Basic types of lighting

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One of the basic elements in the painting is light. The light determines the appearance of the model its color, contrasts etc. Direction of the main light, quality, quantity and colorfulness, significantly influence its own model and determine its final appearance and the overall atmosphere of the artwork. The light source may be artificial such as a light bulb, a fluorescent lamp or natural light. In this short overview we will focus on the natural sources of lighting that I use most for my own work.

The bright sunny day has basically 3 light sources, the sun, the blue sky, and the reflected light from illuminated objects. The sun as the primary main light source is surrounded by a blue sky that produces diffuse cold lighting. This secondary lighting turns on the model from several different directions. At higher positions where the air is clean, the sky has a more blue purple tinge and the shadows are darker and colder. The more clouds in the sky the more gray will be blue. In modeling all 3 light sources must be taken into account and must be reflected in the model.

In principle you need to stick to the system:

local color of illuminated body part = warm sunlight (local color has a yellow orange touch)

half shadow = cold light blue sky (half shadow will have a bluish tinge and lower chroma compared to local color)

Shadow = reflected light (warmer hue compared to half shadow)

All mentioned above we will explain in the following picture of white ducks

The yellow arrows represent the direction of the sunlight and the blue arrows represent the light from the blue sky, which is surrounded by the sun. Since our model has a local white color, it is easier for us to see all of these color changes more clearly.

At points **A** the sunlight is reflected on the model so the white color is colored by the light source, in our case it will be white with a yellow or yellow orange hue. At points **B** the model is more inclined towards the secondary light source the blue sky. Therefore the half shadow areas have a bluish hue. At point **C** the model reflects the reflected light, and the shadows are warmer compared to the semi-shade.

Points **1** and **2** indicate the cast shadow. At point **1** shadow is a bit warmer compared to point 2 because at point 2 which is more distant from the model, there is already the illumination of the blue sky which cool down the shadow further from the model.
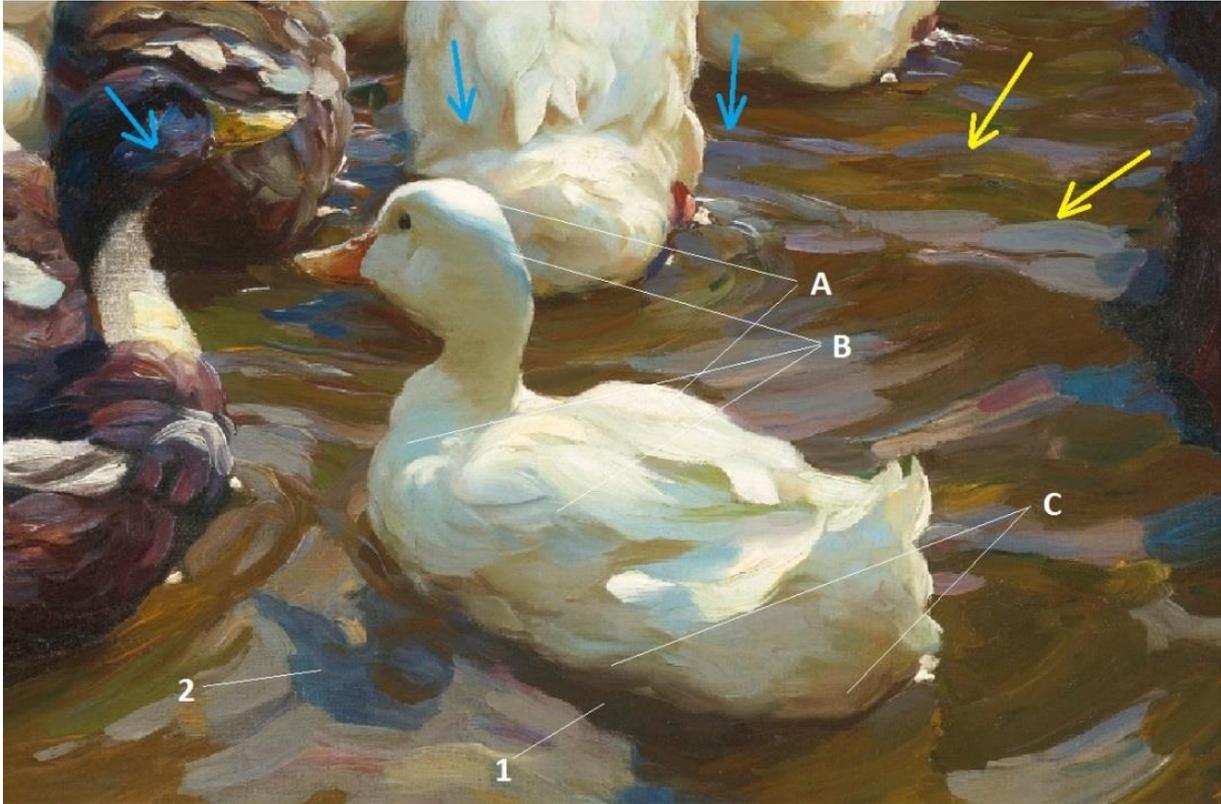
These rules are also reflected in the next image of the rose, which has a yellow local color. The half shadows at **B** points is influenced by the blue color of the sky, and in conjunction with the local yellow color, the semi-shade has a blue-green touch. At points **A** the local color is slightly affected by the impact of sunlight, which is warming yellow color to a certain extent.
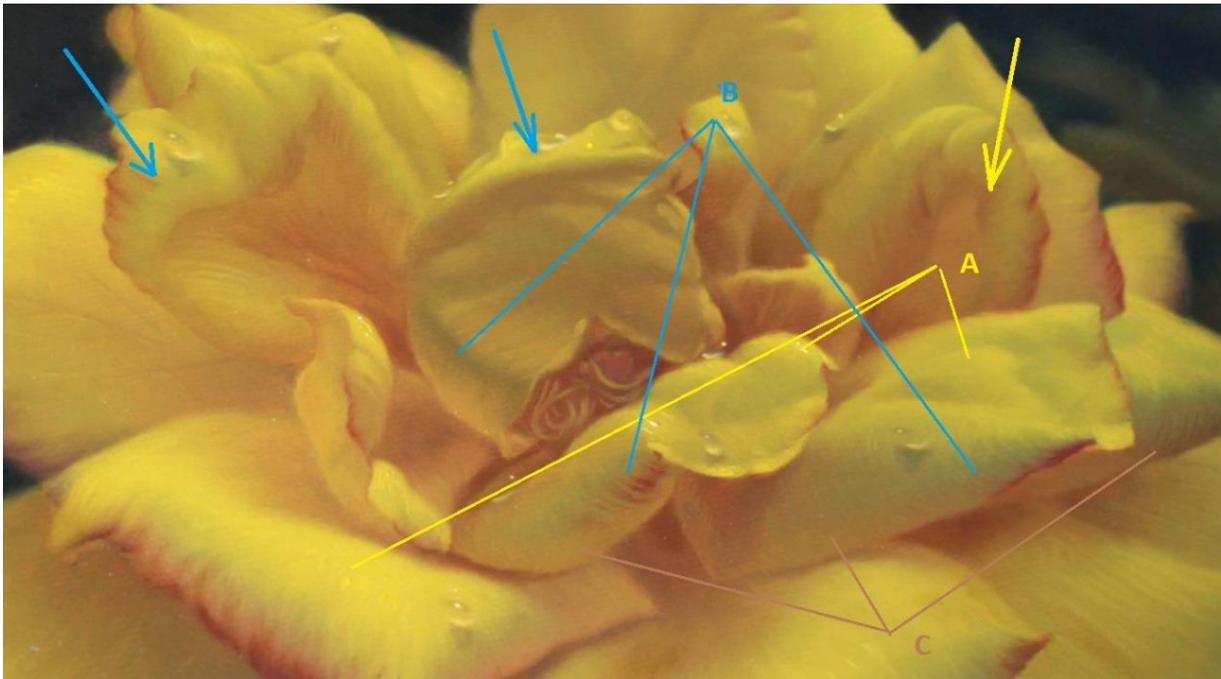
In the case of painting light reflections on more or less shiny objects or models, never forget to paint around the warm yellow orange sunlight reflection also the blue halo part representing the blue sky as shown in the following picture.
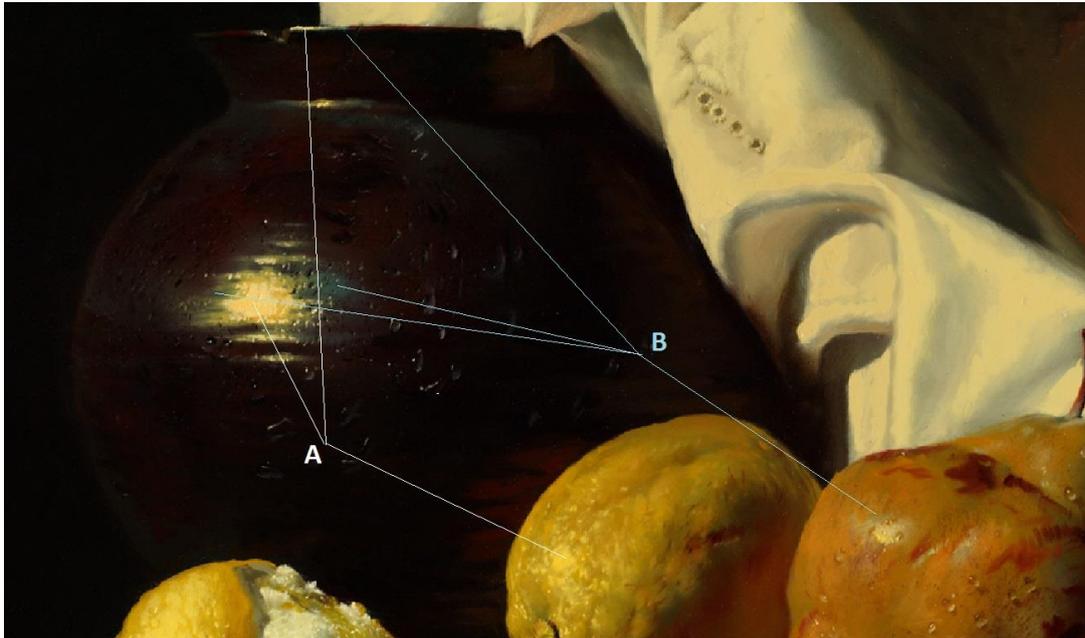
Points **A** represent the reflection of sunlight and **B** points reflecting the blue sky.

The cloudy sky produces smoother diffuse lighting than a clear day. This type of lighting will allow you to paint objects in their true local color without distinctive tonal and color contrast between light and shadow. The shadows are not so sharp and the model transitions between light and shadow are more gradual. Surprisingly, the local color appears to be a cleaner form because it is not affected by direct light, and due to the low color illumination the colors on the image appear to be more intense due to the color contrast. This diffuse illumination does not change over the course of the day, allowing for longer image processing without significant changes in the light of the model.

In principle, you need to stick to the system:

Local color of the illuminated body part and half shadow = cold light (blue or gray sky color)

Shadow itself = reflected light (warmer than the half shadow and local color)

Let me explain the rules in the following picture. The gray arrows represent the direction of diffuse lighting. The picture shows that there are no significant tonal or color contrasts. Overall, the picture has a calm melancholic atmosphere without dramatic tonal changes,

sharp shadows of the model or cast shadows as is the case with direct sunlight.

At points **A** the local brown color of the model is influenced by incidence of gray light, causing cooling and shading (reduction of chroma) of local color. **B**-points reflect reflected light, which causes warming in the areas of shadows.

Generally speaking, warm light produces coler shadows and half shatows, and cold light produces warmer shadows.

Northern light has similar properties to previous lighting. This kind of illumination has a bluer touch, however this is relative as the color of light depends on the specific lighting conditions. This kind of light is very popular and many artists like this kind of natural light and they intentionally have their studio windows facing the north side. Their model then strikes a cold, stable diffused light with a cooler bluish or grayish touch that does not change significantly during the day.

Artificial lighting is generally governed by the rules for natural lighting. It is necessary to realize what color and intensity our artificial light source has and according to it then choose the color and temperature scheme of shadows and half shadows. Bright light placed close to the painted object creates sharp shadows and edges. The farther light produces finer edges with more gradual transition and graduation.

Source:

1. James Gurney - Color and Light

3. www.huevaluechroma.com

4. www.matejakart.com