# Painting three dimensions

Representational paintings are actually illusions—two-dimensional interpretations of a three-dimensional world. You are about to take up the challenge of creating those illusions. So what is it that makes a painted image believable? To begin to answer this question, we have chosen a lemon as a simple subject to illustrate some basic principles.

# **Shape**

One of the ways we recognize any object is by its shape—that is, by its profile as it appears against a background. Whether it is interpreted as a simple outline or as a silhouette, shape helps us distinguish one object from another.

#### Form

However, an outline provides very limited information about an object. For greater realism, you will need to explore ways of conveying three-dimensional form or solidity. One simple method is to draw contour lines representing the surface of the object. This may help you to understand the form of the object, although it is a somewhat "mechanical" interpretation.

#### Tone

To create a more realistic image, try making linear marks in the form of hatching and crosshatching to create a tonal image—one that interprets the subject in terms of light and dark. Faceted shapes have clearly defined faces, but rounded forms require a gradual gradation from light to dark. To evaluate tonal values, study your subject through half-closed eyes. This allows you to distinguish the lightest and darkest areas from the halftones.

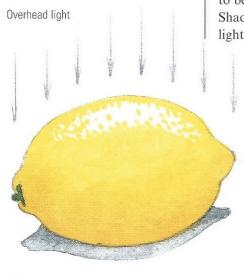
# Light and shade

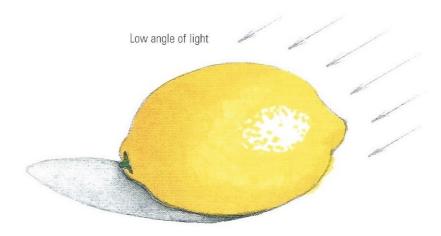
Light falling upon an object casts a relatively dark area of shadow behind it. Including shadows in your painting will help to create an illusion of weight, because the object will appear to be resting firmly on a surface rather than floating in space. Shadows are strongest immediately behind the object, getting lighter as they stretch away.

Contour lines

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A low angle of light will cast a long shadow, whereas an overhead light will cast a short one. Illuminating an object evenly tends to flatten its appearance, whereas light from only one direction exaggerates the tonal contrast.

## **Highlights**

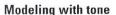
Highlights are high-key areas of tone, which are created by light reflecting back from a surface. Used in conjunction with shadows, highlights serve to enhance the illusion of three-dimensional form. You can create highlights by applying opaque paint over laid color, or by masking out areas of white paper before you apply a wash.

## Reflected light and color

Light reflected from a tabletop will brighten areas of deep shadow. Similarly, the color of the subject itself may be reflected in the surface of the table. Adding these touches to your painting makes for greater realism.

#### Local color

We know that a lemon is yellow—this is its "local color." However, when painting an object, it is necessary to look beyond local color. The color that we actually see depends on whether a surface is in direct light, reflected light, or shadow. In this study (below), the artist has used cadmium yellow, modified with washes of yellow other, and a mixture of cobalt blue and burnt umber for the areas in shadow.



Colored tones—a mixture of cobalt blue and burnt umber—are used to model three-dimensional form.

## Highlights

Created by stippling masking fluid onto the paper before applying a wash.

#### Reflected color

A white tabletop picks up the local color of the subject.

#### Cast shadow

4 cool gray wash gives the impression that the subject is resong on a flat surface.

#### Interpreting form

Making drawings and paintings of simple objects is a good way of learning how to interpret solidity and form. This study of a lemon was painted in watercolor on smooth paper.

## Reflected light

Reflected light can brighten areas of the subject in shadow.

#### Color sketching

Before committing to a major painting, make color sketches of single objects to observe the play of light on the subject and its background.

