

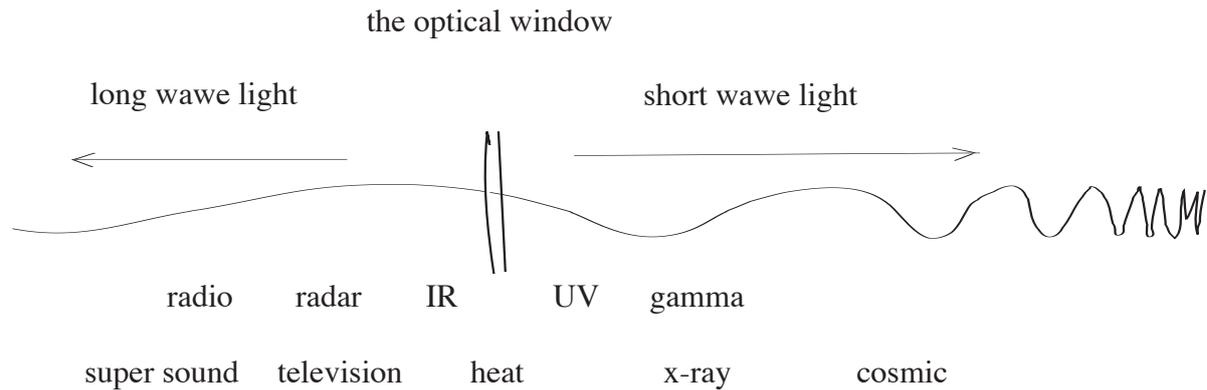
Painting course for your whole being!

COLOUR

Colour, what is that?

Well, exactly what it is we don't know, because colour is dependent on light (is light) and light is something research is still trying to define. But we do know something about how colour works .

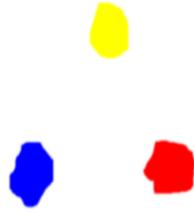
All colour you can perceive with your eye are dependent on light, because the eye needs light. When light beams hit an object some beams go into the object, while others are reflected. It is those that your eye perceives and your brain sorts them into different colours. When we talk about light and colour we describe them easiest as particle beams or electromagnetic swinging movements.



What the eye normally registers is between 400 and 700 nanometers.



A spectrum = all the colours of the rainbow. These clear colours are called spectral colours. The colours slide into each other and our eyes are able to distinguish around one million different shades. The colours we normally detect most easily in a rainbow are the following seven: red, orange, yellow, green, blue, indigo and violet. Seven colours just like seven notes in our musical scale.



Primary colours

Theoretically you can mix up all the colours of the rainbow from pure yellow, red and blue colours. That is why they are called primes. White is all colours together; all light is reflected.

Black is a complete lack of light, the surface absorbs all rays and no light is reflected.

If you mix yellow with the same amount of red you get orange.

Red + blue = purple

blue + yellow = green.



If we place these colours in a circle we have made a colour circle where the complimentary colours are opposite each other:

yellow – violet

red – green

blue – orange.

Complimentary colours are in a special relation to each other. Had we been able to produce 100 % pure colours and then mixed them together, the result would be white. But this is not the case; instead various beautiful grey shades always appear when we blend them.

Unmixed and placed beside each other they can, if you manage to find the same intensity of tone, create a flicker in front of your eyes. Together complimentary colours become very powerful and easily catch the attention of the eye, which is frequently used in advertising.

Just as the eye desires stimulation and impressions, it also wants rest. This effect of complimentary colours has been noticed by the health department.

If we stare at a colour for a long time the brain produces the complimentary colour, which you have probably noticed at one time or other. We always see an opposite image to what we have just been looking at before we close our eyes. It becomes most obvious when we have been staring rigidly for a long time.

This was a problem for surgeons before green operation sheets were introduced. By letting the gaze alternate between the blood red operating area and the green operating cloth the doctors avoid flickering green spots in their visual field.

Complimentary colours can also be used when you paint. By founding with a complimentary colour to the imagined finishing result you can make your picture come alive. Balancing between alive, shrill and flickering can, however, be quite dodgy.

Colour Harmony

By sticking to colours which all contain a little of the same prime colour you can easily create harmony in your picture; different shades of the same colour. In the beginning it is wise not to mix too many colours at the same time. Proceed from one colour, add a little of another + possibly white (black is better to wait with!) and pay attention to what happens.

Repeat the procedure and place the next shade you have managed to mix up beside the first. What happens? Which colour wants to lie in the foreground/background? Do the colours shine more or less together?

Cold and warm colours



To put it simple a colour is colder the more blue there is in it. Red and yellow are regarded warm. It might be hard to decide if a colour, for example a brown shade, is warm or cold just by looking at it separately. Our eyes are sensitive to differences and contrasts and the temperature of colours become clearest when we place one shade in relation to another one. This is one of the reasons for the excitement in painting. When you add a new colour or tone you alter the relationship between the colours already in the picture. With one million perceptible tones of colour the possible combinations are tremendous!



Creating depth in the picture

Generally we can conclude that warm colours will land in the foreground and cold in the back; the more blue, the further away in the picture.

However, to content ourselves with this basic thumb rule, would be too simple. There is much more to consider.

The more at the front you want something to appear in the picture, the stronger colours you should use. The world around us may be infinitely sharp, but nevertheless, our eyes normally perceive things as clearer the closer they are.

Far away = pail, bluish and vague

Close = strong, clear colours, warm and distinctly sharp

There is much more to be said about how you create depth in a picture; a picture with its two dimensions and you with the optimistic ambition that through this create a three-dimensional illusion. Some progress may be received though, by studying rules of perspectives, but that will form another lesson. However, a simple basic rule is that everything looks smaller the further off it is.

The symbolism of colours

Learning techniques for creating images is not enough though. We all send more or less open or hidden messages through the pictures we make.

As an image-maker you will, without a doubt, expose yourself to other peoples' interpretations of what you are expressing. As human beings we are all wonderfully complex; everyone unique and yet so alike. I have a feeling that the deeper we reach into ourselves the closer each other we get.

With this as a starting point it is not very surprising that you can learn for example such things as the messages of colours. Even though our perception of colour takes place on different levels, like savoring music, and some of these levels are subconscious, they are still communal.

How we perceive colours depends on various matters; personal experiences and cultural ones. Up to the French revolution intense, clear colours were popular among the wealthy and influential members of society.

A grand public servant in Europe could, without diverging, dress in shiny materials of both red and yellow. It indicated wealth and power. Then came the French revolution and it became dangerous to show your high position, if you had any. Since then it has become modern among men of power to wear sober blue, grey, black and brown shades of colour. Women of power usually also stick to those colours, at least during working hours.

In China it is suitable with white for funerals. When my grandmother got married her wedding gown was black, as it was modern at the time. Even though the symbolism of colours is dependent on time and culture, I do not think you will protest if I say that:



Red raises the pulse. We associate red to love and blood, passion and aggression; a warm colour. Red is more quickly perceived by the body than for example blue. Red is focused behind the retina and to compensate this, the body “moves the colour forward” and we experience a close by effect.



Pink – nice, cute, syrupy. The one colour which stimulates our taste buds the most! Because of this it is often used for food advertising. A true colour for princesses... or for kings – Elvis is known to have had a pink Cadillac!



Purple – the colour of saints and artists, a hippie colour. Spiritual maturity and total madness; nothing is strange to our friend violet. Popes, purple rain and shy violets...



Blue – clear skies and glimmering oceans. The most beloved colour of all, the colour most people declare as their favourite. Soothing, meditative, but also somewhat conservative; a bit dull?



Green – the colour of youth and nature; both cold and warm, peaceful and hopeful. Green signals “go for it”, but also envy and sickness.



Yellow is sunshine and happiness, easy and without weight. It sparkles, glitters and shimmers. A lively colour which can, however, be a bit difficult to live up to during longer periods – but we would not make it without it.



Brown in various shades is the result of mixing red + yellow + a little blue; the colour of earth and soil, kidnapped by fascists and nazis.



White – the colour of the full spectrum: perfection, clear light, pure but also cold. Yang – the male energy. Wedding in Sweden, death in China.



Black – dark and mystical, the inner hidden and female; ying. The deep velvet black can symbolise God, colour of grief in Sweden.

Colour as work material

Up to now I have referred to colour as light. As such it means: the more colours, the whiter/lighter the result. Now we are going to use painting colours, colours as matter, and the rule of light does not work anymore. The painting does not become whiter the more colours we use, no, more brownish-grey.

Why is this? Well, the light that is reflected by your dubs of colour is not as clear and pure as the light we get from the sun or from lamps. It is practically impossible to find a bright red which does not contain any blue or yellow. The same problem goes for yellow, which usually draws towards green or orange, not to mention blue!

If you want to equip yourself with a good painting box you need several versions of primary colours. A couple of different whites, maybe one black will do, but a few earth tones are also good to have.

A dark red is recommended, suitable to mix with blue, for beautiful purple tones. If you pick a brighter red, which draws towards yellow you will get brownish purple instead. Consequently bright red is good for the yellow mixtures.

You can of course mix colours any way you prefer. Sometimes you might desire a colour clash. Dissonance is refreshing sometimes!

What I write here is only intended as a help for you who want to get going with the painting, but does not know at which end to start. Now this has been clarified, let us continue.

Aquarelle, oil, tempera, acrylic...

Paint consists of several different substances. The colour grains themselves are called pigments and usually come from the same sources whether they are oil or water based. Pigments can be natural or synthetic, more and more are becoming synthetic. People have always been painting and often used what could be found in the surrounding landscape. With time it has become clear which colours are persistent and which are not. Which ones that mix easily, are possible to produce big amounts from or are cooperative in some other way.

In the old days no one cared about how poisonous they might be, instead they happily splashed away with red lead, white lead and beautiful cadmium colours, as they had good qualities, like light persistency and resistance against other matters. The most poisonous colours are now forbidden, but they still keep their names. Cadmium red is still called cadmium red, although it is not anymore.

The pigments can usually be bought as pure powder. Look out for purity though; sometimes the pigments are sold as pure though they are not. They can be diluted with some kind of filler or they might be grainy. As long as you stick to Artist quality you should be fine.

You cannot paint with dry powder only, but have to mix it with some kind of binder. You often speak about colours based on the binder used. In oil paint it is linseed oil, in acrylic paint it is acrylate, in egg oil tempera the binders are eggs and oil. However, in aquarelle the binder is Arabic gum, so there it is the solvent, water, which has named the paint.

Different binders demand different solvents

Linseed oil has many advantages. It is easy to blend any tone you want because the colour looks the same dry or wet. It is also easy to do subtle transitions, shading and finicky details with oil paint.

Oil dries slowly though. To quicken the process you can add a siccativ. Unfortunately you cannot dilute oil paint with water, it takes turpentine or aliphatic naphtha, which both of them smell bad, dissolves the brain and pollutes nature.

Egg oil tempera is an emulsion. Eggs can be mixed with both oil and water and thereby this impossible mixture is made possible.

On the surface the tempera dries a lot quicker than oil, which is an advantage when you are impatient. Inside it dries slowly, so if you rub hard you can still spread the colour for a pretty long time. Once it has dried it counts as virtually insoluble.

The tempera becomes a lot harder than oil paint and is consequently suitable for furniture. It needs an absorbing base. A disadvantage compared to oil is that the tempera shifts shades as it dries. If you are doing portrait painting for example, it can become quite tricky. A great advantage is that the solvent is water. Soft soap and water is enough to keep the brushes clean.

You can combine egg oil tempera painting with oil painting. Always start with the tempera, because it is lower in fat. This is an important rule if you wish to avoid cracking; always proceed from most meager to richer and richer. Then you top paint with oil the little details you did not manage with the rougher tempera.

Once you have bought the colour pigments they can be combined with various binders. In the old days they sometimes painted with beer, so called “drickamålning” (drink painting).

Processed sour milk works on glass.

To paint directly with only eggs and pigments produces a beautiful shine and works well on wood or paper.

Acrylic paint is a modern medium. You can buy acrylate in jars to blend the pigments in. Water functions as soluble, but a drawback is that the acrylate is milky before it has dried; you have to guess the result. If you buy ready-mixed paint in tubes you avoid the milky experience. The result is somewhat “plastic” and we do not know how long it will endure, but it is quick and easy.

Churning colour

If you intend to mix your own colours by the book, you should buy a colour mortar. It is a heavy glass mortar with a broad base. As underlay you preferably use a glass or marble board.

The pigment is weighed and poured into a small pyramid. Make a hollow in the middle and pour in the binder (check a colour blending chart first, for ex. Akke Kumlien's). Mix at first carefully with a small paint spatula and then you continue with the mortar. A bigger scraper is also needed to sweep the paint together by and by.

After a while of assiduous work you will notice no further change in your mix, which means it is time to pour the paint into a suitable airtight container, like a jar or tube. I usually put some pigments in a plastic jar, pour over tempera and mix it with a brush.

Recipe for egg oil tempera

1 part egg

1 part boiled linseed oil

2 parts water

Pour everything into a jar, prick the yoke and shake. The tempera should be shaken now and then and be kept cold, but must not be deep frozen. If you want a completely smooth emulsion you can strain the egg through a nylon stocking.

Paint and enjoy!

Finally: Facts on light and colour I have drawn from Karl Ryberg's book "Levande Färger" -91 (Living Couolors)

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