

# THE PRACTICAL USE OF PERSPECTIVE

**THE SCENES** and objects we see around us are all three-dimensional: they have height, width and depth. The photographic print, on the other hand, is a plane. It has but two dimensions: height and width. Logically it follows that the scenes and objects presented on photographs should also become two-dimensional; they also should have only height and width, but no depth. Actually of course this is true. However, when we look at a photograph most of the time we have the illusion of depth. The objects on the picture seem to be three-dimensional. The phenomenon which creates this illusion of three-dimensionality in the two-dimensional plane of a picture is perspective.

“Now,” you may say, “if this is so why bother with perspective at all? Let the camera take care of it.” Yes, but you handle the camera and the way you handle it may make the difference between a flat looking picture and one having a three-dimensional effect, the illusion of space.

Fortunately we can neglect most of the problems of perspective which are treated in the many books written about it. We will concern ourselves with only one phase: the practical angle. How can we use perspective to improve our pictures?

This question is two-fold. First, how can we get the illusion of three dimensions, the illusion of space in our pictures? Second, what else can we do with the planned use of perspective?

In photography we have the following six different means of creating an illusion of space in our two-dimensional pictures. While each of them can serve this purpose alone, usually a combination of several gives the best results.

1. **Converging Parallels.** If lines, parallel in reality, appear to be converging in our picture, they will give to it a feeling of depth and distance. We are all familiar with scenes where railroad tracks, fences, poles, etc., all recede to a common vanishing point in the distance. In Figure 1 the parallel lines of floor and ceiling of the arcade appear to be converging, thus lending the picture an effect of great depth.

- 2. *Diminishing Size.*** An effect of space will result when objects which we know to be of the same size appear on our picture in diminishing sizes. Figure 2 is a good example. We know that most cars are approximately the same size. The cars here, however, are shown as tiny resulting in an appearance of space and distance in the picture.
- 3. *Lighting.*** One of the controlling factors in perspective is lighting. Flat lighting either from camera position or behind the camera has a tendency to destroy the feeling of depth in the original scene and in the photograph. Side-lighting or backlighting, on the other hand, produce highlights and shadows which give depth. Side-lighting also produces the three-dimensional result in Figure 6 where the depth of the picture frames is entirely realistic.
- 4. *Scale by Comparison.*** When we know the size of subject which appears in our photograph we will use its apparent size in the picture to judge its relative position. Figure 7 is an example. It shows people walking and cars driving, on Daytona Beach in Florida. The people, cars and even houses appear to be very small, thus giving both depth and distance to the picture. By including people in Figure 8 we again have increased the illusion of depth. The very smallness of the figures indicates distance. Cover up the small figures with your fingers and notice how, as the background seems to come forward, the illusion of depth is partially lost.
- 5. *Atmosphere.*** When we view the original scene we notice that changes in tone values frequently occur in the distance. Usually these changes are due to atmospheric conditions such as haze and smoke. Objects appear lighter and less contrast in tone the further away they are from either camera or observer. Darkness, suggesting nearness, and lightness, distance, together create the illusion of depth and space.
- 6. *Limited Depth of Field.*** An illusion of depth can be created in a photograph by letting the background go out of focus. As an un-sharp background will appear to recede, it will push the sharp part of the picture forward.

Several factors add to the illusion of space and distance. An out-of-focus background is only one of them. Side-lighting and scale by comparison (small figures in the background) also contribute to make the illusion.

If you become familiar with the six factors listed above you will have no trouble in making pictures having a three-dimensional effect as well as an illusion of depth and space. Of course, simply reading about it will not automatically produce successful pictures. Descriptions and illustrations of the six factors must be studied and memorized. They must become part of your photographic technique.

Making realistic photographs is another practical application of perspective. Realistic photography implies that we attempt to get a perspective in our pictures similar to that which our eyes see. To do that is rather simple: when we photograph our subject from a distance with a leveled camera the resulting picture will be similar to what our eyes see. There is no definite rule to tell us how far the camera should be from the subject for any one picture. As a rough guide we may say that the distance between subject and camera should not be less than eight times the greatest dimension of the subject being photographed. For instance, a human head which is two feet high (including a small part of the body) , should be photographed with the camera at least 16 feet in away from it in order to get a realistic perspective.

We repeat, this is just a rough guide. Experience will teach you to select the proper distance between camera and subject for each type of subject you take. By a leveled camera we meant that it should not be tilted in any direction.

The next question, is realistic perspective necessary? Should our photographs be similar to what our eyes see? At there is no single answer to these questions. It is entirely up to you as a creative photographer to decide for yourself what you want your pictures to look like.

We have told you how to get a realistic perspective if that is what is desired, but we can't (and wouldn't) tell you that your photographs should always have a realistic perspective.

We also told you how to get depth in your pictures by the application of one or more of the six factors. You can also avoid getting depth if you so choose by eliminating all the factors from your picture. Again, the choice is yours.

Any photograph inevitably has some sort of perspective. Although it sometimes will be entirely “crazy” and unorthodox, still it will be perspective because, generally speaking, perspective merely means presenting three-dimensional objects on a two-dimensional surface-the photographic print in our case.

The most important thing in a picture is its effect: does it or doesn't it have the effect you wanted to establish? Control of perspective often helps to get certain effects; other times the complete disregard of realistic or natural perspective achieves the desired result.

In summing up we can say that in average work a perspective giving the illusion of space and depth will improve our pictures. Sometimes it is desirable to use a perspective which represents the subject as the eyes see it. But of utmost importance, the perspective used in any one picture should produce the exact image which the photographer wanted to make.

There is just one more point to be cleared up. In contradiction to popular belief, there is only one factor which controls perspective: the position of the camera. The lens, its focal length, the type or size of camera used are not factors in perspective control. Lenses of different focal length will produce images of different size on the negative, but the perspective will remain the same as long as the position of the camera is not changed. There are cameras with adjustments to control perspective, but because using these adjustments actually means changing the position of the camera we disregard them here.

The fact remains that any two cameras in the same position will take pictures having identical perspective. Any change in the camera position will change the perspective.

By now you should have a pretty clear idea of the importance and of the workings of perspective in photography. Of course we all must realize that there is much more to it than has been included in this discussion. We wanted to establish the importance of perspective in photographic work and to give practical information regarding its use. If these explanations and illustrations are studied and put into practice, your own work proves greatly. You will take better pictures, which our purpose in the first place.