

Painting the Invisible

Light is strange stuff, if it can be called 'stuff' at all. Without light we see nothing and yet we can never see the light itself. Light is invisible.

Of course, sometimes 'rays' of light are seen. The pillars of light that are observed when the sun is behind a cloud are an example of this. The light is being scattered – reflecting off the tiny particles and droplets of water in the atmosphere. We are seeing things that are illuminated, not the light itself.

So how can we paint light?

The way light is seen is of great interest to painters. How do you paint a picture of an empty wine glass? Glass is transparent so how do we know it's there?

Luckily, glass refracts light. It changes the direction the light travels and so distorts the objects behind it. Try looking through a wine glass. The world beyond the glass melts into a distorted picture of what is really there. But that is not the only way a glass shows its presence. There is a reflection off the curved surface. A twinkle in the eye is the same thing. Look deeply into someone's eyes and you see a tiny reflection of yourself – in classical Greek the word for 'tiny doll' is 'pupil'.

Symbolic light and reflections

For many centuries painters have attempted to represent the effects of light with varying degrees of success. They have also used light as a symbol, perhaps suggesting divine intervention. They have also used reflection to define a surface; calm water is shown by reflections on its surface, without the reflections the water disappears.

A useful way of seeing how the artist has used reflection to show surfaces is to 'crop' the painting. When you cover parts of the painting the area remaining can change dramatically. Try this on paintings showing rivers, take away everything but the river surface and the river itself seems to vanish.

Twentieth century artists chose a different approach. In many post-Impressionist works a glass seems to be rather different from the everyday object, whose optical properties are well known to all.



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What you need to do:

Look at the diagrams showing how 'rays' of light are reflected and refracted. These are similar to those found in many physics textbooks.

Now look at the reproductions of the paintings by Van Eyck, Burne Jones and Escher. Do these appear to follow the laws of optics? What about the Giorgione – how has the artist suggested the material of the soldier's armour? These images all *seem* to be trying to represent reality in a fairly straightforward manner. But now look at Monet's famous 'Bar at the Folies Bergere'. This appears to show a woman and her reflection, but is this actually the case? It may be that we are seeing two women. Finally, look at the sketch by Picasso. Here the artist has represented a reflection of a window at its most basic.

Your challenge is to look at the use of optics in the work of a particular painter or period. You should produce an illustrated talk of about 10 minutes in length. Don't just give an overview but look at works in some depth. Try 'cropping' pictures. You could even produce a simple model of Manet's Bar to test whether a mirror could give the image of the woman's back as suggested in the painting.

Resources that might help you:

There are many excellent websites dedicated to art. Perhaps the most useful one to start with is:

www.artcyclopedia.com This has about 80,000 images.

Jonathan Miller's [On Reflection](#) (National Gallery Publications) is a very useful overview of one aspect of using light in painting.