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Fig. 27. St. John

PICTORIAL COMPOSITION IN PHOTOGRAPHY

\mathbf{BY}

ARTHUR HAMMOND

ASSOCIATE EDITOR OF AMERICAN PHOTOGRAPHY

WITH 49 ILLUSTRATIONS BY THE AUTHOR



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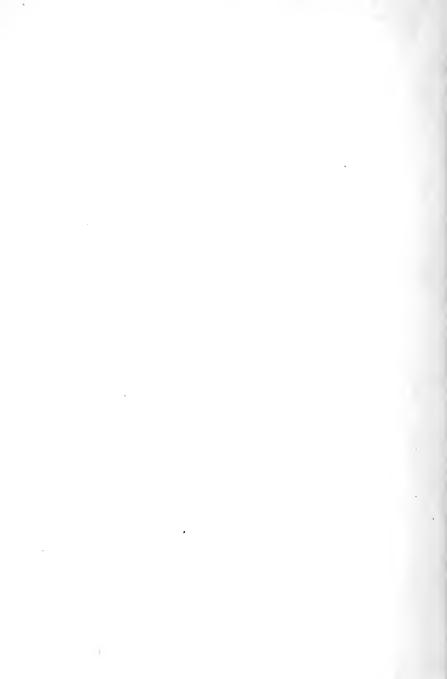
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PREFACE

To tell a photographer how to compose his pictures is like telling a musician how to compose music, an author how to write a novel or an actor how to act a part. Such things can only grow out of the fulness and experience of life. Yet the musician must learn harmony and counterpoint, the novelist must know the rules of grammar and the proper use of words, the actor must study elocution, and all of these are more or less exact sciences which can be taught. Their application is entirely individual.

So in pictorial photography, some principles of composition can be acquired from books, but the most important element of success — the personality and soul of the artist — must be implanted in the individual and must grow with his experience.

I am only too well aware that much has been omitted that should have been included in this little book, and that many important points have been but lightly touched upon, but if it should contain any helpful information and thus serve to encourage some who have hitherto hesitated to embark on the uncharted ocean of pictorial

PREFACE

photography; if it should help to point the way to the friendly haven of success, my purpose will have been accomplished. If any should take as much pleasure in reading as I have in writing, my efforts will not have been in vain.

Boston, February, 1920.

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PICTORIAL COMPOSITION IN PHOTOGRAPHY

CHAPTER I

Introductory — How Pictorial Photography has Benefited by the Energy and Enthusiasm of Technical and Scientific Experts — The Need for Sound Technical Knowledge and Training — Composition — The Mechanics of Suggestion — Teaches Economy in the Use of Tones; Teaches What and How to Emphasize; Teaches What and How to Eliminate; Teaches Appropriate Action Following a Careful Analysis of Impressions — The Limitations in Representation — What is a Picture?

PHOTOGRAPHY, with its many and varied aspects, appeals in different ways to people of widely differing temperaments and this, doubtless, is the reason for the almost universal interest taken in cameras and camera results the world over. This interest may be scientific and utilitarian or it may be purely aesthetic. Photography may be regarded either as an art or as a science, and, therefore, an artist may find in it just as much to interest him as does one who is mainly concerned with the scientific laws and principles involved in the production of a photographic print.

The artist who uses the camera for picturemaking is following only one of the many branches

of photographic work, and there are others just as interesting. There is for instance, the alluring field of photographic chemistry, that tremendously interesting study of such manifestations of nature working according to fixed laws as the chemical reactions originated by the energy of light and the reduction to metallic silver of the silver salts which have been affected by light. The science of optics, too, is connected very closely with photography, and here is another absorbing study for the practical scientist, who will find much to interest him in the study of light and its transmission through a lens. The purely technical problems of photography, and the cultivation of the ability to produce perfect results under varying conditions, will interest many who are neither artists nor scientists, and such lovers of technical perfection can go far before their interest will wane, for almost every picture, or, at any rate, every class of pictures, will offer new technical problems. In the study of technique alone many years may be spent with pleasure and profit.

To the chemical and optical experts and to the enthusiastic technicians we, as photographers, owe a deep debt of gratitude; to their careful and painstaking investigation and research are due the wonderful strides made in the invention and manufacture of the photographic apparatus

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and materials now at our disposal. To the experts in photographic chemistry we owe the perfection of the modern dry plate with its wonderful speed and other advantages over the wet plates of the past. To them, also, we owe the invention and manufacture of orthochromatic and panchromatic plates, which place in our hands a wonderfully efficient means of securing better pictures. To the enthusiastic technicians and their insistent demands for better and more efficient apparatus we owe that marvellous photographic tool, the modern anastigmat lens, which so greatly enlarges the possibilities of photography. And, in answer to their demands for portability, compactness and convenience of manipulation, we have the roll-film cameras and the miniature, vest-pocket cameras with exquisite refinements of workmanship and tremendous possibilities. There are some who look down from the plane of high art and are complacently tolerant of the technician and the chemical and optical enthusiasts, but if it were not for these and for their energy and enthusiasm, photography would not have reached its present high standard of artistic quality.

Those whose interest in photography is confined entirely to its possibilities as a means of artistic expression and pictorial representation are artists, and they recognize in photography a

flexible and responsive medium by means of which they can express their pictorial ideas and convey their impressions to others.

The appreciation of beauty is an almost universal human attribute. It is manifested very early in life by the little child who, though hardly able to walk, will toddle gleefully to pursue a butterfly or to grasp a flower. This primitive instinct sometimes remains dormant in an adult whose interests and activities along other lines of human endeavor leave little room for unpractical and visionary enthusiasms. Often, however, the childish instinct develops and expands in later life, and the desire to create, the longing of the artist to produce some concrete evidence of his thoughts and feelings, is the logical and natural outcome of the interest in beauty that is inherent in us all.

This impulse to express our ideas of beauty must be guided by knowledge and training, and much hard work is necessary to train the mind and "that clumsy instrument, the human hand" adequately to perform the tasks demanded of it. It is so in all branches of creative art, and photography is no exception. A musician works hard for many years to perfect himself in his art; a painter has to put in many years of training before he can express himself fully, with satisfaction to himself and others. So the artist in



Fig. 1. A SUMMER LANDSCAPE

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photography must work and study to make himself the master of technical difficulties. hands the camera and lens should be flexible and responsive to his moods. This implies a thorough mastery of technical details, and a clear, though not necessarily exhaustive, understanding of the scientific principles involved in the production of a photographic print. There must be artistic feeling, of course, but that alone will not suffice. Knowledge and skill are also required to enable the artist to use his chosen medium to the best advantage. It is a mistake, therefore, for the artist in photography to regard technique as being merely mechanical and beneath his notice, for, unless he possesses a thoroughly sound foundation of technical knowledge and manual dexterity, his work will always be crude and unfinished, and he will never have complete control over his medium.

There are many good books and magazines which deal with various portions of the technique of photography from the practical standpoint. Therefore, when technical advice is given in this volume, it will be on the supposition that my readers already possess a thorough knowledge of the elementary principles. The reader is referred to other volumes in this series for additional information on the technical and scientific aspects of photography. My purpose is to try to point

out to the artist in photography some of the universally recognized rules of composition, and to give as much practical help as is possible in dealing with a phase of artistic work in which the personal equation is so important a factor.

Whether or not the ability to make pleasing pictures can be acquired by reading books on composition may be open to question. Personally I think it can, because the desire to learn. and the interest in the subject shown by this desire, presuppose a natural inclination and the germ of creative ability. This can be cultivated by study and by practical experience along the right lines. No books on the subject can actually teach a photographer how to make pictures. They can only point out the road and suggest lines of thought. There must be actual experiment along the lines suggested. Composition can become a habit like everything else, and the more one works at it the easier it will become. If the desire is there and one is interested enough to keep on trying, one day he will get a real picture. This will be followed later by another, and, in time, the ability to see and arrange a pleasing composition will become habitual. The wouldbe pictorialist must try to cultivate the ability to see everything pictorially.

The object of the picture-maker is to express, not facts, but the emotions which these facts

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arouse in him. In order to be able to do this, he must understand the laws of composition and also those that affect the distribution of light and shade. His eye must be trained to distinguish values, that is, the varying effect of light on objects of different material, and the gradual change in the color or tone of an object, according as it is nearer to or farther away from the eye. All this is a matter of study and experience, and is but the natural development of an instinctive sense of what is beautiful in line, form and tone. When this instinctive appreciation of beauty has been developed along the right lines, the ability to discuss and criticize pictures as well as the ability to make pictures will be more complete. Instead of a more or less vague idea that such a thing is right and that something else is not right, one will be able to give definite reasons and make the criticism constructive and helpful.

Artists are not always creative; there are many people who admire pictures, who enjoy music and literature, who can appreciate the artistic feeling shown in works of art, but who are quite unable to express themselves in terms of art, or to convey their impressions to others by any means of artistic representation. Such people are just as much artists, however, as those who can paint pictures, compose music or write poetry. Robert Louis Stevenson writes in *Ordered South*: "We

admire splendid views or great pictures; and yet what is truly admirable is rather the mind within us, that gathers together these scattered details for its delight, and makes out of certain colors, certain distributions of graduated light and darkness, that intelligible whole which alone we call a picture or a view."

Those who, in addition to being able to enjoy and appreciate pictures, possess also the power of expressing their ideas in such a way that their pictures may be enjoyed and appreciated, are but carrying the inherent appreciation of the beautiful to its logical conclusion. In them the appreciation of beauty has developed into a craving to create beauty, and pictures are the result of this craving.

Thus we arrive at the conclusion that pictorial photographs are pictures made with a camera by an artist for the benefit of other artists; pictures in which individual artistic aim and feeling have found their expression by means of the camera. The artistic aim and feeling must be guided by technical skill and by a knowledge of the laws of composition. The technical skill I shall take for granted and shall deal, in this book, mainly with the principles of composition.

What is composition? Why is composition required? Why is it not possible to photograph a

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beautiful scene or a beautiful object, and thus make a picture?

If we could reproduce in a picture a landscape, just as it appears to each one of us, including the color, the depth and spaciousness, the ever-varying and changing lights, the interest due to the swaying branches stirred by the wind, the sounds and scents of nature, and everything else that goes to make such a view attractive; if we could pick out just what appeals to us most strongly and could include in the picture only what we want to see and leave out everything else, our reproduction would be a picture, in all probability. But it is not possible to represent thus fully or selectively. At best we can only suggest, and composition is the mechanics of suggestion.

In the early days of photography popular interest was excited by the camera's ability to record facts. Today the artist's aim is to make it record his impressions of facts, and to express his personal feeling.

The artist in photography is handicapped to a considerable extent by the fact that the camera is, essentially, a copying machine. The optical perfection of modern lenses and the orthochromatic qualities of the sensitive emulsion tend to make it wonderfully efficient in this respect. But the artist must learn to control his medium; and knowledge, skill and experience will enable him

to do this so completely that in his hands the camera will become as responsive as the brushes and pigments of the painter. Mere copying nature will rarely make a picture: there must be individual interpretation by the artist, and the camera, properly controlled, will make pictures that show this individuality very plainly. No one who is familiar with the work of the leading pictorialists would mistake a picture by Coburn for one by Porterfield; and a portrait by Steichen can be readily distinguished from one by Will Cadby. The individuality of the artist is interpreted by the camera and lens, and the results produced by different workers are different because each artist has used the camera to record his own impressions rather than to reproduce actual facts.

A view or a landscape will impress different people in different ways, just as a human individual will. Various people will see the same scene in various ways, according to their separate individualities: some people, on seeing Niagara Falls for the first time, will be so impressed by the grandeur and magnificence of the scene that they will say nothing; it will be beyond mere words. Others might give a casual glance and say: "Isn't it great?"

What we put into a picture is a record of the impression which a scene made upon us at the

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particular time and under the peculiar circumstances of our seeing it. Naturally, the impressions received will vary greatly according to individual temperament. Each sees only what he has the capacity for seeing, and the capacity for seeing is determined by the physical condition of the eyes, by the individual's power of observation, and by the personal likes and dislikes which lead one to look for certain things in preference to others. A farmer, viewing a familiar landscape, would see it very differently from one who might happen to be revisiting the dimly remembered but dearly loved scenes of a happy childhood, after many years of absence. The scene itself would also vary greatly under different conditions of season and atmosphere. We might photograph the same view a dozen times or more under different conditions, and all the results would be unlike.

Monet painted the same corner of a courtyard at Hampton Court several times, at various seasons of the year and under varying atmospheric conditions, and made several entirely different pictures. What we represent in a picture, therefore, is just one aspect of a view as it happens to exist at the chosen time. We make our representation individual by emphasizing those aspects of the subject that give us the impressions which we desire to convey, and by subduing or

eliminating anything that may be antagonistic to these impressions. A work of art, whether a painting or a photograph, is, at best, only an abstract interpretation of actual facts. Nature gives us the subject, from which we select what we want; of what we select, we emphasize part, or eliminate part; and composition teaches us the practical and common-sense methods of selecting, emphasizing and eliminating.

What we can do in the way of actual representation is very limited. A photograph of a landscape is very largely made up of suggestion. To begin with, we cannot, by the practical methods at present at our command, reproduce color in a print, but can only suggest it by getting the tones and values approximately correct. We cannot actually represent the life and movement of the scene, the changing lights and shadows that make it so interesting; we cannot simulate the glorious, blazing sunlight of midsummer or the brilliant sparkle of the sun on snow in winter; we can only suggest these things by means of a comparatively few gradations of tone, ranging at the extreme from white paper to a black deposit of silver or platinum, a very poor substitute for the infinitely longer range of tones in nature. So we must be careful how we use these gradations and must economize and make them go as far as possible. Composition will help us to do

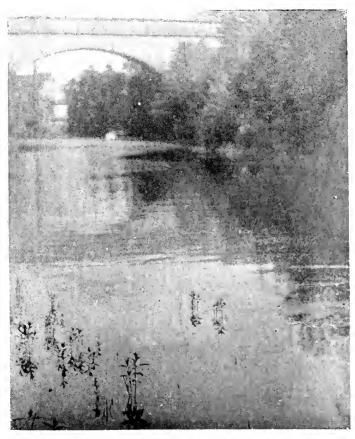


Fig. 2. Echo Bridge

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this. With the aid of composition we can convey impressions, and these impressions will be more clearly and more convincingly conveyed if we make intelligent use of the mechanics of suggestion—the recognized formulae known as the principles of pictorial composition.

This applies also in portraiture as well as in making outdoor pictures. We have all seen, I am sure, a snapshot of a friend or even a technically good professional portrait, in which that friend is represented in a way that is quite unfamiliar and far from characteristic, so that the picture fails to convey the desired impression. This is usually a case of poor selection; the good points were not emphasized, nor were the undesirable features subdued or eliminated, therefore the print fails to be a picture. We have to be as careful in selecting the right conditions under which to photograph a landscape as when photographing a human subject, and here again the principles of composition will help us by teaching us what to look for, and by guiding us in the selection of the best point of view, the best conditions of lighting, and so on. Composition, then, is the exercise of the power of selection.

Every human being has many moods, and a clever and competent artist can make a picture that will be so characteristic of one particular mood that others will be able to recognize it.

The artist does this by emphasis, by elimination, and by suggestion; and a knowledge of composition will tell him what to emphasize, what to eliminate and how to suggest. We cannot actually represent the irrepressible merriment of a happy human boy, but we can suggest this by emphasizing his bright and laughing eyes, and, similarly, we can emphasize the grace and dignity of a handsome woman by having a predominance of easy, flowing curves in the line composition of the picture.

Not only human beings have moods, but everything in nature has moods. Possibly this statement is not strictly correct because the word "mood" presupposes some intelligence and volition, but the sea, under varying conditions, suggests different moods, calm and quiescent, or lashed to fury. A landscape may also be said to have moods, and may thus give rise to different sensations and impressions. It may convey an impression of beauty; its grandeur may inspire awe; it may suggest melancholy or gloomy ideas, or may give an impression of peacefulness, calm and quiet; perhaps solitude may be suggested, or desolation. It is such impressions and sensations as these which we desire to convey in our pictures. We want to suggest the mood of the landscape, just as we suggest the moods and characteristics of the human subject, and we go

about it in much the same way, by emphasizing, eliminating and suggesting, which we are enabled to do clearly and convincingly by means of a knowledge of the principles of pictorial composition.

We must be sure, first of all, just what appeals to us in looking at a certain view or landscape; we must try to analyze our impressions, and find out just what the prevailing characteristic is. This will give us some idea what to emphasize and what to subdue or eliminate, so that we can make our impressions clear to others. Composition, then, is appropriate action following a careful analysis of impressions.

Let us see how this works out in actual practice. In viewing the scene before taking the picture, A Summer Landscape, reproduced as Fig. 1, the impressions I had were those of space freedom and plenty of open air, and they were what I wished to suggest in the picture. The appropriate action, it seemed to me, was to leave a good deal of sky above the horizon and to make the trees rather small in the picture space. Again, in Echo Bridge, (Fig. 2), the impression I had was one of tremendous height, for the bridge is very high above the water. I also felt that the curve of the arch of the bridge, repeated in the water, was a more pleasing line than the straight line of the aqueduct along the top of the bridge.

Thus the appropriate action in this case was to emphasize the height of the bridge, and to give prominence to the curved line of the arch and its reflection in the water. The height was easily and convincingly suggested by placing the bridge very high in the picture-space. By the same means the curved lines were emphasized and the straight line at the top was brought so close to the upper edge of the picture that it lost a good deal of its force.

Composition is very largely common sense. Such methods of emphasis as those referred to are quite obvious and would readily suggest themselves to anybody. The appropriate action will usually be easily discovered as soon as we have analyzed our impressions and have made up our minds as to just what we want to suggest in the picture.

The emotions suggested by facts, not the facts themselves, are what concern the picture-maker. This is where he is differentiated from those who seek to make only records and who are concerned only with facts. Nature provides the subjects which are the material to be used in picture-making, and the manner of using the material is what makes or mars a picture. By careful selection or arrangement of the material, by emphasizing the important features, and by curbing the prolific generosity of nature by ruthless elimination of



Fig. 3. ARTHUR

the unessentials, the picture-maker can make his picture deliver a message and convey to others the thoughts and feelings he himself experienced and which inspired him to use the particular material in the particular way. This is composition; knowing what to select, how to arrange, what to emphasize or eliminate and how to do it, and the aim of this book is to give practical instruction along these lines.

A straight photographic representation of a scene usually has only a very limited interest, which is purely topographical. A picture may be considered a photographic record if people say, on seeing it: "Oh, yes, that's the Grand Canal in Venice," or, "That's in Honolulu; we stopped there on our trip around the world last year, and there's the very place where we had lunch." But, if they say: "Oh, isn't that just typical of Venice?" or, "That picture of Honolulu makes me almost feel the blazing sunlight of Hawaii," then the picture is pictorial, because it suggests an emotion and conveys an impression, instead of merely imparting local information.

It is sometimes thought that in order to get pictures one must travel far afield and visit the much lauded beauty spots of the world, but that is by no means the case. In fact, I believe I am not putting it too strongly in saying that the

best pictures can usually be found at home, close at hand, no matter where one may happen to In cities like New York and Boston there are endless possibilities. That pictures may be found in the vicinity of a big city, and pictures that are well worth while, may be demonstrated by the success of Rudolph Eickemeyer, who made the majority of his most successful pictures within a mile and a half of his home in Yonkers. You must get the spirit of a place and study it under varying conditions before you can get more than a topographical record. I do not in the least mean to imply that places like Venice, Honolulu or the Grand Canyon will not furnish pictorial material: they certainly will, as much as and possibly more than less favored localities; but I want to make it clear that the success of a picture, as a picture, does not depend upon the topographical interest of the subject, but on the ability of the photographer to convey impressions of beauty or interest by his manner of treating it. It would be just as absurd to claim that a portrait of a famous person could not be a good portrait. Whether or not it is a good portrait, and suggests the character and personality of the person portrayed, depends entirely upon the photographer and on his knowledge, skill and artistic ability, but a portrait of a quite unknown and humble individual may also be a very inter-

esting picture if the photographer is able to make it so. To an artist, one of Mrs. Käsebier's Human Documents, or the series of character portraits by Baron de Meyer, including Mrs. Young of King's Road, Chelsea and Mrs. Wiggins of Belgrave Square, are far more interesting than a conventional professional portrait of a famous personage. In my own case, I have often made friends with rough little Irish or Italian youngsters and have made pictures of them that have been considered interesting as showing the characteristics of the type.

When we consider that a photograph is nothing but an arrangement of varying shades of monotone, ranging from white paper to full black or sepia or whatever the color may be, that these shades of tone form certain shapes, some very small and some larger, and that these shapes by their arrangement give us a representation of natural objects, it will be seen that the possibilities in this representation are rather limited and leave a good deal to the imagination.

That imagination and suggestion are important factors in representation can be proved by the fact that it is quite possible to make by a few pencil lines a sketch of a face that can be recognized readily, not only as being a face but as being the face of one particular individual. By a few clever lines an artist can make a likeness

that suggests the character and the personality of a particular individual, and yet there may be nothing but a few outlines. With photography we can go farther than that; we can get, not only the outlines and shapes, but also the shading which will give roundness and modeling. This is composition — the mechanics of suggestion — for the artist, in making his pencil sketch, was guided by the mechanics of suggestion in the disposition of his lines, and the photographer is guided by his knowledge of composition in the disposition of the halftones and gradations of tone as well as the outlines of the objects in his picture. By means of composition we can to some extent make up for the limitations in representation.

The lack of color in photographs is a frequent source of disappointment. Often we are attracted by a view because its color appeals to us, and we are disappointed when we have photographed it because, without the color, it loses much of its charm. Therefore we must look for qualities which we can more readily and more adequately transfer to our picture. Composition will teach us what to look for and how to transfer it.

Another limitation in representation that composition will help us to overcome is the difficulty experienced in trying to represent on a flat sheet of paper the depth and vast expanse of a land-



Fig. 4. Half Moon Beach, Gloucester

scape. This is, obviously, a matter of suggestion, for the view that we see may extend for miles into the distance or perhaps only for a few hundred yards, but, in either case, we shall have to make good use of suggestion to give an impression of depth and area on our flat picture surface. We can suggest depth and space very well by photography, if we know how to do it. Composition will help us to solve this problem, for it is one of perspective, linear and aerial, the study of which is included in the study of composition.

The reduction to a small area, sometimes only a few square inches, of a vast expanse of nature sometimes gives disappointing results, for objects that appear to be quite important in the real scene are almost lost and are hard to distinguish in the picture. This may be because we have included too many different objects, or it may be because the object we regarded as important is not really prominent or noticeable in the landscape, but appeared so because we concentrated our interest on it and overlooked everything else. There may be personal or historical interest attached to some particular object in the view, but unless we emphasize or isolate this particular object and employ the mechanics of suggestion to make it prominent in our picture, it will not be rendered in the picture

any differently from any other objects that may be included in the view. The lens has no personal preferences, has not studied history, and is absolutely impartial.

This illustrates one of the fundamental principles of composition, that of unity or concentration of interest, and demonstrates the importance of having only one prominent object of interest in a picture. We have to do the best we can to make it evident what our principal object of interest is, and we do it by emphasis and elimination, which are part of the mechanics of suggestion.

Having thus roughly outlined an answer to the question: "What is composition?" the next important question that arises is: "What is a picture?"

In our daily life we are surrounded by a multitude of interesting things, and those of us who are sensitive to beauty often find much of this quality in quite ordinary and commonplace objects and scenes. It is, as Stevenson tells us, "the mind within us" that can see beauty where others can see only the prosaic and commonplace. Such vision is partly instinctive and partly the result of training. Dodge MacKnight can see color and beauty in a line of clothes hanging out to dry, and Stieglitz, Coburn and A. H. Blake



Fig. 5. A SPRING FLOWER

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can see beauty in the mean streets of a great city. The beauty of a picture does not depend entirely upon the intrinsic beauty of the objects depicted, but upon the truth with which the picture-maker suggests to others the impressions that affected him and led him to choose his subject. Beauty of line and tone, concentration of interest, balance, simplicity and so on, are not mere vague terms, the jargon of the studio, but are definite and practical attributes of beauty in pictures, and it is on such things as these that the beauty of our picture depends. Just what these things are, and how they may be used in picture-making, will be explained in the following chapters, but one answer to the question: "What is a picture?" can be given by saying that a picture is a representation of an object, a scene or a person, in which the picture-maker, by the skilful use of good lines and pleasing tones, by concentrating the interest and by securing balance and harmony, has made an arrangement that appeals to our imagination and gives us an impression of a mood or an emotion rather than a bare statement of fact.

Suppose an architect and a painter were walking through the Fenway in Boston and stopped to look at and to make a sketch of the Museum of Fine Arts. Of course the architect might well be an artist, just as the painter is an artist, but

we will suppose that his sketch is intended to be a record of the architecture of the building. Both would use the same subject for their pictures, but each would treat it differently, because it would make a different impression on each of them, and would give rise to different emotions in the two minds. The painter might be impressed by the play of sunlight on the white columns; he might take this as the theme or motive of his picture, and, therefore, do all he could to emphasize this particular feature. Possibly he would select a viewpoint on the other side of the stream, and thus get the columns reflected in the water. In doing so he would be employing a principle of composition, the principle of repetition with variety, and this would help to emphasize his theme. He would in this way concentrate the interest, and make it apparent in the picture that the play of sunlight on the white stone was the thing that attracted him. The rest of the subject would be subordinate, and would form an appropriate setting for the principal object of interest; only just enough would be included in the picture to give a general idea of the rest of the building; the emphasis would be on the sunlit columns and, from the pictorial standpoint, such a manner of treating the subject might well be entirely convincing and pleasing. The artist would have seen and seized upon one aspect of

the subject and, using this as the theme, would have composed a picture, making this one idea more prominent than anything else. The picture would thus have one definite idea or motive and, if the artist's use of the mechanics of suggestion were successful, the picture would convey to others the same impressions which the artist received when he selected the subject and resolved to treat it in this particular manner. "Art," as A. J. Anderson tells us in *The Artistic Side of Photography*, "is the expression of a theme, and composition is the constructive part of expression."

The architect, on the other hand, might have quite different aims and different motives, and he would go about the work in an entirely different manner. We will suppose that he is interested in the subject simply as an example of architecture. This being so, he would be apt to put carefully into his sketch all possible detail; he would get as exact and as truthful a record as he could. Nothing would be emphasized or given more prominence than anything else; all would be put in quite impartially.

This is an example of how two men could use the same subject in different ways and from different motives. Each would get what he wanted and each would find the subject interesting and suggestive. Each would see the same thing, but

differently, and the two pictures probably would be quite different, though each might well be very interesting and satisfying, and quite exact and truthful.

Similarly, two photographers might photograph the same subject with different intentions and with a different result in mind; one might want to make a pictorial photograph, and the other an architectural record. Consequently their methods would vary in much the same way as the methods of the architect and the painter. In the architectural record we should be able to see every detail clearly, and the picture would undoubtedly be very interesting and very beautiful. The interest and beauty, however, would be due to such qualities inherent in the subject; there would be no personal interpretation, and no suggestion of emotions or individual impressions. The pictorial photographer would use the subject as so much pictorial material. He would analyze his impressions and would then try to convey. these impressions to others. He would pick out one aspect of the subject, such as, for instance, the play of sunlight on the pillars, and his knowledge of the principles of pictorial composition would lead him to emphasize and bring it out clearly. This would be the theme of his picture, and the rest of the subject would be just the setting for the theme. He would select the point

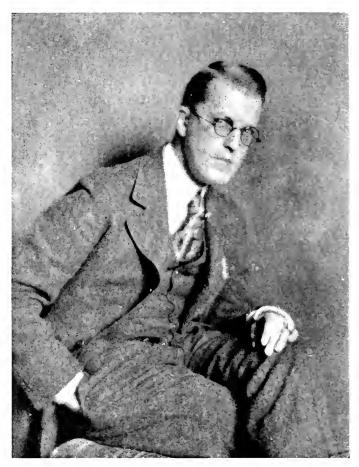


Fig. 6. The Camera Club Secretary



of view with due regard to emphasis, would pick out the best lighting conditions, and would do everything possible to make perfectly clear what was the main and important feature in his representation. His picture would be, not a record of a building, but a representation of the beauty of sunlight on white columns. He would make use of the mechanics of suggestion to convey his impressions to others, and the picture would be likely to have a more lasting interest and to make a stronger appeal than an architectural record, because there would be, in addition to the interest of the subject, the added interest given by an individual interpretation of the impressions of the artist. The picture would "convey a mood, rather than impart local information," and this would make it a picture rather than a record.

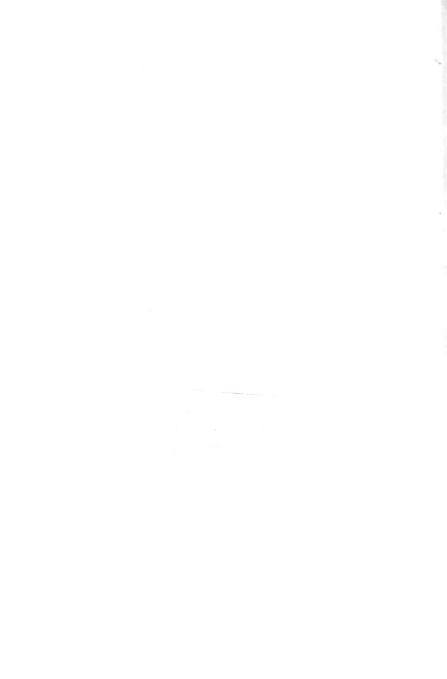
Composition in picture-making is, to some extent, a matter of common sense. In making pictures we are dealing with impressions rather than with concrete facts. Composition is the application of common sense, with a due regard for the teachings of experience, to finding the best means of making our impressions clear to others. Composition, too, is largely a matter of instinct; the photographer will often be led to yield to an impulse and to arrange his pictorial material in a certain way just because he feels

that it is right to do so, although he may not always stop to reason it out. This psychic quality in the artist is something that is well worth heeding, but such an instinct for composition will be more to be depended upon if it is backed up by a knowledge of the universally recognized rules and principles of pictorial composition which will be enumerated, explained and illustrated in the following chapters.

The would-be picture-maker must learn to think pictorially; he must try to regard a picture as a pattern, as an arrangement of lines and shapes, making in themselves a pleasing and satisfying design, quite apart from the objects represented. The lines will form certain shapes, and the shapes will vary in tone; some may be light, some dark and some of intermediate shades of gray, which we call halftones. He must try to disregard the actual subject of the picture to some extent. He must think of it as a series of shapes and masses of varying tone, from which he can select and arrange the material to fill the picture space, so that the result will be pleasing in design and the space will be adequately filled. He must not take it for granted that because he is photographing a beautiful view or a handsome person his result will necessarily be pictorial. It may be, or it may not. That depends entirely upon the photographer, because he has the power



Fig. 7. SUMAC LANE, ROCKY NECK



to control his results and to make his interpretation individual rather than mechanical. If all photographic representation were pictorial, nearly every photograph would be a picture; for no one would deliberately select an ugly object to photograph if the beauty of the picture depended upon the beauty of the objects in it. That this is not the case may, I think, be proved by calling to mind pictures which are beautiful, although they are representations of quite ordinary objects. I remember a picture by an English pictorialist, which was hung at the London Salon some years It was a still-life study, and the objects represented were three or four onions on a dish. We do not usually think of an onion as a picturesque object, yet the picture was beautiful because the objects were pleasingly represented; the lines of the picture were good; the shapes and masses of tone were very interesting and made a pleasing pattern; the picture was well composed, and, therefore, it was a good picture, even though it was a representation of common and unprized objects.

I do not by any means wish to imply that beautiful objects should be avoided in picture-making. Quite the reverse: if the objects represented are beautiful, so much the better. I do want to make it clear that the success of the picture does not depend entirely upon the beauty of the subject, but mainly upon the manner in

which the picture-maker uses his pictorial material.

A study of Japanese art will show that the Japanese often care nothing for truthful representation, but sacrifice everything to composition. In many Japanese prints we see representations of objects that are like nothing which actually exists on earth, above the earth, or in the waters under the earth, but we always find good lines and interesting masses, and invariably the design is pleasing and satisfying, and well fills the picture space. Years ago Japanese art was thought to be grotesque and fanciful. People used to smile at it and think it queer, but now we realize that the artists knew what they were doing, and we accept as sound art many of their ideas and methods in pictorial representation.

To repeat, the first thing the picture-maker has to do is to learn to think in terms of line, mass and tone; he must regard the subject, not as any specific object or several objects that he is to photograph, but as material with which he is to compose his picture so that the lines are decorative and pleasing and so that the shapes of the masses bounded by these lines are interesting in form and tone. The very word composition, defined as "the act of composing; putting together; arranging in proper order," implies that the picture-maker must do something besides

setting up his camera and letting it photograph just what happens to be before it.

In portraiture, genre pictures or figure studies. and in still-life pictures, flower studies, etc., the picture-maker can actually arrange and put together the component parts of his picture; he can select what he wants and arrange it as he thinks best, and therefore the composition is entirely under his control. This is constructive composition. There is another kind of composition, called selective composition, which is applied to such pictures as depend for their arrangement upon selection both of the subject and of the point of view. Landscape pictures and marine studies come under the head of selective composition. because in such pictures the photographer cannot actually arrange his material. He has to take what exists, and arrange his lines and masses by selecting the proper viewpoint from which good composition can be secured.

When we study composition, we find that there are certain facts regarding the lines in a picture which we should know; that some lines are regarded as being more satisfactory than others; and that we can suggest certain emotions, pleasurable and otherwise, by means of lines. This is dealt with fully and practically in a succeeding chapter. We also find that we must be careful to give the halftones in the picture proper depth of

tint. What we have to do and how to do it in this respect will also be discussed later. We shall also find that we can help to make a picture more pleasing by having only one main object of interest. This law of concentration of interest, and other equally important laws concerning balance, harmony, variety and simplicity, are all quite practical and rational means by which we can suggest emotions and impressions and in this way make our pictures interesting and beautiful. They are simply the obvious and common sense methods that govern the mechanics of suggestion. These laws and principles are quite definite and should be thoroughly understood, but their application in practical picture-making must be guided by circumstances. Sometimes the laws may be modified and adapted to the occasion, but they cannot be entirely disregarded, for it will be found, when good taste and critical judgment have been developed by practical experience, that a bad line, a false tone, or a lack of balance in a picture will be as noticeable to the cultivated eve as a false note or a wrong harmony would be to the trained ear of a musician.

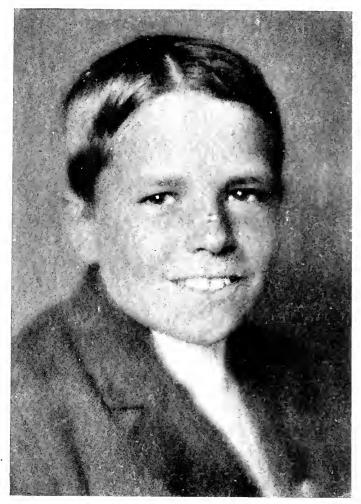


Fig. 8. AN AMERICAN BOY



CHAPTER II

Spacing — Lines, Horizontal, Vertical, Oblique — Variety of Line — The Triangle — Curved Lines — The S-shaped Curve — The Unseen Line — Balance — Tones — The Characteristic Quality of Photography — Key.

THE simplest possible conception of a picture is an arrangement of lines cutting into a rectangular space in such a way as to make it interesting. It may be a conventional pattern or design, bounded by the edges of the picture-space, or it may be a representation of an object or a scene in nature.

When the picture-space, instead of being blank and empty, has been cut into areas of varying shapes and sizes, our interest is at once aroused, and whether the shapes and areas represent natural objects or whether they form merely a conventional pattern, we have the elements of decoration. From this simple beginning we can go on to the elaboration of shading with half-tones and shadows to give a suggestion of roundness and solidity, or we can use color to suggest as well as we can the colors of nature, but the fundamental element of picture-making is the cutting of the picture-space by lines or edges of tones, and this is what is known as "spacing."

In Chapter I, I urged the picture-maker to try to think pictorially and to regard a picture as an arrangement of masses and shapes, lines, curves and angles, rather than as a representation of a definite object or scene in nature, and now I would recommend the photographer to regard the focusing-screen of his camera as a space to be divided into a pleasing pattern, rather than as a glass on which a reduced fascimile of a scene or view or a miniature likeness of a person can be seen. The painter regards his canvas as a space to be decorated with a harmonious arrangement of lines and areas which will, in themselves. make a pleasing pattern or design; he uses natural ol jects merely as material with which to compose his picture, and the photographer should try to compose his pictures in the same way.

If we take a rectangular blank space and cut it by a series of lines, we get a pattern which may be simple or complex according to the number and direction of the lines. On the disposition of the lines in a picture, and on the arrangement of the masses or areas of tone, depend the success of the result. The effective ways of dividing the picture-space by lines and masses are probably innumerable. The finest effects often present themselves as happy surprises. Rules and suggestions must necessarily be largely in the nature of what to avoid.



Fig. 9. - The Fenway, Boston



It will be obvious, I think, that a very regular arrangement or pattern will be less interesting than one in which the various parts differ in size and shape. A rectangular space exactly bisected by a straight horizontal line is less interesting than a similar space divided by a horizontal line above or below the exact centre, making two spaces of unequal size. When a vertical line is added, cutting the rectangular space in another direction, the interest is greatly augmented.

This cutting of the picture-space into varying shapes or areas, some of which may be light and some dark in tone, is called spacing. The areas of tone are called masses and, whatever the subject of the picture may be, its success as a picture depends very largely on the effectiveness of the spacing and massing. The pictorialist must remember this, and must regard the picture-space as an area to be filled by decorative masses, rather than as a window or opening through which things are seen. The edges or boundaries of the picture-space play an important part in the arrangement of lines and areas within the boundaries and are, therefore, important factors in the disposing of forms and masses.

This aspect of the subject; regarding a picture as a pattern or design rather than as a representation of an object or objects, explains why an artist finds it necessary to select and arrange,

and is not always content to take a fragment of nature and transfer it to his picture. A slavish imitation of accidental facts is not always good art. The artist has to select and arrange in order to make the lines and shapes and space relations conform to his taste and his appreciation of a satisfying pattern. Thus he gets effectiveness and pictorial interest, as distinguished from mere map work or the scientific exhibition of details. In order to be able to select and arrange, we must learn to see things in terms of lines, shapes and masses. Then we can determine from what point of view to photograph our subject, if it be a scene in nature, so that its lines and masses will form fine, or at least agreeable, space divisions.

The chief difference between drawing or painting and photography is that the painter can build up his picture as he goes along; he begins with a blank space which he desires to fill in a pleasing manner. In landscape painting, the artist often alters the shape or position of the objects he is studying, such as mountains, rivers, or trees, and adapts them to suit his purpose. He seldom draws them absolutely accurately, or exactly as they are; he emphasizes some things and eliminates others, and his picture contains only those elements of the scene or view which he considers essential to suggest the impressions he received from that particular scene or view. In conveying



Fig. 10. Portrait of Freddie

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his impressions, the artist makes use of the physiological and instinctive impressions conveyed by the "expression" of lines and the shapes of masses, by the modulations of tone, and by the pleasing sensations produced by the harmony and balance of the different elements of the picture.

The photographer goes about his work in another way; his focusing-screen shows the scene complete in every particular, and sometimes the effect of the picture is lost in the elaboration of detail. He has to simplify the picture, and to arrange and compose his lines and masses by a careful selection of the point of view. He has to choose carefully the right conditions of lighting and atmosphere to give the desired effect.

The lines in a picture are of great importance in giving interest, and the sensations that may be conveyed by lines alone are many and varied. The lines not only determine the harmony of the parts, by fixing the relation of spaces and the forms of masses, but, by their direction, give the characteristic impressions of repose or agitation, gaiety or gloom, peace, grandeur, etc. The subject of the picture will not express its sentiment truly and adequately unless it is made to do so by the language of lines.

Lines have expression, and by the use of lines alone we can suggest impressions. The expression of horizontal lines is that of repose and rest-

fulness; the horizontal lines of the calm ocean or the long low clouds of a sunset sky are examples of this. Long horizontal lines must be used sparingly and carefully in pictures because such lines, with the possible exception of the horizon line of the ocean, act as barriers to the vision in going into the picture, and thus a level line continuing entirely across the picture would tend to separate the parts. Such lines may well be broken by vertical or oblique lines.

A vertical line suggests dignity, strength and stability, typifying man, the only animal that stands upright. Very long vertical lines suggest grandeur and sublimity; the spires of a cathedral or tall, majestic pine trees convey such impressions as these in a picture.

That vertical lines suggest height and slenderness, while horizontal lines increase the effect of breadth, is a fact that is made use of by those who design fashions, and it is obvious that a very short and stout individual would do well to avoid horizontal stripes in the clothing. Vertical stripes would convey an impression of height and slenderness, and would tend to make a rather short person look taller.

Oblique lines suggest action and energy; they are lines of motion and lead the eye in the direction which they take from the base-line of the picture. The lines which would exist in a picture

of a person running, seen from the side, would be mostly oblique lines leading the eye in the direction in which he is going. Oblique lines can be balanced and their energy reduced by the opposition of lines inclined the other way.

That certain lines are more pleasing than others is well known, though the reason for this is not so commonly recognized. It is partly physiological, and partly due to the possibility of suggesting emotions by means of lines. From the physiological standpoint, an oblique or a curved line is more pleasing than an uninterrupted straight line, either horizontal or vertical, simply because the eye can follow the course of such a line more easily and with less muscular fatigue. To follow closely an uninterrupted horizontal or vertical line puts undue strain on a part of the muscular system of the eye, and the muscles used in this way easily become fatigued, whereas, in following the course of a curve or an oblique line, all the eye-muscles are used and no one particular set of them is overworked.

This explains from an anatomical and practical point of view why it should be regarded as a rule of composition that curves or oblique lines are more desirable in a picture than a single straight horizontal or vertical line, and this leads to another consideration in composition; variety of line.

By means of variety in the lines of a picture, the muscular effort in viewing it is rendered less fatiguing. The concentrated effort that is needed to follow carefully the course of a single horizontal or vertical line is tiring because only a few of the eye-muscles are used, but variety is restful because it exercises without tiring the whole muscular system of the eye.

A picture may well contain a number of horizontal lines or a number of vertical lines, all slightly different in length, such as might be found in a wood interior or in a picture of shipping with a number of vertical masts. This would be restful and pleasing, because the eye would not concentrate on any one single line, but would shift from line to line, noting, perhaps unconsciously, slight variations in length and direction. If in a picture containing a number of vertical lines, such as those suggested, there can be introduced naturally some strongly opposing line, horizontal or oblique, the variety thus obtained will be physiologically restful and pleasing, and will help toward good composition. All this goes to show that composition, fundamentally, is based on good common sense and is governed by distinctly practical laws.

Variety, then, is a valuable quality in a picture and can be secured by introducing opposing lines, varying in direction.

One of the most pleasingly varied arrangements of straight lines is given by the triangle. Almost any triangular formation of lines, with the possible exception of a very exact right-angled triangle, would be a good arrangement in a picture, because it would satisfy the physiological craving for variety. A very noticeable and exact right angle is not good, because it combines the physiological difficulties of the single horizontal and vertical lines. The effort required to turn abruptly from the vertical to the horizontal, bringing into play a different set of eye-muscles, may be rather disturbing. A triangle suggests solidity and firmness; it is a form which embodies physical stability. It is also a good space-filler, for its outlines tend to suggest other triangular shapes in conjunction with the edges of the picture.

This is exemplified in the portrait of Arthur, Fig. 3, in which the triangles formed by the entire figure, a smaller triangle with the knee as the apex, and the secondary triangles formed by the outlines of the figure and the edges of the picture, can all be readily discerned.

When two lines form an acute angle it is easy to follow them both at once, and the gradual approach of the lines near the angle gives early notice to the eye of the coming reversal of direction. The sharp effort of muscular performance

in reversing the direction conveys an impression of energy and action. That is why the spires of a cathedral, for instance, or tall, pointed pine trees, which form acute angles, are interesting and artistically satisfying.

When the angle formed by oblique lines is obtuse, the muscular change from one direction to the other at the angle is performed slowly and easily, not as sharply or as completely as at an acute angle, and this gives an impression of easy, restful monotony, rather than of energy and activity. The valleys between low hills are often in the form of obtuse angles, and seem restful and peaceful when represented in a picture.

Such impressions as these, induced merely by the direction of the leading lines, are very definite, though, often, our sense of them is instinctive, because we do not stop to reason the matter out. Nevertheless the impressions are definite enough and important enough for us to make practical use of them in composing or selecting the subject of the picture.

We can make one impression counteract another, and too many lines in one direction can be opposed and balanced by introducing lines in another direction. That is why a triangular arrangement is usually so satisfactory, because we get interest and variety in the lines, and one balances another.

In discussing lines, so far, we have referred only to straight lines, and have noted the impressions conveyed and the emotions suggested by such lines varying in direction. When we consider curved lines as well, we shall find that the possibilities are very much increased. A curved line, as a rule, will convey an impression of beauty more strongly than a straight line; a curve can be vastly more satisfying and pleasing than a tangent.

From the purely physiological standpoint a curved line is necessarily more soothing and restful, because, in following the course of a curved line, the different eye-muscles are alternately at work and in repose, and, therefore, there is little strain or fatigue.

Probably the most completely satisfying curved line is the S-shaped curve which is known as Hogarth's "line of beauty." This line, in one of its many varieties, is often found in nature, as in the sinuous windings of a stream or river or the outlines of a mountain range, and it is exemplified very frequently in the lines of the human figure. In Fig. 4 the S-shaped curve starts in the extreme lower left corner of the picture and is carried up along the edge of the surf and back along the top of the rocks to the top right corner. In Fig. 5 we can trace this line, beginning in the left hand top corner, around the head

and face and up again along the hand to the flower. A little interest and stimulation to the imagination is afforded by a portion of this curve being trimmed away at the bottom of the picture. The S-shaped line contains the gist of balance and the essence of grace. It may be compared to a tongue of flame that winds and curves and stretches upwards. The S-curve is also found in a more angular form, more like the letter Z. This, too, is a good line. Both the S and the Z are excellent "space fillers"; one is the embodiment of grace, the other of energy. The introduction of such a line will usually give beauty and interest to a picture. A single curve alone is often beautiful, but the S-shaped curve is still more beautiful because of its variety and change in direction. Curved lines must be used sparingly, for a picture made up entirely of curves would be weak and flabby. Such lines require the association of straight lines to develop their full beauty.

So far, in dealing with lines, we have considered only actual, structural lines, outlines of objects or edges of tones, but there is another kind of line which plays an important part in picture-making of all kinds. This is the line which is not actually expressed, but which is, nevertheless, very strongly felt; the line by which the eye will instinctively connect prominent ob-



Fig. 11. The Harlem River

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jects, following the shortest route between two points, for the eye will always take the shortest path. As an example of this powerfully felt, yet wholly imaginary, line, we may consider the face and hands in the portrait of a person dressed in dark clothing, and posed against a dark background, so that the face and hands are the only light accents in the picture (Fig. 6). We shall find that the eye will instinctively and instantly connect these three light spots, and we shall almost see a line going from one to the other. This often gives a suggestion of a triangular linearrangement, and the influence of the unseen line may be utilized with advantage in forming a good line-arrangement in portraits and figure studies.

In landscape work such a suggested line may frequently be used with good effect. The tops of a row of trees may suggest a line. A number of boats, small objects or figures in a landscape may be so grouped that a line connecting them will be pleasing and important in the composition of the picture.

Natural objects, plants, and flowers all exemplify this suggested line to a marked degree. The eye notes at once that a circle will touch the extended petals of a sunflower, and that the outer points of the compound leaf of the white ash would lie on an ellipse. It is the powerful influence of these imaginary lines which makes the

proper placing of accents so important in pictures. Even the smallest objects, such as birds flying in the air, or pebbles or rocks on the sea shore, might influence the direction of such a line. The roofs of distant buildings, the heads of a group of people, innumerable apparently unimportant objects, must be considered with regard to this influence.

Balance is a word often used in connection with pictorial composition, so let us try and find out what it means. Balance implies two forces acting on a fulcrum, and Mr. Henry R. Poore, in his well-known book, *Pictorial Composition*, compares pictorial balance with the mechanical balance of the steelyard, where a heavy load on the short arm balances a lighter load on the longer arm. This is a perfectly practical and convincing mechanical principle.

Now, if we have the sole object of interest in our picture exactly in the centre of the picture-space, we get no balance at all. The eye rests on this central object and gets no relief, so that we soon feel a strain, and experience a desire to look away from the picture. If we introduce into the picture-space one or more objects of subordinate interest, the eye can get relief and rest by passing from the main object of interest to the secondary objects, and back in various directions to the principal interest.



Fig. 12. STARTING OUT

The main object of interest should not be in the exact centre of the picture-space, because that is where we imagine the fulcrum of the steelyard balance to be. In accordance with the principle stated above, an important object near the fulcrum is balanced by a smaller and less important object on the longer arm of the steelyard, that is to say, farther from the centre, and the mechanical balance gives a perfectly satisfying pictorial balance. An object exactly at the centre cannot be balanced by any other object at any distance. It must, then, stand alone in the exact centre, which is rarely satisfying, or else take its proper place at a proper distance to effect a balance with its subordinate interests.

The main object of interest in a picture can be made evident by lines leading to it, or by being prominent in tone, that is to say, by being distinctly lighter or darker in tone than other parts of the picture. Sometimes the important object in a picture is strongly emphasized by placing a light tone and a dark tone close together. In a well-composed picture the eye should at once be strongly attracted to some spot of predominating interest, but should be able to get relaxation and relief by passing on to other, less important, points. If there is in the picture another object or point of equal importance, the balance will be destroyed, because there will be competition in-

stead of harmony, and the eye will jump from one object to the other in the effort to decide which is really the stronger.

Fig. 7 is an example of balance and emphasis obtained by contrast in tones. The boy's white waist stands out prominently against the darker tone of the water, and it attracts the eye by being the only light spot in the picture with the exception of the sailboat, which is the secondary and balancing object demanded by the mechanical balance of the steelyard. This small object balances the larger and more important object very satisfactorily.

On the principle of the steelyard, only a very small and comparatively unimportant object is needed, at a distance from the fulcrum, to balance a large and important object nearer this point. Too many lines and too many objects of equal importance in a picture will cause confusion, discomfort and eye-strain. Sunlight seen through foliage, for instance, making a number of bright spots, is irritating and uncomfortable, and is, therefore, not conducive to good composition. A landscape picture showing two roads or paths of equal or nearly equal importance, branching off in different directions, would not be a well composed picture. The usual remedy in such a case is to cut the picture in two, giving a road to each part.





Probably the most important consideration in dealing with pictures made with a camera is that of tones, for photography is preëminently the medium by which we can render tones. Every means of pictorial representation has its own peculiar characteristics, and an artist will use the medium best suited to the effect which he wants. Oil and water-color painting each have their own individual and distinctly different qualities; one is rich and oily, the other delicate and luminous. A wash drawing has characteristics that differentiate it from a pencil or charcoal sketch. Each different medium is recognized as having some special quality. So photography, having a place among artistic processes, has its own distinguishing quality which cannot be duplicated by any other medium. To know what this quality is, and how it can be controlled, is a necessary part of the pictorial photographer's technical training.

It may help to make clear what has just been stated with regard to the characteristics of different mediums by which pictures can be produced, if we compare picture-making with music. There are many distinctly different musical instruments, just as there are many distinctly different methods of making pictures. Each instrument has virtues and limitations peculiar to itself, and we cannot successfully imitate one instrument on another. We cannot make a piano sound like a violin, and

similarly we cannot make a charcoal sketch look like an oil painting, or a photograph look like a pencil drawing. If a photograph looks like something else, it is not a good photograph, and the artist has not made the most of the virtues of photography. Sometimes there may be a superficial resemblance. For instance, a delicate platinum print or a bromide in a high key, such as Will Cadby's child studies, might resemble a silver-point or a wash drawing, but it would be a wonderfully good wash drawing that could imitate the infinitely delicate and subtle tonegradations of photography. To set out deliberately to imitate some other medium is decidedly unsatisfactory and futile. That is why I think it is a mistake for a photographer to make a print in one of the pigment processes, oil, bromoil or gum-bichromate, and exercise personal control with the idea of making his print look like a painting. If he is very clever, he might get an exceedingly interesting result, but it would be neither one thing nor the other, not a painting, for it would lack most of the characteristics of a painting, and not a photograph, for the personal control would have destroyed the photographic quality. I believe that a gum-print that is allowed to develop automatically is capable of showing photographic quality, but when the artist attempts to control the picture by brushing away

highlights and by squirting water over the print, he usually destroys the very thing that makes the photograph worthy of serious consideration as a work of art. When the artist has grasped the fact that photography has a distinguishing and characteristic quality of its own, and when he desires, as an artist should, to utilize this quality and make the most of it, I believe he will modify his methods in making pigment prints. This is an important point and should be understood from the beginning.

It is sometimes thought that the characteristic quality of photography is the facility with which it can render fine detail with amazing accuracy, but this is not strictly true, for the ability to reproduce fine detail is the distinguishing quality of a fine lens rather than of photography in general. A photograph can be made with an uncorrected lens, or with no lens at all by making an exposure through a fine needle-hole in a thin metal disc, and the result may be a picture showing the characteristic virtue of photography, the rendering of infinitely delicate gradations of tone. This is where photography stands alone, and this is the distinguishing quality which has given it a place among the fine arts. Therefore an artist who has selected photography as the medium in which to express his ideas should make the most of this quality, and not try to make a poor imitation of

something else. The drawing of fine detail and the drawing of infinitely delicate tone gradations are not exactly the same, though one depends upon the other. The lens could not render fine detail if the dry plate were not capable of registering a long range of tones and delicate gradations. Strictly speaking, what we see when we look at an object is the light it reflects, rather than the object itself. If there were no light we could not see the object, though we might perceive it by the sense of touch. The lens "sees" things in very much the same way as the eye, and the light reflected in varying degrees of intensity is what the lens transmits to the sensitive plate or film. What we mistake for the ability of the lens to render fine detail is the ability of the sensitive emulsion on the dry plate or film to differentiate and reproduce exceedingly minute variations in the strength of the reflected light transmitted to it by the lens. The lens draws fine shading rather than fine detail, and the sensitive emulsion, provided the exposure and development are correct, can register fine shading in the negative. So it is more correct to say that the characteristic quality of photography, the distinguishing virtue which differentiates it from all other methods of pictorial representation, is its power to draw shading and to reproduce infinitely delicate gradations of tone, rather than the ability to render fine detail, for



Fig. 11. PORTRAIT OF A. M., Jr.

FUELIC LIBORAT

this is within the scope of whatever kind of a lens is used, whether it is an uncorrected lens or a fine anastigmat, and is equally so when the exposure is made through a needle-hole instead of a lens.

As soon as we accept this as a postulate and recognize the fact that a good and characteristic photograph is one that shows good tones rather than one that shows fine detail, we shall see why photography may rightly claim to be classed among the fine arts and why it may be regarded as a medium of self-expression. It is quite possible to have both good tones and fine detail in a photograph, and such a photograph may well be considered a picture. It is possible also to make a photograph showing good tones, but with broad masses instead of fine detail. and such a photograph might also claim recognition as a picture. The drawing of fine detail is a mechanical quality, governed entirely by the amount of time and trouble expended by the optician in making the lens, and, as a matter of fact, the drawing of fine detail is a quality that the pictorial photographer sometimes has no use for. Frequently this quality in a lens which makes its construction very expensive is a nuisance. the other hand, the drawing of shading and tonegradations is a quality which can be controlled by the photographer, and whether or not the tones

in his picture are good depends upon his technical skill and on his artistic judgment. The artist can take some credit to himself for good tones, but for fine detail he must give credit to the optician who made his lens. Anyone with a little practice and a high-grade lens can get fine detail in a picture, but it takes an artist and, moreover. an artist with considerable technical skill and experience to get good tones. There are so many chances for error that only an unerring judgment, cultivated by long experience, and much technical knowledge can overcome the inherent tendency of the photographic plate or film to render tones incorrectly. Errors in exposure and development, or lack of orthochromatism in the plate or film, will upset the tones. It is quite possible that a photograph might show a lot of fine detail, while at the same time the tones might be all wrong.

But, what are tones? What we call tones in a picture are the shades of light and dark which represent the contrasts of reflected light and the color values of the objects photographed. The relation of these tones to one another varies according to the strength of the light by which the objects are illuminated. An outdoor scene would vary very much in regard to its contrasts of light and dark and its color values, according to the strength, direction and quality of the

light. In bright sunlight the contrasts would be stronger and the colors brighter than on a dull day, and the problem is to reproduce these contrasts of light and shade and these color values as varying tones of monochrome, so that they will truthfully convey the desired impressions. Where light falls on an object and is reflected back to the eye, we see a highlight; where it strikes at an angle and is reflected back other than directly to the eye we see halftones; where no direct light falls on the object we have shadows: and these highlights, halftones and shadows are modified by light reflected into them by other objects and by other parts of the same object. The lens can see light-contrasts, highlights, halftones and shadows in just the same way as the eye, but in many subjects there is too long a range of tones, too much contrast between the lightest and the darkest tones, for us to be able to get them all in the picture; and when it comes to the reproduction of color values, unless proper precautions are taken, the plate or film will reproduce them all wrong. There is a great deal of difference between the actual tones in the subject and an artistically correct and pleasing representation of the tones in a picture, and we are very much handicapped by the fact that a photographic print can give only a comparatively short range of tone gradations. We -

can get a far greater range of tones in a negative than it is possible to reproduce by any method of printing on paper. Anyone who has had any experience in printing on developing-out papers will have noticed this. If we have a negative with a long range of tones and try to print it on this medium, we have to sacrifice some of the tones; if we print for the highlights, our shadows will be black and solid, while if we print for the shadows, the highlights will be harsh and lacking in gradation. Platinum papers have a longer range, with carbon tissue coming next, but no method of printing yet available will give as long a scale as it is possible to secure in a negative on a double-coated plate. It is, therefore, necessary for the pictorial photographer to recognize this fact, and to keep the range of tones in the negative within the limits of the printing medium he intends to use.

In a picture on paper we have a certain scale or range of tones, the lightest being the paper itself and the darkest being the blackest deposit of platinum or silver that our paper will give. Between these two extremes we have a number of varying shades or intermediate tones. In a photographic print these intermediate shades—let us call them halftones—are what we use to compose the picture, and our scale of halftones is limited by the printing process in just the same

way as the tones and semitones of the composer of music are limited by the instrument for which he is writing. A piano has seven and a half octaves, and, therefore, a composer of music for the piano has a greater range of available notes than a writer of songs for the human voice. It is seldom that a composer uses the entire range of tones when composing music for the piano, and in writing songs he has to adjust the scale of tones to suit the voice. In writing for a bass singer he uses low notes, while for a coloratura soprano he avails himself of the singer's ability to reach high notes. Songs, like pictures, are in different keys. The tones in a picture are not arranged in a definite sequence like the tones and semitones on a piano. They might better be compared to the slur of tones possible on a violin.

Very closely connected with the matter of tones is the question of "keys," for the key of a picture is determined by the predominant tones. If the picture is composed mostly of light tones with, possibly, only a small touch of dark to give it strength, it is said to be in a high key. If dark tones predominate, with or without a light accent, it is in a low key. Will Cadby's characteristic child studies are usually in a high key. Everything is light in tone, white dress against a white background, with a darker accent in the eyes

and hair. A photograph taken at night which is all in dark tones except a lamp or two, would be an example of a picture in a low key. It is seldom that the whole possible range of tones is used in a picture, even though in some printing mediums the range is limited. Frequently most effective pictures can be composed of only a very few tones, and usually the artist should be sparing in the use of the extremes of black and white. The darkest shadows should show some detail, and there should be gradations in the highlights. When we take pictures by moonlight or by artificial light we may make our shadows black, solid and empty, but shadows in daylight are very seldom devoid of all detail.

While it is true that a photograph cannot reproduce the same range of tones as is seen in nature, and cannot reproduce light and shade as strongly contrasted as in actuality, it is possible to reproduce the tones in the same relative proportion. The actual highlights in the subject must be highlights in the picture, and anything that is really lower in tone than this actual highlight must be lower in tone in the print. Suppose we are photographing a landscape in which there is a barn painted white, or a whitewashed wall. If the sun is shining and there are no clouds in the blue sky, the sunlight on the white barn or whitewashed wall will make it look a good deal

lighter in tone than the blue sky. So, if the sky in the picture were white and the barn or wall were also white, the tones would be wrongly reproduced and the picture would give a wrong impression. If we are making a portrait of a man wearing a white collar, the lightest portions of the subject will be the highlight on the collar and possibly the catchlights in the eyes and, if they were showing, the highlights on the teeth. These are the only parts that could correctly be reproduced as white in the photograph. The flesh tones, even the highlights on the skin, would be lower in tone than the highlights on the glazed white collar, so that if any part of the face were as light in the picture as the light part of the collar, the tones would not be true.

So, even if our range of tones is shorter and we have to compress the tones into a shorter scale, we can preserve truth of value only by keeping the tones in about the same relative proportions.) We should make our lightest tone light and our darkest tone dark, and then get in as many tones as we can in between.

In Fig. 8 there is "tone" in the face. The only parts of this picture that are actually white are the light spots in the eyes and the highlights on the teeth. The face looks white, that is to say, there is no suggestion of any racial color, yet, in reality, it is not absolutely white.

The question of correct tone-rendering is not always a matter of simple contrasts of light and shadow. Usually we have to deal also with color contrasts, which makes it rather more complicated. For the present, however, we will ignore the question of color, and will take it up later when we are dealing with orthochromatic photography.

Practically speaking, the securing of true tones in a photograph depends entirely upon the exposure. Development has very little to do with it. Development determines only the key, and, by varying the time of development, we are enabled to lengthen or shorten a little the range of tones, and thus can adapt the negative to the printing process we intend to use. The correctness or incorrectness of the tones depends entirely upon the exposure. A. J. Anderson says: "Expose for the tones that are most desired." If light tones predominate in the subject and are what we desire to reproduce in our picture, we must adjust the exposure to give gradation and quality in these light tones. If we want shadows, we must expose for shadows. Overexposure will tend to block up the highlights and underexposure will give empty shadows without detail or gradation. Correct exposure will give the maximum gradation in both highlights and shadows. It is here that the artist can control his results and



Fig. 15. PORTRAIT OF L. W.

Let A the Let

make the medium interpretative of his own personality. He alone is responsible for the tones in his picture, and in order to render them correctly he has to learn, first of all, to see them in the subject and then to reproduce them correctly.

The tones in the subject, especially in the most distant planes, are affected to a large extent by the atmosphere, which tends to make light objects at a distance appear darker and dark objects lighter, so much so that under some conditions a dark object and a light object might appear to be of the same tone. This and other matters relating to tones will be dealt with more fully in the chapter dealing with orthochromatism.

CHAPTER III

Mass — Notan — Breadth — Pictorial Balance — The Uncorrected Lens for Pictorial Work — Accent — Figures in Landscapes — Genre.

WHEN the surface of the picture-space is cut by lines into various shapes and areas, this is described as "spacing." (The various shapes and areas, which may be light or dark in tone or of an intermediate shade, are called masses.) The masses, together with spacing, govern, to a great extent, the pattern or design of the picture. It is the important masses that we see when we look at a picture through half-closed eyes, which is often done with the idea of eliminating detail, so that we can more clearly appreciate the pattern. If the masses are good, and form, in themselves, a pleasing and satisfying design, we may be sure that the composition, as far as masses are concerned, is satisfactory.

The massing of a picture is what we first notice. If it interests us at a first glance, it makes us anxious to investigate further and give the picture more careful inspection. The masses are what attract attention when looking at a picture from a distance, too far off to be able to distinguish details or even, perhaps, to make out just

what the subject of the picture may be. It is interesting when we go into an exhibition room where there are paintings or photographs, to stand in the middle of the room, glancing around casually at the pictures. Those with strong and interesting masses will stand out from the rest; they will attract attention and create a desire for closer study. Good masses will give a favorable first impression.

The desire to attract attention and make the picture noticeable, so that it will stand out among others, is often shown by making the picture very large and by placing it on a large mount, but, as a matter of fact, good masses and an attractive pattern are not in any way dependent upon size, and mere size will not make a picture attractive unless the masses are good and are well balanced. Even a small picture may be very strong, and may stand out among larger ones, if the masses are striking and attractive. Fig. 9 is a small picture, and a contact platinum print, $3\frac{1}{2} \times 4\frac{1}{2}$, is almost insignificant by the side of a 20 x 24 gum print, yet such a print proved to be sufficiently strong to be accepted and hung at the London Salon in 1912. The strength of masses depends upon their own inherent qualities rather than upon their size, and they gain in strength and effectiveness by being very simple and by forming a simple, yet pleasing, design.)

To describe the pattern or decorative aspect created by the disposition of the masses of a picture, Arthur Dow suggests the word "Notan," which is a term used by the Japanese to signify an arrangement of light and dark. In his book, Composition, Mr. Dow writes: "To attain an appreciation of Notan, and the power to create it, the following fundamental fact must be understood, namely, that a placing together of masses of light and dark, synthetically related. conveys to the eye an impression of beauty entirely independent of meaning. For example, squares of dark porphyry against squares of light marble, checks in printed cloth, and the blotty ink sketches by the Venetians, the Dutch and the Japanese. When this occurs accidentally in nature, as in the case of a grove of dark trees against a light hillside, or a pile of dark buildings against a twilight sky, we at once perceive its beauty, and say that the scene is 'picturesque.' This quality which makes the natural scene a good subject for a picture, is analogous to music. Truthful drawing and 'conscientiousness' would have nothing to do with an artist's rendering of This is the kind of 'visual music' which the Japanese so love in the rough ink painting of their old masters where there is but a mere hint of facts."

Notan determines the pictorial balance of a



Fig. 16. The Explorers



picture, not so much the mechanical steelyard balance of objects or accents, as balance in a larger aspect, the balance of design. For the pattern of a picture, to be agreeable, must be well balanced; it must not be topheavy, or too large or too small for the space it fills. Whether or not the pattern is well balanced can be decided only by cultivated good taste and judgment. Some of Francis Libby's gum prints are good examples of bold and effective massing, and Wilbur H. Porterfield's work shows that he has a keen appreciation of notan as well as the decorative line. The pictures of both these artists are simple, strong and attractive. Good examples of Japanese art might well be studied for the appreciation of notan and the skilful placing of accents.

The picture-space should be filled, but need not be crowded, and it must be remembered that in judging balance, not only the masses of the subject, but also the shapes of the area remaining after being cut into by the outlines of these masses, have a bearing on the general design of the picture.

A mass may be light or dark in tone. Sometimes the striking masses are in light tones against dark. A nude figure or one dressed in white might form a light mass against a dark background. In the portrait of *Freddie*, Fig. 10, the child's figure

forms a triangular light mass against the dark background.

In order properly to appreciate masses it is sometimes necessary to eliminate some of the fine detail in the picture, for a very highly corrected lens often will give too much detail. In such elaboration of detail the pattern of the picture is obscured, the bigness and impressiveness of it are lost. When we look at a tree, we cannot and do not want to distinguish all the leaves in sight or take in at a glance the labyrinth of boughs and twigs. We would rather have the twigs and branches compose into a general character of structure and direction, and the foliage into a mass or arrangement of masses.

The best way to subdue detail is by the use of a lens that is so constructed that it will not give critically sharp definition. It can be done by making an enlargement which is just a trifle out of focus, by enlarging through bolting-cloth, and so on, but the most satisfactory way to get soft definition is by the use of a soft-focus lens. The proper use of such a lens will not destroy or obliterate detail, but will render it in such a way that it will take its proper place in the general scheme of the picture and not be too insistent. With a soft-focus lens properly used, a tree can be rendered as a decorative shape or mass instead of as a collection of innumerable leaves, twigs



Fig. 17. Crescent Beach, Gloucester



and branches; the texture of the bark and foliage (like the textures of clothing, etc., in figure studies) can be adequately suggested, and the eye will not be distracted from the harmony of the picture as a whole by the insistent clamoring of fine detail for microscopic examination. This massing of fine detail will impart to a picture the much desired quality known as "breadth." We can have some detail in the masses and still retain breadth, provided the detail is properly subdued and does not attract undue attention.

In advocating the use of the uncorrected lens for pictorial work, it must not be understood that no other lens is suitable, for, after all, a picture is a picture and, no matter what lens has been used in its production, the result is what counts. It is the arrangement or selection of the subject, as well as the disposition of lines, tones and masses, which determines the artistic merit, rather than the accidental charm of soft and pleasing definition. The end in picture-making justifies the means, and if the finished result is a picture, no one need bother himself as to the details of its production.

I must confess, however, that the uncorrected lens is a great help and source of inspiration to the pictorialist. The image seen on the focusingscreen is so fascinating that there is a keen satisfaction in seeing a bit of nature so rendered by

the lens, and a great joy in striving adequately to transfer it to the print. With such a lens one can better suggest the vibrant quality of sunlight and render the transparent luminosity of shadows, I think, than by any other means. The lack of hard edges and the entire absence of that biting hardness of definition that is unavoidable with some lenses is just what the picture-maker wants. That is, in fact, just what he is striving for when he makes his enlargements through boltir cloth, or prints on a paper with a very rough surface. Such methods can, at best, be regarded only as attempts to make the best of a bad job, and if we can get the desired quality in the original negative, it is far better. But it should be real quality, not merely softness. There is no artistic virtue in the mere obtaining of soft, hazy and uncertain definition. A picture is not necessarily a picture because it is blurred and fuzzy, though it may possibly be a good picture in spite of it.

When the original negative is sharp all over and is softened by means of bolting-cloth or diffusion in enlarging, the softening is carried out to the same degree all over the picture. Every part of the picture is equally diffused: foreground, middle distance and distance are all the same; but with a soft-focus lens, properly used, the softening need not be universal. The fore-

ground, for instance, may be more sharply focused than the distance, and instead of a picture soft all over, with everything equally diffused, we can have the principal object standing out clearly against a subdued but perfectly coherent background.

With a soft-focus lens one can make a picture that will "carry" better than one made sharp and softened in enlarging, for the picture closes up and becomes coherent at a little distant, like a good impressionist painting.

In other respects, too, a lens of this type is eminently suitable for pictorial work. Such lenses as a rule are very much cheaper than fully corrected anastigmat lenses of the same focal length and speed. We shall see later, in Chapter IV, that for pictorial work a long-focus lens is desirable. Appreciating this fact, the makers of pictorial lenses have designed the mounts and flanges so that the lenses shall be as compact and as light as possible, and yet of sufficiently long focal length to assure good drawing and perspective. With regard to speed, which is commonly supposed to be an advantage possessed by the anastigmat alone, the semi-achromatic lens is not far behind. The Spencer Port-Land lens has an effective aperture of f: 4.5, the Verito doublet works at f: 4, the Smith lens (the original single lens, now known as the Series 1) usually

works at f:6 and the Struss Pictorial lens at f: 5.5. The new Smith Synthetic lens works without halos at f:5. For outdoor work such apertures are fully adequate for all work likely to be undertaken by a photographer who is interested primarily in making pictures rather than highspeed records. Another factor greatly in favor of the uncorrected lens is the tremendous amount of control in the quality of the image that is possible. Slight variations in focusing and in the size of the diaphragm will alter very materially the quality of definition. This, combined with the great apparent depth of focus of such lenses, makes them most satisfactory instruments to use. I say apparent depth, because such lenses are governed by the same inexorable laws of optics as are other lenses. Probably the effect of depth is due mainly to the fact that there is no sudden and abrupt change from sharpness to out-offocusness, but, really, at times, it is almost uncanny. I have a picture taken with my single Smith lens at Revere Beach. In the immediate foreground is a group of boys playing on the sand. These boys are clearly focused, and yet the divingraft and the people on the raft, far out in the water, are just as clearly defined as the group in the foreground. I have also a surf study, made with the Spencer lens, in which there is a vessel off on the horizon just as clear as the rocks and



Fig. 18. The Painter

surf close at hand. An anastigmat lens, of course, will give depth of focus when it is stopped down, but the semi-achromatic lens seems to show remarkable depth at a comparatively large aperture.

For portraits and figure studies such lenses are almost indispensable. It is possible to secure delightful textures, subtle modeling, and roundness with the Smith or the Verito and other similar lenses. There is no insistent and irritating detail, but just the personality, the character and individuality of the subject, with the essentials emphasized and the unessentials eliminated. When a generous exposure is given and the plate developed for softness and shadow detail, little or no retouching will be necessary on portrait negatives; in fact, handwork of any kind, however skilful, will be apt to destroy the quality.

Probably the greatest advantage of all in the use of such lenses lies in the fact that with them real picture-making can be accomplished, without any need for handwork or manipulation of any kind except purely photographic treatment, united to a proper appreciation of the principles of pictorial composition. By real picture-making I mean making pictures which conform to the ideals set up by the leaders of modern pictorialism, who believe that a space properly filled is more of an accomplishment than the exact reproduction of actual facts.

Looking at things from this point of view, it does not matter at all what the subject of the picture may be, as long as it fills the picture-space harmoniously, and makes an agreeable and wellbalanced pattern. The treatment of the subject is considered to be more important than the subject itself. The late H. Snowden Ward had just such an idea in mind when he defined a picture as being "a thing beautifully photographed rather than a beautiful thing photographed." Many of our latter-day pictorialists consider a picture to have attained its purpose when it is nothing more than some decorative shapes or lines bounded by a mount or frame, some beautifully-shaped marks on paper. This viewpoint necessitates the possession of unusual ability to select and arrange one's material, and calls forth the artist's constructive instincts in the creation of something which is indicative of his own personality, whereas the mechanical reproduction of what exists demands merely a certain amount of skill and technique.

A semi-achromatic lens will help greatly in enabling one to appreciate the design or pattern of a subject rather than the bald actuality. With it a tree can be rendered as a decorative mass, not as a collection of twigs and branches. Various small objects will take their proper places in the picture-scheme as spots and accents, light or dark, and will not by their fine detail demand ex-

amination and conjecture as to their identity. They will be merely spots and, as such, will help the general decorative arrangement of the picture.

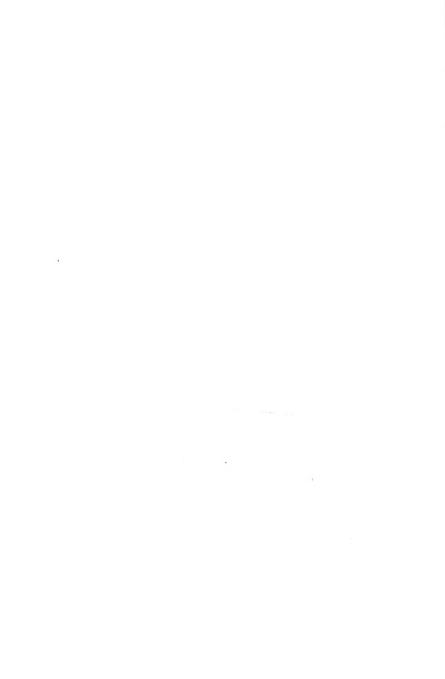
A soft-focus lens is an instrument that needs to be studied and experimented with to some extent before its full capabilities are discovered, and in this study and experiment there is much joy for the conscientious artist. Such a lens improves on acquaintance; the more one uses it, and the more fully one understands it, the more one realizes that the maker of it has placed at our disposal an ideal instrument for the work in hand. Such control, such power of personal modification of the quality of the image, have never before been accessible in making the original negative. Hitherto one was forced to get the original negative more or less as the lens would make it, and depend upon subsequent modifications for the production of pictorial quality, but now one can control the picture from the very beginning. I am a firm upholder of and a strong believer in the merits of the straight print, not that I disapprove of hand work, but because I believe that hand work carried too far will tend to destroy the very quality that makes photography worthy of being considered a fine art. Personal control is a different thing entirely, and should be freely used at every stage in the production of a picture, but not the hand work that

consists in altering the tones of a print by brushing away highlights and gradations, or darkening shadows by means of paint or pencil on the print itself. Photography, properly controlled, can render tones better than any other medium of artistic expression, and personal control of exposure and development will be all that is necessary to get good tones and truthful gradations, for the camera, properly guided and then left to do its own job in its own way, will take care of the tones of a picture very well.

In outdoor work, a good way to judge the masses of a picture before making the exposure, is to rack the lens in or out a good deal, so that the image on the focusing screen is entirely blurred and out of focus, and all detail is obliterated. This will leave only the shapes and forms of the masses, which can then be studied purely on their merits as a pattern, for it will be almost impossible to tell what they represent. If this study shows that the notan is interesting, if the masses are properly balanced and fill the picture space without appearing to be too crowded or too meagre, if the pattern or design is agreeable, that view may be considered as promising material for a picture.

Broad, simple masses and long, flowing lines are very desirable in pictures, but all pictures do not contain large and impressive masses. Some





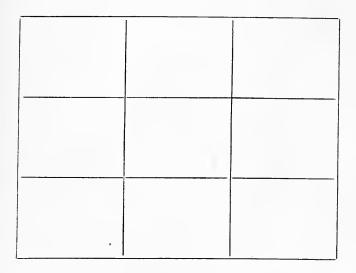
may consist of quiet, restful tones, light or dark, with only a very small patch or two of contrasting tone. A small but noticeable patch of contrasting light or dark tone would more correctly be described as an accent than as a mass, and it will be found that, as a rule, an accent is needed to prevent a picture from becoming monotonous and uninteresting.

In another chapter we refer to the desirability of keeping the tones in a picture quiet and simple, and of avoiding too great contrast of light and dark or too long a range of tones, but if this is carried to extremes the result may be weakness and monotony. If a picture is composed of only a few tones, a definite accent is usually needed to pull them together and make the picture interesting. If the prevailing tones are dark, the accent may well be light, while if light tones predominate in the picture, a dark accent will be needed. As examples of accent, light and dark, we may refer to The Harlem River (Fig. 11), in which a light accent is seen in the puff of steam against the low tones of the sky, and to Starting Out (Fig. 12), in which we see a dark accent in the hull of the sailboat. Without such accents the pictures would be dull, lifeless, and lacking in interest. Very often the accent is used to emphasize the main object of interest in the picture. Sometimes the main object itself may present suf-

ficient contrast to make it stand out prominently from its surroundings, as is the case in *Plum Island* (Fig. 13), where the child, the main object of interest, is the only dark accent in the picture.

When the accent itself forms the principal object of interest in the picture, as is the case in Fig. 11 and Fig. 13, its position in the picturespace must be carefully considered. It will be found, as a general rule, that a point about onethird of the width of the picture-space from the top or bottom of the picture, and about one-third from one side, will be a strong position for such an accent. These points may be found by imagining that your picture-space is divided both vertically and horizontally into three equal strips by lines that will cross each other at four points. Each of these four intersection points will be a strong position, and an accent at any one of these points will be well placed in the picture-space. It will not matter at all what the shape of the picture may be, whether it be an upright or a horizontal rectangle, or a square, these four points, each of them one-third of the width of the picture-space from top or bottom and one side, will be strong points. So, in trimming the print, or in arranging the picture on the focusing-screen, it is a good plan to get any prominent accents as near one of these strong points

as possible. Many landscape workers have the ground glass of the focusing-screen ruled with pencil lines, as in the diagram, and this is a very



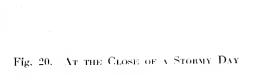
good idea. If it is not possible to get the accent in the right place in the original negative, its position can often be modified by proper trimming of the enlargement or the print.

Sometimes a portrait in which there is a comparatively short range of tones needs an accent to pull the tones together and make them look right. In Fig. 14, the black necktie is needed to prevent the flesh tones from looking too flat and weak. Without this dark accent the face would look too dark in tone, by reason of the contrast

with the light background. Cover up the necktie, and you will see how much the touch of black improves the picture. The same effect is seen in Fig. 15, in which the light accent of the white collar helps to keep the tones of the face in their right relation, and prevents the contrast with the dark background making the face look too white. A similar use of such an accent may be observed in *The Fair-haired Boy* (Fig. 24), and in other illustrations.

In a landscape picture, a small figure carefully placed in the picture space may often serve as an accent. This is just what has been done in *Plum Island*. The child in this picture is not merely an accent of contrasting tone; it is the main object of interest in the picture, and gives it the needed touch of human interest.

Whether figures shall or shall not be included in a landscape or a marine picture depends entirely upon whether they are needed to carry out the idea. If they help the picture to tell the required story, they should be put in, and their size and importance should be regulated by the importance of the part they play in the composition. Mere size does not always determine the importance of figures in a landscape. They may be quite small, and yet acquire considerable importance by reason of their placing in the picture-space and their contrast in tone.



The arguments in favor of including figures in landscape pictures are these: they increase the range of emotions that may be expressed in the picture; they help to accentuate the important features; they often provide the vertical or diagonal line that is needed to balance horizontals in the landscape; a figure is sometimes helpful in suggesting scale; and unusual height of buildings or trees may be indicated by the comparison with figures. In genre pictures figures are nearly always needed to tell the story. Against the use of figures are the facts that they are sometimes difficult to harmonize with a landscape as regards form and pose, expression and costume, and that many emotional qualities such as wildness, ruggedness or desolation are lost in their presence without the most careful treatment. The artist must decide for himself whether the landscape or the figures can be made the more interesting.

The laws of principality and unity, harmony and balance, must always be observed. The picture should tell one story, and only one. So, in every case, we must decide whether figures are needed or not. If we decide that figures are needed; if we decide that the figures are more interesting than the landscape and that they are to form the main object of interest in the picture, we must try to make the landscape subordinate

to the figures, so that it will serve merely as a setting and a support for them. A painter, by the skilful use of color, can make idyllic pictures in which a figure or a group of figures is not the dominant thing in the picture, but for a photographer this is more difficult. When there is only one figure and it is intended to be the dominant item, it should be placed in the picture space in accordance with the general laws of composition. When there are two or more figures, one must dominate the others, or they must be grouped together so that the interest will not be scattered. They may well be engaged in some common occupation which will provide a reason for the grouping.

If the idea of the picture is romantic, in the sense that it is a picture that tells a story, figures may be needed, but a safe rule is to omit figures when there is any doubt as to whether they add to the picture or not. There may, of course, be figures in a landscape that are merely quite unimportant accessories; they may help to develop the landscape and not detract from its importance. On the other hand, if the figures tell the story, the landscape must be subordinated as much as possible. In *The Explorers* (Fig. 16) the story is told by the figures, while the landscape merely provides an appropriate setting, but in *Crescent Beach* (Fig. 17), the little figures in the foreground



Fig. 21. A Home Portrait



are entirely subordinate, yet add a touch of human interest.

The subject of figures in landscape pictures naturally leads to the consideration of genre work, for when the figures are the important part of the picture and the landscape is subordinated to them, the picture comes into the class of genre rather than landscape. Genre subjects often provide good material for the photographer, and this is a branch of artistic work that can be handled very adequately by the camera. Such pictures come under two general heads: some are planned and arranged by the photographer, and some, occurring naturally, are seen and seized upon by the photographer without any preliminary arrangement on his part. In other words, the composition may be either constructive or selec-In building up such pictures, the important principles of art should always be observed. Unity, balance, simplicity and harmony must all be considered.

A genre picture, as distinguished from a portrait group, should emphasize the occupation of the persons rather than the persons themselves, and, therefore, it is often permissible that some of the figures may be turned away from the camera, either entirely or partly, if arrangement and idea are thus best served. In *The Painter* (Fig. 18) all the figures are turning their backs,

and in *The Explorers*, none of the boys are rendered in such a way as to show the features clearly, but in both cases the story is told clearly and that is the main requirement. Both these examples were obtained by seizing the opportunity as it occurred and making the exposure without any preliminary posing or arrangement of the figures. In fact, I do not think, in either case, the people shown in the pictures were aware that they were being photographed. I think that this is the best way to secure the naturalness and lack of self-consciousness that are so important in such pictures.

In building up genre pictures with models who are fully aware that a picture is being made, the main difficulty is to avoid showing evidence of conscious posing. The difference in the use of the model by the painter and the photographer is at this point made manifest. To the one he appears as a suggestion, to the other he is the fact. The photographer must, therefore, be endowed with such distinguished gifts or conversant with such clever devices as will make the model forget himself. This can be done and often has been done with entire success by photograph-Perhaps the best examples I can refer to are the supremely perfect photographs of posed models by Guido Rey of Turin, each in its way a little masterpiece of composition and arrange-

ment, and without a flaw technically. But it seems to me that the photographer would do better to avail himself of the peculiar facility offered by photography for making the picture almost instantaneously when the figures are either totally unaware of what is being done or are not making any conscious effort to adopt a preconceived pose.

CHAPTER IV

Linear Perspective — Focal Length of the Lens with Relation to the Point of View — Aerial Perspective — The Effect of Atmosphere on the Tones of a Picture — Theory and Practice of Orthochromatic Photography — When to Use a Color Plate — Full Correction Sometimes Unnecessary.

PERSPECTIVE is a science of which the picture-maker should know something, for, though it is usually taken for granted that the lens will, automatically, render linear perspective correctly, it is often the case that correct and scientifically accurate perspective is not the most pleasing from the artistic point of view. It is quite true that the lens will, if it is properly manipulated, draw objects in correct perspective, but if this correct perspective looks wrong it will not be at all satisfactory to the artist.

The apparent truth of the perspective given by the lens is governed entirely by the point of view from which the picture is taken. If we are using a short-focus lens and get very close to our subject, in order to make it large enough properly to fill the picture space, we shall be apt to get violent perspective or what an artist would call "bad drawing." The perspective is not wrong. According to the laws of optics, it may be abso-



Fig. 22. A SUMMER CAMPER



lutely correct, but it is not pleasing or natural, for the eye does not naturally see at once as wide an angle of view as can be included by a short-focus lens. The eye is, practically, a long-focus lens. It covers only a comparatively narrow angle, and in order to see as much as can be included in a picture made with a short-focus lens we have to move the eyes a little and look at the various objects in succession.

For purely decorative or pictorial photography, a lens of comparatively long focus should usually be selected, because such a lens will produce an image that more closely approximates what is seen by the eye. The use of a long-focus lens will also obviate the necessity for getting too close to the subject and thus obtaining violent and unpleasant perspective. Distortion and exaggeration are not the result of using a short-focus lens, but of selecting a wrong viewpoint.

The focal length of the lens determines the size of the objects photographed. A short-focus lens will show everything smaller and will include more of the surrounding objects than a lens of longer focus used at the same viewpoint. The size depends upon the distance between the lens and the objects photographed. Suppose we are making a portrait, and are using a nine-inch lens and a 5×7 plate; if the camera is about ten feet from the sitter we shall find that the figure is

quite small in the picture. A full-length average standing figure would be only about four or five inches high and the head, of course, would be quite small, only about half an inch or so in diameter. If we want to make the head larger, so that it will nearly fill the plate, there will be two courses open to us. We can either move the camera nearer the subject, or we can use a lens of longer focus from the same viewpoint.

Unfortunately, the first is what is usually done, with the result that we get unsatisfactory perspective, not because we are using a short-focus lens, but because we have selected too near a viewpoint. The lens is not at fault; the bad drawing is caused simply by its being too near. This is true not only of portraits but of all kinds of pictures, but it is more noticeable in portraits because a much foreshortened hand, arm or shoulder usually is very prominent. Suppose we are photographing a landscape, such as a tree with some hills in the background. With a teninch lens on a 4 x 5 plate we can get a very satisfactory arrangement, with the tree in the foreground of the proper size, and the distant hills about as large as they ought to be. Now, suppose we substitute a five-inch lens for the teninch lens, and photograph the same view from the same standpoint. We shall get just the same relative proportions in the size of the tree and

the distant hills, but both will be smaller, only half as large as in the picture made with the teninch lens, and more of the surrounding country will be included on the plate. But we want the tree to be large enough to show up well in the picture, so we proceed to move the camera closer to the tree, until we can get it about the same size on the focusing screen as it was in the picture made with the ten-inch lens. The tree may now be all right, but what about the distant hills? They will be very small and the whole distance will appear to be dwarfed and insignificant, so that anyone who knows the locality will see that they appear to be only about half their proper height, while the foreground and middle distance will seem too large and flat.

This effect is caused by the wrong viewpoint having been selected. If we were to enlarge the portion of the negative made with the five-inch lens from the same viewpoint as the ten-inch picture, and to make the tree just the same size as it was in the ten-inch picture, everything else would be just the same size, and the two pictures—the direct print from the ten-inch picture and the enlargement of part of the five-inch picture—would be exactly alike.

So, when using a short-focus lens (and, for pictorial purposes, anything less than nine or ten inches for a 4×5 plate would be considered short)

we must be satisfied to take our pictures small and subsequently enlarge only the part we want.

It must be understood, and perhaps it is unnecessary to mention, that the characterization of the focal length is relative to the size of the plate for which it is used. A 10-inch lens when used for a 4×5 plate would be considered a long-focus lens, but the same lens if used for an 8×10 plate would be a short-focus lens. So, if we trim a 4×5 print until we have a little picture measuring only, say, an inch by an inch and a half, and if we had used a five-inch lens to make this picture, we could consider it a long-focus lens, because for a plate that size it would be, relatively, a long-focus lens.

Sometimes it is roughly estimated that the sum of the length and breadth of the plate is about right for the focal length of the lens. That would give twelve inches for a 5×7 plate, nine inches for a 4×5 , and so on. In any case a lens with a focal length measuring less than the diagonal of the plate is not advisable for picture-making except for specific purposes. The diagonal of a 4×5 is 6.4 inches, of a 5×7 , 8.6 inches, and of a $6\frac{1}{2} \times 8\frac{1}{2}$, 10.7 inches.

The amount of view that can easily be seen without moving the eyes or turning the head includes about 25°, whereas the angle of view included by a five-inch lens on a 4 x 5 plate is

about 65°. A fourteen-inch lens used on a 4 x 5 plate would include just about the same angle of view as is seen by the eye, but a nine- or teninch lens, for a plate of this size, gives quite agreeable perspective. Sometimes, in architectural work, a short-focus lens, or, as it is sometimes called, a wide-angle lens, has to be used in order to include enough of the subject when it is not possible to select a sufficiently distant viewpoint to get it all in with a long-focus lens. Hence we get rather abrupt and not the most pleasing perspective. So, if you want large pictures, as when you want to photograph a head and shoulders on a comparatively large scale, you must use a longfocus lens or enlarge a small image, rather than get the size by going too close to the subject. As a general rule, it is advisable never to place the camera nearer than seven or eight feet when photographing a person. At seven feet, to make a head four inches high a lens of twenty inches' focal length will be needed.

Those who possess a symmetrical rapid rectilinear lens might try the effect of using only a single component of the lens, either the front or the back combination. This will give a single lens of about twice the focal length of the combined lenses, which will be found to give sufficiently good definition for portraits and for landscapes.

For outdoor work, landscape and marine pic-

tures, a long-focus lens is usually more satisfactory, because with it we can more easily isolate and emphasize the principal object of interest, and make it large enough without having to get Of course, no very definite rules can be given with regard to this, for each worker must be guided by circumstances. I might perhaps state that most of my own outdoor pictures are made with an eleven-inch lens (a Smith single, semi-achromatic) which I use on a 4 x 5 Reflex The focal length of the lens and the type used must be determined by individual circumstances, depending upon the size and type of the camera and other details. Sometimes one of comparatively short focal length must be used in order to include all of the subject required, but when there is any choice, the longest possible focal length should be selected, so that a more distant viewpoint can be taken, with the corresponding advantage of more natural and more agreeable perspective.

If the pictorial worker will bear in mind the fact that the viewpoint rather than the focal length of the lens determines the perspective of the picture, he will prefer to get his original image small and get the required size by enlarging from part of the negative, rather than to get the image larger by getting too close.

This is about all a pictorial worker really needs

to know about linear perspective, but there is another kind of perspective that is of great importance in picture-making. This is known as aerial perspective, and this kind of perspective imparts "atmosphere" and depth to a picture, and gives a suggestion of space and distance in an outdoor view. It suggests atmosphere in a picture because it is caused by the presence of invisible particles of dust and moisture in the air. By means of aerial perspective we can make distant parts of the scene seem remote, and can get a satisfactory separation of planes.

As the different objects in a landscape recede farther and farther from the eye, they lose their intensity of color and their contrasts become softened. This is caused by atmosphere.

Atmosphere must not be confused with mist or fog, for on days on which there is no mist there is still atmosphere, and this — the particles of dust and moisture — alters both the contrasts and the local colorings of distant objects.

In Leonardo da Vinci's *Note Book* we find this: "Objects being at a distance from the eye . . . and when this is the case there must of necessity be a considerable quantity of atmosphere between the eye and the object, and this atmosphere interferes with the distinctness of the form of the objects and consequently the minute details of these bodies become indistinguishable and un-

recognisable." Again we find: "Shadows become lost in the far distance, because the vast expanse of luminous atmosphere that lies between the eye and the objects . . . etc."

Let us suppose that there are a white house and a dark oak tree far off in the distance. The "vast expanse of luminous atmosphere that lies between the eye and the objects" might reduce the white house and the dark tree to the same shade of gray, for the tree, seen through the vast expanse of atmosphere, would look gray instead of black, and the brilliant rays of light reflected from the white house, in passing through the atmosphere, lose so much of their brilliancy that the house appears to be gray instead of white.

There are occasionally days in the summer when the atmosphere is very clear and dry, when there is presumably very little moisture in the air, and on those days the distance is unusually clear, distinct and dark in tone. I have seen such days in New Hampshire, toward the end of summer, when the hills across Lake Winnepesaukee look almost black, and one can almost distinguish individual trees and houses many miles away. A photograph made on such a day would be entirely lacking in atmosphere. The distance and middle distance would be just as dark, and would appear to be just as close as the foreground, and only the diminished size



Fig. 23. Portrait of a Painter

of objects in the distant planes would suggest perspective. The effect would be much the same as is seen in photographs that are underexposed. There would be no separation of planes, and the whole scene would look flat, like the conventional design on a willow-pattern plate.

It is often stated and commonly believed that the use of an orthochromatic plate and a deep color-filter will cut out atmosphere, but this is not strictly true. The orthochromatic rendering simply does not exaggerate the atmosphere, but the ordinary plate with no color-screen, being very readily affected by the blue, violet and ultra-violet rays in the atmosphere, really exaggerates and increases a little the appearance of atmosphere in the picture, while the orthochromatic plate with the color filter represents it more as it really is. On days, therefore, when there is already a good deal of visible atmosphere, it might be better to employ orthochromatic methods, unless even more mist and fog were wanted in the picture.

The problem of adequately rendering the contrasts of light and shade in a photograph is a difficult one, but when we add to it the complications of color contrasts we increase the difficulty. Some years ago it was thought to be inevitable that certain colors would photograph too dark and others too light. This was regarded

as an unavoidable limitation of photography, but scientists have been investigating and working on that problem and now, by using a panchromatic plate and a properly adjusted ray-filter, we can render colors according to their true visual intensity. This is very desirable in many branches of photographic work. White light, as we know, is made up of all the colors of the spectrum, those that we can see being red, orange, yellow, green, blue and violet. There are also invisible rays at both ends of the spectrum, the infra-red and the ultra-violet. An ordinary photographic plate or film is abnormally sensitive to the light rays at the violet end of the spectrum and is strongly affected by the ultra-violet rays, which are invisible though they are present in sunlight, but it is practically insensitive to red and to the colors at the red end of the spectrum. Therefore, an ordinary plate sees red as black and is affected only very little by orange and yellow, so that those colors appear very dark while, on the other hand, being so sensitive to blue and violet, these colors are made to appear too light. That is why we can use a red light in the darkroom, as the plate is affected, practically, not at all by red light.

"Through the thick corn the scarlet poppies peep And 'round green roots and yellowing stalks I see Pale blue convolvulus in tendrils creep:

And air-swept lindens yield Their scent, and rustle down their perfumed showers Of bloom on the bent grass where I am laid, And bower me from the August sun with shade; And the eye travels down to Oxford's towers."

There is much color in nature, and unless the colors can be properly rendered in a photograph the tones and values will be incorrect. With a plate that sees blue as white and red as black and other colors more or less incorrectly, how could we picture scarlet poppies, the greens and yellows in roots and stalks, and pale blue convolvulus?

Yellow is often a very bright color; its visual intensity is very high, but its actinic value is low. Blue may be a dark blue, of low visual intensity, but it would be very actinic. When colors are mixed, when we have brown, green, purple and so on in a landscape, it is hard to tell just what is going to happen.

If things worked out strictly according to theory; if, in an ordinary outdoor scene, the colors were pure colors; if a red object reflected only red light, a green object only green light and so on, it would be quite impossible to photograph such a scene with an ordinary plate and get the colors so that they would look right. An ordinary plate is blind to yellowish green, orange and red, and, therefore, according to theory, it would

be impossible for an ordinary plate to photograph grass or flowers except those that were blue or white, but, as a matter of fact, practically all objects reflect more or less white light as well as their predominant color, and when they are objects like grass and leaves which have comparatively shiny surfaces, they probably reflect an immense amount of white light and blue light from the sky. More especially is this the case when they are wet. Then, too, just because an object looks yellow or red or green, it does not necessarily follow that it absorbs all the blue and violet light-waves. Some time ago I made a darkroom lamp, using a piece of ruby glass and a piece of orange glass. The ruby glass looked red and the orange glass looked orange, but the two together were able to pass enough white light to fog plates and films with great ease and rapidity. And do we, for pictorial purposes, always desire to reproduce colors absolutely correctly? We want them to look right; we want the shades of tone to suggest the original colors; but do we always want absolute and scientific accuracy?

The ordinary plate, as we know, renders colors incorrectly. Blue comes out too light, and yellow, green and red too dark. A panchromatic plate exposed correctly through a perfectly balanced and accurately matched color-screen will render every color and every shade of color with abso-



Fig. 21. The Fair-haired Box



lute accuracy. Yet with proper exposure and soft development, which will prevent the sky from becoming too dense in the negative, the ordinary plate will often give a far more pleasing and more restful picture; the sky will be simple in tone and we will get the full effect of haze, mist and atmosphere to soften and simplify the distant planes. We shall get detail mostly in the grays and bluish greens, while the rest will be simplified. Full correction is rarely needed in pictorial photography. The simplification of the picture and the elimination of unessential details are more easily accomplished by the thoughtful and rational use of just so much color correction as is needed for the special subject.

For all practical purposes I believe that an orthochromatic plate, used sometimes with a screen and sometimes without, will enable a photographer to exercise some control over his results, for he can use the screen or not according to the effect he wants to get and the tones he wants to emphasize. Personally I have seldom used a ray-filter that multiplies the exposure more than four times for outdoor work. When used without a ray-filter, any first-class, rapid, orthochromatic plate will do everything that an ordinary plate can accomplish, and, with a ray-filter, it is capable of much of a most desirable type of work that is quite beyond the possibili-

ties of ordinary photography. The orthochromatic plate, being blind to red, can be safely developed by a good red light, whereas a panchromatic plate has to be developed in the dark.

Without a screen an orthochromatic plate is very similar to an ordinary plate, except that it is more sensitive to yellow and green. It is still abnormally sensitive to blue, violet and ultraviolet, just like the ordinary plate, and there is practically very little difference between a good ordinary plate and an orthochromatic plate used without a ray-filter, but as soon as we use even a pale color-screen and begin to cut down the intensity of the blue and violet, we notice a difference at once. The screen allows the greens, vellows and reds to pass through unchecked, while it stops the ultra-violet and reduces the intensity of the blue and violet rays. The cutting out of the ultra-violet and the checking of the violet and blue allow of a longer exposure being given, and this extra time gives the greens, yellows and browns a chance to catch up and get themselves more strongly impressed on the plate. are times when we can produce a picture that is pleasing and not obviously untruthful by using an unscreened plate, and again there are times when the violet and ultra-violet rays are too strong, or when the delicate tints of the landscape



Fig. 25. Charlie

- Suit

are so beautiful that it would be a serious error not to translate them as accurately as possible, and then the screen should be brought into play. A panchromatic plate, absolutely corrected, is seldom necessary for pictorial work unless the subject depends for its truth and effectiveness upon the correct rendering of red (scarlet poppies, yellow stalks and blue convolvulus, for instance). For all ordinary purposes an orthochromatic plate used intelligently, with or without a screen, as occasion demands, will give such negatives as the pictorialist can best make use of.

It must not be thought that there is any desire on my part to depreciate orthochromatic methods or to advise against taking advantage of the undoubted benefits to be derived from the proper use of orthochromatic plates and ray-filters. For certain kinds of photographic work they are indispensable; for copying paintings and all colored objects, and for commercial photography of many kinds, a panchromatic plate and a properly adjusted ray-filter are absolutely necessary for the best results, but we are dealing in these chapters with the purely pictorial and artistic aspect of photography, and the artist who knows when and how to use a screen, and who knows also when and how to obtain certain desired results without a screen, is the skilled craftsman, whereas the man who works by one fixed plan, whether

he adopts orthochromatic methods or whether he refuses to do so, is working mechanically.

It needs some experience to decide just when and under what conditions a screen is needed and when it would be better not to use it, for there are times when a more pleasing, a simpler and more interesting picture can be made with an unscreened plate. Of course, when Nature happens to be just right (and that does happen quite frequently, in spite of Whistler's assertion that "Nature is very rarely right") he who tries to improve upon panchromatic methods plus a screen is making a mistake. Very frequently, however, the desired effect can be better secured without a screen; the dreary stillness of a gray day can be emphasized, or the mystery and charm of gleams of sunlight breaking through an early morning mist with a hazy and atmospheric distance can be enhanced. When working in a big city we frequently need to soften and subdue an uninteresting and prosaic background, and often we can do it by using an unscreened plate that will tend to increase any fog, haze or smoke that may be present, whereas if we used an orthochromatic plate or a panchromatic plate with a screen all the commonplace and uninteresting details in the background would be brought out distinctly.

Another reason why I think full correction of

color values is often unnecessary is because — as was mentioned in Chapter I — the camera is essentially a "copying machine," and our aim in pictorial work is to interpret nature rather than to reproduce things exactly as they are. When a panchromatic plate is used with a correctly adjusted filter, the efficiency of the camera as a copying machine is much increased. The camera can then reproduce not only the correct light and shade contrasts, but also correct color contrasts.

Full color-correction demands approximately correct exposure and development of the plate, for the more nearly correct is the exposure, the more truthfully will the color contrasts be reproduced in the negative, so, by reason of the necessity for scientific accuracy, we lose the possibility of varying the effect by varying the exposure and development. We cannot play with the tones as we can with an unscreened plate; we cannot expose for the tones that are most desired, and modify the scale of tones in the picture by giving a full exposure and stopping development when the tones are what we want. With a panchromatic plate and a filter, the correct normal exposure must be given, and the plate must be developed to the proper normal density, otherwise the tones and color contrasts will be wrong. The operation is purely scientific

and mechanical; there is no opportunity for personal control, nor is any modification possible or desirable. So, when conditions are such that the artist can get the effect he desires by copying nature, and by reproducing as accurately as possible the color contrasts in the subject, he should use an orthochromatic or a panchromatic plate with a proper compensating filter, and should do all in his power to avail himself of the wonderful efficiency of the camera as a copying machine, but when he wants to modify the tones in the subject, he is perfectly justified in doing so by any possible means as long as, in doing so, he merely emphasizes, eliminates, or modifies certain aspects of the subject, and does not actually and obviously falsify the tones.

The tones may be simplified without being falsified by using an unscreened plate, so that, instead of having every color and every shade of color accurately differentiated, they may be massed and rendered less complex by exaggerating instead of truthfully rendering the atmospheric effect. The pictorialist is not bound by the rules of the expert copyist, who is more concerned in reproducing the grain, texture and high finish of the rosewood case of a grand piano than in rendering the grace, beauty and airy lightness of a group of silver birches against a background of pine trees. The beauty of a picture and the message we want to

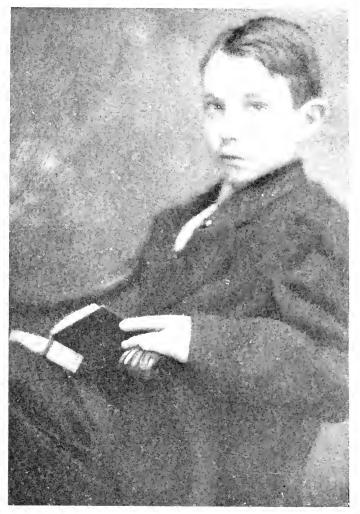


Fig. 26. Portrait of Jack



convey may depend upon the correct translation of tones and color contrasts, or they may depend upon the emphasis of certain aspects of the subject. The artist must decide whether complete orthochromatism is desirable, or whether modification and simplification of the tones and contrasts will better enable him to get the effect he wants. In this he can be guided only by experience.

For snow scenes, whether there is sunlight or not, a screen is nearly always desirable, for otherwise it is almost impossible to suggest the color of snow and to get the proper tone-relation between the snow and the sky.

CHAPTER V

Simplicity — Sympathy — Restraint — The Law of Principality — Emphasis.

ONE of the most important qualities a picture can possess is simplicity. This is true not only of photographic pictures but also of drawings, paintings or etchings. By being simple a picture gains enormously in strength and effectiveness; it wears well; one can live with it and enjoy it without getting tired of it.

Simplicity is especially valuable in photographs because it is so fatally easy to include in a photograph too many interesting objects; to make it so crowded with lines, masses and tones that it becomes irritating and far from restful.

Every means of pictorial expression has its own inherent difficulties; each art, painting, music or poetry, is shackled with material fetters. The impartiality with which the camera records everything in the field of view is the greatest difficulty which the artist who uses a camera has to guard against, and he must do all he can to curb the lavishness and prodigality of the lens. The eye of the camera, the lens, is mechanical, it has no accommodating brain behind it, and it records

everything it sees in a manner very different from what our eyes see. Just because it can take in more detail at one time than the human eye, the accuracy of the lens is often regarded as infallible, whereas, from the artistic standpoint, a lens is less accurate than the trained eye.

Simplicity of line is essential in a photographic picture, because, if there are too many prominent lines, actual or suggested, they lose their force and fail entirely to have any expression or to convey the desired impressions. Simplicity of line does not necessarily imply that there must be only one or two different objects in the picture. but, if there are many different objects, they should be massed together so that the lines of the masses are prominent rather than the lines of each individual object. The picture may represent, for example, a number of trees or a crowd of people or a group of shipping, but if the different objects are well massed, the lines of the picture will still be simple, for the outlines of the masses will be the ones that are strongly felt rather than the outline of each tree, each person in the crowd, or each spar or mast in the shipping group.

Simplicity of tone is necessary in a photograph on account of the limitations of photography, which can reproduce only a comparatively short range of tones. So the tones have to be simplified, because the range of tones in the subject is often

far greater than the range of gradations possible with any printing process yet available. We can get a long range of tones in the negative by using a thickly coated or double-coated plate. There might then be small portions that are bare glass, together with gradations increasing in density to those which were quite opaque, but we could never print all these tones. If we had such a negative and tried to make a print from it, we would have to sacrifice some of the tones, either at the top or at the bottom of the scale. If we printed until the gradations in the highlights were visible we would find the shadows much overprinted, very black, solid and empty, and if we printed for the shadows, the highlights would be harsh and chalky and would be entirely lacking in gradation. Therefore it is evident that a very long range of tones is not desirable in the negative, for the negative is merely a means to the end and the picture is what we are working for. So the artist, in making his negative, will develop until the highlights have just sufficient density to print out without blocking the shadows, and he will expose so that the shadow detail, or as much shadow detail as he wants, can be developed without overdevelopment of the highlights. This means full exposure and careful development, not carried too far.

If the subject is one in which there is a full



Fig. 28. Portrait, Mr. B.



range of tones, it will sometimes be necessary to sacrifice some of the middle tones and compress the scale, so that we can get in the print the darkest and lightest tones in proper relation, and as many tones between as possible. If the highest light and the darkest shadow are approximately correct—the highest light in the print being white paper and the darkest shadow being the blackest deposit of silver or platinum our print is capable of giving—the tones will look right, even if some of the middle tones are missing. If it is necessary for us to shorten the scale of tones, we must do it by compression, rather than by leaving out any tones at the top or bottom of the scale.

In our attempts to secure simplicity of tone we shall often find that we do not need to use even the full range of the printing paper. A picture can often be adequately suggestive when very few tones are used. In Wingaersheek Beach (Fig. 19), there is no black and very little pure white; the whole picture contains only a few tones, yet it suggests the scene under the conditions at the time the picture was taken. The artist usually should be sparing in the use of absolute black and white, and these should be used, if at all, only in very small areas. An accent of black or white will often strengthen a picture and pull the tones together.

In Fig. 20, At the Close of a Stormy Day, the light in the sky is the accent that strengthens the picture, just as the dark line at the horizon is the accent in Wingaersheek Beach. Without these accents, one light and one dark, the pictures would be monotonous and lacking in strength and interest. This same principle is often exemplified in Will Cadby's delicate studies in light tones: there is invariably one dark accent in the picture that pulls the tones together.

Simplicity of tone must not degenerate into monotony and an accent, black or white, will prevent this. It will provide a standard to which all the other tones will correlate. As an example of this let us refer to Fig. 14, and imagine what this would be like without the dark accent provided by the necktie. The flesh tones would then appear to dark in comparison with the light tones surrounding the face, but the black tie corrects this tendency and, by its contrast, makes the face appear to be of about the right tone.

Simplicity of subject is, to a great extent, a matter of selection. Simple subjects with good, definite lines are the ones that make the most attractive pictures, and such subjects can be found very readily by one who has learned to see them. The selection of the point of view also affects, to a great extent, the simplicity of the final result. Simplicity of subject, being so largely

a matter of selection, is almost entirely under the control of the picture-maker. Each worker will necessarily have his own choice in the matter of subjects; to some, landscape pictures will make a strong appeal, others may be interested in marine subjects, harbor and shipping scenes, surf and rocks, while some will find a great attraction in human nature and may devote themselves almost exclusively to figure studies, genre and portraiture. But, though the choice of subjects may be varied, each in his own particular line should take care that the subject of the picture, whatever it is, is simple. There is a tendency among "advanced" pictorialists to neglect the choice of an interesting subject and to trust to an effective pattern to make their pictures interesting. Such pictures are often interesting, but they are interesting more as studies in artistic technique than as pictures.

In striving to convey impressions in a picture an artist must have a certain amount of sympathy with and understanding of his subject. There must be a thorough grasp of the subject so that the artist can enter into the spirit of it. If you consider the work of leading pictorialists, such as Mortimer, Cadby, Day or Mrs. Käsebier, you will find that each is specially interested in a special subject, in each case a thoroughly worthy one. Subject is important in picture-

making for, even if a picture is "the expression of a theme," there can be no theme if there is no subject, and the subject should have sufficient interest and importance to be worth expressing. It should have sufficient character to merit close and intimate study. It should be one that interests the artist so that he will be thoroughly in sympathy with it. There should be sympathy between the artist and his subject for, if it interests him, he cannot treat it in an uninteresting manner. Each worker must choose his own subjects. Often an artist will be sufficiently interested in many things to express them well in pictures, but, usually, there will be one thing one type of subject — that makes a stronger appeal to him than any other. Mortimer has made many landscape pictures and figure studies, and good ones too, but it is pictures of the sea that specially interest him. It is a mistake, I think, to imagine that a picture needs no subject, that it can be merely a record of impressions, for there must be a subject before there can be impressions.

The importance of simplicity must be kept in mind at all stages, from the selection of the subject to the mounting of the finished print. Sometimes certain conditions of atmosphere are needed in order to simplify a subject; a background or distance that is too busy and too full of compli-



Fig. 29. George, the Scout

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cated detail can frequently be blotted out and the picture simplified by choosing for the exposure a day and a time of day when there is a slight mist or haze over the distance. Sometimes a picture can be simplified by liberal trimming or by enlarging from only a small portion of the negative.

One of the greatest obstacles a photographer has to overcome in making his pictures simple is the propensity of the lens to render detail with absolute impartiality. It necessarily makes no discrimination between the essential and the unessential. Everything in the field of view is depicted with equal emphasis, so it is necessary for the photographer to modify this as far as possible by selective focusing and by careful selection of the most suitable conditions of light and atmosphere. Selective focusing means getting the important parts of the picture a little sharper and more clearly defined than those that are less This can often be done in outdoor important. genre pictures and figure studies by focusing on the figures and letting the background be slightly diffused and out of focus. This must not be carried too far, because the difference in sharpness, if carried to extremes, is irritating and disturbing to the eye and thus defeats the object in view. So, in striving to get breadth and to eliminate fine detail, many ingenious dodges have

been resorted to, such as enlarging through bolting-cloth or throwing the entire picture a little out of focus in making the enlargement. Possibly the best way to get breadth and carrying power without destroying detail is by the proper use of a semi-achromatic lens. Such a lens will render detail clearly, yet without the insistent and biting harshness of an anastigmat. It will give a more gradual blending of definition without an abrupt change from sharpness to absolute lack of sharpness, which is unnatural and disturbing. There are none of the disconcerting halos and grotesque distortions of out-of-focus objects which are sometimes seen when using a fully corrected lens at a large aperture.

In portraiture and figure studies there is very little excuse for lack of simplicity, for the subject and its arrangement are almost entirely under the control of the artist. If the background is not sufficiently simple, he can make it so, either by a change of position or location in an outdoor picture, or by removing unneeded objects from the background if he is working indoors. Often a picture on the wall or an ornament or piece of furniture comes in the wrong place in the picture, but it is usually possible to remove it. The pose of the sitter and the disposition of the leading lines can be arranged by the photographer to a very great extent, either by suggestion or by



Fig. 30. BUILDING THE FIRE



Fig. 30a. Young Artists

FUMILLE

actual manipulation. The arrangement of the train and veil in a picture of a bride is an example of such manipulation.

Simplicity in a portrait adds very much to its interest and charm. The face is usually the main object of interest in such a picture, and if the face can be seen easily and without having to search for it carefully among a number of equally prominent, though far less important, details, the picture will make a stronger and more direct appeal. A study of the works of the great painters will show that they fully appreciated the importance of simplicity. Most of Velasquez' famous figure pictures are extremely simple and so are Rembrandt's. Whistler's portrait of his mother and the very similarly arranged portrait of Carlyle are both quite simple in arrangement, and in line and tone, and both are wonderfully effective. Whistler and other great artists realized not only the importance of simplicity, but also the fact that it needs considerable thought. care and skill to get this quality into a picture, for nothing is so difficult of achievement as simplicity. The gift of reproducing it is rare; the gift of appreciating it is less so, but is still far from universal. There are many photographers who have not learned to appreciate the strength, effectiveness and restfulness obtained in a picture by ruthless elimination of the unessentials.

Profuse ornamentation, overadornment, "fussiness" of every kind is easy to accomplish; but simplicity stands as the desirable and difficult of attainment. Take as an example not only pictures, but anything from a frock to a marble palace. Restful simplicity is the hardest note to strike. The propensity of the lens to include too much is one of the important things to guard against, and the photographer has to curb this propensity in every way possible.

In using a semi-achromatic lens to subdue detail, it must be kept in mind that detail as such is not detrimental to the success of a picture. and that clear definition is not antagonistic to pictorial results. Detail is not detrimental unless it destroys simplicity, and clear definition is eminently desirable. Some of the best examples of painting, especially miniature painting, show exquisite detail and this is considered to be a special merit, but in such works of art the drawing of detail is done with discrimination: the important parts are clearly drawn, the unimportant parts either slurred over or suggested, and the unnecessary parts and redundant detail are left out. The lens draws fine detail everywhere, the unimportant parts being treated with the same care and precision as the important parts, without discrimination, and this is its weak point. The artist does not object to fine detail,

but to the lack of discrimination of the lens in drawing it. Stop down an anastigmat lens and everything is sharp; use it at a large aperture. focusing the point of interest, and the streak of definition runs right across the picture from edge to edge. Both methods are undesirable, and the nearest approach to discrimination in the drawing of detail is provided by the soft-focus, semiachromatic lens, which, if used intelligently and with a due appreciation of its limitations, will give the artist something approaching the quality he desires. With such a lens one can get clear definition that is not sharp or hard, for there is a difference between clearness and sharpness. Clear is defined as "pure, bright, undimmed, without blemish, transparent," as, for example, a clear day, clear-cut features, clear water, clear definition. The word sharp means, "having a thin cutting edge, affecting the senses as if pointed or cutting, severe, keen, barely honest, shrill." Examples: a sharp wind, sharp words, sharp practice, a sharp, shrill voice, sharp definition.

The quality of definition obtained by the use of a soft-focus lens should never be allowed to degenerate into fuzziness; there should always be firmness and certainty in modeling and textures. The clearness and coherency of a picture depend to some extent upon the tones and grada-

tions as well as upon the quality of definition, and the degree of softness in the definition must be governed a good deal by the size of the picture. Clearer definition is demanded in a small picture that is to be examined closely than in one that would be large enough to hang on the wall, not to inspect at close quarters. As long as the picture closes up and becomes clear and coherent at a little distance, it cannot rightly be stigmatized as "fuzzy."

Closely allied to simplicity is a quality that we can best describe as restraint. Personal restraint avoids over-elaboration and over-expression; social restraint leads the artist to avoid subjects and methods that might be displeasing to others, and artistic restraint never oversteps the limitations of the medium.

I was out on a tramp one day with a troop of boy scouts. One of the boys was a little more energetic, a little more alert and more observant than the others, and he was very much in evidence on this trip. George is very much interested in scouting and all that is connected with it, and he has the happy knack of making the most of his opportunities. On this walk George discovered a woodchuck's hole when no one else saw it. He knew what it was and looked around for the other hole, for he knew there would be two of them. The result was that George at-



Fig. 31. READY FOR THE PARTY

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tracted more attention than any other scout, and my recollections of that trip are chiefly concerned with George's energy and enthusiasm, and the pleasure and profit he derived from the outing. In a symphony or concerto or other musical work there is usually one theme or motive that runs through the entire composition. In a melodrama there is usually one scene that forms the climax of the play, and in a well-constructed short story there is one incident or one situation that holds the interest and attention. All these things are examples of the law of principality, and in picture-making we find the same principle used to secure unity of interest and to provide a point of focus for the eye to rest upon.

We have seen that it is essential to have only one principal object of interest in a picture. Without it the picture is not completely satisfying, for the eye is apt to wander over the surface of the picture, seeking rest and finding none.

If the principal object of interest in a landscape is not sufficiently prominent to take its proper place in the picture as the point of focus for the eye to rest upon, it may be necessary to emphasize it, so that it will be unmistakably evident that it is the principal object in the picture, and to make it so by any legitimate means at our disposal. Sometimes there are so many different things in a landscape that it is hard to tell just

which is the principal object, and it is necessary to emphasize one in the picture. Another reason why emphasis is often necessary is that the human vision is stereoscopic and the object we are looking at stands out from its surroundings, but an ordinary camera with only one lens sees everything without any stereoscopic relief, and objects are sometimes apt to sink into the background and not appear as prominent in a picture as we thought they were. The lack of color sometimes robs an object of much of its prominence. Then, also, the eye sees only a very narrow angle compared with an average lens. When the eye is fixed on one particular object in a landscape, it will see only about 2° or 3° clearly, while the lens can see about 45°. The eye, unlike the lens, has a human brain behind it and sees just what the brain is interested in, ignoring everything else. When the eye is fixed on one object, everything else is blurred and out of focus. It is really remarkable how differently two people can see the same things when their interests are different. George, the scout, for instance, would probably see all kinds of things that I would not see, if we were out together, and perhaps, if I were thinking about pictures, I would see some things that he would not notice at all. Our interests would be different, and different messages would be telegraphed from the brain to the eye.

Therefore, it will be obvious that in order to make an object sufficiently prominent it is sometimes necessary to emphasize it in a picture so that it will unmistakably be the chief point of focus.

Emphasis can be obtained in many different ways; by isolation, by the elimination of everything else that might compete with the principal object, by the position of the principal object in the picture-space, by the radiation of lines leading the eye directly to the principal object, by contrast of tone, and so on. The little child in Plum Island (Fig. 13) is obviously the chief object of interest in the picture. He is the only human being in sight, he is placed in a strong position in the picture-space, the line of the surf leads the eye directly to him and he is strongly emphasized by contrast in tone. Thus we have, in this picture, a definite object to provide a resting place for the eye and to prevent it from wandering outside the picture margins, and a feeling of unity is established.

In a portrait the face is usually the chief point of interest and it is sometimes necessary to subordinate everything else to this one thing. That is one reason why it is always necessary to consider very carefully the position of the face in the picture-space. We can subordinate the rest of the picture because, when we are looking at

a person's face, we can see very little else and are only dimly aware of the details in the clothing.

In a landscape in which there are many different objects, the one thing that we are looking at and thinking about is the thing we must emphasize, because we shall find that, though this object appears to be quite prominent when we are looking at it, in the photograph everything that is in the same plane will be rendered impartially and with equal emphasis. When the eye is fixed on one particular object in a landscape, the highlights and shadows acquire an importance that makes them appear stronger than they really are and, unless the principal object is already sufficiently differentiated, like the child in Plum Island, it may be necessary to strengthen a highlight or a shadow in order to make it so. Of course, if the object is already quite prominent, if it is something that would naturally stand out from other objects, like the puff of steam in The Harlem River (Fig. 11), or the white sail in Starting Out (Fig. 12), no modification of the highlights or shadows is necessary, as they are already strong enough. When additional emphasis is needed, it can often be obtained by a slight modification of the negative or by control in printing. This must never be overdone, and it will be found that just the very least darkening of a shadow or the slightest rais-

ing of a highlight will be all that is necessary. It is in this respect that the pigment printing processes offer great facilities, though in some respects this very facility is a disadvantage. is so easy to modify such prints that the handwork is often overdone, with disastrous results. Manipulation of this kind may be regarded as being perfectly legitimate, for it is only carrying out the idea of the mechanics of suggestion in a reasonable way. Such actual manipulation as this is not needed in many pictures, for selective focusing, skilful placing in the picture-space, and the selection of an already prominent object will give quite sufficient emphasis. Often, in landscape pictures or figure studies outdoors, we can emphasize our principal object or figure by having it clearly focused and the rest of the picture slightly less sharp. In some pictures, such as, for instance, a flower study, where there are several similar objects in the picture, one of them may need to be emphasized by strengthening the light and shade contrasts a little.

The strength of a highlight or a shadow depends very much upon the surrounding tones. It is possible to demonstrate this very easily and very clearly by cutting from a sheet of gray paper two small squares or circles. If one of them is placed in the middle of a sheet of white paper and the other in the middle of a sheet of black

paper, the one surrounded by white will look darker than the one surrounded by black, although we know that they are both exactly alike. We can make use of this illusion to modify a tone or an accent. Sometimes emphasis can be secured by placing the lightest tone and the darkest tone close together, as in the hull and white sail in *Starting Out*.

CHAPTER VI

Line Composition Applied to Figure Studies — The Vertical Line — Repetition of Line — The Curved Line — The Lost Edge — The Triangle — The Rectangle — The S-Shaped Curve — The Figure 8 — The Hands in Portraiture — The Placing of the Head in the Picture Space — Groups — The Background.

IN applying the principles of pictorial composition to portraiture and figure studies, we shall be working very much along the same lines as when dealing with outdoor subjects, such as landscape and marine pictures, but as we have more plastic material to work with, we have far more scope and can do more in the way of arrangement than when using inanimate objects. The artist can arrange the lines and masses in such pictures according to his own ideas, and should have a definite theme or motive in the arrangement that will help to make the picture interesting apart from the interest in the person or the persons depicted. Instead of selecting his pictorial material from nature, which requires him to take what he can find and make it conform to his ideal to the best of his ability, the portrait photographer can, in much the same way as the painter, arrange and build up his composition, and

construct the pattern of lines, masses and tones more or less as he wants it, and when everything is right, he can photograph it. Thus the composition in portraiture and figure studies may be constructive rather than selective, though it will be found that selective composition also plays an important part in portraiture.

The lines of the picture in a figure study may often be determined by the placing of the "accents" and are then unseen lines such as were referred to in Chapter II, that is to say, not actual outlines and edges of tone, but the imaginary lines by which the eye will instinctively connect any two prominent objects in the picture.

In order to be able to build up and construct a picture the artist should know the rules and recognized formulae in pictorial arrangement. He need not always adhere strictly to rules, but he should know them so that he will know what he is doing when he breaks them.

The function of composition is to make a picture interesting, and the disposition of the lines in the picture, the opposition of lines, and their placing in the picture-space will all help in giving the desired interest. Such things as this, depending as they do upon the pose of the figure and the selection of the viewpoint, are to a great extent under the control of the photographer, and a suggestion from him as to the general pose, together



Fig. 32. An Outdoor Home Portrait

FUBLIC LIL

with the proper placing of the camera at the right distance and at the right height, will often give a line arrangement that is satisfactory.

The simplest pose of all is the full-length, standing figure. This has great possibilities, because the most attractive and commanding line in art is the vertical. The full-length standing pose is an obvious and natural one for the human figure, because in this position it occupies almost double the space it would if seated. There is, however, a serious objection to this method of representing the figure. This is the monotony and regularity, as well as the suggestion of the picturespace being divided into strips, caused by the two oblong spaces on either side of the subject. This can be overcome very simply and easily by the introduction of an opposing horizontal line or oblique line to tie the figure to the edges of the picture-space and give a suggestion of a cross or a triangle.

This principle is illustrated in the two portraits, Figs. 21 and 22. In both cases we have a full-length standing figure strongly contrasting with the background, and a very similar line arrangement may be observed in each. The extended arm with the hand on the doorknob in Fig. 21 makes a strong enough line and, similarly, in Fig. 22 the boy's arm has the same effect. The placing of the figures, a little out of the exact

centre of the picture-space, gets rid of the effect of similar vertical strips on each side of the figure. In Fig. 23, the extended palette furnishes the opposing vertical, as an accent rather than as a line, and in this instance the merging of the outline into the background also helps to lessen the force of the vertical line.

The repetition of a line in another part of the picture dissipates the force of such a line. In both Fig. 21 and Fig. 22 we see this exemplified in the edge of the door and in the light tree trunk. Without some balancing influence of opposing lines or prominent accents, a vertical composition is apt to be weak and far from interesting.

Sometimes a suggestion of a simple curve makes a pleasing line arrangement. In Fig. 24, we can feel a curve from the head to the hands. The head, because of its placing in the picture-space, is obviously the main object of interest, and is adequately balanced by the hands, which form the only other light mass in the picture.

The device of losing the outline is one that is often employed by painters to lessen the insistence of lines. It is simply a method of simplification by elimination; by merging the contour into the background we make the substance of the body a part of the tone which envelops it. The line then becomes the unseen line rather than an actual, structural outline. By careful selec-

tion of a background of the right tone, and by creating shadows on the background, a photographer can often avail himself of this device as has been done in Figs. 23 and 24 and in some others.

In the effort to make the subject fill the space, the artist often has recourse to another of the fundamental forms of construction, the triangle. This is in many ways one of the easiest arrangements to secure in a picture, and it has the merit of being not only an excellent space-filler, but also one that is capable of almost unlimited variety. It may take the form of a long upright pyramid, as in Fig. 25, or of a more stable triangle with a broader base. In any case it affords a shape endowed with physical stability, and it allows the lines of the subject to tie with the sides of the picture. This does away with the difficulty of dealing with the spaces left at the sides of the figure, for these spaces, instead of being rectangular, become triangular. Thus we get the relief experienced by the introduction of similar, echoing shapes; repetition with variety. All that is necessary to secure such a scheme of lines is to broaden out the lines of the figure in some natural way at the bottom of the picture. In a seated figure, as in Fig. 6, all that has to be done is to get one hand as far forward and the other as far back as possible, thus getting three accents indi-

cating the angles of the triangle. Other variations of the triangular arrangement are shown in Figs. 10 and 3. In Fig. 10, the light mass of the child's dress forms a very definite triangular area, and Fig. 3 is all triangles.

Another frequently used line arrangement is the rectangle, of which an example is shown in Fig. 26. This differs from the cross and the triangle in that it has not in itself the qualities necessary to give the required balance, and so depends for balance upon some object within the angle, which can usually be supplied by something in the background. In the example given, the balance is supplied by the light spots on the background and the little strip of white below the collar. These are comparatively unimportant in themselves, yet, without them, the composition would be somewhat lacking in balance. They furnish the needed attraction within the angle and because of their unobtrusiveness they do not pull too much.

In portraiture, just as in landscape work, a curve has in itself greater possibilities for beauty than any arrangement of straight lines. A simple curve, or the more complete S-shaped curve, which is, as we have seen, an excellent space-filler, often can be incorporated in the lines of a figure picture. Such a line, either the curved S-line or the more angular Z-form, not only fills



Fig. 33. In the Studio

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ASTUR LENOX

the space satisfactorily, but also ties the subject very well to the sides of the picture-space. With either of these forms there is very little dependence upon the background for balance, for both have sufficient balance in themselves. As a line. the letter S is so complete that the feeling among artists is, when possible, to let it alone. Such a line can often be used for full-length standing figures, and it may also be found in pictures showing only the head. In Fig. 5 we have an example of the use of this line, which can easily be traced in the outline of the head and face and up to the hand and flower. This line has the valuable quality of suggesting movement and of giving a semblance of life and energy. In this respect it differs from the simple curve, which is essentially a line of repose. It also conveys an idea of unity and completeness.

Sometimes we can get an elaboration of the S-shaped curve, taking the form of a figure eight, such as is seen in Fig. 27 (Frontispiece). This is a scheme that might easily be worked out in portraits of ladies in evening dress.

We have spoken of the use of the hands in a portrait as accents and points of direction for the unseen line. Though it adds to the difficulties, I think it is advisable to show one or both hands in a portrait, provided they can be treated naturally and gracefully. A really natural hand,

one that has not been obviously arranged by the photographer, is a valuable asset in showing character. If the self-consciousness of the sitter is such that the hand is not entirely natural, it is better to leave it out altogether, for a bad hand will ruin an otherwise attractive portrait. Sometimes it is necessary to give the hands something to do or something to hold, as in Figs. 23, 5 and 6. In Fig. 23, the hand holding the paintbrush shows considerable energy and is obviously natural. Sometimes the photographer has to change the position of the hand a little to make it photograph better, and with some people the necessary changes can be made without loss of naturalness, provided it is done tactfully and without drawing too much attention to the hand. Making the sitter conscious of the hand usually results in awkardness, and a stiffness and woodenness in the pose that is very disagreeable.

As a rule a hand will photograph better, and without giving cause for the complaint that it looks too big, if it is turned with one side towards the lens, not showing the full width. If a lady is photographed with her hand in her lap, turn the hand so that it is lying with the palm upwards and it will look more graceful. The fingers should not be folded, which will make the hand look like a clenched fist, neither should they be too much spread apart. Just as a suggestion, it is often a



Fig. 31. JIMMIE

PUEL CLIRESE

good plan to rest the thumb against the second finger and have the other fingers curved a little, but not too much. This will give an arrangement that will look well from almost any position. Sometimes the hand can be used to support the head, but this should not be done unless the pose is quite natural and characteristic. Never deliberately arrange such a pose, but if, during the proceedings, the sitter should happen to adopt such a position quite unconsciously and naturally, photograph it just as it is, provided it looks well. The hand supporting the face should, if possible, be on the shadow side, away from the camera, though, as is the case in Fig. 28, this is not an infallible rule. In this the obvious naturalness of the hand offsets its possible lack of grace. Personally I think that a portrait in which the hands are not shown is incomplete, unless of course it is a large head, and, although it sometimes adds to the difficulties, it is always worth while to make an effort to include a natural and well-drawn hand, or both hands, in the picture whenever possible to do so.

There is a distinct tendency in modern portraiture to devote the greater part of the picture space to the head and face. Certainly a large-sized head will command more attention and, as the likeness is mainly though by no means entirely shown by the face, a large head will tell

its story plainly, and will give greater opportunities for showing the features in clearer and more perfect detail. It might be thought that a picture that includes only the head and shoulders would be easier to make and would demand less skill in posing, but I think that just as much thought, care and skill are needed to pose for a head as to pose for a full-length or three-quarter figure. Possibly the composition is simpler, but the problems of filling the space adequately and of getting a suggestion of character, personality and likeness are practically unchanged.

Unless the head is set naturally and easily on the shoulders, there will be a suggestion of constraint and stiffness in the pose, which will destroy likeness. Let us look at Fig. 29. The forward-leaning position is characteristic and natural, thoroughly typical of this young sitter. Other examples of natural and characteristic poise of the head are shown in other examples.

In making a large head, we may select a point of view that will show the full face, a three-quarter view, or a profile, and of these three, probably the three-quarter view is the most expressive and the most agreeable, on account of the variety it introduces in the lines of the neck and shoulders. The full-face view gives less agreeable lines with less variety and balance than the three-quarter view, but sometimes the direct

gaze results in a more forceful and more compelling picture, while the profile often gives an opportunity to get a very interesting continuous line. Fig. 14 is regarded by the boy's friends as a good likeness, and the outline of the head and face is decidedly interesting.

The placing of the head in the picture-space must be carefully considered. In a direct profile picture, it is always well to have more space in front of the face than behind the head. In any picture showing only the head and shoulders, if the sitter is leaning forward, it is necessary to leave sufficient space at the top to make us feel that there is enough room for him to raise his head and straighten up without hitting the top edge of the picture. A very erect and upright pose needs only a very little space at the top. above the head. The trimming of the print and the amount of space around the head will be taken up in detail elsewhere, but in making large heads there will be a loss of dignity and importance if the face is too low in the picture-space. Too much space at the top will be apt to give the impression that the sitter is sliding out at the bottom of the picture.

Another reason why the head should be kept well up near the top is that the eyes in a portrait, being the centre of interest, must not be too low in the picture-space. They should always be

well above the middle and, if too much space were left above the head, the line of the eyes might coincide with, or even be a little below, a horizontal line through the centre of the picturespace. It is not generally known by those who have not studied drawing that the eyes are, normally, exactly in the middle of the face, and that the space below the eyes to the point of the chin is equal to the space above the eyes to the top of the head. So, if the head be represented as an egg-shaped area, the eyes will be situated on a line exactly bisecting the area in a horizontal direction, and there will be just as much space above the eyes as there is below. Therefore, if the eyes are to be above the middle of the picture, as is generally desirable, to give them force and prominence, the head must be well raised in the picture-space and, if held erect, may well be quite near the top.

Sometimes, and especially when the sitter is wearing a hat, it is necessary even to cut into the head or the hat to prevent the eyes from being too low. This has been done in Fig. 28. Trimming like this, which actually cuts away a part of the image, must be done carefully, and only when there is a perfectly good reason for it, as in the example shown. The tendency to imitate the methods of other artists must always be governed by a careful investigation as to the



Fig. 35. The Day After Christmas .

reasons why they do certain things. It is a mistake to chop off part of the head in a picture, just because Coburn or Dührkoop have done it in certain instances, unless you are sure that your reason for doing it is just as good as theirs. The dissatisfaction often voiced in regard to what is known as artistic photography is usually due to the fact that many of the pictures in question are really anything but artistic, copying, as they do, perhaps, some of the mannerisms associated with the photographs of a true artist, but lacking the qualities which formed the basis of the real worth of the pictures. To make pictures that are fuzzy and blurred, just because some photographers sometimes use a soft-focus lens in order to get a certain desired effect, and then to label them artistic photographs, when they often possess little or no artistic merit, is as foolish as it is futile. So, if the trimming of the picture or the arrangement of the subject in the picturespace is in any way unconventional, it is necessary that there should be a good and satisfactory reason for such departure from the beaten track.

In making large heads, if direct prints are wanted rather than enlargements, a long-focus lens must be used in order to get the required size, rather than a near viewpoint. This point is dealt with in Chapter II. If a lens of sufficient focal length is not available, the artist must be content

to make the head small on the negative, and then enlarge the portion he wants to the required size, for the viewpoint should rarely be closer than seven or eight feet.

In making group pictures, the same principles regarding lines and spacing must be applied. Sometimes, if there are three or more figures in the group, they can be arranged in such a way that a line connecting the heads, hands or other accents will form a triangle, a circle, an ellipse, or some other agreeable shape that fills the space in a pleasing manner.

In Fig. 30, the four boys at the left of the picture give a suggestion of a triangle and easily hold the attention, the little fellow on the right being a secondary object of interest necessary to give good pictorial balance.

You will notice I said in a preceding paragraph: "If there are three or more figures in the group," and this is an important point, for a group of two is very hard to handle pictorially. If both are equally prominent, there will be competition and a constant effort to decide which is more important. In order to get principality in a group of two, one of the figures must be unmistakably more important and must dominate the picture. In a group consisting of a mother and child, the mother should be content to occupy a subordinate position in the picture, in order that

the interest may be concentrated on the child. One of the most charming of Sargent's paintings shows a boy being read to by his mother. The mother sits behind and to the side, so that the interest is centered on the child, who sits gazing dreamily out of the picture, completely absorbed in the story. Such a picture as this might more correctly be classified as a genre than as a portrait, and this seems to be the solution of most problems of two-figure arrangement.

If both figures can be interested in something in the picture, this will solve the problems of principality and subordination, for then the thing they are looking at, or their occupation, will dominate the picture, and both figures will be subordinate. In the group shown in Fig. 30 A, the occupation of the boys is the dominating interest, and the lack of principality is not strongly felt. There is unity, due to the fact that neither figure appears to be striving for prominence and principality.

The background in a portrait or a figure study must be carefully considered, for the background not only serves as a support, but also helps to a large extent in carrying out the motive of the picture. It can very materially influence the importance of the figure, and can make or mar the composition and artistic unity of the picture. The extent or area of the background in relation

to the size of the figure is a point that is sometimes hard to decide. Just how much surrounding space does a figure need? This can be determined only by the good taste and cultivated judgment of the artist, for it is quite impossible to give any hard and fast rules. All that can be said is that there should not be too much space, or it will be apt to dwarf the figure, and there should not be too little, for then the figure will look cramped and crowded. Somewhere between these two extremes the background will look right, and it looks right when it is least noticeable, when it becomes subordinate to the figure, and does not attract attention to itself.

In the illustrations to this chapter it will be seen that in nearly all of them the background is quite plain and quiet in tone, and that there is nothing at all in it to attract the eye. In these instances the background serves merely as a support for the figure, and plays no part in carrying out the motive. In Fig. 23, the canvases on the wall, like the palette and paintbrush, help to tell the story, and to make it plain that the picture is a portrait of a painter. Therefore they have a definite meaning and are a necessary part of the picture. There are times when a more extensive background and one that is not quite plain will help the picture. One of the interesting aspects of home-portraiture is the opportunity it affords



Fig. 36. Swapping Pictures

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to introduce into the picture some of the home interest. This can be done by including in the portrait a part of the home, in the shape of intimate surroundings that will be instantly recognized by those who are familiar with the home in question. If a setting can be found that is interesting and attractive by reason of good lines or decorative masses, it will add much to the value of a home portrait if it can be used as a background for a single figure or a group. Examples of the use of such backgrounds are seen in Figs. 31 and 32. Both are fairly extensive; that is to say, there is a considerable area of background in relation to the size of the figures, and this tends perhaps to make the pictures look a little theatrical, but in both cases they "belong" and are not in the least out of keeping. In Fig. 31 the line of the staircase is interesting, and the little figure, in full light, has sufficient "pull" easily to dominate the picture and not be overpowered by the background. The little table in the corner gives the necessary balance. In Fig. 32, the rectangular shapes of the windows fill the space, but are subordinate in interest to the group.

In selecting or arranging a background, the photographer must always keep in mind the importance of simplicity. This is one of the main difficulties in home-portraiture, for, unless great care is taken to keep the background simple,

there is danger of the sitter becoming merely an item in an arrangement of bric-à-brac. Anything that does not definitely help the picture should be removed. If that is not possible, a plain background of some kind should be substituted.

Another example of a background that helps to tell the story and explain the motive of the picture is given in Fig. 33. This is a plain background, but there is a good deal of it; the idea here was to show a characteristic pose of the artist and a habit he had of putting his canvas on the floor. As the building was about to be demolished, he was anxious to have a memento of the interesting crack in the plaster on the wall. The background must always be appropriate, and in keeping with the subject and with the character of the picture. Nothing should be introduced into the picture that would not naturally be there. The days of the marble pillar and the velvet curtain have passed, and there are encouraging signs of the recognition of the importance of simplicity.

The tone of the background is an important point, and it must be carefully considered, especially in pictures showing a fairly large head, for the tone of the face is influenced very much by the tone of the background. The flesh tones appear light or dark according to whether the

prevailing tone of the background is dark or light, for tone is very largely a matter of contrast. A small area of gray on a white ground will look considerably darker than it would appear if surrounded by dark tones, as was pointed out in Chapter V, page 121. The tone of the background influences the tone of the face in a portrait, and a face seen against a white background will appear darker than it would if a darker ground were used. This of course is very largely a matter of exposure, development and printing, and depends also upon the lighting of the face when making the exposure. The question of tones in portraiture will be discussed more fully and at greater length in the following chapter, but the point to observe is that if your sitter is naturally dark, or is unnaturally dark by reason of exposure to the sun, and you desire to make the face appear as light as possible in a picture you should use a dark background, and then the contrast will give an impression of light fleshtones. To get good tones against a white background, and to get sufficient modeling without causing the face to appear too dark, is a task that calls for the utmost nicety of adjustment of exposure and development in making the negative, and correct timing in printing.

CHAPTER VII

Tones in Portraiture — Roundness and Solidity Brought out by Lighting — Ordinary Lighting — Outdoor Portraits — Home Portraiture — Unusual Lightings — The Outfit for Home Portraiture.

THERE is as much difference in the meaning of the words tone and tones as there is of the words tone and tones as there is in the words nerve and nerves. When for instance. we speak of the tone of a private school being good, we mean that the members of the faculty are refined and cultured gentlemen and ladies, and that they inculcate refinement and good manners in the pupils. Refinement, then, is a characteristic of good tone, and the tone of a photograph may be considered satisfactory if it is quiet and refined, not crude or startling, not vague, uncertain or muddy. There should be no very violent contrasts and no spottiness of light and shade, and, above all, the tones must be right. The tone of a photograph depends very much on its tones, that is to say, on the correct rendering of the gradations of light and shade. In portraiture and figure studies, just as in outdoor work, it is important that the rendering of the gradations should be correct, or at least appear correct.



Fig. 37. Portrait, F. S. H.

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The tones on the face in a portrait should suggest the color — for black and white can suggest color — and in order that this may be so, the tones should correctly reproduce, not only the general tint and gradations of color, but also the gradations of light and shade necessary to give modeling, roundness and solidity.

Let us deal first of all with gradations of light and shade, ignoring for the present the general color or tone of the face, for the latter is modified to a large extent by the key of the picture and by contrast with the background. In a portrait with a predominance of dark tones, dark clothing and dark background, the face and hands, being the only light areas, will appear lighter by reason of the contrast with the dark tones. On the other hand, if the prevailing tones are light, for instance, white clothing and white background, the contrast will tend to make the flesh tones appear dark. This is more a matter of exposure and development, and of correct timing in printing, than of lighting, but the modeling of the face, the gradation of highlights, halftone and shadow which indicates the shape of the features, is purely a matter of lighting.

The head is round and solid, and the aim in lighting should be to suggest its roundness and solidity by means of highlights, halftones and shadows, so that it will look round instead of flat.

Sometimes in pictures taken outdoors, with light falling on the face with equal intensity from all sides, we get merely a map of the features; the face looks like a flat disk, with eyes, nose and mouth in their proper positions, but entirely lacking in roundness and indications of shape. We may get enough to give a recognizable picture but, without the third dimension, the likeness is not complete. An egg, equally illuminated from all sides, would look flat, and there would be no modeling to indicate its spherical shape. object of lighting is to bring out the roundness, modeling and individuality of the features. The draftsman can suggest relief by the skilful drawing of lines, but the photographer depends upon shading for the relief and modeling of the features.

The first and most important thing to do, then, is to learn to see lighting. This sounds obvious, but there are really very few people who can see shadows and halftones on the face, unless they have cultivated the ability to do so. When lighting, or perhaps, more correctly speaking, shading, can be perceived and appreciated, the adjustment of the light to get pleasing relief and roundness is a very simple matter.

An egg or a round ball, lighted from one concentrated light-source, would have one highlight just at the spot where the maximum light is reflected back to the eye, and around that high-

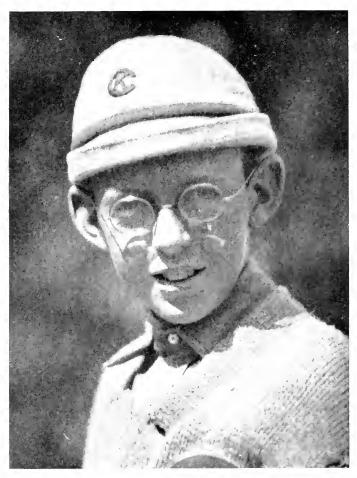


Fig. 38. Sunlight Effect

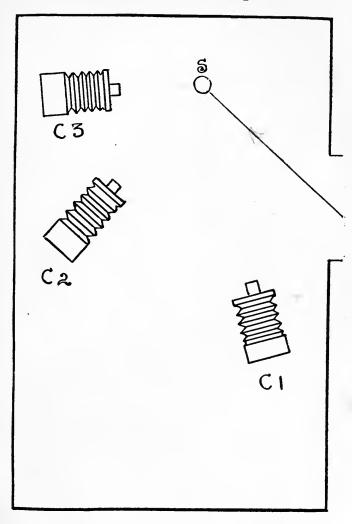


DIAGRAM SHOWING ORDINARY REMBRANDT AND LINE LIGHTING.

light would be halftones and gradations of tone, merging gradually into shadow. If there were no light reflected into the shadows, they would be quite dark on the side away from the light.

Much the same thing is seen in lighting the face, but it is complicated a little by the irregularities of the features, and the individual features, the forehead, the nose, the cheeks, the mouth and chin, each have their own individual lights and shades. There should be one principal highlight on the face, and if only one source of light is used, the side away from the light will be in shadow. To get the maximum modeling and the full range of tones, the face should be lighted from one side and slightly from the front, so that the light falls on the face at an angle of approximately forty-five degrees. With the sitter in the position indicated in the diagram we shall get what is known as "ordinary lighting." When we have acquired the ability to see lighting, we shall observe that under these conditions there is a highlight reflected by the ridge of the nose, and since the skin of the nose is close in texture and somewhat tightly drawn, this highlight is usually rather strong.

There is another light reflected from the dome of the forehead; another from the curve of the chin, and sometimes a fourth from the cheekbone. Brilliant little catchlights are also re-

flected from the eyes. Around these highlights are halftones, merging gradually into shadow on the parts of the face that recede from the camera, and on the side away from the light there will be shadow, relieved more or less by light reflected from the side of the room or from other adjacent surfaces. If the window is small and the sitter is placed close to it, the lighting will be very strong and the shadow dark, but if the sitter is placed at some distance from a large window, the lighting will be softer and the shadows relieved by reflections from the opposite wall.

Of course we may place our camera where we wish and can take the picture from any point of view, as indicated in the diagram. The sitter is supposed, in this diagram, to be facing towards the camera marked C1, so that a picture taken from C3 would give a profile view of the face.

This is the method of arranging the lighting to give the maximum of modeling, and a full range of gradation from highlights to deep shadow. The only problem is to photograph it with sufficient technical skill, so that the gradations of tone and the modeling will be correctly rendered in the picture, and this is merely a matter of correct exposure and proper development and printing. The tones are correctly rendered in the print only when the gradations of light, halftone and shadow are reproduced in their proper rela-

tion to each other. The technical problems of reproducing gradations of light and shade in their proper relation, and the influence of exposure on the truth of the gradations will be taken up in more detail later. I want now to point out what the artist should look for in the subject.

There is often a tendency to make the general tone of the face in a portrait too light, so that the highlights are not apparent. The lightest tone we can get in a print is represented by the white paper. The lightest tone in a portrait subject, lighted as described, is the bright catchlight in the eyes and possibly the highlight on a starched white collar. These are only very minute areas, therefore there can be only very minute areas of white paper in a print, if the tones are correctly rendered. Next we have the highlights on the face and the whites of the eyes, slightly lower in tone, and, therefore, not white paper, and then, in turn, the lesser lights, the halftones and shadows on the face, hair and clothing, the darkest shadow being represented (if we are using a full range of tones) by the blackest deposit of platinum or silver on the printing paper. To represent any part of the face as white paper, except the catchlights in the eyes and highlights on the teeth, is absolutely wrong, not only on account of the light and shade gradations but also on account of the color of the face.



Fig. 39. The Composer

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In this connection I would ask the reader to turn back and carefully observe the lighting on the face of the boy in Fig. 8. In this portrait there is absolutely no white paper except the very small catchlights in the eyes and the highlights on the teeth. The teeth are not even dead white; there is in the original print a quiet perceptible difference between the tone of the teeth and the highlights on them, and in Fig. 34 there is very subtle and delicate gradation of tone on the face. In both instances the faces appear to be white, but truth of tone is preserved by the sparing use of the lightest possible tones.

If the face or any part of the face, except the highlights, were to be represented in a picture as white paper, we should have nothing lighter in tone to represent a white collar or anything really white. So we would be forced to make the face and the white collar exactly the same, which would be far from truthful. We can make the face look white, that is to say, white enough to show that the subject is not negroid, and still preserve truth of tone, by means of contrast with dark tones in the rest of the picture, as in the case of Fig. 15, or by means of very delicate and subtle gradations, as in Fig. 34. In each case we have modeling and gradations of light and shade, and the suggestion of color and flesh tints.

When we have a full and comparatively long

range of tones, such as we can get with the ordinary 45-degree lighting, it is not difficult to get the proper suggestion of color in the face, because we can use plenty of halftone and shadow, but when we shorten the scale of tones and use a flatter lighting so that we lessen the effect of contrast, we have to be even more careful to preserve truth of tone and the suggestion of flesh tint. If the background is light, as in Fig. 34 and in Fig. 14, the color in the face can be suggested by making the gradations very delicate and only barely visible, for the contrast of the flesh tones with the background will tend to make the face look too dark if the halftones are too strong, but if the background were dark, the modeling would have to be a little stronger to avoid a suggestion of flatness, because the contrast of light flesh tones against dark would tend to make the face appear too light and lacking in color.

When we have a softer and flatter lighting, with the highlights less strongly accentuated, as in Fig. 35, the tones suggest color rather than contrasts of light and shade, and the problem then is somewhat analogous to the problem of orthochromatism, so that we have to try and indicate by the varying shades of gray the visual intensities of the colors in the subject. The Day after Christmas represents a rather dark-skinned Italian child with black hair and dark eyes, wear-

ing a light blue blouse with white stripes. The background was light gray. In this picture the lighting is very soft and flat, and there is only just sufficient modeling to suggest roundness.

When the face is in shadow against a white background, the flesh tones will look comparatively dark, and they must be so represented in a picture to preserve truth of tone. In Fig. 36, the faces of the boys, seen against the sky, are quite dark in tone, but still are in correct relation to the other tones in the picture.

In portraits taken outdoors, in the shade, we usually get softer modeling, and the highlights are not accentuated as much as in indoor pictures. This is because the light is more diffused and illuminates the shadows. Of course, if portraits are made in sunlight we get stronger contrasts, but this is another story and will be taken up later.

Portraits outdoors in the shade have usually less contrast of light and shade, by reason of the diffused lighting, but they should show color contrasts, and this will preclude the face being rendered too light. The correct rendering of tones in outdoor portraiture is very similar in many ways to the correct rendering of tones in landscape pictures, which was dealt with in a preceding chapter. The use of an orthochromatic plate and a color-filter will help in ren-

dering tones correctly. When the increased exposure is not a serious obstacle, the ray-filter should always be used, for the problem is one of reproducing color values correctly and is not, as in landscape work, the problem of reproducing color values modified by atmosphere, which is altogether different. When working indoors, a color-screen is rarely practicable, but outdoors. in good diffused light, it may often be used with advantage. Figure 37 was made on a Cramer Instantaneous Iso plate with a three-times filter. and the tones suggest color very adequately. A full exposure and careful development, as was pointed out in Chapter IV, will give good tones and color values, provided the highlights and gradations are not blocked up by overdevelopment. Underexposure must be guarded against at all times, or the tones will be irremediably ruined.

The main difference between indoor portraits and those made outdoors in diffused light is that in the former case the lighting, because the light-source is comparatively concentrated, is apt to be too contrasty and give too long a range of tones from highlight to shadow. Therefore, we have to do all we can to lessen the contrast (diffusing the light with cheesecloth screens, using a reflector, or placing the sitter back in the room almost directly facing the window, are

all methods of lessening contrasts) whereas, in making portraits outdoors in the shade or on a dull day, the lighting is apt to be too flat and we have to try and increase contrasts. This we can often do by placing the sitter in the shade of a tree or a building, so that the light is a little stronger on one side than on the other.

Having arranged the lighting so that the contrasts are about right in the subject, we have to expose, develop and print so that we shall get the contrasts about right in the picture. Thus the correct rendering of tones becomes a matter of exposure and development and also, to a great extent, a question of orthochromatism. The purely technical side of the problem will be taken up later; we are concerned now only with truth of tone as indicated in a picture. The artist must always bear in mind the fact that fleshtones can only very rarely be as light as the tones of white clothing, and that there can be only very small areas of white on the face in a portrait, only, as we said before, the catchlights in the eyes and the highlights on the teeth, for the tones on the face must suggest color and we should always be able to tell from the tones of the picture whether the complexion is naturally light or dark, for then and only then will the tones be true.

When we come to deal with sunlight in outdoor

portraits, we have to overcome the tendency to get too much contrast of light and shade. We must have a certain amount of contrast to produce the right effect, but we must get it rather by leaving out some of the middle-tones than by making the highlights too white and the shadows too black. There will be a tendency to get very dark shadows and it is quite right that they should be dark, but we must always try and preserve detail in the shadows, and not make them too black and solid. This also is purely a matter of exposure and development. Full exposure will give detail in the shadows, and proper development will give gradation in the highlights. By getting both the highlights and the shadows about right, we can get the effect of sunlight, even though we may have to compress the scale of tones and leave out some of the middle tints. Harsh, chalky highlights and dense, black shadows do not suggest sunlight, but only suggest underexposure and overdevelopment. The suggestion of sunlight is conveyed by the fact that the cast shadows have a definite edge and outline, and that there are patches and spots of light on the face, rather than a gradual blending of light and shadow, but the patches and spots of light must be luminous rather than dense and chalky, and we must still be able to see color and flesh tints both in the light parts and in the shadows. In

Fig. 38 there is gradation and tone in the highlights; we can see the color and texture of the skin and the suggestion of freckles. The only really black shadows are the very small areas in the mouth and under the chin. The whole secret of success in sunlight effects is full exposure. followed by not too much development. This will usually give a satisfactory negative and one that will give a good print. The tendency to cut down the exposure because the light is very bright must be avoided, because we have to expose for the shadows, which are comparatively dark, and must allow for the fact that the subject is "close up," and that the shadows are, therefore not modified to any great extent by the atmosphere.

The photographer who is anxious to put into practice his artistic ideas and ideals would do well to devote some attention to one of the most fascinating branches of picture-making with the camera, home portraiture. This is a field which is as yet by no means exhausted, and in which there are many possibilities for real picture-making. Although home portraiture at the present time has come to be recognized as a branch of professional portraiture and is undertaken very extensively purely as a means of making money, the first home portraits were made by amateur photographers, and even now the best work of

this kind is produced by amateurs. Such workers as Mathilde Weil and Eva Watson-Schütze opened the eyes of the professional to the money-making as well as the pictorial possibilities in home portraiture, and now it is so widely exploited that there is a tendency to make home portraits in a conventional and stereotyped way. The homeportrait photographers are getting into a rut in much the same way as the studio workers, and many of them are trying to make home portraiture conform to the traditions of professional studio work. The practice of hanging up a strip of black cloth behind the sitter and then working in on the negative a path, a gate and some highly improbable foliage, or a lattice window, whichever happens to be in style at the moment, raises such pictures only a very little above the level of those made in front of a painted background, which were necessarily all very much alike except for the fact that a very elaborately carved chair or settee was sometimes added to the rural landscape. There are certain recognized conventions, and the professional home-portrait operator has a set of poses on which he rings the changes until he has used up all his plates. The:use of artificial light has added one or two more possibilities, and now there is usually a negative or two made at the fireplace, with an almost-convincing fire worked in afterwards to hide the electric lamp.



Fig. 40. John

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But although home portraiture has been taken up so extensively by professional workers, its possibilities in the way of really artistic results are still practically untouched. Who is more eminently fitted to investigate these possibilities than the amateur who can begin in his own home and branch out in the homes of his friends and acquaintances? The very fact that there are many difficulties to overcome makes the work all the more interesting. Every picture offers fresh problems, and each different subject, according to the age, sex and temperament of the sitter, has its own special difficulties, so that there is practically no end to the opportunities for experiment.

And home portraiture is so entirely rational and appropriate, for most people, more especially the interesting people, can only be thoroughly at home when they are literally at home. Many people leave a large part of their personality behind when they pose for a picture amid the elaborate furnishings and the barbarous and complicated accessories usually associated with a professional studio. The massive and imposing studio camera and stand are alone almost sufficient to inspire awe in all but the most sophisticated, and, in any case, even a simple studio will inevitably deprive the picture of much that is natural, interesting and artistic. A musician or

a painter would naturally feel more at ease in his own music room or studio, and what could be more fitting than to photograph a musician at his own piano, or a painter surrounded by his own pictures (Fig. 39)? This applies even more strongly to children, who are very sensitive, as a rule, to environment. It will be obvious, I am sure, that John, curled up in the window seat at home, reading his own Book of Knowledge, explaining and pointing out that the sixth star in the top row on the American flag is the star of Massachusetts, is more likely to be the John that his family and friends know, than if he were posing in a strange and interesting looking room that he has never seen before, and having to sit still instead of being allowed to wander around and ask questions about everything he sees (Fig. 40).

Unconventional but entirely natural lighting can often be used in making home portraits, though, if it is thought to be more desirable it is quite possible to use a plain, straightforward "ordinary lighting," such as is illustrated and explained by the diagram on page 145. All kinds of fancy lightings are possible, and not at all hard to get, in almost any ordinary room, including the so-called "Rembrandt" lighting, and the rather hackneyed "line" lighting of the studio. The artist will probably try to avoid these things,

and will photograph his subjects lighted in the way their friends are accustomed to seeing them. He will use the light to emphasize the characteristics that he wants to bring out clearly, and if the lighting is unusual and unconventional and totally opposed to the canons of professional practice, that need not matter, as long as it is what he considers suitable and proper for that particular picture.

A picture is not necessarily artistic just because it is unusual, unconventional or startling in lighting or arrangement, and there is ample scope for the display of artistic perception and feeling even in a simple picture such as, for instance, Fig. 8. Simple, straightforward lighting, such as the "ordinary lighting" of the diagram, will often bring out the character and personality of the sitter far more truthfully and more convincingly than a freakish and startling scheme of lighting. But, in order to be able to use any lighting effectively, the artist must have a sound knowledge of the elementary principles.

At the beginning of this chapter I have given a diagram and have explained a method of getting what is known as "ordinary lighting." This is so called because it is the method of lighting frequently used in the professional studio, and it is the basis of good, normal, everyday lighting. This method of lighting is the result of many

years of study and experiment, and it has been found to bring out likeness and the shape and modeling of the features very simply and easily, so it will be well for the artist to study and master it before he experiments with the unusual and unconventional. With ordinary lighting, the maximum of modeling and gradation of light and shade can be secured, and the artist must learn to see modeling and gradations before he can use lighting to the best advantage. I am urging the reader to master this conventional scheme of lighting, not because I consider it to be always the best or the most suitable method, but because I think it is necessary for him to know what it is and how such a lighting can be obtained. may be regarded as a foundation on which to base experiments and departures from the usual.

The lighting in home portraiture need not and should not be copied from the methods of the studio, for the principal characteristic of such work should be originality and the interpretation of individuality, but experiments and originality must be based on knowledge of general principles and on an appreciation of the important part played by lighting in suggesting the third dimension, the roundness and modeling that convey likeness. Just blind groping in the dark will not accomplish very much. With the sitter in the

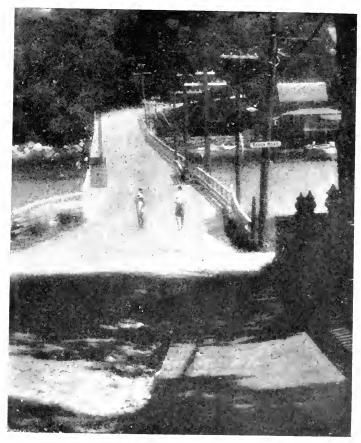


Fig. 41. Annisquam Bridge, Sunlight

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position indicated in the diagram, facing towards the camera at C1, we can get a full-face picture with very effective lighting. There will be a full range of gradations on the face, highlights on the forehead, nose, cheek and chin, halftones on those parts of the face that recede from the camera, and shadow on the side away from the light. There will be more light than shadow on the face, roughly about three parts light to one part shadow. This is ordinary lighting. By taking the camera around to C2, without changing the position of the sitter, we can get a threequarter view of the face on which we shall see more shadow than light. This is the arrangement sometimes described as "Rembrandt" lighting. Then, still leaving the sitter in the same position, we can take the camera further around to C3 and can get a profile with a very effective "line" lighting. If we are careful, when photographing from these last two positions, to give sufficient exposure to get proper detail in the shadows, such pictures should be very interesting. In The Artistic Side of Photography, A. J. Anderson writes: "As soon as the photographer has learned to see modeling by means of its highlights, shadings and shadows and not by his stereoscopic vision, he will find that all the world's a studio and all the men and women merely sitters. As soon as he has learned to see

in this manner, he may be certain that when a person looks well, he will photograph well."

The very nature of home portraiture precludes hard and fast rules. Every worker must carry out his own ideas in his own way. He should understand lighting thoroughly, so that he can use it to get any effect he wants.

The outfit for home portraiture need not be at all elaborate or extensive. Good work can be done with practically any kind of outfit, though there are certain features in the apparatus that are desirable and helpful. If large heads are wanted, a long-focus lens must be used, and often the rear combination of a rapid rectilinear lens will do very well. Personally I have found a lens of the semi-achromatic type better adapted for this kind of work than an anastigmat, though sometimes the crisp definition of the anastigmat is more suitable. This is a matter for each to decide for himself. Possibly it will be helpful to some of my readers if I describe briefly my own outfit, not that it is necessarily any better or more satisfactory than others, but because it has been found to be entirely adequate for my purposes. I use an ordinary $6\frac{1}{2} \times 8\frac{1}{2}$ view camera and a rather solidly built tripod. A specially designed "home portrait" tripod is convenient but not an absolute necessity. I have an extra back that can be used on this camera to accommo-



Fig. 42. Surf at Bass Rocks

date 5 x 7 plate holders. The lens I use most frequently is a 14½-inch Verito, which is fitted with a Studio shutter. I also possess and occasionally use an old fashioned Voigtlaender Euryscope Portrait lens of about 10 inches focal This has Waterhouse stops that slide into a groove in the lens barrel. As it has no shutter, I use a lens cap. I have a piece of stout wire bent in such a way that it fits into screweves on the camera front and projects over the lens, and over this I hang a dark cloth for a lens shade. I never use any kind of artificial background for home portraits and only very rarely a reflector. By so placing the sitter in relation to the light that there are no very heavy shadows on the face, the need for a reflector is done away with. I use either glass plates or Eastman Portrait Films, as is most convenient. The films save weight when it is necessary to carry the camera any considerable distance. I have never used any kind of artificial light for portraits, except for occasional experiments in my own home.

CHAPTER VIII

The Definition of Art — The Need for Cultivated Good Taste — Picture-making Largely Instinctive — Landscape Photography — Imagination — The Selection of Suitable Conditions — The Illusion of Relief — The Illusion of Distance — The Illusion of Movement — Underexposure Fatal to Success — Night Photography — Still-life and Flower Studies.

IN preceding chapters I have endeavored to point out some of the principles of art which are observed by painters, sculptors, photographers and all whose aim is to produce a work of art. Art has been variously defined by different The most satisfactory definition, perhaps is this: "The production of beauty for the purpose of giving pleasure." When applied to picture-making by photography or otherwise, a better definition would be: "The beautiful representation of nature for the purpose of giving disinterested pleasure." Either definition is applicable to photography, for we must keep in mind H. Snowden Ward's definition of a photographic picture: "A thing beautifully photographed, rather than a beautiful thing photographed." So the aim in picture-making is to represent nature beautifully, in such a way that the representation will give some pleasure to those who

are capable of appreciating beauty. Nature, in this respect, must be held to include human nature, for in picture-making we can use both animate and inanimate objects. Portraiture. genre studies and all pictures including human beings are in one class, and landscape or marine pictures, with still-life studies, comprise the second. There are, thus, broadly speaking, two classes in picture-making; those that include the human figure and those that do not, and there is a distinct difference in the possibilities of beauty in these two classes. In the representation of inanimate objects, as in a landscape, we are limited to the arrangement of things that are expressionless in themselves. The beauty of a landscape picture depends only to a small extent upon the beauty of the actual objects photographed. It has been said: "The nobler human attributes and passions, as wisdom, courage, spiritual exaltation, patriotism, cannot be connected with a landscape and so it is unable to produce in the mind the elevation of thought and grandeur of sentiment which are the sweetest blossoms of the tree of art" (Govett, Art Principles).

A landscape picture is distinguished from a topographical record in that it affords a suggestion of some emotion, and the beauty of the picture depends upon the truthfulness with which

an interesting aspect of nature is represented. Truthfulness of representation does not necessarily mean microscopically sharp definition and a profusion of fine detail, but, rather, the exact interpretation of a mood of nature. Grace of line, interesting spacing, truthful tones and the attributes of beauty that are understood to be experienced in the contemplation of a pleasing pattern or design, are the qualities that are essential in a work of art. The production of a landscape picture, considered as a separate branch of art, is regarded by some as being on a lower plane than the making of pictures which include the human figure, because in a landscape picture the artist can produce only sensorial and not intellectual beauty and, furthermore, because some of the highest qualities of beauty in nature - grandeur and sublimity - can be suggested only to a very limited extent in a picture on account of the necessity for representing the scene on a very much reduced scale. Actual magnitude is required to produce either of these qualities in any considerable degree; the actual element of space can be suggested only very slightly.

Suggestion is a most important element in picture-making. In landscape pictures, in which we will include also marine and still-life studies, the success of the picture depends entirely upon

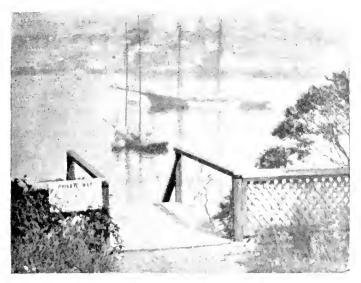


Fig. 13. Rocky Neck, East Gloucester

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the effectiveness with which certain emotions and sensations of beauty are suggested. Composition, the mechanics of suggestion, is the means by which we achieve beauty in a landscape picture. We cannot improve upon nature, but we must curb the prolixity of nature. We must condense and simplify, must select just what will give a suggestion of the emotions which led us to think that the material before us would make a satisfying picture.

Emphasis of one particular feature is usually necessary; it may be a graceful line, or it may be an interesting mass, but for the proper enjoyment of a picture, this one predominant feature should be given full sway, and should not be weakened in force by the introduction of other interests.

In landscape work the need for broad and impressionistic treatment is strongly indicated. The softening of obtrusive detail, the massing of light and shade, are often necessary for the purpose of simplification. There is a sense of freedom and satisfaction to be derived from long, flowing lines and broad, simple masses. Such pictures wear well and are easy to live with. So we cannot too strongly emphasize the importance of simplicity.

Both the accompanying pictures are simple, and in both there is some evidence of the at-

tempt to interpret a mood of nature. In Fig. 41 the theme is "sunlight," the hot, blazing sunlight of an August afternoon. The picture was simplified by trimming off the sky in making the enlargement. In Fig. 42 the never-ceasing surge and swell of the ocean is the motive of the picture, and everything has been subordinated to this.

In a broad sense all artists are impressionists; they do not picture the objects themselves, but only what they are conscious of seeing. There is no virtue in elaboration. The artist, and more especially he who uses a camera, must endeavor to be, not a mere recorder of external facts, but one who forms a vivid mental impression and tries to make us realize his impression. The interpretation of a mood is more to be desired than a bald statement of fact.

The simplification of a picture begins with the selection of the subject. We feel by instinct, or we have learned by experience, that a certain arrangement of line will induce certain emotions. In a portrait or still-life study, we can actually arrange such lines as we feel are needed in the picture, but we cannot thus arrange the lines of a landscape — we can only select. The same impulse that suggests arrangement will also suggest selection.

A certain amount of mechanical construction

and ingenuity is needed in composing a landscape picture. The artist must try to see lines and masses as forming part of a pattern, not as actual objects. The line arrangement, the pattern or design of the picture, can be modified very considerably by changing the point of view from which the picture is taken. We aim to produce certain illusions capable of stimulating the involuntary sensation which we name pleasure, and these illusions, as we have pointed out in previous chapters, are produced very largely by the arrangement or selection of certain lines, tones, and distributions of light and dark.

There are certain mechanical principles underlying the production of such illusions. These principles are what we strive to understand when we study perspective, both linear and aerial, and when we consider the advisability or otherwise of using orthochromatic plates and ray-filters.

There are laws and rules governing the production of a picture, as of all works of art. The musician must understand and obey the rules of harmony and counterpoint, the writer must study the correct use of words and the proper construction of sentences, and the picture-maker, whether he be a painter or a photographer, must keep in mind the principles governing the mechanics of suggestion, on which his pictures depend for their effectiveness.

It must not be understood, however, that picture-making of any kind, whether it be painting, drawing or photography, is a matter of exact compliance with hard and fast rules; this is not the case at all. There are certain recognized methods in making pictures that have been universally adopted by artists of all times, and thus have become crystallized into principles of composition, but it will be found that picture-making is almost entirely a matter of good taste, and that it is largely instinctive when the taste has been trained and cultivated. If a photographer can compose at all; if he can make pictures that are pleasing to himself, and that are regarded by competent judges as being interesting; if he can make pictures that suggest to others the impressions that he himself felt when he arranged or selected the material, he will do so even if he has never heard of any rules. When he has made the picture, he will find that, on analysis, a reason can almost invariably be given to explain why a certain impression is conveyed, and why the picture makes the appeal it does. It may be because there are graceful or forceful lines in the picture; it may be on account of decorative masses or a delicate nuance of tone; it may be that the picture starts a train of thought and appeals to the imagination; but it can appeal only to those whose tastes and instincts are

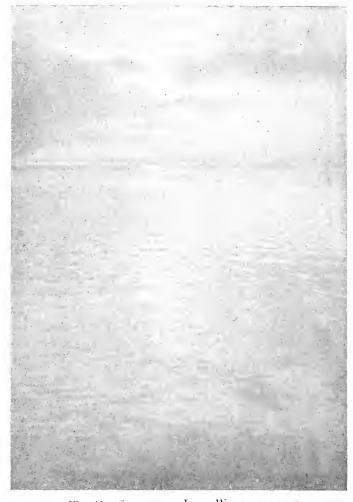


Fig. 11. Sunrise on Lake Winnepesaukee

Photos X 1

similar to those of the artist. If some people can see nothing in a picture, if it means nothing to them and makes no appeal, it does not necessarily follow that the picture is at fault. They may not have the requisite imagination or taste to understand the picture. It is just the same in music. Some can enjoy a Tschaikowsky symphony, while others can appreciate only a jazztime quartette.

I have selected as illustrations of the various principles referred to, pictures that I have made myself and, in nearly every instance, have been able to pin to the picture a rule or principle that has been discussed in these chapters. It might be imagined that I had this rule in mind at the time, and made the picture to fit the rule. As a matter of fact, I do not remember being conscious at all of any rules or text-book instructions. In making the picture Plum Island, for instance, I did not stop to think at all about the dark accent made by the child against the delicate light tones, or the direction of the line of the surf. When making the portrait, The Fair Haired Boy, I did not consciously consider the fact that a curve running through the picture. from the head to the hands, would be a pleasing line arrangement, and when photographing The Painter, I do not think that the idea of the steelyard balance occurred to me at all. I felt that

these selections were right and, on the strength of that instinctive feeling, I just went right ahead and made the exposures. Then, after the pictures were finished, I discovered that they conformed with certain recognized formulae, that the child in *Plum Island* formed a necessary and agreeable accent, that the distant vessel balanced the group in *The Painter*, and so on.

I think most pictures are made in this way, entirely by instinct, and that the rules and principles can be tacked on afterwards. This probably will explain why there are pictures that we like, but that seem to conform to no rules. To "study up" on composition and then go out with the camera and a set of rules, with the idea of making pictures, does not seem to me to be at all the way to do it. It is, of course, very necessary to read and assimilate the rules and principles of picture-making, but when you are actually making pictures, forget all about the rules and principles, and rely on your own good taste and judgment.

I do not believe that the ability to compose successfully can be learned entirely from books; it is a matter of good taste and judgment, cultivated and improved by the study of good pictures, and by the habit of looking for and expecting to see beauty in every phase of nature. The natural and inherent good taste of an artist

is possibly an unconscious knowledge of the principles of composition. As soon as we become conscious of this knowledge, the good taste and instinctive feeling become judgment and selection. But the good taste must come first, for, unless an artist can compose by instinct, I do not believe he will ever learn to do it by rule. Learn all you can from the study of a large variety of good pictures. If a picture appeals to you particularly, try to analyze it and find out the reason why it impresses you as being beautiful or interesting.

To learn to see pictorially is the first essential duty of the would-be picture-maker. It would be no use to learn from a book that the S-shaped curve, for instance, is a desirable line, if one cannot see and appreciate such a line in nature.

Good taste and judgment can be cultivated, as are other faculties, and the foundations of success as an artist are good taste and an appreciation of beauty. These must come first, and the ability to record impressions of beauty will follow later.

In landscape photography, the photographer must learn to see his subject as a pattern; he must look for lines and masses, and must learn to see them as parts of his design. The suggestion that is often given, to study the subject through a rectangular frame of blackened cardboard, is

a very good one, especially for the beginner. The amount of subject included in the frame can be varied by changing the distance between the cardboard and the eve. In order to eliminate color, and to get an idea as to how a subject will appear in monochrome, it should be studied through blue glass. Another way to study the subject with a view to ascertaining the decorative quality of the masses is to throw the image out of focus on the focusing screen, so that all detail is lost and only the important masses can be seen. A tree is useful to the artist only when the direction of its lines is good, and the shape of the mass is satisfactory. The line of surf along a sandy beach may be a good line or a bad one, and the judgment and good taste of the artist will enable him to decide whether it is good or bad, just as his taste and judgment enable him to decide as to the shapes of the masses. The good taste must be cultivated until it becomes instinctive and reliable. The only way to do this is by studying and analyzing good pictures. Rules and laws of composition will not develop taste and judgment, they will only explain why certain shapes and certain directions of line are preferable to others, and give some assistance in establishing a criterion. If a study of composition were all that is necessary, every photographer and every painter could be an artist.

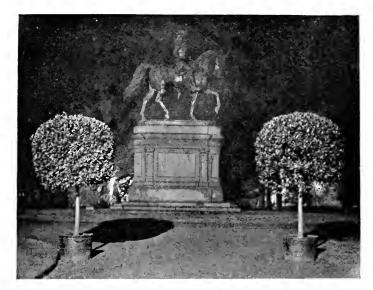


Fig. 45. The Washington Statue at Night

The quality of imagination is another very essential attribute of the artist. He conceives an idea and puts it into such form that it can be recognized by others. This is true of painting or photography, music or poetry. He does nothing more. The greatness of the picture, the music, or the poem is governed by the quality of the imagination shown in its conception. Imagination is a natural gift that can be strengthened by study, and a photographer, gifted with a vivid imagination, who, by diligence and application, has acquired skill in the manipulation of his tools, can make pictures that will express to others just what he intends them to express. Imagination alone will not suffice to produce great pictures; there must be sufficient facility of execution to carry out the ideas in the artist's mind. Technical facility can be acquired by careful and intelligent practice. Imagination can be cultivated by the study of good pictures, and by the cultivation of the mind. Hard work is the secret of success in art as in everything else. The great painters acquired their excellence by study and application. According to his biographers, the triumphs of Claude were due to his untiring industry, while Reynolds held that nothing is denied to well-directed labor. And so with many others down to Turner, whose secret, according to Ruskin, was sincerity and toil.

Knowledge and experience are the foundations upon which imagination can build. Years of hard work are necessary, but it is unfortunately hard to convince some students of the necessity for long and hard study. Many seem to be under the impression that inspiration will come to their assistance, and that genius will enable them to dispense with much of the labor which others. less fortunate, must undertake. Some mistake eccentricity for artistic merit, and think that a picture that is weird and unusual in subject or treatment is a worthy achievement. The unconventional, or, as Mr. W. H. Downes calls it, the "unexpected pattern," often makes a picture interesting, but eccentricity carried too far is annoving.

Probably landscape work is more often the first choice of the budding pictorialist than any other branch of photographic picture-making, and it offers a wide field for the exercise of imagination. Nature's moods are many and varied, and there is ample scope for individual treatment. The chief point to bear in mind is that a simple subject is usually more permanently pleasing than one that is too complex. The selection of suitable atmospheric conditions is of great importance, for the "interpretation of a mood" can only be effected when there is obvious evidence of the existence of the particular mood. There can be

no definite rules given as to what these conditions are to be. Nature is interesting at all times, but, as a general rule, very harsh and glaring sunlight, when the sun is high in the heavens, should be avoided, because at such times there is often an utter lack of relief, roundness and modeling in the trees and other objects.

The reason why we can see things stereoscopically is because we have two eyes, just like a stereoscopic camera. The two slightly different images are merged into one, and we get the suggestion of solidity, roundness and relief. stereoscopic vision also enables us to gauge distances, to judge the flight of a tennis ball, and to place things in their proper relative positions. one behind the other. The ordinary camera has only one lens, and sees everything as if it were flat. Therefore the relief and roundness of the objects represented by it must be suggested by shading and by perspective. Thus shading is of great importance, and good shadows can best be secured when the sun is low, and when one side of all objects is more strongly lighted than the other. Sunlight coming from one side gives the maximum of relief, and the long shadows of the early morning or late afternoon are often very beautiful and decidedly interesting.

In picture-making the eye has to be considered before the mind, and it is of immense importance

that the brain should have the least possible work to do in assisting the eye to interpret a picture. The aim of the artist is to produce an illusion. and the more nearly a picture corresponds to nature, the more complete the illusion. Exact imitation of every detail will not produce as striking an illusion as will a picture in which such things as relief, distance and movement are vividly suggested, and in which the artist has generalized these essential qualities. The illusion of relief, as we have seen, can best be produced when the lighting is such that one side of an object is more strongly illuminated than the other, as when the sun is low and towards one side. The illusion of opening distance is suggested when the atmospheric conditions are such that the distant planes are less clearly seen than those near at hand.

In Fig. 43 the distance looks distant, not only because the houses are small compared with the fence in the immediate foreground, but because they are less distinct and are grayer and lighter in tone than the objects close at hand. The veil of atmosphere between the eye and distant objects tends to make them uniform in tone, as explained in Chapter IV, and it is this atmosphere that makes distant objects less clearly seen than those close at hand, like the distant houses in Fig. 43.

In a landscape picture there should usually be at least two distinct planes represented; often there are three, the foreground, the middle-distance and the distance. Sometimes there is no extreme distance in a picture, but only foreground and middle-distance, while occasionally the foreground may be merely a silhouette of a portion of a tree or a branch projected into the upper part of the picture, or rushes by a river bank at the bottom edge of the picture.

The illusion of distance is a matter of selection of suitable conditions of lighting and atmosphere. Early morning or late afternoon in the summer is usually a more suitable time for picture-making than those times of the day when everything, near and far, is equally distinct and clear-cut. The slight haze or mist that is often present early or late in the day is very helpful in differentiating the different planes in the scene. Full exposure and careful development, not carried too far, will preserve truth of tone in distant planes. Sometimes a suggestion of depth and space is given by the introduction of an open doorway or the arch of a bridge in the foreground, with a distant view seen through it. Distance may also be suggested by a river, a stream or a road winding away into the background, and thus linear perspective will help in creating the illusion. Occasionally such an effect is produced

in a snow scene by a track of footprints going off into the distance. Linear perspective, the diminution in the size of objects as they recede into the background, will give a suggestion of distance, but this, in itself, is not sufficient, and the effect must be increased by the illusion of flattened tones and less decided contrasts.

Another illusion that can only be suggested in a picture is the movement and sound of nature. "In nature there is always movement and sound. Even on those rare days when the wind has ceased and the air seems still and dead, there is motion with noise of some kind. A brook trickles by, insects buzz their zigzag way, and shadows vary as the sun mounts or descends. But most commonly there is a breeze to rustle the trees and shrubs, to ripple the surface of the water, and to throw over the scene evidence of life in its ever charming variety. The painter cannot reproduce these movements and sounds. All he represents is silent and still as if nature had suddenly suspended her work - stayed the tree as it bent to the breeze, stopped the bird in the act of flight, fixed the water, and fastened the shadows to the ground. What is there then to compensate the artist for this limitation? Why, surely he can represent nature as she is at a particular moment, over the hills and valleys, or across great plains, with sunlight and atmosphere

to make the breadth and distance and so produce an illusion of movement to delight the eyes of the observer with bewitching surprise" (Govett, Art Principles).

Occasionally it is possible to suggest violent movement by having some parts of the picture a little blurred, thus showing evidence of motion during the exposure, but this rather drastic method should be used only to suggest an unusually impetuous agitation, such as would be occasioned by a wind storm. A more subtle and more pleasing means of suggesting movement is by the general sweep of line in the representation of trees. A decided inclination of the branches and twigs in one direction will suggest the idea of their being blown by wind. It is possible to give an impression of a landscape before rain, by catching the moment when the eddying wind turns up the silver lining of the black poplar Movement in water, such as falls and breaking waves, can be suggested by avoiding too short an exposure, which is always apt to give what is termed a "frozen" appearance to the water. A breaking wave photographed so that there is just a little blurring in the parts that are moving very rapidly will give a more realistic impression of motion than if every part of the picture were absolutely sharp and clearly defined (Fig. 42). Waterfalls and rapids can sometimes

be just a little blurred, but not so much as to lose form and character.

As was pointed out in Chapter II, oblique lines and acute angles have a tendency to suggest motion, while long horizontal lines convey an impression of restfulness. There is another point that might be noted in the representation of moving objects, such as ships, animals or people walking, and so on, and that is their position in the picture-space. There should always be plenty of space in front of a moving object to suggest that there is room to move without running out of the picture. Motion of animals, such as sheep on a dusty road, can be suggested by a cloud of dust behind them. Motion of ships sailing rapidly will be indicated by the swirl or wake behind them. The pictorialist will do well to study all such things as these, so that he will be able to analyze impressions quickly and make his pictures convincing.

For the past two years I have had the privilege of examining each month many hundred photographs sent to one of the leading photographic magazines for competition and criticism, and the conclusion has been forced upon me that by far the most common failing in photographic picture-making is underexposure of the negative. The manufacture of ultra-rapid plates and "speed" film has tended to foster the idea that the shutter

can be speeded up more and more until less than the minimum of exposure is often given. Plates and films possess great latitude, it is true, but too short an exposure always has a tendency to cause a loss of atmosphere.

Of all photographic failings underexposure is the most serious, for it cannot be remedied in the darkroom, and an underexposed negative will never give the delicate tonal gradations that are so necessary from the artistic standpoint. The differentiation of the planes in the picture always suffers when the negative is underexposed, in spite of the utmost skill that may be exercised in printing. So the pictorialist must always watch the shadows, and must be sure to expose for the effect he wants. The success of the picture depends entirely upon the exposure; very little can be done in development to correct errors in timing, and it is the shadows that must be considered in judging the exposure.

There are very few shadows in nature that are absolutely black, except, possibly, in India or Egypt or other places where the air is very clear and the sunlight is very bright and glaring. Possibly the entrance to a dark cavern might truthfully be represented as black in a picture, but, as a general rule, there is detail and gradation throughout the shadows. In a subject lighted by electric arc-lamps, the shadows would

be hard, black and solid, and should be so represented in a picture. This would be quite correct. But the same subject in daylight would have entirely different shadows.

Moonlight scenes, so called, that are made by underexposing in daylight show their unreality by the hardness and blackness of the shadows. The shadows in moonlight are empty and lacking in detail, but they are never very dark. The contrast between the shadows and the lighted parts is much less in moonlight than under any other conditions.

The reason why there is this difference is that in daylight the shadows are illuminated by diffused light, in moonlight or electric light they are not. The contrasts in moonlight are very soft, whereas the contrasts given by electric light are very harsh indeed. This is why a much underexposed picture taken with the sun behind clouds can never be passed off successfully as a moonlight scene. The shadows are wrong. The underexposure has made them empty and lacking in detail, but it has also made them too dark, and the contrasts are too great for a real moonlight effect.

Pictures taken at sunrise or sunset, facing the sun, should be sufficiently well exposed to give some shadow detail and should be printed so that the detail is preserved in the print (Fig. 44).

The tendency usually is to give a short exposure with the idea of preserving detail in the sky, but the highlights must be left to take care of themselves, and the exposure should be sufficient to give as much detail in the scene as can be perceived by the eye.

A sunrise or sunset picture is very rarely true to nature in values and contrasts. Almost invariably there are signs of underexposure, and they are often overprinted so that parts of the sky are rendered as black. Sometimes parts of the sky at sunrise or sunset are dark in color, dark purple, perhaps, or dark gray, but never black. Black clouds in a photograph never can be correct. Such subjects need full color-correction and full exposure. From a practical standpoint as well as an artistic one, it will be found that a sunset and water combination is better than sunset over land. Exposure is difficult at that time of day on land, but the increased reflection of the water shortens the necessary time, and the reflection may add pictorially to the result.

With regard to night photography, the secret of success lies in giving just as long an exposure as will render as much detail as can be seen. Too long an exposure will register detail in the shadows that is not ordinarily visible, and the true night effect will be lost. In such pictures, any

lights that may be included in the view will be very much overexposed, and they are liable to cause halation in the negative. This is one of the technical difficulties that must be overcome. Films are much less subject to halation than glass plates, but if plates are used they should be backed or double-coated or both. Soaking in water after a preliminary application of developer will often bring out shadow detail without blocking up the highlights, but with double-coated plates quick development with a fairly strong developer will often develop the surface image before the developer has time to penetrate through to the bottom coating. Night photography is an interesting branch of work and the possibilities for artistic results are great.

Figures 45 and 46 were both made after dark in a city park, the only light being that derived from electric arc-lamps. In both, the effect of the light rather than the light itself is seen, and thus technical difficulties of halation and over-exposure of the lights are avoided.

There are many interesting effects to be obtained at dusk, when the lamps are lighted and before it is quite dark. This is an interesting phase of night photography that has not yet been fully investigated. It seems to offer great possibilities and might do away with some of the difficulties that are experienced after dark.

In making still-life and flower studies the artistic worker has plenty of scope for the display of good taste, judgment and artistic feeling. The entire credit for the success of such pictures is due to the artist, for the arrangement of the picture from start to finish is absolutely under his control. In pictures of this kind the composition is wholly constructive. The photographer can build up the picture as he goes along, very much in the same way as a painter. He can select the material for the picture and can arrange it as he likes; he can study the effect on the focusing screen, and can make any changes he thinks are desirable until he gets it right. When he has everything as he wants it, he can photograph it and can use all the technical knowledge and skill at his disposal.

In Fig. 47 simplicity was the keynote. There is nothing in the picture except the principal object, placed towards the top and on the left hand side, and the secondary balancing object, placed a little lower and towards the right. The reflections in the shiny surface of the table top give interest by means of repetition with variety.

In arranging flower studies the artist will do well to keep in mind some of the principles of pictorial composition referred to in the preceding chapters. He should strive to secure unity, harmony, balance and completeness. He should

make his picture simple. He should endeavor to obtain good lines, decorative masses and a pleasing pattern or design. The rendering of tones and color-contrasts must be carefully considered, and the technical work should be without blemish. The simplicity of treatment shown by Japanese artists might be studied with advantage. In their pictures we usually find all the above mentioned qualities, especially simplicity and grace of line.

In order to secure graceful lines, only such specimens should be selected as possess this qualification, and only a few specimens should be used in the picture, otherwise the grace and beauty of each one will be lost. Grace and beauty of line are what the photographer must chiefly rely upon to make his picture beautiful, for he will lose the beauty of color. It will be found that in nature grace of line and sumptuous coloring are seldom found together. The photographer should utilize the quality he can best render in his picture.

CHAPTER IX

The Technique of Pictorial Photography — Developer for Negatives — Intensification — Reduction — Printing on Platinum and Other Processes — Bromide Enlarging — Mounting and Framing — Retouching — Trimming.

In the preceding chapters, I have considered abstract pictorial principles, and the important part played by the imagination in the enjoyment of pictures. I have given, so far, very little information that is distinctly practical, and have taken for granted that the necessary technical skill and experience are already possessed by my readers. There are, however, many to whom a few practical hints may be helpful, and so, in this chapter, the abstract will give way to the practical.

As to the best developer for negatives, any reliable developer properly used may be considered to be the best, and any worker who has experimented at all with developers will have found one that he likes and is satisfied to use. Jumping around from one formula to another is unnecessary and futile, for there really is no difference to speak of. Edinol, metol, duratol, amidol, are all good. I have used them all, and

others besides, and have not been able to discover that any one of them is better than another.

Here is one formula that I have used for a long time and have found to be very satisfactory, convenient and reliable:

Amidol	180 grains
Sodium sulphite crystals.	3 ounces
Water	80 ounces

I have never found it necessary to be absolutely exact in photographic weighing and measuring, and in compounding this formula I usually take a wide-mouthed bottle that holds twenty-five ounces of water. I add to this one ounce of sulphite with a spoon that I know holds just about one-quarter ounce. This, when stirred up, will dissolve very quickly, and, when dissolved, I add to the solution a spoonful, which is just sixty grains, of amidol. This developer has to be mixed just before using as it does not keep very well in solution. Amidol gives soft results and good halftones, and it is particularly good for bromide enlargements, giving prints of good color and fine gradation.

The development of negatives for pictorial work should not be carried too far. What we need is a soft, rather thin, negative with good gradation and no extreme density. There should

be very few or no parts that are bare glass. Even the deep shadows should show some slight light-action, and the dense parts should not be so dense that the gradations in the highlights cannot be printed. The negative must be adjusted to the printing process that is to be used, and only experience will enable the worker to judge this correctly. For platinum printing, a little more density is needed than for bromide enlarging. Overdevelopment must always be avoided. It is easier to intensify a negative that is too thin than to reduce one that is too dense. In case intensification is needed, the following formula will be found to be very satisfactory.

The negative is first bleached in the following saturated solution:

After cooling this solution and pouring off from the feathery white crystals thrown down, add:

Hydrochloric acid......30 minims

This gives the bleaching solution, which will keep well, and which can be used repeatedly until it is exhausted. It should, therefore, be returned to the bottle after use.

After washing well the bleached negative is blackened in any one of the following three solutions:

- B. Sodium sulphite, 10% solution, made slightly acid with citric acid.
- C. An alkaline developer, such as hydrochinon. (This gives about double the intensification of B.)

For reduction of negatives, either ammonium persulphate or Howard Farmer's reducer can be used, according to the result that is desired. The former will tend to lessen contrasts by reducing the highlights more than the shadows, and the latter will have the opposite effect and will reduce the shadows without affecting the highlights very much.

Development is very largely an automatic process; the quality of the negative is determined by the exposure, and very little can be done to remedy errors in exposure. If the negative is known to be overexposed, the addition of a little extra bromide to the developer before beginning development will help a little, while an under-

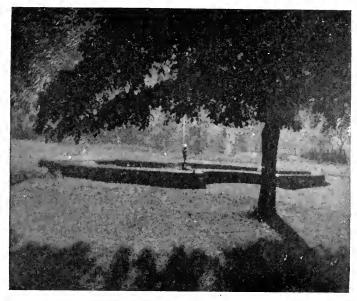


Fig. 46. The Little Boy in the Park

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exposed negative should be developed in a very dilute solution, so that the shadows will have a chance to develop up a little before the highlights become too dense. For a subject in which there is likely to be halation, such as portraits made against the light, or outdoor pictures, contre-jour, quick development with a fairly strong developer will be found to be best, for the halation is on the under side of the sensitive coating, next to the glass, and if the surface of the emulsion is developed quickly and the action stopped before the developer can penetrate through to the glass, the halation will not be very apparent. Films are much less liable to give halation than glass plates, but if plates are used for such subjects. they should be double-coated or backed.

With regard to printing, there are many good processes, each possessing its own possibilities and limitations. Platinum is undoubtedly the process for the pictorialist, for it will reproduce gradations and halftones more delicately and with a longer range than any other similar printing process, but it demands a good negative to do it justice. It will reproduce all the defects as well as all the beauties in the negative. A limitation of platinum is the fact that it is a contact method and, therefore, if large pictures are wanted, an enlarged negative must be made if the original one is too small. This is not a very difficult

matter, and good working instructions will be found in technical hand books. Carbon, gum, oil and bromoil all have individual and distinctive qualities, and are all very interesting processes for artistic work. There are several good textbooks dealing with each of these, such as the *Photo Miniature* series, and these should be studied for complete working instructions.

Another process used by many prominent pictorialists is bromide enlarging. There are great possibilities for personal control in this method of printing, and the control can be and should be purely photographic. Handwork on negatives or prints should seldom be tolerated, for it is very apt to falsify tones and gradations and thus destroy the very quality that makes photography worthy of being considered a fine art. I have seen gum prints in which highlights have been put in and halftones brushed away. The results were rather striking and effective, but not really satisfying as pictures. Bromide will give good halftones and gradations, and will preserve photographic quality very much in the same manner as a good platinum print. There is, too, a wide choice of surfaces and textures, and many interesting effects may be obtained by enlarging through bolting-cloth or bond paper. The quality of this medium, and the worker's absolute control over the size of the picture, make bromide

an adequate process for the pictorialist, and it should not be lightly discarded for the more showy but less worthy attractiveness of the pigment processes. Very few can attain the fault-less technical skill and the unerring artistic judgment required to make really worth-while gum prints, and a good bromide enlargement is better than a poor gum print and has more real merit.

A picture is made by the selection of the subject and by the disposition of the lines, masses and tones rather than by manipulation in printing, and the qualities that make a photograph pictorial can be secured by purely photographic means without manual manipulation of the negative or print. The artist in photography must be a sound technician, and should rely upon purely photographic means. If he wants to use pigments and brushes, there is no reason why he should not do so, but he would do better to use them on a blank canvas than on a photographic print.

My purpose here is not to teach technical craftsmanship, but rather the application of technique and the principles of art. I am taking for granted that the photographer can so control his medium that the picture will, in the finished result, tell the character and purpose of the photographer himself. It should express his thought and meaning, and be so individualized that it could

not be mistaken for the work of any one else. A photographer must have as sound a knowledge of picture-making as a painter, and he must have such control over his chosen medium that he can put personal expression and his own individuality into his pictures. In picture-making, as distinguished from photographic recordmaking, the artist aims to clothe the bare facts in such a manner that their force will be augmented but still truthful. The making of a picture is "a human activity consisting in this, that one man consciously, by means of certain external signs, hands on to others feelings he has lived through, and that other people are affected by these feelings, and also experience them."

The artist who uses a camera should rely upon means purely photographic, upon those which grow out of and belong to the technical processes, but, at the same time, he should practise the fullest control. The point of importance is that the picture, whether it reflects the feeling of the artist or whether it embodies the impersonal poetry of nature, shall still be able to affect us with some recognizable emotion, that it shall not be a bare inventory of facts, but that it shall express something of the relation between those facts and our own lives. It will be found in practice that straightforward photographic tech-

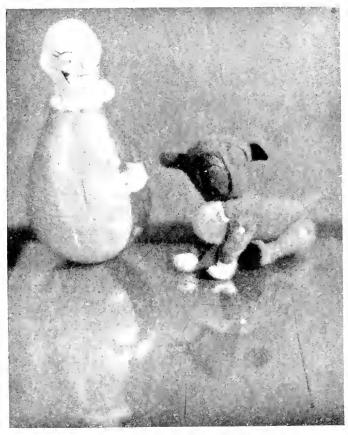


Fig. 17. Almost Human

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nique is ample to take care of individuality, and that freakishness is neither necessary nor desirable. Just because a picture is unusually low in tone, it is not necessarily pictorial. Too often the attempt to secure low tones results in muddiness and a vagueness that is very displeasing. Gradations must at all times be preserved, whatever the key of the picture, and purity of tone and good gradations are to be secured only through faultless technique.

When the picture is printed, there still remains a very important matter to be considered before it can be regarded as being quite finished. It must be mounted and perhaps framed.

In the matter of mounting a picture there are two important points to decide; the color of the mount and the size. The color or tint should, as a rule, harmonize with the general tone of the picture, that is to say, a delicate, light-toned print usually looks best on a light mount, while a dark print with a predominance of low tones is best mounted on a dark mount. The color should correspond with the color of the picture; a warmtoned print, sepia or red, should be placed upon a mount of a corresponding color, and a gray print on a gray or white mount. Grays and browns should never be combined on the same mount.

Multiple mounting, a style that was much used some years ago, has now fortunately become

obsolete, and less elaborate and distracting mounts are generally used. Many of the prominent and well-known exhibitors use almost exclusively a large white or very light cream-colored mount with no decoration or embellishments of any kind except, in some instances, a title and a signature.

The function of a mount is to separate the print from its surroundings, to isolate it from other pictures, so that its beauties may be easily appreciated. The mount must, therefore, be quite unobtrusive and must not force itself upon the attention, or it will defeat its own end. Simplicity is the keynote in mounting, as it is in making the picture, and instead of the halfdozen or more various tints that were often used in the early days of multiple mounting, one single tint of a corresponding tone, a little lighter or a little darker than the mount, is all that need ever be used between the print and the mount. Even this is often unnecessary, unless the contrast between the print and the mount seems to need softening. Sometimes, if the print is on a light mount, the mount may be decorated with a pencil line drawn around the print, but such a line, with perhaps a title and a signature, is all that should ever be placed on the mount besides the picture. Often the signature can be placed on the print itself.

The choice between a light or a dark mount depends upon whether the print is light or dark. It is possible to modify the appearance of a print to a slight extent by varying the tone of the mount. If the print is just a trifle too light, it may be strengthened a little and made to appear darker by mounting on a very light mount, and if it is too dark, it will appear a little lighter if placed on a dark mount. This effect is the same as was referred to in Chapter VI, where we noted the effect of the surrounding tone on a tint of gray. Surrounded by light tones, the same tint would appear to be appreciably darker than if it were surrounded by a tone darker than itself.

The size of the mount and its shape must also be considered. The size must be governed to some extent by the purpose for which it is intended. If for exhibition purposes, a larger mount may well be used than would be necessary if the picture were kept in a portfolio or shown apart from other pictures. On the walls of an exhibition room, the need for isolating and separating the print from others is more urgent than if the print is seen only at home, and, therefore, a larger mount is called for. The shape of the mount depends entirely upon the shape of the print, and the position of the print on the mount is a question that is often puzzling. Here is a

good rule that may safely be followed. Make the top and side margins equal in width and the bottom considerably wider. Eccentric placing on the mount is very seldom advisable; it only serves to draw attention to the mount, which is just what should be avoided as much as possible.

In the matter of framing their prints, photographers have shown themselves to be more artistic than painters, who are only gradually realizing the inappropriateness of the gilded abominations in which they frame their pictures. As a general rule the frames that painters use are not specially designed for the pictures. Only a very few painters consider this to be necessary, but photographers usually take some pains to select a frame that is appropriate in tone and design. In some respects it is easier for a photographer to decide on a suitable frame, because his prints are limited to one color and, in choosing a frame, he can obtain variety and harmony by playing upon gradations of that color. Here, as before, simplicity must be the chief consideration, and the frame should never be obtrusive either in color or design.

Careful, skilful craftsmanship is essential in picture-making, and strict attention must be paid to every detail. A picture can be spoiled by careless workmanship, just as a great composition in music can be spoiled by faulty execution.

Technical details must be thoroughly mastered before the soul of art can be discovered.

Those who are attracted by figure work and portraiture sometimes feel that they cannot take up this branch of picture-making without mastering thoroughly what is commonly supposed to be a very difficult accomplishment—the art of retouching. Retouching really is not difficult at all for the pictorial worker, because it never is necessary or desirable for him to "finish" the picture as is commonly done by the professional, and the mysteries of "stipple" and "cross-hatching" and other such conventionalities do not concern him at all. In fact, such things should be strenuously avoided.

It is absolutely essential that the artist should do any necessary retouching himself, for it would probably ruin the picture to send it to a professional retoucher to be "finished." He must carry out his own ideas, and do everything in his own way from beginning to end.

The aim of the artist should be to bring out as much as possible the character of the face by the lighting and by the proper selection of the point of view. These having been considered, the next essential is to select the most pleasing and the most characteristic expression. Retouching should never be relied upon to correct faulty lighting or to change the expression.

We have seen that a picture is largely a matter of suggestion rather than the representation of actual facts, and that the suggestion is conveyed largely by means of emphasis and elimination. Retouching is one of the most useful methods of emphasis and elimination, and as such it is of tremendous use to the artist who can use it intelligently. It is sometimes necessary to strengthen highlights on the negative, in order to emphasize the modeling, and it is occasionally desirable to soften wrinkles or blemishes in the skin, which are apt to be far more noticeable in a picture than they are in real life. A fully-corrected lens. as we have seen, renders everything with absolute impartiality, and a line or a wrinkle permanently recorded on the photographic negative appears to be more prominent than we think it is. The camera does not create these lines and wrinkles: they are really there, but, owing to the constantly changing lighting and the varying expressions on the face in nature, we scarcely notice them until they are ruthlessly and mercilessly depicted with unimaginative and mechanical accuracy by the lens and dry plate. Some lines and wrinkles are part of the character of the face; some of them are only the temporary accompaniment of a fleeting expression, but, whatever they are, a fully corrected lens, focused sharply, will render everything with startling

vividness and without discrimination. From motives of charity, as well as for the sake of artistic truthfulness, it is sometimes necessary to smooth out a wrinkle or two, or to remove a few disfiguring freckles.

A soft-focus lens will aid very materially in rendering the essentials in portraiture. A lens of this kind seems to do away with the irritating mechanical quality of photography; it seems to possess an almost human power of selection, and discriminates in a wonderful way between the essential and the unessential. The fact that the lens gives soft focus because of incomplete chromatic correction helps very much in the case of freckles. Chromatic aberration in a lens means that the different colors of the spectrum are brought to a focus in different planes, at different distances from the lens. Thus, when the blues and violets are clearly focused, the yellows and reds are out of focus. So, in the case of a sitter with blue eyes, yellow or red hair, and freckles, if the eyes are focused clearly, the hair is massed and the freckles softened, so that they are not any more noticeable than in real life. The red in the lips is also out of focus, and little cracks and wrinkles on the lips are obliterated.

The boy shown in Fig. 48 has blue eyes and yellow hair, and the chromatic aberration in the lens has caused the eyes to appear sharper and

clearer than anything else in the picture. This portrait, made with a 16-inch Smith lens, Series I, the original single lens, was made as an experiment with a very large aperture, and the effect of chromatic aberration, as described, is quite apparent.

Much can be done to minimize the need for retouching by the proper use of the right kind of lens, and by care in focusing. All such methods as this should be employed to the fullest extent, and the lighting and posing should also be considered as a means of avoiding the necessity for actual handwork on the negative, but when such handwork is found to be requisite, it should by all means be used to aid the artist in his representation.

A retouching desk can be easily made at home. A few pencils that have very long, fine points and a small bottle of retouching medium are all that are needed for the work. The pencils may be sharpened on a piece of fine sandpaper. The points must be very long and very fine, rather like a darning needle. The artist should avoid copying the methods of the professional retoucher, who usually does far more than is necessary. The fact that the picture has been retouched should never be apparent. The fine "stipple" and finish all over the face that is so often seen in professional portraits is entirely



Fig. 48. Gordon

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unnecessary, in fact, it simply destroys the modeling of the face and the texture of the skin. If the pictorialist will confine himself to a little softening of wrinkles or freckles, and perhaps slight strengthening of some highlights, if that seems to be really needed, he will have done all that should be done. The modeling, texture and character of the face must be shown by the lighting, the pose and intelligent focusing, rather than by the crude method of retouching, which never can approach the delicacy of pure photographic technique.

In actual practice, such retouching as the artist needs will be found to be comparatively easy. A little medium should be rubbed on the negative, over the place to be retouched. Only a very little is needed, and it should be rubbed over smoothly, so that there is no hard line where the medium stops. The wrinkles, if there are any, should be softened with very light, gentle strokes of the pencil. These strokes should never be made so that they show as actual pencil marks. Only the effect of the pencil strokes should be seen, just as when a delicate drawing is being finished. It is almost impossible to work too lightly, but any one with a delicate touch should have no trouble in making the strokes so that they blend into the surrounding tones.

There are certain lines and wrinkles that may be softened more than others. The vertical furrow often found between the eyebrows may be softened considerably without destroying the likeness, and this will greatly improve the expression. The drooping shadows at the corners of the mouth, and the lines from the corner of the mouth to the nostril, known as the labial furrow, often need working over. Wrinkles at the corners of the eyes should rarely be tampered with; they are part of the character of the face, and their removal would spoil the likeness. Freckles, if they show very plainly in the picture, may be softened a little, but they should not be removed altogether.

Only a very little work should ever be done in the way of strengthening highlights. They should be looked after in the lighting and posing, but sometimes a little fine and careful work on them may be a means of emphasizing character.

Very often it will be found that no retouching at all is needed. This is usually the case when a soft-focus lens is used, and especially when the sitter is young and has a smooth skin.

The art in retouching lies in knowing when to stop. Contrary to the ideas held by the average commercial professional, retouching is not an added beauty or a method of making pictures more attractive. It is merely a rather clumsy

method of eliminating some otherwise unavoidable defects, which are the inevitable consequence of using an undiscriminating lens. Retouching is not to be commended for its own sake; it should be regarded merely as a means of correcting the inherent tendency of the lens to record both the essential and the unessential. It is not a photographic process, but an after-treatment of the negative. It is a method of drawing on the negative with a lead pencil in order to obtain certain effects in the print.

In the matter of trimming a print, the principles of composition must often be observed. The size and shape of the picture are entirely matters of artistic judgment, and the artist should feel perfectly justified in cutting down a picture if it can thereby be improved in any way. As an exercise in space-filling, it is interesting to see how near one can come to making a satisfactory composition that will just fill the plate or film that is being used, without any trimming. This is often hard to do, especially if the picture-maker has a keen appreciation of spacing. Even if the makers of plates and films are obliged to make their sensitive material in certain sizes, so that they will fit certain cameras, the artist is bound down by no such regulations, and can make his pictures any size he pleases, being guided only by considerations of artistic arrangement. Often

we find that the subject we select will occupy only a portion of the plate, and then it is better to make the picture small and take it from the right point of view, rather than make it bigger by getting too close.

In trimming a print, the artist must be guided to some extent by the position of the main object of interest. This, as we have seen, should usually be placed about one-third of the width of the picture-space away from one side and the top or bottom of the picture. Often it improves a picture to trim off part or all of the sky. Sometimes the foreground is bare and uninteresting, and may well be dispensed with. Such things as these should always be considered to be of greater importance than trying to make the picture a certain shape so that it will fit a certain-sized The mount must be made to fit the picture rather than the picture to fit the mount, and, therefore, the use of stock mounts with borders is rarely practicable.

In trimming portraits, the position of the head in the picture-space must be carefully considered, for the apparent height of the sitter can be varied by trimming close or by leaving space above the head. When the head is near the top of the picture, we get the impression that the sitter is tall, and a certain dignity and importance is suggested. When the head is low in the picture-

space, it conveys a suggestion that the sitter is small. Another way in which dignity and height can be added in a portrait of a full-length standing figure is by cutting off the feet. This gives the impression of added height by the fact that it is difficult to tell just how much has been cut off and we can imagine it is more than it really is. This is a matter of placing in the picture-space, rather than trimming, but the same effect can be obtained by trimming, if necessary.

In picture-making a good deal of practical common sense is needed, and the rules and principles should be regarded as guides, to be observed or disregarded as seems best. When a rule is broken, there should be a good reason for doing so, and the artist should know what he is doing.

It must be understood that in picture-making the methods used by one photographer may be entirely unsuited to another. This must be so, or there would be little or no individuality in pictures by different artists. The principles referred to in this book are merely some of the fundamentals, and each artist must develop his own individuality, while still adhering more or less closely to these basic principles. I have endeavored to make clear to those interested in the artistic side of photography how the mechanics of suggestion can be applied in picture-making. Such things as line, spacing, mass,

balance, perspective, and so on, are just so many cogs in the machinery. How they are put together depends upon the ingenuity and skill of the individual. The old-fashioned hand-brake on a trolley car is an arrangement of cogs and wheels, and so is a lady's watch. Both use the same mechanical principles, yet how different are the results! There is much to learn in making pictures. Only a little can be gathered from books. The greater part of the knowledge must consist of actual experience.

I am only too well aware that much has been omitted and that many important points have been but lightly touched upon, yet I hope that there may be enough in this book to stimulate the desire for further investigation along the lines of pictorial composition.

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