Using Sunlight for Better Pictures

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Using Sunlight for Better Pictures

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This booklet is written in the form of a *Programed Text*. In order to proceed through the material you will be required to make certain responses. You are to “think” the right words or symbols, fill them in with pencil or otherwise react. Study the photographs and drawings carefully to find the correct clues. Take plenty of time. When you have completed each double page, turn to the next. In the upper left hand corner of the right hand page you will find the correct answer to the previous page. Continue in this way through the book.
IN THIS BOOKLET you will learn that the old saying: "Have the sun behind your back when you are taking a picture" is not really a very good rule. It is the purpose of the booklet to teach you that more interesting pictures can be taken by having the sun's rays coming from some other direction than from behind the photographer.
A photograph records the differences in dark and light of a subject. These differences may be due to the nature of the subject. For instance, the flag could be photographed because the white stripes and stars were ______ than the red stripes and the blue field. This allows us to make faithful two-dimensional photographic records of the subject.
Such photos however are usually not very interesting and tell us little about the third dimension of the subject. Differences in dark and light may also be the result of unequal lighting. For instance one side of the subject may be ______ with direct sun's rays while the other side is in ______.

The words *highlights* and *shadows* are used in photography to describe the areas of _____ and _____ in the picture caused by unequal lighting.
The highlights and shadows thus formed seem to add shape to the subject. These _______ and _____ may be formed by light coming from the side or from the rear of the subject. There are many variations within these directions.
The bright areas in the picture are called _______. The dark areas which are not lighted by direct rays from the sun are the _______. 
If we want to take more interesting photographs we will arrange the subject and the camera to use this unequal lighting. In other words we will depend not only upon differences in light and dark belonging to the subject itself, but will place the camera so it can “see” the _______ and _______ caused by unequal lighting of the subject.
To demonstrate the *angle of lighting* we can use a diagram like this. The _____ is placed at the center of the circle and the _____ on the circle facing the subject.
Front Lighting

45° Lighting

90° Lighting

Back Lighting
The *angle of lighting* is the angle between the direction the camera is pointing and the direction of the light rays.
The light may go in the same direction the camera is pointing. This is called ____ lighting.
The light may come from the side. Then the angle of lighting is either ____ or ____ degrees.
When the light comes from somewhere behind the subject we call it ____ lighting.
When the light shines in the same direction that the camera is pointing the ____ of ______ is 0 degrees. This is called zero (0) degrees or ________.
When the light comes from directly behind the photographer we have ___ degrees or ____ lighting.
With _____ lighting a shadow is cast, of course, but it falls directly behind the tree and cannot be "seen" by the _____.
A good way to check the angle of light is to look at the shadow cast by you, the photographer. When your shadow points straight toward the subject, you have _____ lighting.
For practical purposes *front lighting* can be said to include angles varying from about 15 degrees either to the right or left of the photographer. So *front lighting* includes a total angle of about ___ degrees.
Front lighting depends upon contrasts belonging to the subject itself since it casts the _______ directly behind the subject where they cannot be "seen" by the ______.
For this reason, for taking pictures of three-dimensional subjects front lighting *is, is not* (underline the better answer) the most desirable lighting.
Since practically all subjects have three dimensions, we should almost ______ use front lighting in photography.
When the sun’s rays make an angle of 45 degrees with the direction the camera is pointing, we call it ___ degree lighting.
With 45° lighting the sun's rays will again cast ______ of the subject. Only now the shadows can be “seen” by the ______.
When you as the photographer cast a shadow at an angle of 45 degrees with the direction of the subject then you have ___ degree ______.
Complete this diagram to show 45 degree lighting from both right and left of the photographer.
This picture of a swan was taken with ______ lighting. It shows that the swan has 3 dimensions. Otherwise it could not have cast the ______ where it could be "seen" by the camera.
In this picture we can see that the columns are round because we used __________.
Here again the different planes of the building show up because ______ was used to produce ______ and ______ which could be “seen” by the camera.
We say a picture has "depth" to describe its third dimension effect. This picture has _____ because the _____ lighting casts ______ from the subjects.
What angle of light would you strive for in taking a picture of a horse? _____.
Sketch in the direction of the light to obtain this 45 degree lighting.
Since most subjects which we photograph have third dimension, it is desirable to use an angle of lighting which will show s______s in the picture.
Study the lighting on the columns in these photographs; then label each picture within its appropriate *angle of lighting*.

A. _____  B. ____.
Judging by this sketch does 45 degree lighting have to be exactly 45°?

(yes or no?)
Arranging the lighting and camera direction so that they are at right angles to each other makes even a greater contrast between the light and shade of the subject. Sometimes this ______ lighting is even better than 45 degree lighting for showing the shape or depth in a picture.
The shape of this dog is evident in this picture taken with ___.
The diagram for ___ lighting will look like this. The light may come either from the right or the ___ of the photographer.
When using 90 degree lighting outdoors the photographer's shadow will lie at ___ angles to the direction of the subject.
In this picture — lighting was used to show the ____ of the columns. Complete the diagram to show the direction of the lighting which was used.
Depth can sometimes be best shown by using ______ lighting.
Label these pictures with the *angle of lighting* used. Which one shows depth the better? A or B? Why?
Choose the photos on these two pages in which the lighting best shows depth.
Here again 45 degree lighting was used to show the shape of the gate posts to give a feeling of ___ in the picture. Since 45 degree lighting usually does this well, and is easier to use, we will use 45 degree lighting more, less (underline better word) often than 90° lighting.
We have learned something about *front*, *45 degree*, and *90 degree* lighting. Based on what we have learned, we will use — ______ lighting most often, — ______ next, and ______ lighting almost never in taking pictures of three-dimensional subjects.
Light which just *grazes* the surface of the subject is usually ______ light. It will show the texture of rough surface because it _____ the peaks of the surface and casts ______ in the valleys.
In this diagram, sketch in the direction the light should come from to produce *grazing lighting*. This grazing lighting can also be _____ lighting.
Label these pictures with the angle of lighting used.
A. Front lighting

B. Grazing lighting
A. 0 degrees (or front)
B. 90 degrees (or grazing)

Which picture best shows the texture of this cloth? A or B?
Whenever we wish to show the texture of a surface we will strive for _____ or _____ lighting.
Label each photo with angle of lighting used.
A. 45 degree
B. 90 degree
C. front

Finally, when the light comes from behind the subject we say that we have back _______. 
The diagram for _____ lighting will look like this. This kind of lighting is often used to get certain dramatic effects.
This dramatic picture was taken with ____ ______. Notice that the effect also shows depth in the picture and shape of the columns.
In this dramatic ___ lighted scene the camera lens was shaded from the sun's direct ___ by the tree.
Good sunset scenes usually use ____ on the horizon to shield the camera’s ____ from the direct sun’s rays.
Back lighting can include many angles so long as the light comes from somewhere _____ the subject. Only condition is that the ______ __ must be shaded from the ____
______.
When taking pictures with *back lighting* the subject casts shadows **behind** the camera, and the photographer's shadow points **behind** the subject.
While bright sunlight is not the best type of light for taking closeups of people, we often want to get such pictures under this condition. Then it may be well to use ___ lighting so as not to cast deep ______ in the eyes or around the nose.
The softer light on the face thus usually results in better likenesses than when using ______ or ______ lighting.
With subject lighted this way it is necessary to expose for the _____ side of the subject.
Label each photograph with the kind of lighting used.
Complete this diagram to show all four types of lighting. Indicate general zones rather than exact angular direction.
The lesson you have just completed is intended to suggest general guidelines on natural lighting for photography; to make you aware of what light and shadow can do for your pictures.

It is not our intent to lay down hard and fast rules for what angle of light to use for each subject. Subjects and conditions vary too widely for us to presume to do this.

To be successful you should experiment with the lighting in each new situation. Try it from one angle, then another. A small variation in the angle may spell the difference in making or not making a great picture.