

# Colour Temperature

Using Colour To Add *Atmosphere* To Your Work

# What Is Colour Temperature, and Why Do We Need It?

Colour temperature creates atmosphere and depth in a painting. Visually warm colours come forward and cool colours recede creating a sense of movement around forms. Adding visual movement by consciously adjusting colour temperature contrast creates a sense of space in the picture; and when we have space around forms, we have atmosphere.

Use colour temperature to bring volume and space to your work and through contrast use it to direct the viewers eye around your subject and to the focal point.

## 3 Strategies For Understanding A Colours' Temperature

1. Using the Colour Wheel
2. Understanding the physics of light
3. Comparing the characteristics of colours between shapes

## What Controls A Colours Temperature?

Value, Saturation, and Hue

## Degrees of Contrast: It Can Be Subtle

Colour temperature occurs throughout your work and controlling the degrees of contrast is key to creating depth and moving the eye around the subject. Think of it regularly as you are mixing colour.

# Determining Temperature with the colour Wheel.

A colours' temperature is based on how close it sits to orange (warmest colour) and blue (coolest colour).

Colours sitting closer to orange are warmer and closer to blue are cooler.

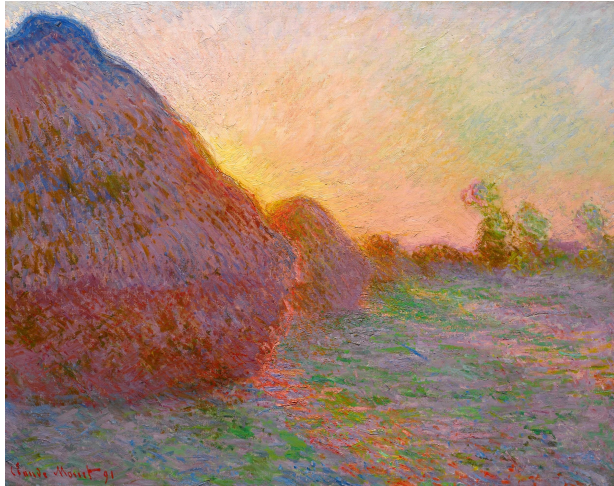
If you are analysing two colours side by side on the colour wheel, the one closest to orange will be warmer, and the one closer to blue will be cooler. Even if it's just one space apart there will be a difference.

\*Using the colour wheel will determine the temperature of the HUE.



# Who used Colour temperature well?

**The Impressionists!** They used Colour Temperature contrast more than Value contrast to create light and movement in their work. These images by Monet, Cezanne, and Van Gogh show the impact of these pieces comes more from temperature contrast than values contrast.



# Understanding the Science Of Colour Temperature:

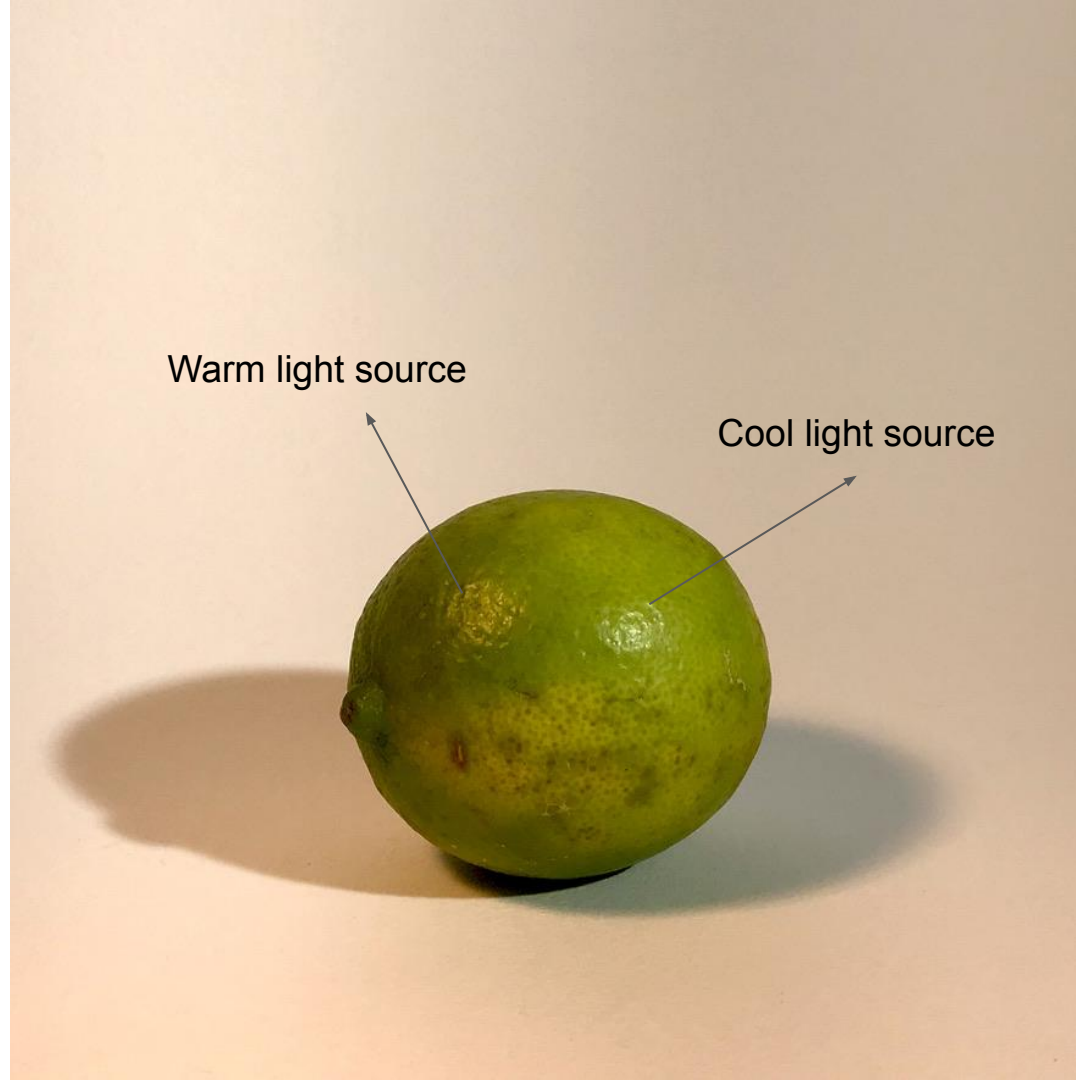
If you understand how light controls colour temperature you can be more strategic in your painting efforts; you can essentially **crack the codes of nature** and emphasize the realistic quality of light when it might not be so obvious in your subject. The key is to know the temperature of you light source because...

**Cool Light** casts **Warm shadow** & **Warm light** casts **Cool Shadows**

(This is the formula and it never fails to be accurate or guide you in your colour choices).

# The Light Source:

This lime is lit with two different light sources; a **cool light on the right**, and a **warm on the left**. Note the different coloured reflections on the lime, you can see the left is a warm yellow base highlight and the right is a cool white based highlight.



# The Shadows

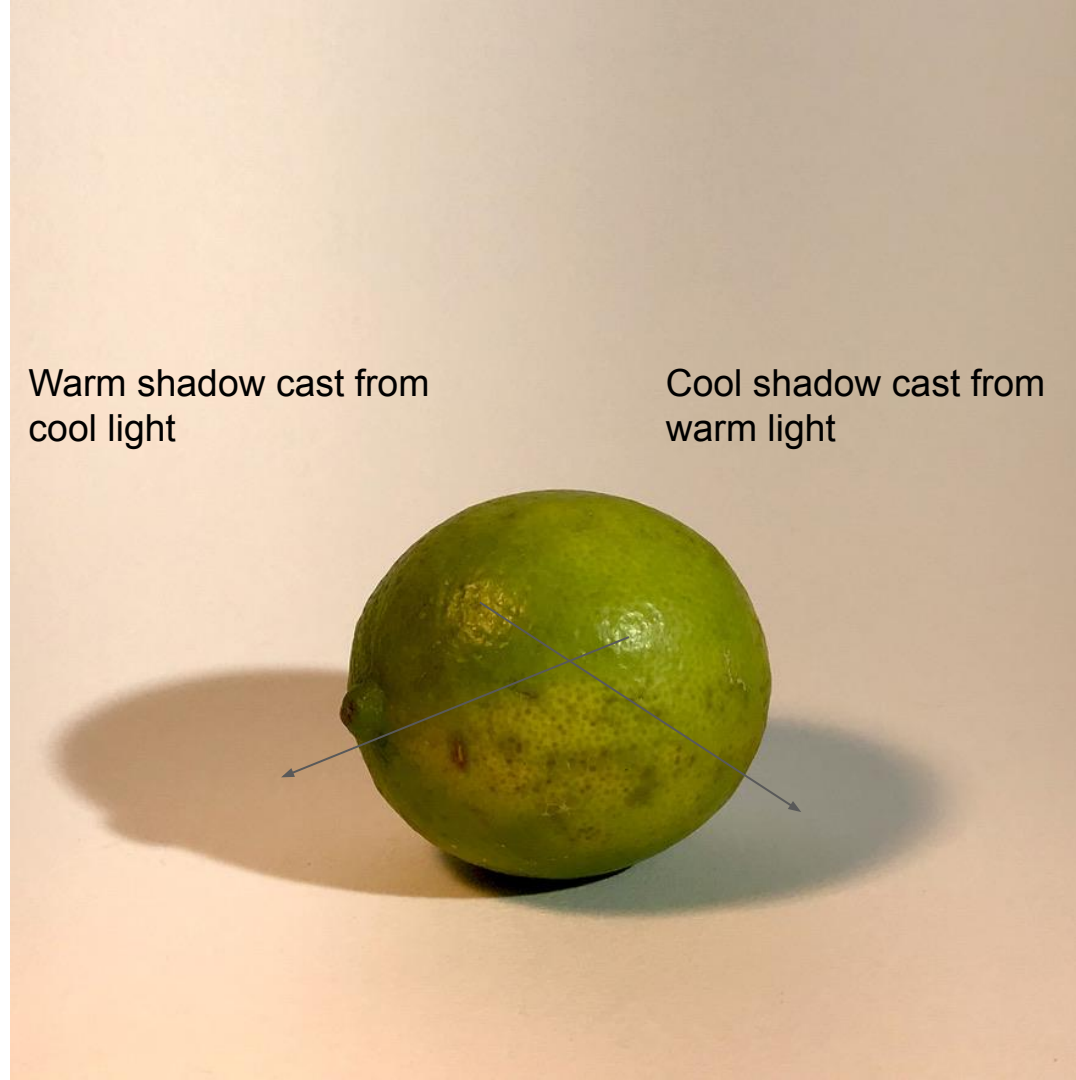
Now look at how the shadows on either side are a different colour.

The shadow on the right is a cool blue and is created by the warm light source. The warm brown shadow on the left comes from the cool light source.

**Light always does this** - it create an opposite temperature in its shadow from its source temperature.

Warm shadow cast from cool light

Cool shadow cast from warm light

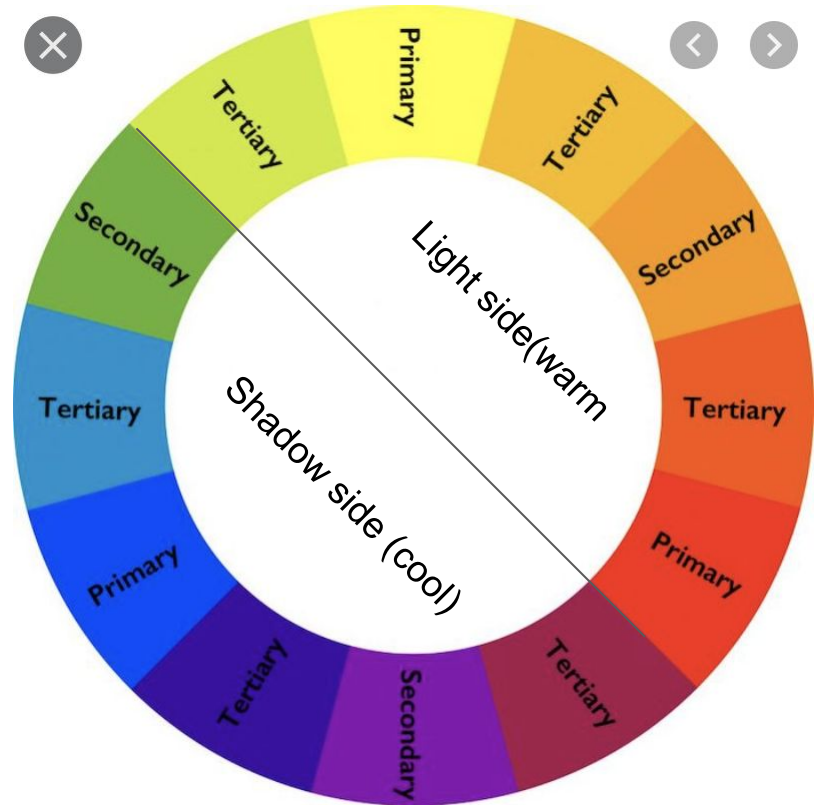




# How Can **Shadows** Be Warmer than **Light**?

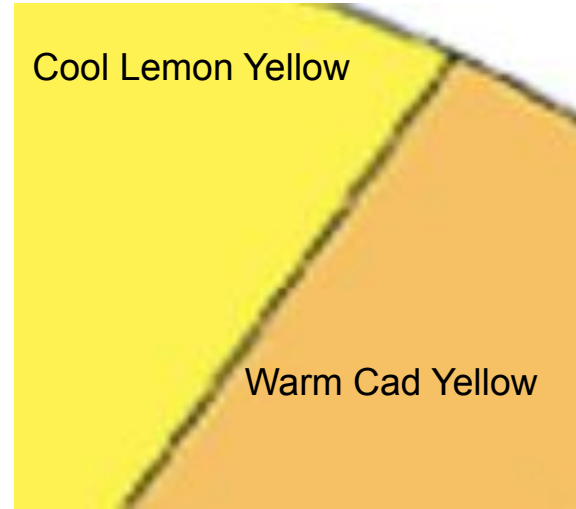
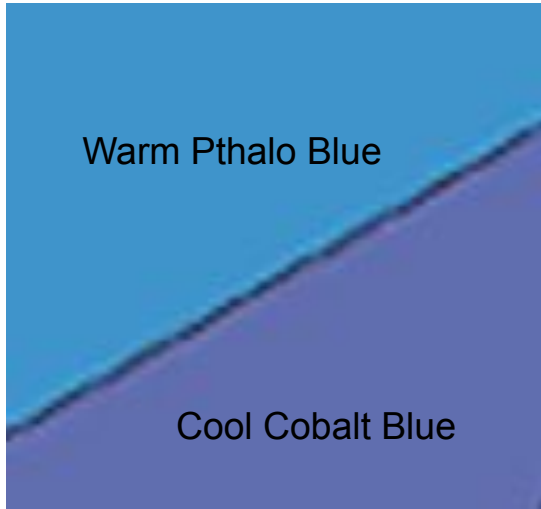
They aren't!

- Shadows will always be cooler in temperature than your light source, because they are darker and often blue or purple based: **Darker 'can' mean Cooler, and blue is always cooler than orange.**
- We are **not** comparing **shadows colours to light colours**. We are comparing **shadows to shadows** and **lights to lights**.



# Comparing Shadows to Shadows and Light to light

- Each colour has a warm and cool version of itself which is determined by its' position on the colour wheel.



# A Split Complementary Palette: Warm and Cool

Based on the Colour Wheel, A **Split Complementary** Palette features and **warm and cool version of each primary** to help you make the most of using colour temperature. As you mix with this palette you are always having a conversation in your head about the temperature of each colour you are using. This is because the colours are chosen and organized by temperature, so it naturally occurs to you to speak about them this way.

**Warm Primaries:** Pthalo Blue, Cadmium Yellow, Cadmium Red



**Cool Primaries:** French Ultramarine Blue, Lemon Yellow, Alizarin Crimson



**Colour Mixing: When you work with a simplified palette, it is very useful to know the colour mixing role of each colour.**

What makes a colour cooler...in general.

- Adding Blue
- Adding White
- Adding it's complement to dull it down
- Making it darker

What makes a colour warmer...in general.

- Adding Yellow
- Adding Red
- Reducing it complement to brighten it up
- Making it lighter

# Determining Colour Temperature Outside the Colour Wheel

**Outside of the colour wheel:** A colour shapes temperature and the degree of contrast is relative to that of the colour shape it sits beside. It's all about the relationships between the colour shapes. When isolated a colour may be cool in nature, but when grouped with cooler colours this colour will take on a warmer tone in relation

To make an accurate determination of temperature, ask yourself these questions about the shapes:

**What colour family is it from? Which one is darker? Which one is more saturated?**



# Colour Temperature

HUE

SATURATION

VALUE

Is it lighter or dark?

IS IT DULL OR BRIGHT?

ADDING WHITE CAN COOL A COLOUR.

→ ADDING A COMPLEMENTARY COLOUR - COOLS.

→ PURE COLOURS ARE THE WARMEST VERSION

↓  
DARK COLOURS ARE COOLER THAN LIGHT

↓  
WHERE DOES IT SIT ON THE COLOUR WHEEL?

# Colour Temperature - Strategy

From the beginning we need to understand that **colour temperature can be used strategically** in our art. Colour temperature can be controlled and manipulated to **engage the viewer and emphasize our message**. When we work strategically we have intention and purpose in what we paint, and how we paint it. With this mindset we **gain control of our process and our outcomes**.

**Lake Huron Sunset:** In this image I have applied a continual shift between warm and cool colours to emphasize the warmth and brilliance of this sunset. If all the colours were warm in temperature the image would lose its impact.



# Controlling Contrast: What Does It Do?

**High Contrast Colour Temperature:** Used in an extreme of saturation, hue and value, temperature contrast grabs the viewer's eye and directs them to the focal point. This level of contrast is highly engaging and exciting to look at. Putting high contrast of colour temperature will emphasize your focal point by making things jump visually.

**Boy with Goggles:** In this image I used visual complements of red and turquoise to emphasize the warm and cool quality of this image. The cool turquoise and watery blues emphasizes the warm skin tone. In the absence of a formal landscape, I relied on the temperature, and values of these colour give the viewer the feeling of warm sun, and cool water and a sense of space.

*Note: Complementary colour always contrast in temperature, but contrasting temperatures are not always complementary colours.*





# Low Contrast

**Low Contrast:** Used with less contrast in colour, value and saturation, colour temperature shifts help us lose edges and adds subtle movement around this subject. Playing with the degrees of colour temperature contrast (like values) makes a visual map to guide the viewer through your work.

In this piece I have softened the contrasts in value and saturation between the warm and cool colours within the hand and background colour. The result is that hand is an area of interest but it doesn't compete with the shoulder and face of the subject. The delicate shifts in colour temperature and value make the hand feel like it is disappearing into the scene.



# Colour Temperature in action with (Clarence Gagnon)

A winter day, turquoise sky at about 4pm. The warm sun is setting on the subject. To create accurate depiction of light, Gagnon is using warm versions of Blue, Pthalo blue in the sky, and a cool versions French Ultra in the shadow. This will increase the contrast between the light and shadow, and create more atmosphere. I believe Gagnon has taken the liberty to boosted the saturation of these colours for a more dramatic effect.



# Liz Heywood-Sullivan

This piece create temperature contrast using yellows, siennas, and browns in the landscape and cool blues in the light source. This is an obvious warm cool contrast of hue.

For added depth there is a temperature, value, and saturation shift within the leaves and branches of the foreground trees. The varying degrees of contrast creates movement, depth and variety in the piece, and accurately mimics nature.



## Be Brave!...and patient 🙏

A colour's temperature is just one part of a colour's characteristics; there is also its **value, saturation and its' hue**. Each quality of colour is like a lane in a highway, and as we paint we have to have all of these lanes open in order to accurately describe our subject. In learning to manage this "highway operation" we can isolate these qualities to focus our learning, but every colour has all of these characteristics and eventually we need to operate them together.

# Believe in what you see!

- Colour awareness and understanding is something that grows with experience. Allow yourself time to explore and study to build your knowledge.
- Pick a focus to become an expert.
- Treat colour like a game and try to crack it's code...refer to the rules of how light works and the colour wheel and you will begin to see things you didn't see before.

One of the most important tools to understanding colour is to be open and believe in what we see, instead of seeing what we think.

Jessica 😊