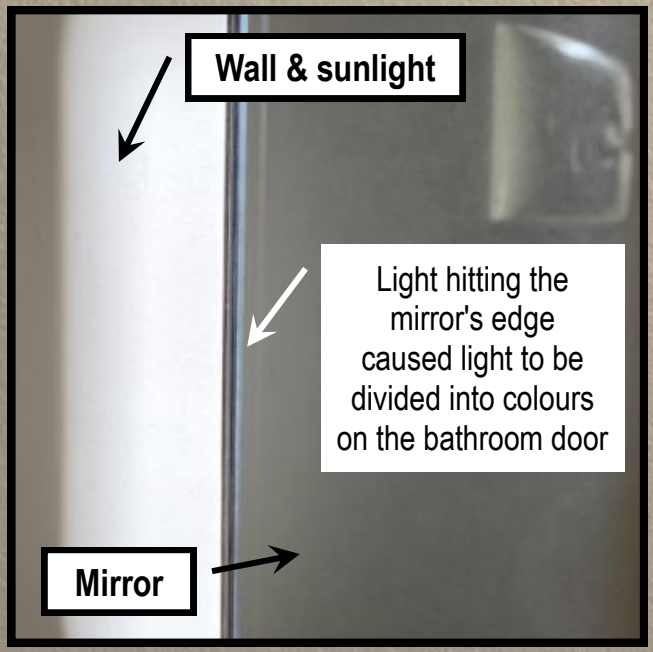
A Slight Ghost Rainbow under the Main Rainbow



Two duplicated colours highlighted in this frame

Rainbow Effect Caused by Glass Lenses in a Camera Defracting Light

Rainbow Effect Caused by Sunlight Hitting the Edge of a Bathroom Mirror



Bubbles Reflecting and Refractng Light

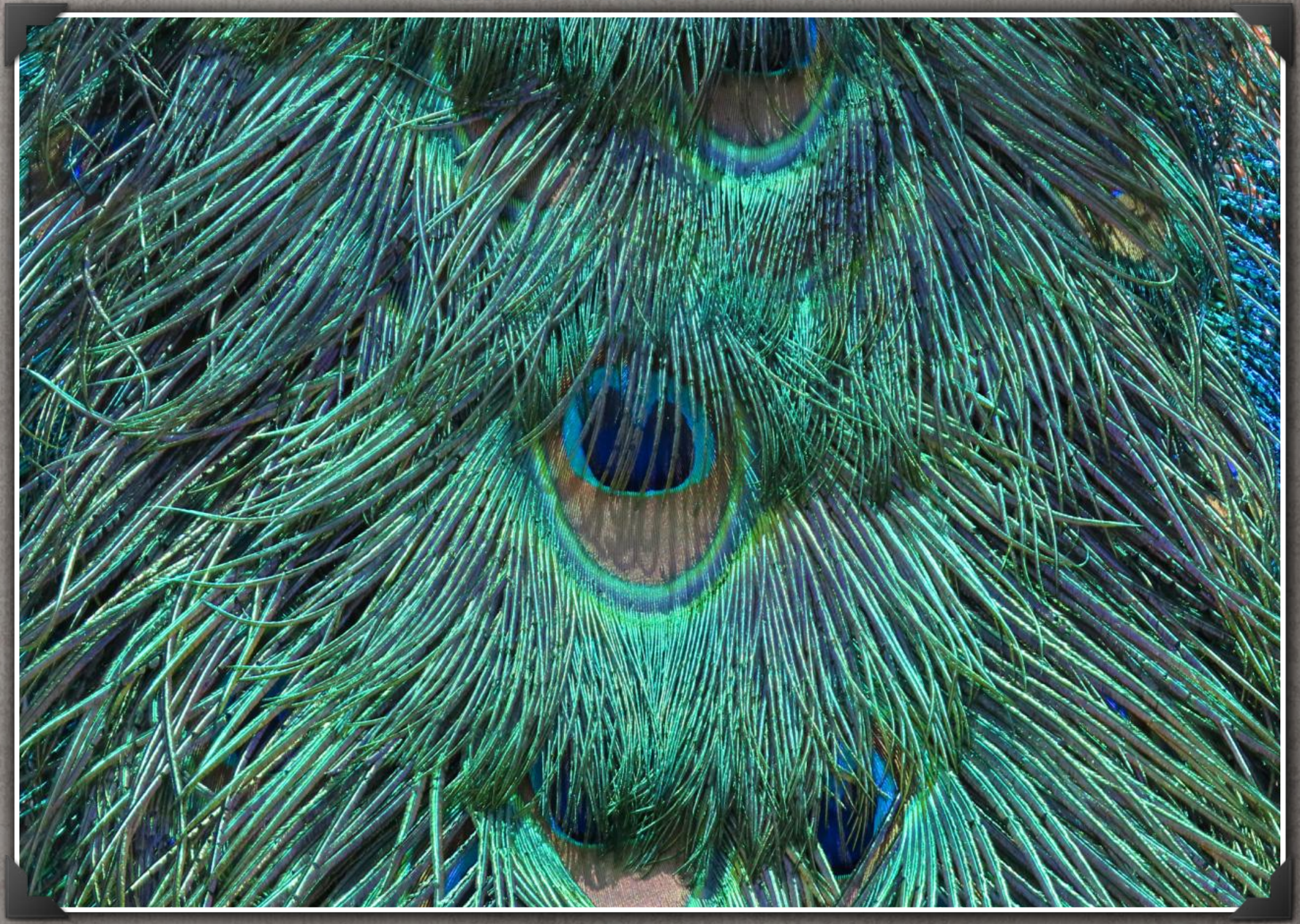
The dark grey colour many people report seeing just after we turn off the light in a dark room, is known as eigengru. Wiki describes it as the persistent grey colour that many people see in the absence of light.

IRIDESCENCE

Colour Phenomenon

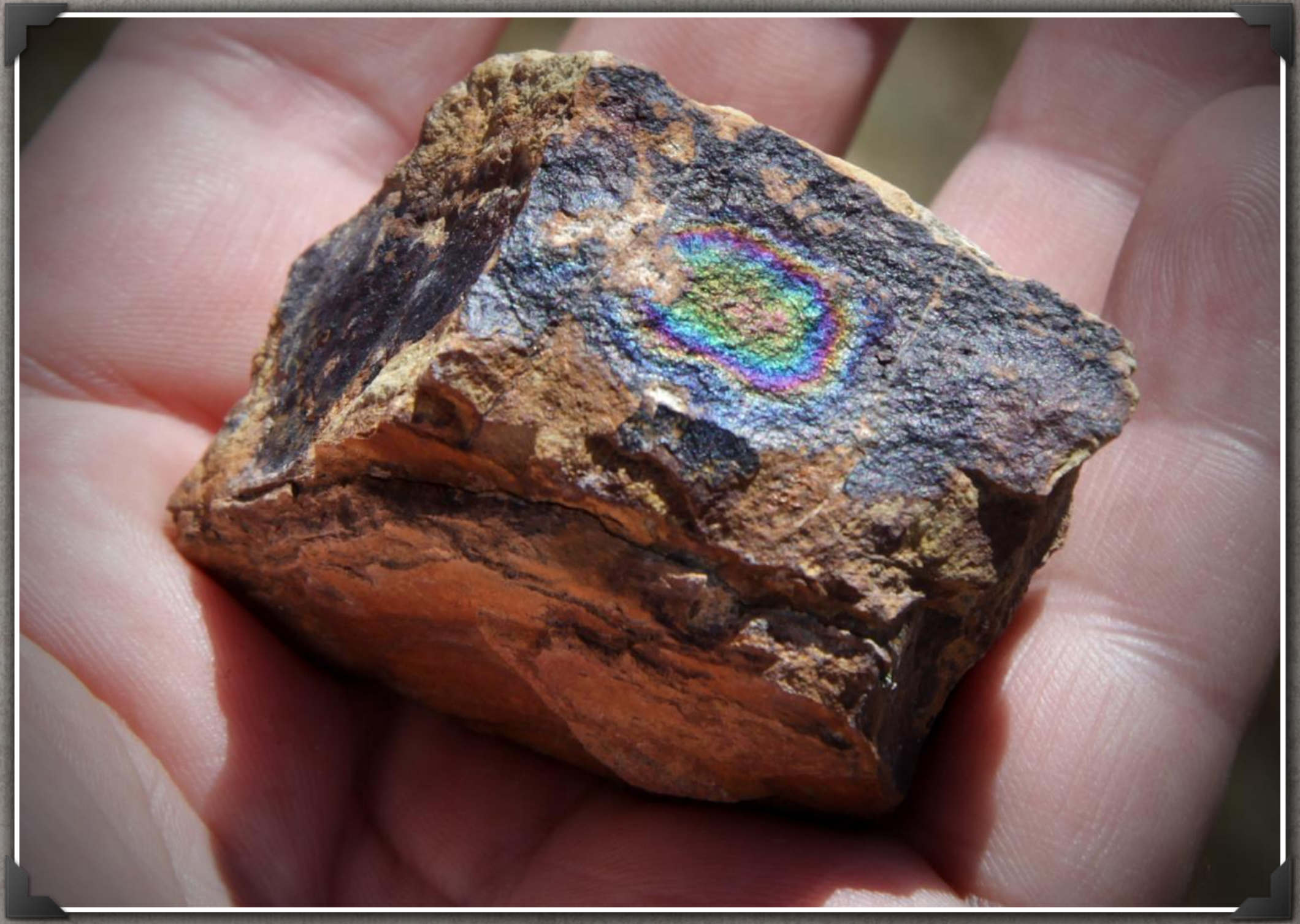
Iridescence is a phenomenon where surfaces appear to chance colour as the angle and intensity of light changes. Examples of iridescence in nature include butterflies, beetles, feathers, bubbles, sea shells and mineralised rock such as opal.

Iridescent Peacock Feathers

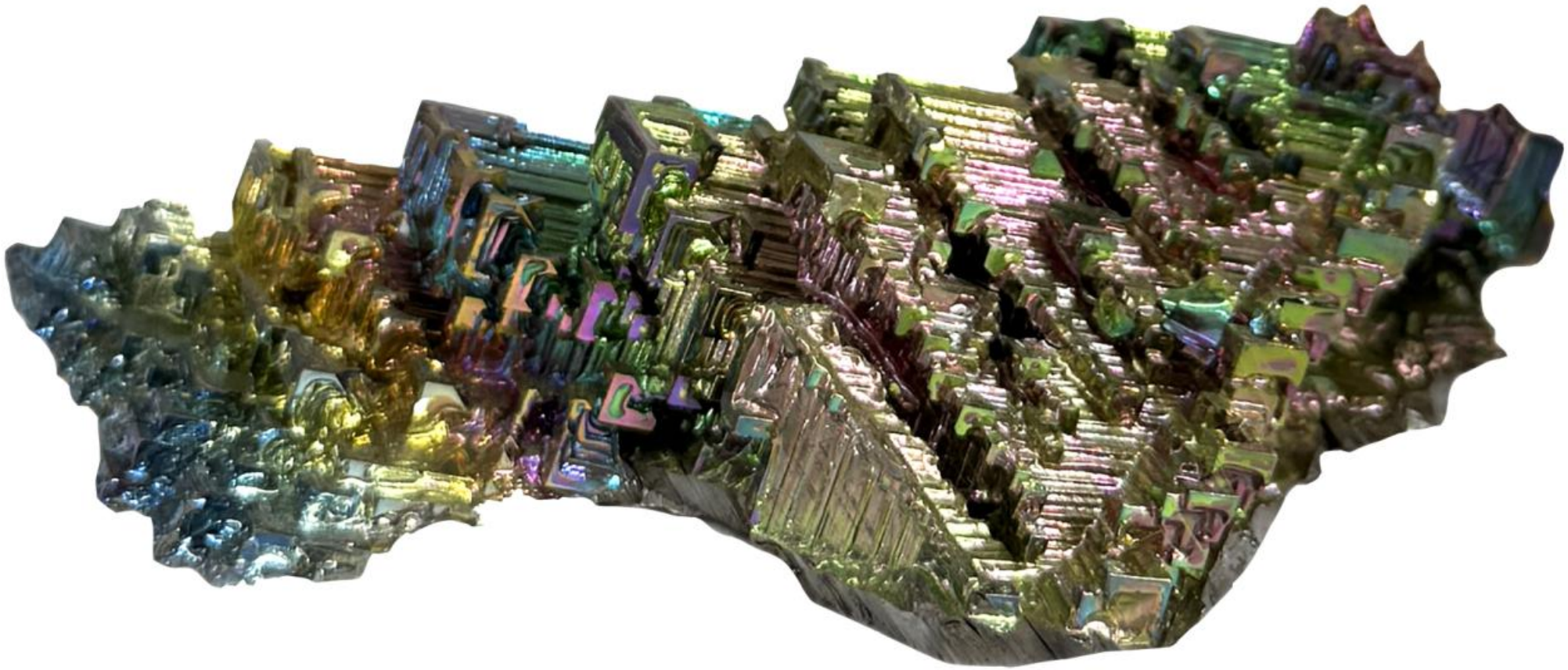


Iridescent Sea Shell

Iridescentce on a Rock



Iridescentce on a mineral

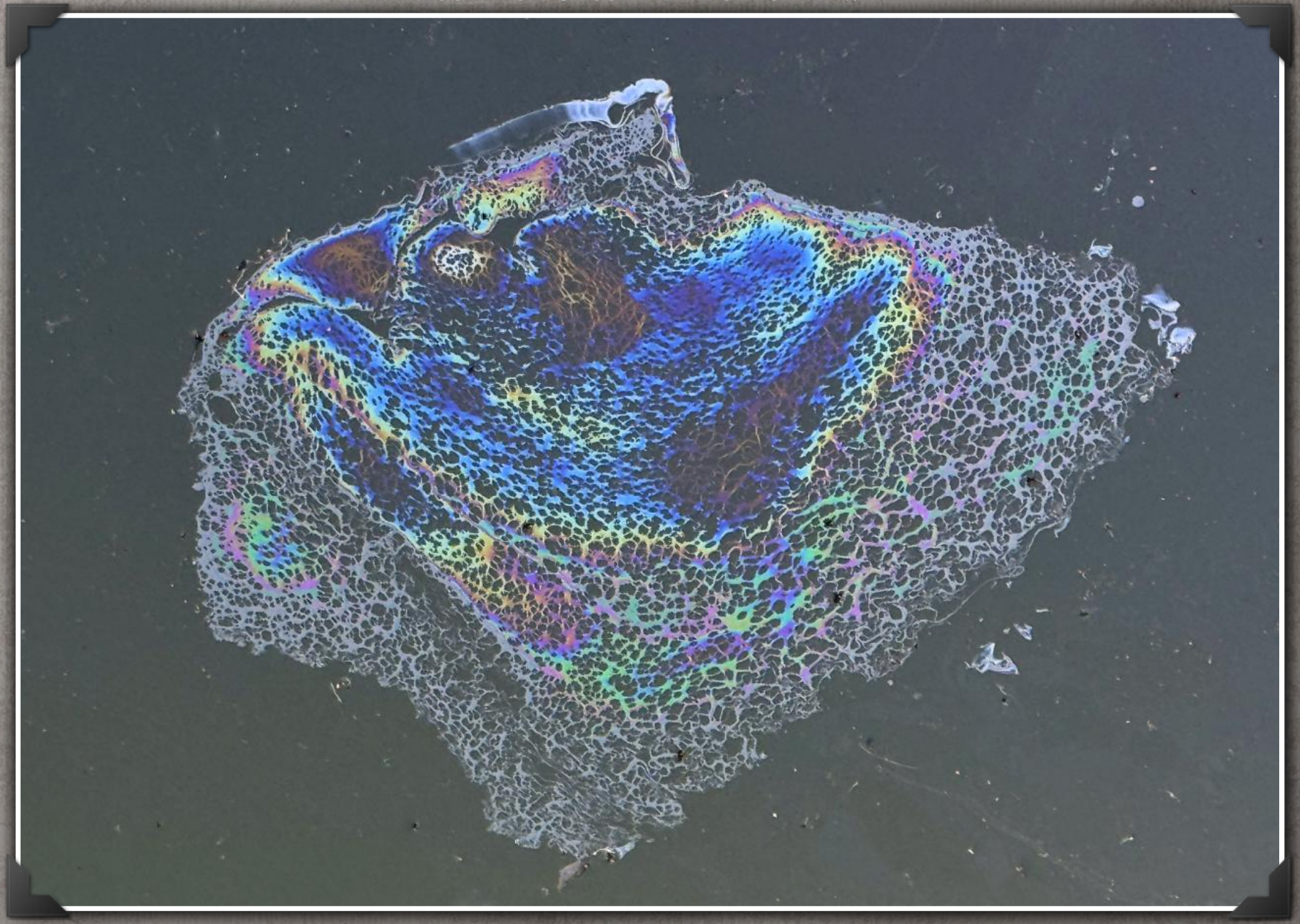


Iridescentce on Opalite

Iridescentce on a Butterfly

Iridescentce on a Long-legged Fly

Iridescentce Caused by Polluted Water



Iridescentce on Bubbles

FOOD

Colours of Food

Fruit

Salad

Hundreds and Thousands in Milk

Fruit Salad

Jelly Beans

Chromophobia is the word used to describe an irrational fear of colours.

Ice cream

Some lollies are made using brightly coloured food dyes. As we grow, our brains learn to associate those colours with their yummy taste. Then when we see those colours, it makes us think of those tastes and we want to buy the lolly. This is an effective advertising trick.

Sandwich

Sugary Cereal

Many foods have artificial colours (food dyes) added to them to make them appear more appealing. Some people have allergic reactions to food dyes, and studies have linked them to conditions such as ADHD and cancer.

M&M Lollies

Donut

SUNRISE AND SUNSETS

Colours of Morning and Evening Skies

Sunrise

Sunset

Sunset

Sunset

Sunset

AUTUMN

Colours of Autumn

Autumn is considered the most colourful of all the seasons.

COLOURS OF FLORA IN AUTUMN

Autumn has the widest gamut of colour of all four seasons. All the colours above, as well as tints, tones and shadows derived from them, can be found in Autumn.

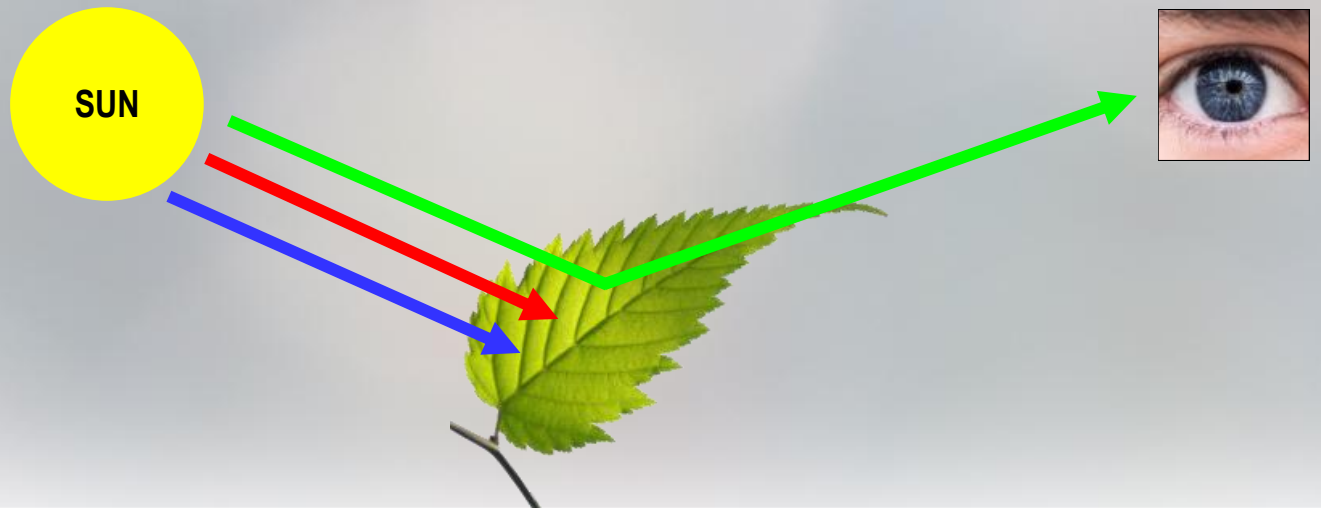
Autumn Leaves

Autumn Leaves

Autumn Leaves

Autumn Leaves

Leaves appear green because they contain the chemical chlorophyll, which absorbs most of the red and blue light wavelengths, while leaving green to reflect to our eyes. Chlorophyll enables the natural process of photosynthesises.



Photosynthesis is the process by which plants use sunlight to turn water, carbon dioxide and inorganic salts into carbohydrates (plant food).

Autumn Leaves

The red and purple colours in leaves are produced by the chemical anthocyanin, which also helps protect the leaves from sunburn.

Red Autumn Leaves

The yellow and orange colours in leaves are produced by the chemical carotenoids.

Yellow Autumn Leaves

Brown colours are caused by natural tannins.

VBrown Autumn Leaves

Autumn Leaves

'epic'

epic - (adjective) Surpassing the usual or ordinary
*ePic - (noun) Illustrated by **e**lectronic **pic**tures*

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