Drawing
THE HEAD AND HANDS

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To the Reader of This Book
May it give wings to your pencil,
to carry you to the heights
of good draftmanship
had the experience of being told by someone that a head he has painted or drawn looks like that person or like an acquaintance or relative of the speaker.

For the artist’s purpose, the simplest plan is first to think of the skull as being pliable and having taken a certain shape as a result of pressures—as if one squeezed a rubber ball into various shapes without changing its actual volume. Although skulls have a great variety of shapes, actual measurements tally very closely, which means that the volume is about the same and only the shape is different. Suppose we model a skull in soft clay, then, between boards, press it into various shapes. Thus out of the same volume we can make a narrow head, a wide head, flaring jaws, and all the other types. How heads got to be this way is not our problem, which is only to analyze and thus determine the type of skull in the particular head we wish to draw. Later, when you become more familiar with the construction of the skull, you will be able to show these variations so successfully that you will be able to draw practically any type you choose and make it convincing.

At the same time you can set down understandingly any type before you. By the time you understand how the flesh is distributed over the bones of the face, you will be able to vary the expression of the same head. The thing to remember is that the skull is fixed in position, and, with the exception of the jaw, immovable, and that the flesh is mobile and ever-changing, and also affected by health, emotion, and age. After the skull is fully matured, it remains the same through life and is a structural foundation for the varying appearance of the flesh. Therefore the skull is always the basis of approach, and all other identifying features are built into or upon it.

From the skull we get the spacing of the features, which is more important to the artist than the features themselves. The features must take their proper places in our construction. If they do, we have little trouble in drawing them. Trying to draw the features without having located them properly is an almost hopeless task. Eyes do strange things; mouths leer instead of smile; faces take on weird and unholy expressions. In trying to correct a face that appears to be out
DEVELOPMENT OF A NARROW HEAD

A WIDE HEAD

SQUARE

HEAVY BONED, FLARING JAW

ROUND

RECEDING JAW

DIFFERENT FEATURES ATTACHED TO THE SAME CRANIUM
Part One: Men’s Heads
PLATE 1. The basic shape is a flattened ball

The cranium is more like a ball than anything else. To represent the ball as a solid sphere, we must establish an axis, like the nail through the ball at the top. Through the centers established by the axis, we can divide the ball into quarters and again at the equator. Now if we were to slice off a fairly thin slice on each side, we will have produced a basic shape that very closely matches the cranium. The "equator" becomes the brow line. One of the lines through the axis becomes the middle line of the face. About halfway up from the brow line to the axis, we establish the hairline, or the top of the face. We drop the middle line straight down off the ball. On this we mark off two points about equal to the space of the forehead, or from brow line to hairline. This gives us the length of the nose, and below that the bottom of the chin. We can now draw the plane of the face by drawing in the jaw line, which connects about halfway around the ball on each side. The ears attach along the halfway line (up and down) at a distance about equal to the space of from the brows to the bottom of the nose. The ball can be tipped in any direction.
PLATE 2. The all-important cross on the ball

The "cross," or the point where the brow line crosses the middle line of the face, is the key point of the construction of the whole head. It determines the position of the facial plane on the ball, or the angle from which we see the face. It is easily spotted on the model or copy. By continuing the line up and down, we establish the middle line of the whole head. We draw the two sides of the face and head from this line. By continuing the brow line around the head we can locate the ears.

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PLATE 3. The cross and the middle line determine the pose

Get out your pencil and pad.

It is most important to begin at once to practice setting up the ball and facial plane. Do not worry too much now about the features. This is simply construction, which you will probably use for the rest of your life. Establish the cross. Try to think of the construction all around the head, so that the jaws attach halfway around on each side. Remember that the eyes and cheekbones are below the brow line. The ears are about parallel with the lines of the brows and that of the nose. The cross almost suggests the face below. With this approach we can start drawing the whole head in any pose.
PLATE 4. Establishing the middle line

Start placing the features carefully.

If you have worked out the ball and plane and its divisions you will not have too much trouble in placing the features. However, you should realize that a feature will never fit on a head until it is placed correctly and in line with the construction lines of the whole head. Every artist must be prepared for a certain amount of struggle with construction, so do not allow yourself to get discouraged. Every head anyone draws depends on construction, just as much as every building, every car, every other three-dimensional object does. That is what the artist's job really is in learning how to construct things in three dimensions on a two-dimensional surface. We have to think of each thing we draw in its entirety and see how its dimensions appear to us from our particular viewpoint. Representation in three dimensions calls for knowledge and study. But such knowledge is no more difficult than that required for any other field. No matter how great your talent, talent has to work with knowledge to do anything well. When the search for particular knowledge becomes pleasant as well, half the battle is won. Construction need not worry you; it comes with practice.
PLATE 5. Simplified bone structure

At this point it will help a great deal in constructing the head to have a fairly clear idea of the bone structure. Though we do not see the bones in detail, we must think of them as the framework of the head. All the division points of the head are related to the bones, not to the flesh. The reason we chose the ball and plane as an approach now becomes apparent, for our approach is the skull itself, simplified and made understandable.
PLATE 6. The bony parts within the construction

Here we look at the bones more closely, realizing that, with the exception of the cheeks, all the flesh of the head lies over bone and is influenced by the shape of the bone. This simplifies our problem considerably, for except for the jaw the bones of the skull are all in a fixed position and move only as the whole head moves. Only the flesh around the eyes, the cheeks, and the mouth are capable of separate movement.
PLATE 7. Action of the head on the neck
If we think of the head as made up of separate pieces fitted together, we find the pieces shaped and put together as they appear in the drawings in the top row. Note the rounded piece which would contain the lips. We refer to this part of the skull as the "muzzle." In drawing the mouth we must make it fit around the curve of the upper and lower jaws and the front teeth. Too often the mouth is drawn as if it were flat against a flat surface. In the bottom row the three drawings at the left show the lips and the structure under them. The eye must also lie in its socket, as shown at the right. The eyelids operate much like the lips in closing over a rounded surface.
PLATE 9. Basic and secondary planes of the head

The planes of the head should be memorized, for through them we have a foundation for rendering the head in light and shadow. Begin with the basic planes (top, left), and study them until they are fixed in your mind. Then take up the secondary planes. From these sets of planes almost any head can be built. The surface varies with the individual character, but with the planes shown here you can produce a well-proportioned, manly head.
PLATE 10. Tilting the head

Planes help us to maintain construction throughout the face and head, within the construction lines or divisions of the basic ball and plane. The muzzle becomes easier to draw in all sorts of tilted positions. The slant of the cheeks and the rounded rectangle of the forehead fall into place within the three divisions of the face. By thus representing the head in block form, we determine the angles throughout the head. This is our first step toward the perspective of the head.
PLATE 11. Perspective in drawing the head

The handling of perspective marks the difference between the amateur and the professional. Every object drawn has to have an eye level or horizon, felt if not actually represented. On the left we see the planes of the head as seen from above or below the eye level. If a head were as big as a building it would be affected by perspective in the same way as a building is.
PLATE 12. Variety in spacing creates types

In order to create differences in type and character, we may decide not to follow the basic measurements or divisions too meticulously. By varying the proportions of the three divisions of the face, we come up with a good deal of variety in the results. There are thousands of possible combinations. It is fun to experiment with them.
Always build on the middle line

Always remember when drawing a head to balance the forms on both sides of the middle line. The bony parts stay fixed, and the expression fits in between. All the jaw can do is open and close. The expression lies in the eyes, cheeks, and mouth, with some wrinkling of the forehead and around the eyes. What we do on one side, we must do on the other.
PLATE 14. Creating any desired type

There is no reason why you can't take all the liberties you wish with the ball and plane. The variety of types mentioned in the early part of the book are drawn simply by building an understructure that is wide, square, long, narrow, or anything you wish. You have the basis of construction, so now just try some variations.
PLATE 15. Types are built by varying the ball and the plane

Look about among the people you know and those you see around you. Study them with a new understanding. See the combinations created by nature. Look from hairline to brow, then at the middle area from brow to bottom of nose, and finally to the bottom of the chin. Look down the middle line of a face; study what you see on each side.
Once you know how the lines of construction are set up in a head, you can quickly analyze faces and skulls. Always look first for the bony shapes, and the location of the features. Then look for the flesh formations in the cheeks, around the mouth, and around the eyes. Such formations can be easily indicated. See if the cheekbones are prominent and accented by shadow shapes under them. Look at the nose and the formation of the nostrils, the lips, and the creases between the lips and cheeks. Follow the shapes down into the chin and along the jaw line. These general characteristics, along with the whole shape of the head, are more important than a photographic delineation of each square inch of surface. Older people are more interesting than the young for this sort of study, since the characteristics have had a chance to develop.
PLATE 17. Rhythmic lines in the head

It is interesting to search for the rhythmic lines in faces. You will find rounded or curved lines in opposition to angular and blocky lines. The blocky treatment helps to get away from the tight photographic approach. Then the head looks drawn, not traced. There is charm in curves but square forms have weight and solidity. You can produce happy results by combining the two instead of merely copying every wavering of every edge in exact outline. In this way you set a feeling of design, and at the same time render solid form.
The standard proportions for a man's head are worked out here for the front view and the side view. The scale may easily be memorized. The head is three and one-half (optional) units high, nearly three units wide (to include the ears), and three and one-half units from tip of nose to the back of the head. The three units divide the face into forehead, nose, and jaw. Ears, nose to brow, lips and chin are each one unit. So you may start in this way to draw a head in any size you wish, using your own unit of measurement.
PLATE 19. Drawing the head in units
Here you see how the scale works out in practice. The circle represents the ball, and the width is the width of the head, including the ears. We find that the face is about two units wide and that the eyes fall between the middle halves or at the quarter points of the two units (see upper right). This coincides with the divisions of the ball and plane with which you are already familiar.
above the brows also wrinkle the forehead, since they are contracting beneath the flesh, but are also attached to the flesh.

There are two small "wrinkle muscles" at the point of the chin. The depression between these muscles may account for a dimple in the middle of the chin. They also cause the chin to buckle into little bumps in some expressions.

PLATE 20. Anatomy of the head

When you are studying the muscles of the face, get in front of a mirror and give them a good working over. From that and from these drawings you will learn a great deal about expression and the why of it.

Give some consideration to the muscles of the neck, for you usually have to draw a head on a neck. The two diagonally placed muscles that turn the head are attached to the skull just behind the ears at the top, and to the breastbone, which lies between the two collarbones, at the bottom. Two strong muscles attached to the back of the head underneath the back of the skull hold the head up or tip it backward. The head drops forward mostly of its own weight.

To know these muscles will help you tremendously in drawing heads.
PLATE 21. How the muscles function

The drawings here, though not very pleasant, are important to the artist if he intends to give his characters expression. The smile is most important in commercial art and advertising. In illustrating fiction you may have to draw an angry face occasionally but the great majority of the faces you will draw are pleasant ones. However, it is much easier to draw a "dead-pan" face than a very happy one. What we want to do is to keep the face that should reflect happiness from appearing as dead-pan or even leering. So study this page well.
PLATE 22. The muscles from various angles

After you have learned the muscles of the head, try placing them within the head in various poses. Tip and turn the head and line up the muscles to balance on each side of the middle line of the face. You will be surprised to see how easily they will begin to fall into place within the construction plan you have already learned.
The lips and jaw can hardly be drawn convincingly without an understanding of the muzzle and how it works. Beginners draw the mouth as if it lay on a flat plane. The curve of the teeth in the rounded jaw must be considered, and the fullness of the lips themselves must be felt.
PLATE 24. Mechanics of the eyes
PLATE 25. Movement of the lips
PLATE 26. Construction of the nose and the ears

The appearance of the nose and of the ears is affected by the point of view from which they are drawn. The real problem is much more one of setting them into the construction of the head in their correct positions than one of drawing the actual details themselves. Noses and ears vary widely in shape but not a great deal in basic construction. The nostrils should be set evenly on the line running from the base of the nose to the base of the ear. It is good practice to draw noses and ears from every angle until you are completely familiar with their placement in any pose of the head.
PLATE 27. Expression—the laugh
PLATE 28. Various expressions
PLATE 30. Analysis of facial markings

It is not difficult to memorize the size, shape, and placement of the muscles of the face. If you do this, you will thereafter always be able to identify the lines, humps, and bumps in the face. Older people are better than young ones as sources for this information, since the older one gets the more lines and wrinkles develop. We can learn to separate the small wrinkles from the facial lines. The small wrinkles are associated with the shrinkage of the flesh between the muscles, whereas the lines are associated with the edges of the muscles themselves. The small wrinkles of the flesh are seldom drawn or painted since they eventually make a network of wrinkles over the whole face. More important are the forms, and the large creases or lines between them. These are the long creases of the cheeks, those around the mouth, and those over and under the eyes. The muscles are quite pronounced in the male head. When we speak of a strong face, we are speaking mainly of muscle and bone structure.

Only in expressions with raised eyebrows need we worry about wrinkles in the forehead. We can safely leave out most of the wrinkles most of the time and concentrate mainly on the lines, the bones, and the soft forms of the flesh beneath the surface. It is a safe bet that the more wrinkles you eliminate, the better your drawing will be liked. Remember that wrinkles are never black lines on the actual face, but very delicate lines of shadow which can be seen only a few feet away. That is why we can so easily eliminate them and still get a likeness. The deeper creases are evident for some distance, as are the shadows of the planes of the head. Never draw a face as a map or network of wrinkles.
You can easily learn to age a face by adding the forms of the emaciating muscles and the creases that fall between them. The cheekbones, the corners of the jaw, and the bone of the chin become more evident in the aging process. The cartilages of the nose and ears seem to get larger as we get older. The chief change takes place in the cheeks and around the eyes and mouth. The flesh sags at the sides of the chin and along the sides of the jaw. Pouches form under the eyes, and deeper lines at the corners of the eyes. The lips tend to get thinner and move inward, so that more of a straight line between the lips is produced. The lines develop from the corners of the mouth down around the sides of the chin. The flesh above the eyelids droops and the brows seem to drop inward toward the bridge of the nose. A few deeper lines develop across the forehead and between the brows. These can be subordinated, to avoid overemphasizing them. The hair, of course, thins out in varying degrees, so that the hairline moves up and back and there is considerable thinning of the hair at the top of the head. However, we draw the head from the same basic construction.
As a basis for learning to show light on form, turn to Plate 9 and make a drawing of the planes of the head as shown there. It will help you a great deal with the material to follow. Let us understand that we can depict solid form only as it appears in light, halftone, and shadow. The shadows get darker as the form turns away from the light. A single light is always simple to draw, for more than one light cuts up the shadow tones, making everything more complicated. Think now in terms of flat areas in varying tones, and forget surface wrinkles entirely.

PLATE 32. Modeling the planes
PLATE 33. Combining anatomy, construction, and planes

This page is one of the most important in the book, since it shows the stages of drawing a head from the anatomy and construction, through the outline, to the planes and the final completion of the drawing. It would be impossible to follow without considerable study of the preceding information, not in order to copy this head, but to draw one yourself. Study this page carefully; you will find it invaluable for reference.
PLATE 34, Building tone with planes

This page shows how the planes may be treated as straight flat surfaces, each carrying its own value between light and dark. The very light planes should have very little tone and be treated very delicately. By directing the stroke, you can make the plane turn without changing the value more than slightly. You get more solidity if you make all the planes in the light a little lighter than they appear, and those in the shadow a little darker.
PLATE 35. Every head is a separate problem

Every head is an individual assemblage of shapes, lines, and spaces. Because of the variations of skulls and features, together with variations of spacing, millions of combinations occur. Forget every other face and concentrate on the one you are drawing. Accent the individual forms wherever you can. Start drawing real people, and collect clippings and photographs to practice from. Don’t be tempted to trace; just draw.
The character in a head is the result of the individual bones and muscles, as they are shown by careful construction and spacing. But the beauty of a drawing will always be in the way you use line and tone and the interpretation of light and shadow on the forms. You may experiment in your own way and develop your own approach and technique. Sometimes an unfinished study is more attractive than the completely executed drawing.
PLATE 37. Smiling men

Smiles that radiate happiness are difficult for any artist. They are much easier to render in an outline drawing than a tonal drawing. If your drawing of heads must provide an income you will do well to practice drawing smiles from clippings, since a model can rarely hold a genuine smile for very long. Study particularly the forms around the corners of the mouth, and the forms of the cheeks.
PLATE 38. Older men

The faces of older men give the artist more to "get hold of" in the way of forms and lines. Note, however, that in the faces on this page most of the surface wrinkles have been eliminated and only the main lines and forms stated. The impression of age is maintained without the incidental and insignificant wrinkles.
Here construction, lighting, and expression are combined. This is characterization, the way a face looks at a given moment. Expression is really no more than a distortion of the relaxed forms of the face. Such distortion causes movement in the muscles below and consequent change on the surface. Therefore it is important to know how those muscles move (see Plate 21).
Part Two: Women’s Heads
PLATE 40. Constructing the female head

The over-all proportions of the female head vary only slightly from those of the male head, but the bone and muscle structure is lighter and less prominent. In commercial art feminine types with rather firm jaws seem to have more appeal than do the very rounded. Women's eyebrows are usually a little higher above the eyes than men's are. The mouth is smaller; the lips are more full and rounded, and the eyes slightly larger. Do not stress the jaw and cheek muscles.
PLATE 41. Establish the construction of each head

It is almost impossible to draw a beautiful woman unless the construction and placement of features are accurate. Keep the nostrils small and watch carefully the placement of the jaw and ears. The eyes and mouth must be in perfect placement and drawing to avoid some very strange and unpleasant results. Just now the brows are left fairly thick. A few years back they were just a thin line. Personally, I like natural-looking brows, but brows and lips, since they are so often made up, follow the trends of fashion. The same is true of hair-dos. Look for the mass effect of forms in the hair rather than the detail. Beauty of face is beauty of proportion, so learn the proportions first; then study your subject individually. The fashion magazines contain quantities of material for study, and will also keep you up to date on make-up and hair styles. Be careful not to draw flat lips. Place the highlight on the lip very accurately; if it is in the wrong place it can change the mouth and the whole expression.
PLATE 42. Bone and muscle are less apparent in women's heads.

The underlying anatomy of a girl's head is shown at the top of the page. In drawing a fairly young woman, we let very little of the anatomy show on the surface, though we must know what is underneath to make the surface convincing. At the bottom of the page a male and a female head are shown for direct comparison. Note the heavier bone and muscle construction and the more obvious planes in the male head.
PLATE 43. Charm lies in the basic drawing
PLATE 44. "Blockiness" also applies to women's heads
PLATE 46. More girls' heads
PLATE 50. The aging process

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PLATE 51. Proportions of the baby head—first year

Changes in the infant skull take place very rapidly from the moment of birth through the first year or two. It is in the infant stage that the skull takes shape. The original shape may be due to prenatal pressures and the degree of hardness of the bone. After birth the bone tends to adjust to the conditions imposed upon it, the growth of the brain, the closing of the sections of the skull at the top of the cranium, which nature left open and pliable to facilitate birth. Racial skull types are inherited, but the individual type can be purely a matter of circumstance.

In the baby the cranium is much larger in proportion to the face than it is in the adult. The face to the brows occupies about one-fourth of the whole head. This sets the eyes below the halfway point. The most convenient way to set up the baby face is in quarter points. The nose, the corners of the mouth, and the chin come much closer to falling on these points.

As the baby head develops, the face gets longer in proportion to the cranium, which has the effect of moving the eyes and brows upward in the head. Actually, the development of the lower jaw brings that downward, and the nose and upper jaw also lengthen. As a result of these changes the eyes of an adult, and even of a teen-ager, are on the middle line of the head. It is most important to know this, because the setting of the eyes in relation to the middle line across the face is the direct way to establish the age of a child. The iris is fully developed in the baby, and will never get any larger; consequently the eyes look much smaller in the adult face. However, the opening between the eyelids does widen, so that we see more of the eyeball in an adult than we do in a baby.
PLATE 52. Proportions of the baby head—second and third years

By the second and third year the eyes are about halfway up the top quarter space, which I have designated the number 1 space. The nose and mouth also appear to have moved up, and the brows now appear to be above the halfway line. Now the lips just touch the bottom of the third space. The ear has not reached the halfway line. However, the face has reached the proportions of three spaces: hairline to brow, brow to bottom of nose, bottom of nose to bottom of chin. Actually these three spaces are still condensed, and each will grow further. But they maintain their proportions to one another while growing. The ear is still well below the middle crossline. Note the line divided into thirds in the right half of the first drawing.

When drawing babies and children it seems easier to maintain four divisions than to use the three divisions of an adult face. While the actual head is much smaller, the spaces between the features are proportionately wider. The eyes are wider apart, the upper lip is longer; the space from eye to ear appears very wide. You have to struggle with these proportions in order to make a baby look like a baby and not like a little old bald man. The baby mouth is more pursed when relaxed. The upper lip rises sharply to its peak and usually protrudes. The chin is small and well under, with often a little fat under it. Babies' ears vary a great deal, some being quite small and others quite large. They are usually rounder and appear thicker in comparison to the face. Babies' brows are usually light and thin or even quite transparent. They are usually much more evident in dark-haired children. The nose is usually small and upturned, and quite rounded. The bridge of the nose is fairly round since it has not had time to develop. The cheeks are extended and full.
PLATE 53. Construction of the baby head
In drawing a very young baby, draw the ball and plane with the facial plane much shorter. Put the brows on the halfway line. Divide the face from the brows down into four parts. The eyes touch the bottom line of the top division. The nose touches the bottom line of the second division. The corners of the mouth fall on the bottom line of the third division, and the chin drops slightly below the fourth or bottom division. The ear is under the halfway line.
PLATE 54. Sketches of babies

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The magazines are full of baby pictures, and these are best to practice from, since no baby will hold still long enough for anyone who is not thoroughly familiar with baby proportions to draw from life. The best one can do is to make fast sketches. For this reason finished pictures of babies are usually drawn from photographs, as are the ones on this page.
PLATE 56. More studies of babies

As babies grow more hair, they look older, although the proportions have changed only slightly. Some babies develop long eyelashes, which, with their already large and widely spaced eyes, give a great deal of appeal. Go easy on the eyebrows; keep them delicate.
PLATE 57. Some more studies of babies

Remember to keep the bridge of the nose low and concave and the two little round nostrils rather widely spaced. Let the upper lip protrude when the baby is not smiling. Set the ears fairly low, and the chin round and well under. Keep the cheeks high and full. You will usually want to add light tone with a highlight.
PLATE 58. The four divisions of the face—third and fourth years
Part Four: Heads of Boys and Girls

I. SMALL CHILDREN
PLATE 59. Proportions of the little boy's head

In the small boy the up-and-down proportions are about the same as those in the older baby. But now the face is relatively narrower, coming well inside the square in the front view. The eyes appear smaller, because they do not grow and the face does. We can only use the large “button” eyes for very young children. The jaw and chin of the boy pictured above have started to grow, making the chin more prominent. The bridge of the nose is higher, and the nose is a little longer, almost touching the bottom of the second quarter. The lips touch the bottom line of the third quarter. At a fairly early age a full shock of hair grows. This accentuates the large cranium but keeps the face looking small and adds to the cuteness of the child. If a child has curly hair, mothers sometimes let the hair grow until it begins to look grotesque. So it is well to know where the cranium really is.

It is hard for little boys to sit still; in drawing them, as in drawing babies, practice from photographs and clippings. Note that the ear is coming up to the halfway line. Little boys' heads seem to extend far back because the neck is small and the muscles which attach to the base of the skull are not yet developed.

Notice particularly that the nostrils have grown and the upper lip appears to be somewhat shorter. The ear grows considerably during this period and the one which follows. I believe the ear is fully developed by the time the child is ten or twelve. The space from the nose to the ear still appears quite wide. Lashes are quite long. The hair grows quite well over the temples.
The proportions of the head are practically the same in little girls as in little boys. Little girls are characteristically wider at the eyes and the jaw and chin are rounder. Very often the crease of the upper lid hardly shows over the eye. All the lines of contour are usually rounder in girls. Knowing this helps you make a little face more feminine; blocky or squarish forms give a little boy a more rugged look. In little girls the forehead tends to be higher at an earlier age than in boys. Some authorities claim that certain qualities of mentality develop faster in girls than in boys. This may account for the higher, wider forehead, I cannot say. I do know that a closer hairline makes a boy look more boyish, while a larger forehead makes a little girl look more girlish. The treatment of the hair helps greatly in drawing little girls.

Care should be taken not to draw the mouth too large on a little girl’s face, or too black. This can easily give an adult look, or a theatrical effect not pleasant in children. The little girl’s neck is round and small in proportion to the head. The crease between the neck and jaw seldom runs up to the ear but points below it. It is seldom sharply defined. The forehead may easily protrude a little at the top. The planes of the face are all well rounded, but to keep your drawing from looking too smooth and photographic, you can introduce a good deal of blockiness into the hair. The ear is more delicate in structure and it comes up to the halfway line. The brows should also be kept delicate.
PLATE 61. Construction of the little boy's head
PLATE 62. Construction of the little girl’s head

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PLATE 63. Studies of little boys

Sometimes back lighting or rear top lighting is effective in combination with front lighting in drawing heads. The important thing is not to allow two lights to fall on the same surface, because this type of lighting cuts the area into crisscross shadows. Build up the hair in blocky forms.
PLATE 64. Studies of little girls

The treatment of the hair has a lot to do with the appeal of a little girl’s head. Little pigtails will probably never go out of style. Bangs also seem to be ever popular, and hair hanging loose or in curls is always in evidence. In color drawings or paintings, a bit of color in a hair ribbon is always effective.
As one progresses in the drawing of children, he becomes impressed with the distinctive character and personalities he finds. Children register as many feelings and emotions as adults, and much more freely and obviously. As we grow older we learn to hide our real emotions, sometimes too deeply. Most children are much more truly themselves than adults are.
PLATE 66. More little girls

It is much easier to show a child's expression in a drawing if we catch it first with a camera. Their changes of expression are lightning fast, and no child should be asked to hold an expression.
II. SCHOOL CHILDREN
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This section deals with children of the grammar-school age, or up to adolescence. That is the age of activity and rather gradual growth, before the spurt of growth that comes at the time of adolescence. It is also the age at which habit and character begin to be formed and to show in the face. We might also call it the age of mischief, because the energy cannot be confined to growth and overflows into physical activity.

It is most important to learn to draw children of this age with a smile—not only on the face you are drawing, but on your own face. Almost one hundred percent of children in advertising must appear as both active and happy. On the other hand, a youngster's face can be particularly beautiful in repose. Sometimes you will wish that the editors and art directors appreciated this more often. At least when a story is touching, the child may be drawn without a grin. But in advertising, especially of foods, children have to be shown going into ecstasies over the product.

Children at this age live in a world of their own. Most of the time a little revolution seems to be going on inside them, against all the authority which is heaped upon them by parents and teachers and which they are not quite old enough to understand. Try to remember your own schooldays. When asked why you did this or that, you could hardly have answered, “Because I’m getting tired of so much authority.” Sometimes adults find it hard to understand why the effect of our authority slips off so easily, and the answer can only be that there is so much of it.

While we consider this the age of learning, we are likely to forget that much learning is gained by experiment, and not all by direction. All the wonders of invention are holding themselves out for inspection by the young. If your boy takes your alarm clock apart, or strews your pet tools out by the back fence, this comes under the head of experiment without direction, and you would have a dull boy if he didn’t do a few of these things.

When drawing children, or even when photographing them, forget that you are grown up. Try hard to meet them in their own world, and draw them out. A child who is afraid of you or who shuts you out is not going to be himself, and so will not be a good model, if you are interested in conveying the spirit of childhood. That spirit lies in their faces only when they are free of authority. Watch their faces change when authority descends on them. I am not speaking against authority itself; I just mean that it does not photograph well, and resentment or sulkiness certainly does not make an attractive picture.

Since proportions have already been thoroughly discussed, you can learn from Plates 67 and 68 to apply them to the faces of school children. It is helpful to understand them, but merely to get them right is not the ultimate objective.
PLATE 67. Proportions of the schoolboy’s head

Children between eight and twelve are more difficult to draw than either very young children or adults. The character of the head is pretty well established by this time, and some children have even taken on quite an adult look. But there is a trick to indicating this age group which is quite dependable. The eyes have moved up to touch the halfway line, and the space from the hairline to the top of the head is three-fourths of a unit instead of one-half unit as it is in the adult. In the adult the halfway line cuts through the middle of the eyes and out through the outer corners, while in the child approaching teen age the whole eye is below this line. The nose is still slightly above the second quarter division in the lower half of the face. The lower lip touches the line of the third quarter division.

In boys there is notable development in the ears. The mouth loses much of the baby look. The second teeth have replaced the baby teeth and the jaw has developed to accommodate them. The nostrils develop and the cartilages of the nose spread. The bone at the bridge of the nose develops a little more slowly, so many boys retain a turned-up nose until they are well into their teens.

This is the age of freckles. It is also the age of mischief and carefree happiness, as the expressions show. The hair is unruly; the front teeth look large. While the front of the jaw develops, the rear of the jaw at the corner below the ear does not develop until later. A large square jaw does more than any other feature to give a look of maturity. If you want to keep the face young, keep the corners of the jaw rounded.
Plate 68. Proportions of the schoolgirl's head

Young girls seem to mature faster than boys as far as facial characteristics are concerned. Most girls acquire a fairly mature look quite early in their teens. As I mentioned earlier, they usually have higher foreheads, and the hairline is well up. The cheeks are rounder and there is often more space in the front view between the corners of the eyes and the edges of the face where the ears attach.

It must be remembered that here we are dealing with averages. There are always variations and exceptions. Photographs of girls ten to twelve years old often look more mature than the children actually look. Sometimes this is because we are seeing only the head and shoulders, and not the head in association with the rest of the body. In a girl of thirteen or fourteen the head is almost full grown, while the body is not.

Full lips are always appealing in the face of a young girl, and roundness rather than boniness. Girls as well as boys often have freckles at this age, but do not overdo the freckles in drawing girls.

To draw heads of children of this age group well, you will have to practice on a great many.
PLATE 69. The four divisions—schoolboys

If you plan to do advertising illustration, or are already in that field, you will find drawing growing boys and girls very remunerative. Practically all foods are advertised to mothers with growing children and the children appear in profusion in such advertising. You can practice from the heads here, or find others in the women’s magazines that offer excellent practice.
PLATE 70. The four divisions—schoolgirls

At the right, above, we have the usual quarter spacing. It is interesting and helpful to note how the diagonals cross in a young girl's head. The diagonals from the corners of the eyes through a point at the middle of the base of the nose also cut through the corners of the mouth; those from the outer ends of the brows cut through the corners of the mouth to a point at the base of the middle of the chin.
PLATE 71. Sketches of schoolboys

These heads have been left in outline since the outlines will probably be more helpful than the finished heads. There is a wideness to young faces that is more felt than measured. In drawing young people it is particularly important to trust your feelings. Once in a while a face will look older or younger than you intended no matter what you do. In that case the best thing to do is to try another subject.
PLATE 72. Sketches of schoolgirls

Draw heads in outline until you are satisfied that the age and expression look right. There is no point in adding tone to a head that does not appeal to you. The tone can only build up the forms already established. If they are wrong, tone does little to help. Sometimes a head in outline may look better than one completely finished.
PLATE 73. Proportions of the teen-ager's head

The proportions of the head in teen-agers are almost identical with adults; the difference is largely a matter of feeling. In boys the bone structure has become quite evident, though it should not be stressed as much as in men's heads. There are no noticeable lines. The flesh is firm and still inclined to smoothness. The cheeks are smooth without much definition of the muscles. The jaw has developed considerably in a short time. The bridge of the nose has taken permanent shape. As the jaw and cranium have grown, the ears appear smaller in relation to the whole head than they do in a little boy. The cartilage of the ear is now well defined; the ears have lost much of their roundness and taken on more angular lines.

The hair has moved back somewhat from the temples. The brows have definitely thickened. The lips are fully developed in size. The chin has come forward in permanent shape.

The only bone not fully developed is the corner of the jaw. This continues to develop, research shows, until the age of twenty or more. I suspect the cranium itself does not reach its maximum growth until full maturity, though further growth does not perceptibly affect the proportions of the head.
PLATE 74. Proportions of the teen-age girl's head

Sixteen is traditionally the perfect age for girls. By that time they have lost the gangliness of fast growth, and all is smooth, round, and fair. Now that girls also engage in athletics, their faces tend to show more muscle than did those of their mothers at the same age. But the predominating quality is youth—the faces are unlined, full of freshness and vigor.

These things are important in portraying young people, because the actual proportions of the face change very little from sixteen to sixty. The jaw in the girl may develop a little, but hardly enough to affect the drawing of the proportions much. That is why the artist must more or less "feel" the age he wishes to draw.

It is quite important to obtain good material to work from. Faking a drawing of a beautiful young American girl is a very difficult thing to do, until you have drawn a great many heads, and know the basic construction inside and out. I do not believe any of the outstanding artists proceed without adequate material to work from. Beauty, remember, is largely a matter of perfect proportions and perfect placement of features. The commercial illustrator will need to draw many pretty girls.
PLATE 75. Teen-age boys

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PLATE 76. Teen-age girls

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Part Five: Hands
Note the strong tendon which attaches to the heel of the hand, and how, on the back of the hand, the tendons are grouped to pull the fingers out. The operation of these tendons is marvelous, for they can operate all the fingers together from inside or outside the palm, yet can control each finger separately. The muscles which pull these tendons are located in the forearm. Fortunately for the artist, most of the tendons of the palm are buried deeply and do not show. In babies and young people, the tendons on the back of the hand are hidden, but they are much in evidence in the hands of adults and the aged.
PLATE 78. Block forms of the hand

The bones and tendons across the back of the hand are close to the surface; those around the palm and inside of the fingers are thoroughly padded. I have blocked out these pads so you can familiarize yourself with them. Note the extra thickness of the pads of the thumb muscle and the heel of the palm. At the base of each finger there is a pad. These combine to make a pad across the top of the palm. The pads of the fingers protect the bones inside. Since these pads are all pliable, they provide an even firmer grip on objects much as the pliable treads on an automobile tire grip the surface of a road. There are no pads on the top of the hand, though the pad at the outer edge on the little-finger side can take a tremendous blow, especially with the fist closed, without injury to the hand.
The next thing of importance is the curved arrangement of the fingertips and knuckles. Two fingers lie on each side of a line drawn through the middle of the palm. The tendon of the middle finger just about divides the back of the hand in half. Important also is the fact that the thumb is turned at right angles to the other fingers. The thumb operates mostly in and out from the palm, while the fingers open and close toward the palm. The knuckles of the fingers are slightly above their creases on the inside of the fingers. Note the flat curve of the knuckles across the back of the hand, with the curves getting deeper as they cross the knuckles toward the fingertips.

The middle finger is the key finger from which we determine the length of the hand. The length of this finger to its knuckle in back is slightly over half the length of the hand. The width of the palm is slightly more than that of half the hand on the inside. The first or index finger just about reaches the fingernail of the middle finger. The third finger is about equal to the index finger in length. The little finger just reaches the top knuckle of the third finger.
PLATE 80. Construction of the hand
PLATE 81: The hollow of the palm

In the drawings above, note how the hollow of the hand has been carefully defined. Also note the resulting curve of the back of the hand. Hands never look natural or capable of grasping until the artist understands this feature of the hand. All these hands look as if they could take hold of an object. The loud sound of clapping comes from the sudden compression of air between these two cups or pockets of the palms. A hand that does not look capable of clasping is badly drawn. Study your own hands.
PLATE 82. Foreshortening in drawing hands
PLATE 83. The hand in action

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PLATE 85. Drawing your own hand
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PLATE 86. The female hand

Women’s hands, like their faces, differ from those of men chiefly in having smaller bones, more delicate muscles, and generally more roundness of planes. If the middle finger is made at least half the length of the hand on the palm side it will be more graceful and will characterize the hand as feminine. Even though feminine hands are slim, they still have amazing tenacity of grip. The long fingernails, oval in shape, add charm.
PLATE 87. Tapered fingers
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PLATE 88. Make many studies of hands

There is only one sure way to learn to draw hands, and that is to draw many, many studies. With hands, more than with anything else, proper spacing is essential. You must fit the fingers onto the palm in the particular view you see before you. Hands are almost never straight and flat. Judge the spaces between the knuckles carefully. Much of the time the view will require foreshortening, as shown in Plates 82 through 85.
Babies' hands are a study in themselves. The basic difference from adults' hands is that the palm is relatively thicker in relation to the small fingers. The thumb muscle and heel of the baby hand are proportionately very powerful. Quite young babies have a grasp equal to their own weight. The knuckles across the back of the hand are buried in flesh and are indicated by dimples. The base of the hand may be entirely surrounded with creases. The heel of the hand is much thicker than the pads across the top of the palm.

PLATE 89. The baby hand
PLATE 90. Studies of baby hands

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PLATE 91. Children's hands

The child's hand is halfway between that of the baby and that of the teen-ager. This means that the thumb muscle and the heel of the hand are thicker proportionately than they are in the adult hand, but not as thick in relation to the fingers as they are in the baby hand. The fingers in relation to the palm are about the same as in the adult. The whole hand is smaller, a little fatter, and more dimpled, and the knuckles are of course smoother.
PLATE 92. The proportions remain fairly constant

At grammar-school age there is very little difference between the hand of a boy and that of a girl but at adolescence there is a big change. The boy's hand is much larger and sturdier, showing development of bone and muscle. The girl's hand never develops the big knuckles of the boy's, since the bones stay smaller. The heel of the hand develops in the boy, but stays much softer and slimmer in the girl. In the boy's hand the fingernails as well as the fingers are slightly broader.
Once you have mastered the construction of hands, old people's hands are a delight to draw. Actually, they are easier than young people's, since the anatomy and construction are more obvious and show clearly on the surface. While the basic construction is the same, the fingers get thicker, the joints larger, and the knuckles protrude. The skin becomes wrinkled, but this need not be emphasized except in a close-up view.