

# BLUSHING

SINA HENSEL

*As the warming of the climate accelerates, cells, bodies and landscapes redden or blush more frequently. Rising temperatures cause lakes to turn vermilion, skins to burn or the noses of cats to darken into one of the many shades of rose. Facing an increasingly burning earth, new pathological vulnerabilities occur such as thermophobia (fear or intolerance to heat) or heliophobia (fear or intolerance to the sun). Blushing can tell us in some cases that a relationship has lost its balance, in other cases it indicates solely time passing. It can be read as a sign of a (self-)care in organisms as well as a response to respective beauty standards.*

*Yet, opposed to the clock high up in the train station that tells us to hurry, those many blushings happen on their own timeline. The ephemeral quality of a blush in a human takes few seconds to appear, triggered by an outward experience which turns inward. The blushing of seas or oceans can take months to build up, slowly turning from green to orange to finally crimson. In contrast, the blushing of the hibiscus plant can be witnessed in only one day.*

*Blushing human and non-human agents and the lens of colour become a means to remember us of the time things take. Through some of these situated cases, this collection wonders how these traces inherit the idea of a tool to measure time and how memory of these encounters materializes, or rather how these traces become materialized*

*memories themselves: mute witnesses to an ever changing globe. Colour plays a crucial part here insofar, that all these encounters speak through a language of sometimes gradual or almost invisible, in other cases flashing colour-changes, but always of a mutispecies (and across) communication. This catalogue focuses on the relationality between two parties involved in one encounter, both affecting each other. Every contact leaves a trace, no matter how unremarkable it will be.*

*Blushing becomes a method to draw an observation across species in order to grasp different reddening from different perspectives to be able to empathize with our many blushing companions. How can we care not only for our skin but for the skins of environments, seas, animals, plants or paintings? What tools do we have to read these signs surrounding us and what parallels or gaps of understanding and knowledge can we encounter?*

***In the end, we always also have to take into account who is the one looking.***

## BLUSHING HIBISCUS

Species/Parties involved: Plant/Temperature

Pigment/Chemical: Anthocyanin

Colour: 

Location: My mother's garden Mainz, GER

The petals of *Hibiscus mutabilis* change colour during one day, from white in the morning to pink during noon to red in the evening. Temperature plays the key role in facilitating the gradient since research shows that white flowers kept in cold temperatures only redden when brought to warmth. Usually, the red petals remain on the plant for several days.

Anthocyanin is the pigment causing the reddening, a chemical that is also called Nature's Swiss Army Knife for its protective role in the organism.

References:

Gould, K.S.; Nature's Swiss Army Knife: The Diverse Protective Roles of Anthocyanins in Leaves *Journal of Biomedicine and Biotechnology*; 2004:5 (2004) 314–320



## RED LAKES

Species/Parties involved: Cyanobacteria/Temperature

Pigment/Chemical: Astaxanthin

Colour: 

Location : Zurich, CH

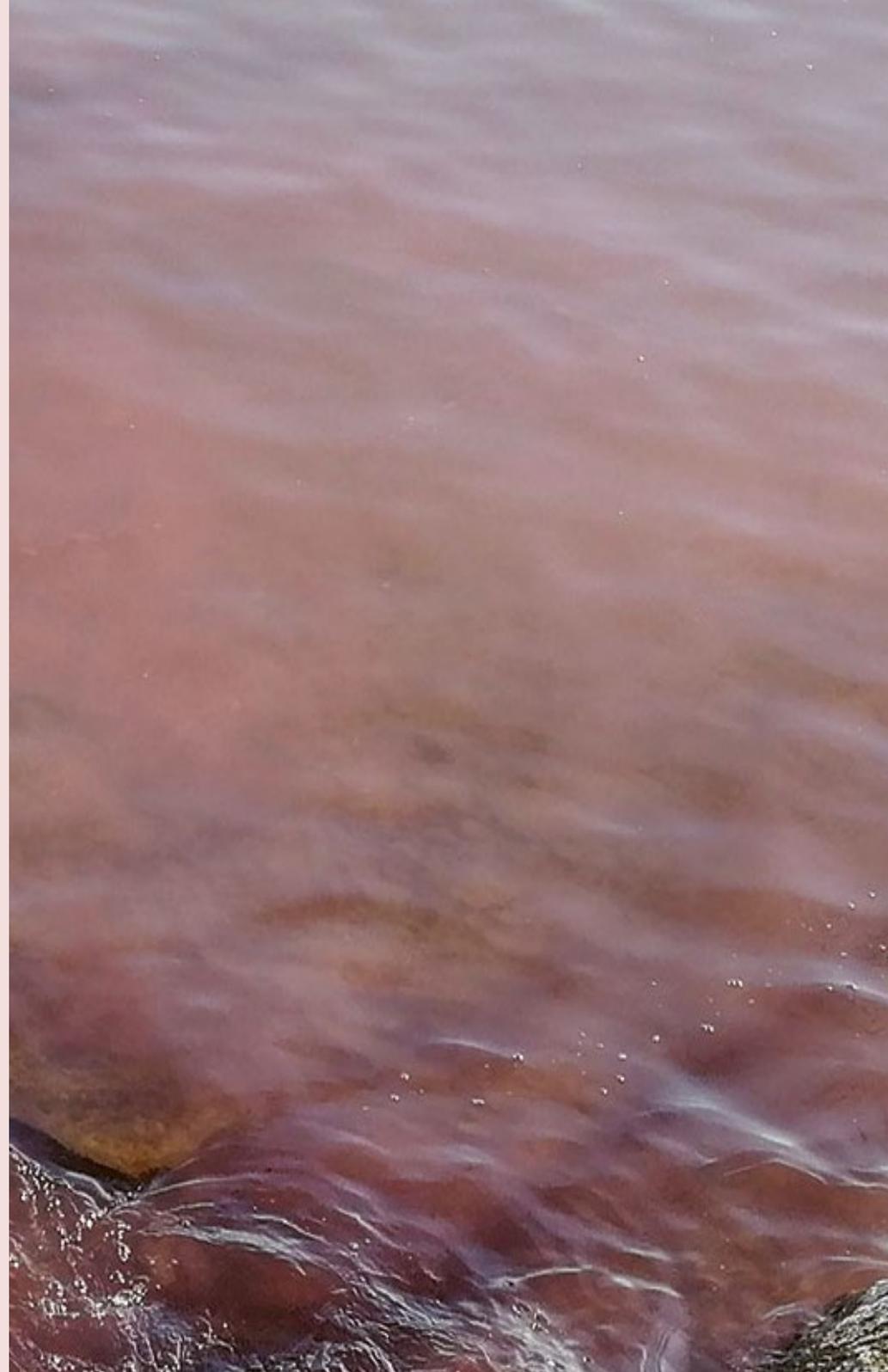
The cyanobacterium *Planktothrix rubescens* has been inhabiting Lake Zurich in Switzerland for over 100 years. Every now and then in the past, mostly in autumn, it has caused a toxic bloom which exhibits tints of rose, red and orange. More recently, these blooms have appeared much more frequently, mostly due to lake warming induced by climate change, which allows the *Planktothrix* to survive the winter.

Seas turning red is neither just some biblical storytelling, it has become a common view for some populations close to warm waters, usually happening when sea temperatures rise. Today, reds, pinks, and oranges are the adaptive colours of living in a hotter, sun-scorched earth. "What color is the Anthropocene?", asks anthropologist Hannah Lendecker, suggesting looking at, but also beyond appearance in order to understand the environmental entanglements at play behind.

References:

Knapp D., Posch, T.; Burgunderblutalge im Zürichsee- Populationsdynamik und Einfluss des Klimawandels; 2021; In: Aqua&Gas No.4

Schrader, A.; The Time of Slime: Anthropocentrism in Harmful Algal Research, 2012; In: Environmental Philosophy, Vol. 9, No. 1



## GUARÀ BIRDS

Species/Parties involved: Animal/Human

Pigment/Chemical: Astaxanthin

Colour: 

Location: Verbeke Foundation, Antwerp, BE

The Guarà Birds (also known as Ibis) at the Verbeke Foundation in Belgium were moved from Antwerp's overcrowded zoo to a spacious greenhouse in the countryside. In their natural habitat, they are born grey and feed on Haematococcus algae which facilitate their reddening, a process which takes a timespan of around two years.

Yet, in order to be able to experience the brightness of their feathers in captivity, pigment is added to the birds' feeding. Colour as a reminder that sometimes there is no distinction between inside and outside. A metabolism that shapes equally and intrinsically both.

References:

Lendecker, H.; Foreword Salmon: A Red Herring; 2020; isolarii



## CHARDIN'S SALMON

Species/Parties involved: Animal/Human/Painting

Pigment/Chemical: Oil paint (Carmine red/Vermillion)

Colour: 

Location: The Nelson Atkin Museum of Art, Kansas, US

When I, during my studies, looked at the Still Life painting of Chardin depicting salmon, I didn't know that I was looking at a painting of a painted organism. Salmon is one of the many species which demonstrate the complex infrastructure of marine food web. The pigment responsible for the salmon's colouring is called Astaxanthin and cannot be produced by animals themselves. Therefore it must be consumed in the diet through the feeding on pigment-rich microalgae. The pigment travels through their bodies and is found in birds, shrimp, krill, salmon, or lobster. Chardin's depiction of the salmon is a record of interspecies sensuality, him being appreciated as a painter of an empathetic and caring gaze towards the subject.

References:

Milam, J.; Rococo Representations of Interspecies Sensuality and the Pursuit of „Volupté“; The Art Bulletin; Vol. 97, No. 2 (June 2015), pp. 192-209



## HUMAN BRUISING

Species/Parties involved: Human/Object

Pigment/Chemical: Haemoglobin

Colour: 

Location: Brussels, BE

From the colour of your bruise you may estimate its age. As your body heals, haemoglobin breaks down which causes a change in the bruise's colouring. Usually, following stages are traversed:  
**RED:** oxygen-rich blood has newly pooled underneath your skin  
**BLUE/PURPLE/BLACK:** after 1-2 days the colour changes due to the accumulated blood losing oxygen  
**YELLOW/GREEN:** after 5-10 days the bruise might appear yellowish/greenish due to biliverdin and bilirubin, the compounds breaking down haemoglobin  
**LIGHT BROWN:** marks the end

References:

Fletcher, J.; Bruise colors: Causes, timescale, and when to see a doctor; MedicalNewsToday; 2020



## A CAT'S NOSE

Species/Parties involved: Temperature/Cat

Pigment/Chemical: Haemoglobin

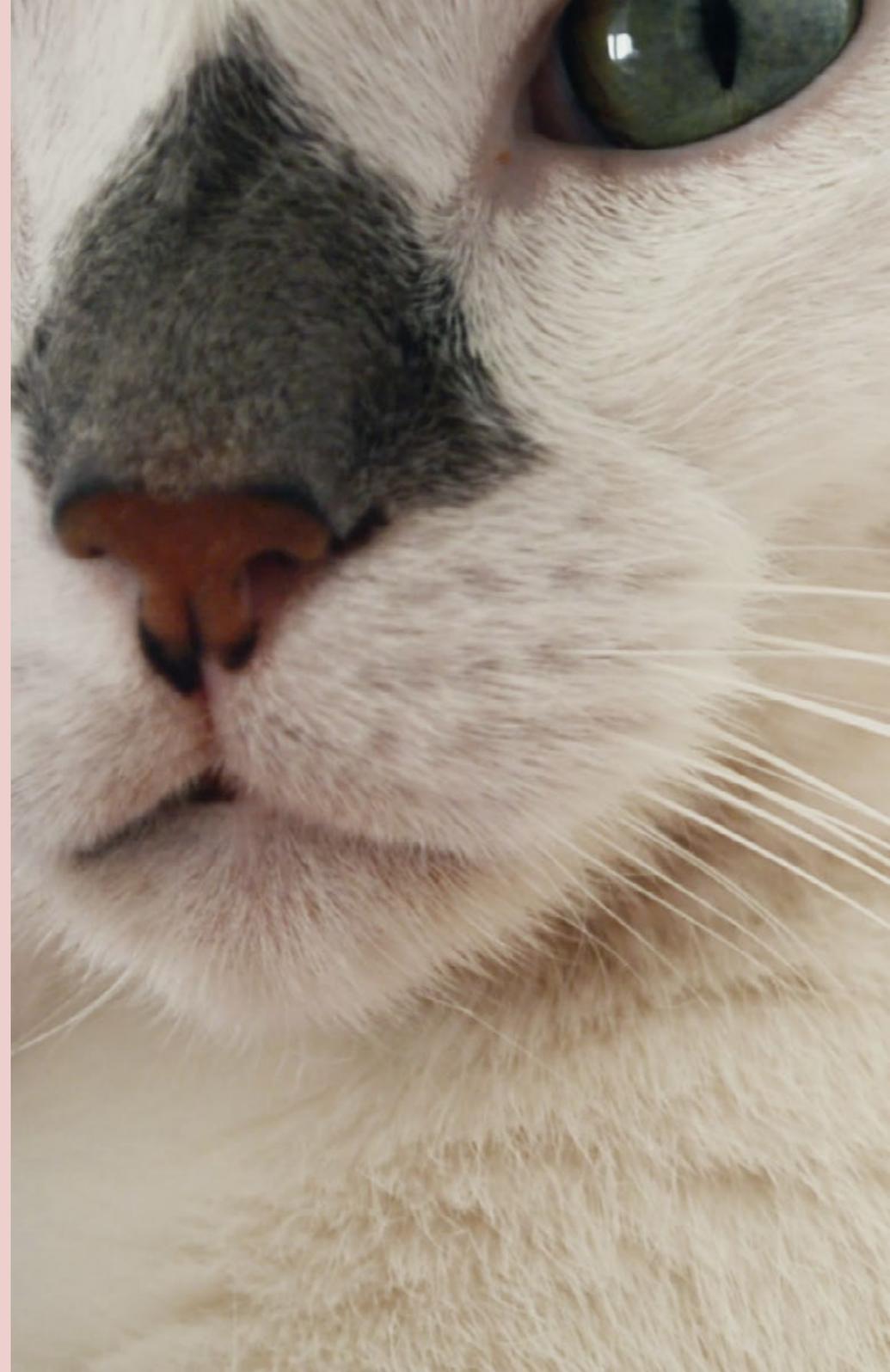
Colour: 

Location: Louis in Brussels, BE

The noses of some cats can change color from light pink to a darker tone due to temperature as well as the cat's blood pressure. „The cat's nose is highly vascularized (which means it has numerous small blood vessels throughout it),” Gibbons says. “These blood vessels can grow or shrink with different variables (such as heat, cold and high or low blood pressure). This can cause variations in the pink coloration of the nose. For instance, when a cat is cold, the blood vessels are smaller so the nose might appear light pink. When a cat is hot, or blood pressure raises, the vessels are larger so the nose may appear darker pink or red.”

References:

Why Does My Cat's Nose Change Color?; Catster-Cat Health Care; 2020



## BLOOD ORANGE

Species/Parties involved: Fruit/Temperature

Pigment/Chemical: Anthocyanin

Colour: 

Location: Mediterranean climate

Blood oranges have red or magenta flesh, rind and juice which is caused by the presence of Anthocyanin pigment. The red colour is mainly facilitated by a change of temperature from warm days to cool nights: Anthocyanin gets triggered during stressful conditions such as low temperatures. To grow blood oranges therefore strongly relies on a very specific climate which causes their comparatively rare occurrence. That is why today research in genetic engineering is done on how to grow cold-independent blood oranges.

References:

Izquierdo, L.; Sendra, J.M.; Citrus Fruits-Composition and Characterization; Encyclopedia of Food Sciences and Nutrition (Second Edition); 2003



## SALT PONDS

Species/Parties involved: Microalga/Human/Sun

Pigment/Chemical:  $\beta$ -Carotene

Colour: 

Location: Ebro Delta, ES

Only few organisms can survive in highly saline conditions as the one salt evaporation ponds offer. To hold out, the *Dunaliella salina* strain produces high concentrations of  $\beta$ -carotene to protect itself against intense light, and high concentrations of glycerol to provide protection against osmotic pressure. Specifically, in the environment of a salt pond, colour serves as a tool for communication: the saturated pink lets the workers know when salt concentration is at peak and therefore salt is ready to harvest.

References:

Riyahi, J., Haouazine, Y., Akallal, R., Givernaud, T., Lemoine, Y.; Valorization attempt of a Moroccan salt pond:  $\beta$ -carotene production by the halotolerant green alga *Dunaliella salina*; *Algological Studies* 120(1):51-62; 2006



## PLANT IN UV-CHAMBER

Species/Parties involved: Plant/UV

Pigment/Chemical: Anthocyanin

Colour:

Location: Aachen, GER

„Anthocyanins, the pigments responsible for spectacular displays of vermillion in the leaves of deciduous trees, have long been considered an extravagant waste of a plant’s resources. Contemporary research, in contrast, has begun to show that the pigments can significantly influence the way a leaf responds to environmental stress. Anthocyanins have been implicated in tolerance to stressors as diverse as drought, UV-B, and heavy metals, as well as resistance to herbivores and pathogens. By absorbing high-energy quanta, anthocyanic cell vacuoles both protect chloroplasts from the photoinhibitory and photooxidative effects of strong light, and prevent the catabolism of photolabile defence compounds. Anthocyanins also mitigate photooxidative injury in leaves by efficiently scavenging free radicals and reactive oxygen species. Far from being a useless by-product of the flavonoid pathway, these red pigments may in some instances be critical for plant survival.”

References:

Gould, K.S.; Nature’s Swiss Army Knife: The Diverse Protective Roles of Anthocyanins in Leaves *Journal of Biomedicine and Biotechnology*; 2004:5 (2004); 314–320

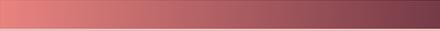


## SUNBURN

Species/Parties involved: Human/Sun

Pigment/Chemical: Melanin

Colour:



Location: My fathers' hand after the beach, BE

When being too long at the beach without proper sun protection, every skin reacts to the overexposure of UV with an inflammation, commonly called sunburn. The pigment Melanin usually protects your skin from the sun's rays and can block part of UV. Yet, if sun exposure is too much to handle for the singular cell, it starts to mutate and in cases of damage beyond repair, it dies off. Eventually the sunburn will heal but mutated cells that survived expose your body to the risk of skin cancer.

References:

Skin Cancer Foundation: [skincancer.org](https://www.skincancer.org)



## PAUL KLEE'S CAT

Species/Parties involved: Cat/Human/Painting

Pigment/Chemical: Oil paint

Colour: 

Location: MoMA, Floor 5, 519, New York, US

Paul Klee's *Cat and Bird* (1928) is a representation of a cat exposing a blushing nose in the form of a heart. Its head is painted in shades of brown which lets it appear almost 'burnt'. It is said that Paul Klee admired cats for their at times mysterious behaviour. The way that the bird is painted on the cat's head could suggest the bird literally being on the cat's mind which might be the reason for the triggering of the cat's nose's blushing through stress or excitement.

References:  
[MoMA.org](https://www.moma.org)



## SNEAKERS ADIDAS OZWEEGO BLUSH

Species/Parties involved: Leather/Dye

Pigment/Chemical: Synthetic dye

Colour:

Location: Brussels, BE

Not only humans blush, apparently shoes can too. The three rose stripes placed at each side of the Adidas Ozweego Blush suggest a sort of reddening of the sneakers comparable to a blush in a living organism. The only-women design might be interesting considering the origin of the footwear we know as sneakers. In an 1862 book titled *Female Life in Prison by a Prison Matron*, Mary Carpenter and Frederick Robinson refer to the shoes of the guards (matrons) as 'sneaks', describing the quietness of the rubber soles on the ground, in contrast to noisy standard hard leather soles.

References:

Carpenter, M., Robinson, F.; *Female Life in Prison by a Prison Matron*; Hurst and Blackett; 1862



## HUMAN BLUSH / ROSACEA

Species/Parties involved: Human/Sensation

Pigment/Chemical: Haemoglobin

Colour: 

Location: Cheeks, Brussels, BE

We all blush sometimes. The reddening of our faces, especially our cheeks is a bodily response triggered by our psyche to an outer sensation. Causes for blushing are various types of emotional stress and today, we mostly associate it with embarrassment, shyness, anger, fear or romantic involvement. The extent of blushing varies from person to person, though if redness persists after a fleeting moment, it might be an early sign of the condition rosacea. The medical long-term skin disease causes your face to redden, to swell, to form pimples and to exhibit dilated blood vessels.

References:  
Wikipedia



## BLUSH AS MAKE-UP

Species/Parties involved: Human/Chemicals

Pigment/Chemical: Isododecane, Talc, Dimethicone, Caprylic/Capric Triglyceride, Phenoxyethanol, Bismuth Oxochloride (Ci 77163), Carmine (Ci 75470), Mica, Red 30 Lake (Ci 73360), Titanium Dioxide (Ci 77891), Yellow 5 Lake (Ci 19140)]

Colour:

Location: Ancient Egypt, Roman Empire, Greece

In ancient Egypt, the mineral pigment red ochre was ground and mixed with fat to produce a red tint to smear on the cheeks of both, women and men. Meanwhile, the Romans used red vermillion which they produced from grinding a powder of cinnabar, a toxic mercury sulphide which causes dementia, tremors, and eventually death. The Greeks used the more organic version with crushing mulberries on their cheeks. Since then, blush as make-up has been used to different extent depending on the beauty standards of the respective time. Industrialisation marked a shift since mass production made blush more available and was marketed from companies with a turn towards more 'natural' ingredients. Today, blush comes in powder, cream, gel or liquid, and is made from so-called FDA (or equivalent)-approved colorants or dyes (see list above).

References:

Lubitz, R.; The gruesome and lengthy history of why we use blush; BusinessInsider; 2017

*Pale* **CHEEKS DON'T THRILL HEARTS!**  
**... white faced women look old ...**

Here... revealed for the first time is one of Hollywood's important make-up secrets:  
*To make an actress look old, they whiten her cheeks. To make her look young, fresh, more desirable, they give the glow of real, live color to her cheeks.*

**Any woman**, no matter how young in body or mind, adds unwanted years to her looks by going about with white, lifeless cheeks. Colorless cheeks are repellent... they look sickly... corpse-like... cold... no one wants to touch them. And flat, one-tone rouges do little better. They look "fakey"... painted and repellent. They give you artificial, lifeless color... no radiance... no way to charm. But oh how different is lively duo-tone rouge! It's really alive... it glows... its color looks real, as if it came from within... it radiates vivacity... sweetness... so warm that no one, just no one, can ever resist its invitation!

Duo-tone rouge is the easiest in the world to get, too. Simply ask for PRINCESS PAT duo-tone rouge. All stores have it in all shades. See them... one is sure to be your "shade of romance"... the shade that will make you look younger... more really exciting to hearts!

**New "Dressed-Up" Beauty for Lips and Rub Off!**

Neither eating, kissing can possibly smear it. A lipstick at last that positively isn't greasy. It's a vinely scented liquid that wedges excit color to your lips. application stays many hours. In all smart shades, at good store \$1. So dime for generous bottle. State color hair and eyes so rect shade can be s

Clever look-proof faces to carry in your purse.

PRINCESS PAT duo-tone Rouge

Image: Princess Pat rouge ad (1940), The Makeup Museum, Baltimore

## PARROTS' BLUSH

Species/Parties involved: Parrot/Human

Pigment/Chemical: Haemoglobin

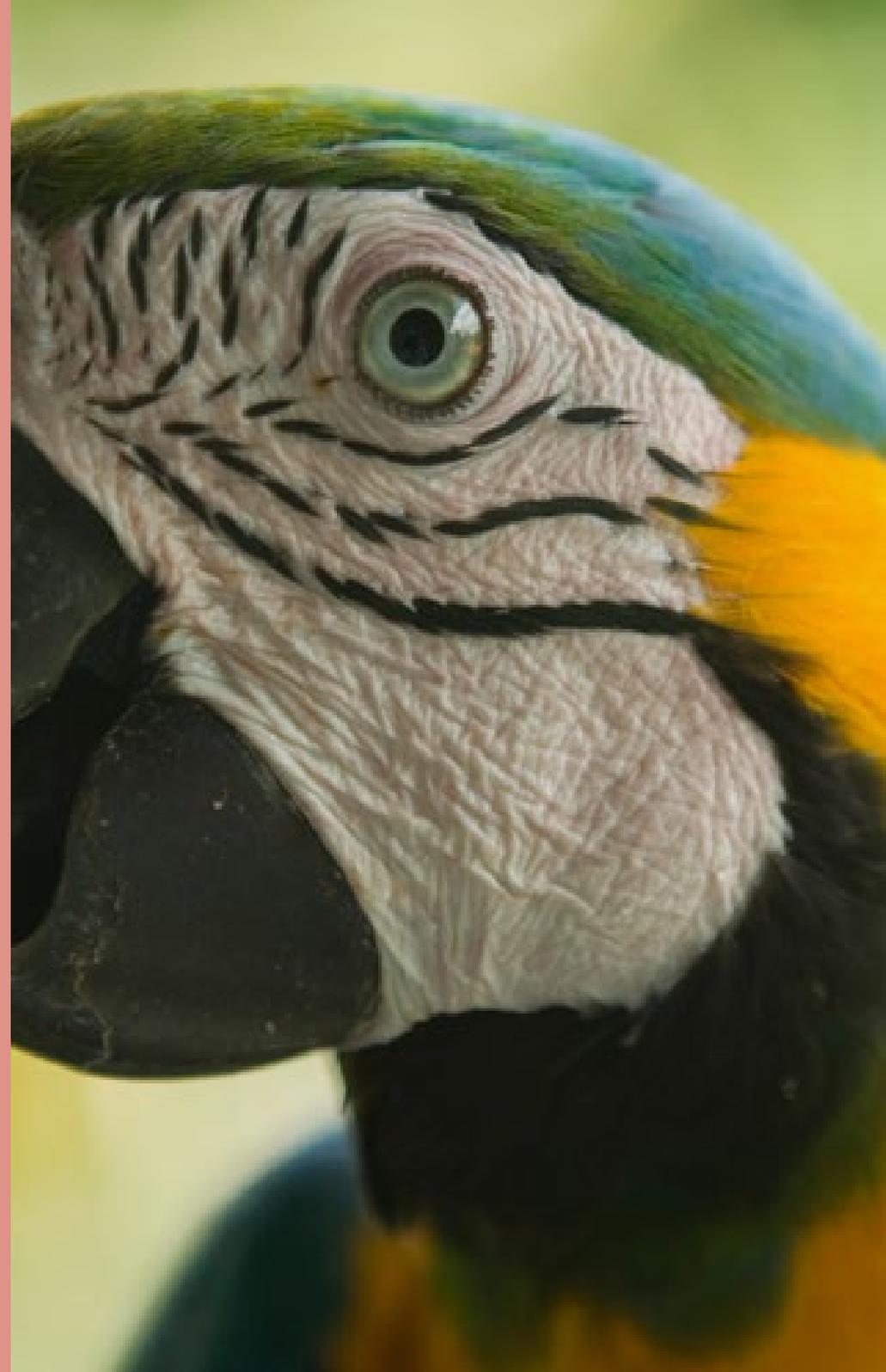
Colour:

Location: Le Val de Loire, FR

In recent studies at INRA Centre Val de Loire to understand the social lives of parrots, researchers looked at five captive blue-and-yellow macaws interacting with their human caretakers. The researchers examined the positioning of the feathers and the presence of blushing (or lack thereof) on the birds' cheeks. Interestingly, researchers found that blushing and the ruffling of crown feathers were both more common when the birds' owners were actively interacting with them by talking with their pets and keeping eye contact. On the flip side, this reaction was much less common when their owner was ignoring the bird — or turning his or her back to the pet.

References:

Vandette, K.; Parrots blush as a way to communicate with their owner; Earth.com; 2018



## BOUCHER'S BLUSH

Species/Parties involved: Human/Painting

Pigment/Chemical: Oil paint

Colour: 

Location: Getty Museum Los Angeles, California, US

In *Selling Beauty: Commerce and French Society*, Morag Martin writes: „Genre Paintings by Francois Boucher, Jean- Honoré Fragonard, and their followers depict young beautiful women almost always with with blushing cheeks and pale skin.” Further she says: „Boucher’s paintings depict the full panoply of cosmetics available: hair powder, face paint, mouches, rouges, lip pomade, and black for the eyebrows.”

What is a representation of beauty standard at that time hints to the idea of a ‚virginal blush‘ as a means to insist on female purity as an objectification of women under and for a the male gaze.

Morag Martin describes how the French beauty empire, represented by firms such as L’Oréal, Lancôme and Estée Lauder, began with the efforts of small entrepreneurs and artisans who persuaded women to abandon their homemade cosmetics in favour of commercially made products. In the process of creating this domain of commercial beauty, craftsmen and entrepreneurs also shaped modern consumer culture and norms of male and female appearance.

References:

Martin, M.; *Selling Beauty: Commerce and French Society 1750-1830*; Johns Hopkins University Press; 2009

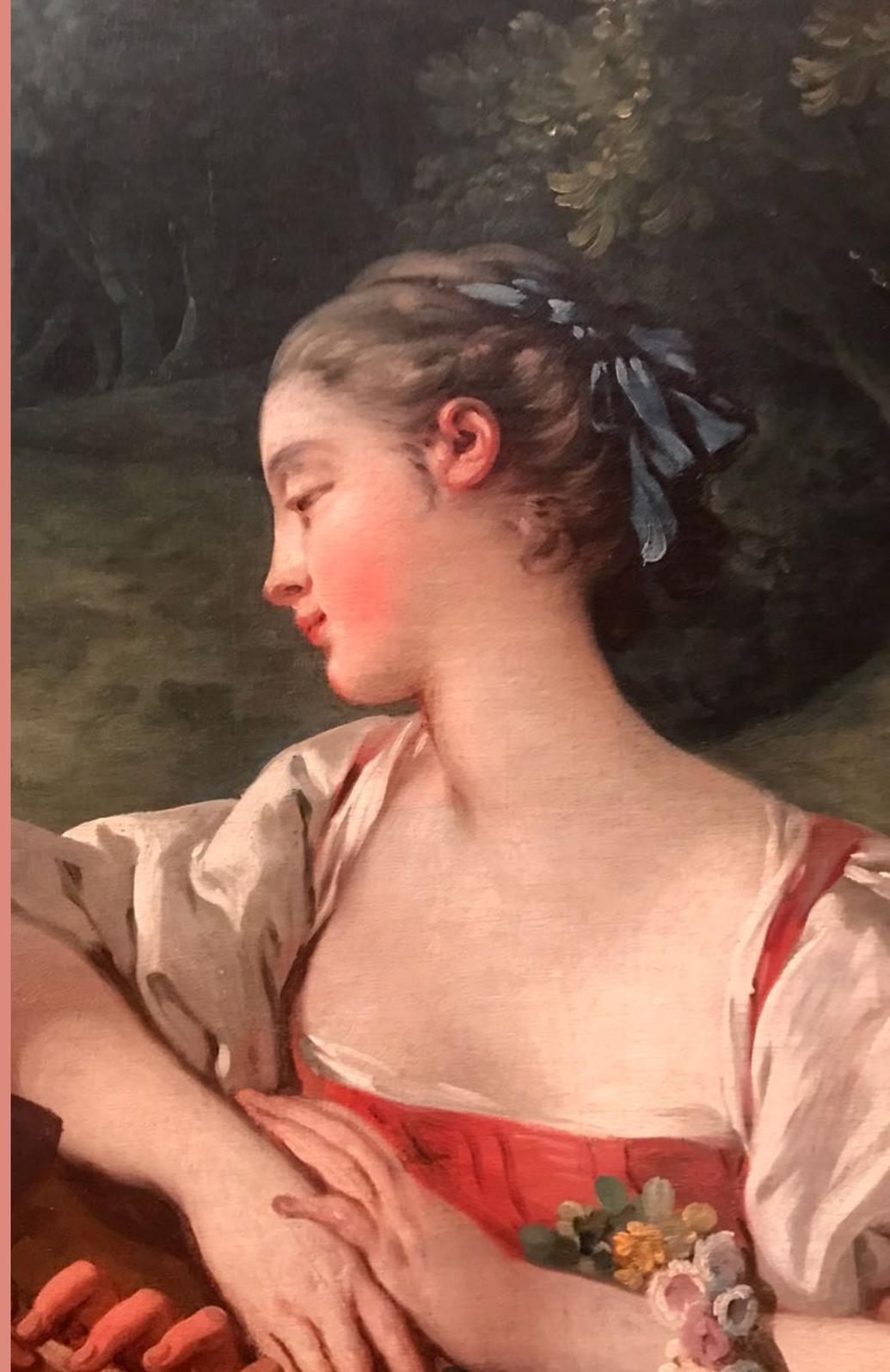


Image: Sina Hensel, 2022

## SANTA MONICA'S RED SKY

Species/Parties involved: Sun's rays/Atmosphere/Human

Pigment/Chemical: UV

Colour:

Location: Santa Monica Bay, California, US

The sun's rays are refracted, scattered or reflected by air molecules, particles and water droplets as they travel through the atmosphere. At sunrise or sunset, the sun is low on the horizon or even below the horizon which means that the path of the sun's rays through the atmosphere is significantly longer than for example at noon. The shorter the wavelengths of the light, the more it is scattered. Since blue light has shorter wavelengths than red, it is therefore more scattered. And the longer the path through the atmosphere, the clearer this effect is visible for us. The sky turns red for the observer because the blue part of the light no longer reaches us.

References:

Munroe, R.; What makes a red sky at night and at morning; New York Times; 2019



## RED VELVET CAKE

Species/Parties involved: Food/Human

Pigment/Chemical: Beetroot juice, Anthocyanin

Colour:

Location: New York, US

Red velvet cake is traditionally a red, red brown, crimson, or scarlet-coloured chocolate layer cake. Traditional recipes do not use food colouring, with the red colour deriving from anthocyanin-rich cocoa. Velvet cake is thought to have originated in Maryland in the early 20th century. When foods were rationed in the US during World War II, bakers used boiled beetroot juices to enhance the colour of their cakes. Adams Extract is credited with bringing the red velvet cake to kitchens across America during Great Depression era, by being one of the first to sell red food colouring and other flavor extracts with the use of point-of-sale posters and tear-off recipe cards.

References:  
Wikipedia



## PAULA MODERSOHN'S BLUSH

Species/Parties involved: Human/Painting

Pigment/Chemical: Oil paint

Colour: 

Location: MoMA, Floor 5, 504, New York, US

„In this emblematic *Self-Portrait with Two Flowers in Her Raised Left Hand*, the pregnant artist stares at viewers with a steady, compelling gaze. One hand is raised, holding two stylized flowers, while the other rests over her swelling belly.

Best known for penetrating self-portraits, characterized by psychological introspection as well as material and stylistic experimentation, Modersohn-Becker is also thought to be the first woman to paint female nudes. In this artwork, painted the year of her death, her masklike visage, combined with the areas of thick paint on her brow and right eyelid, the literal carving of a flower into her cheek”, we witness a blushing as a display of a range of emotions.

References:  
MoMA.org

