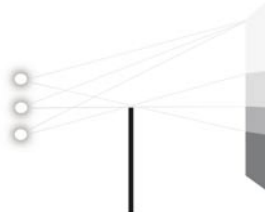


Light Travels In a Straight Line

Working with a Light's Size and Direction

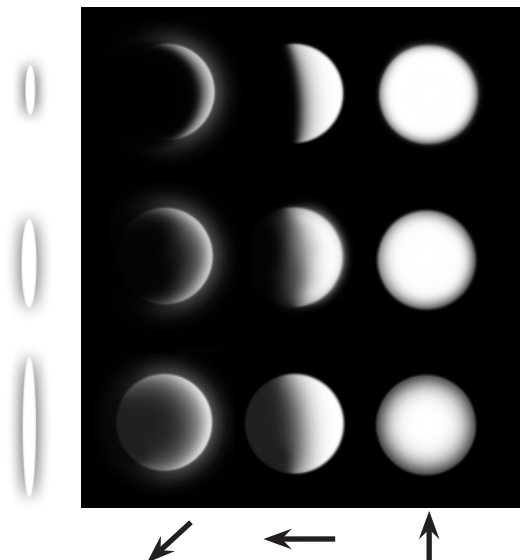
One of the most important steps in controlling light is to control light's absence. It is often easiest to learn about a light by looking at the shadows it casts. Since light travels in a straight line, a small light source that is shaded from part of a subject creates a sharp shadow. To build on this understanding, think about three small light sources:



They each create a sharp shadow, and the effect of their combination is a progressive series of steps. To eliminate the steps, create a light source that has the same diameter as the three lights combined.

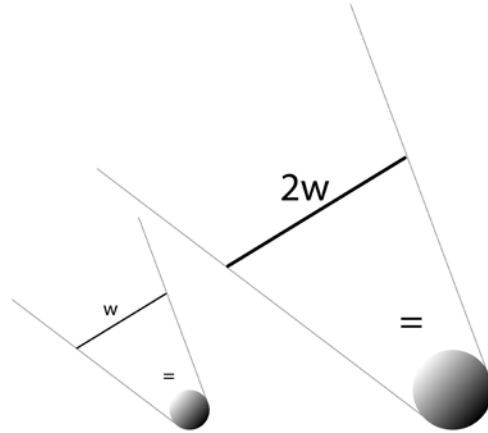


The relative size of the light source, combined with its direction, determine the way light works to show shape and texture. Here are some examples of the effects of using a small, medium, and large light source on a sphere, (the size being relative to the subject) from behind, (New Moon) the side, (Half Moon) and from the direction of the camera. (Full Moon)



Size is a Relative Dimension

The effect that light source size has on a subject is relative to the size of the subject that is being lit by that source, as well as the distance from the subject. Because of this, it is useful to think of size as an angle rather than a linear dimension.



Given a light source of a width w , its angle is dependent on its distance to the subject. Changing the distance to the subject changes the angle, as well as its effect on a subject.

