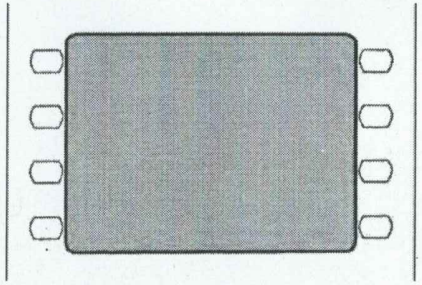

Figure 1.3 35 mm film frame.

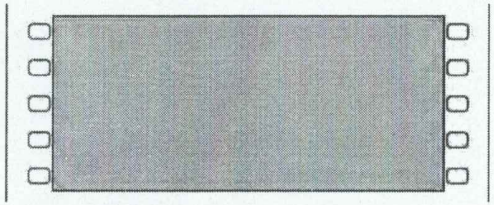

Figure 1.4 65 mm film frame.

VIDEOTAPE FORMATS

Since productions began shooting on videotape, there have been many different formats used. They include ¾", Beta, VHS, S-VHS, VHS-C, 8 mm, Hi8, and Digital8. Most of these formats are no longer used for shooting. Most production today is done using the MiniDV (digital video) format. In addition to the standard MiniDV tapes, there are two additional versions of digital videotape: DVCPRO and DVCAM. Whatever version you choose to use, be sure that the camera you are working with is compatible with the tapes you are using because in many cases they are not interchangeable. Check with the rental company or camera instruction manual if you are not sure.

In addition to shooting on digital videotape, today there are many video cameras that record to memory sticks or memory cards or even directly to a hard drive. One type of memory card currently in use is called the P-2 card. Again, be sure that you know exactly what type of recording medium your camera uses before starting production. Do some tests and be sure that you are totally familiar with your camera and all of its functions.

SYNC SPEED

The term *sync speed* refers to the speed at which the film moves through the camera to create the illusion of normal motion. In the United States, sync speed is 24 frames per second (fps). In Britain, Europe, and Australia, sync speed is 25 fps. Anything filmed at a frame rate less than sync speed will have the illusion of fast motion when it is projected. Anything filmed at a frame rate more than sync speed will have the illusion of slow motion when it is projected.

For the examples in this book, I will assume we are shooting at a sync speed of 24 fps. For 16 mm cinematography, at sync speed the film will travel through the camera at the rate of 36 feet per minute. For standard 35 mm cinematography, at sync speed the film will travel through the camera at the rate of 90 feet per minute. For 3-perf, 35 mm cinematography, at sync speed the film will travel through the camera at the rate of 67.5 feet per minute. The 3-perf format will be explained later in this chapter. See Table E.2 in Appendix E for a list of film formats, feet per minute, and frames per foot.

SYNC AND MOS

The two types of motion picture filming are sync (synchronous) and MOS (pronounced "em-oh-es"). During filming, recording synchronous sound, such as dialog, along with the picture is referred to as *sync* filming. When filming without recording synchronous sound, this is referred to as *MOS* filming. The Hollywood legend says that the term *MOS* came from a German director who could not say "without sound." Instead he would say "mit out sound," which gives us the term MOS. The literal translation of the term is *minus optical sound.* MOS filming is used whenever there is no sound involved or the sound will be added at a later date during postproduction.

FILM STOCK

Any piece of motion picture film stock is made up of three main components. Looking at a cross section of a piece of film shows the three components: emulsion, base, and anti-halation backing (see Figure 1.5).

Emulsion

Emulsion is the part of the film that is sensitive to light. It may be light brown (color film) or light gray (black-and-white film). It is comprised