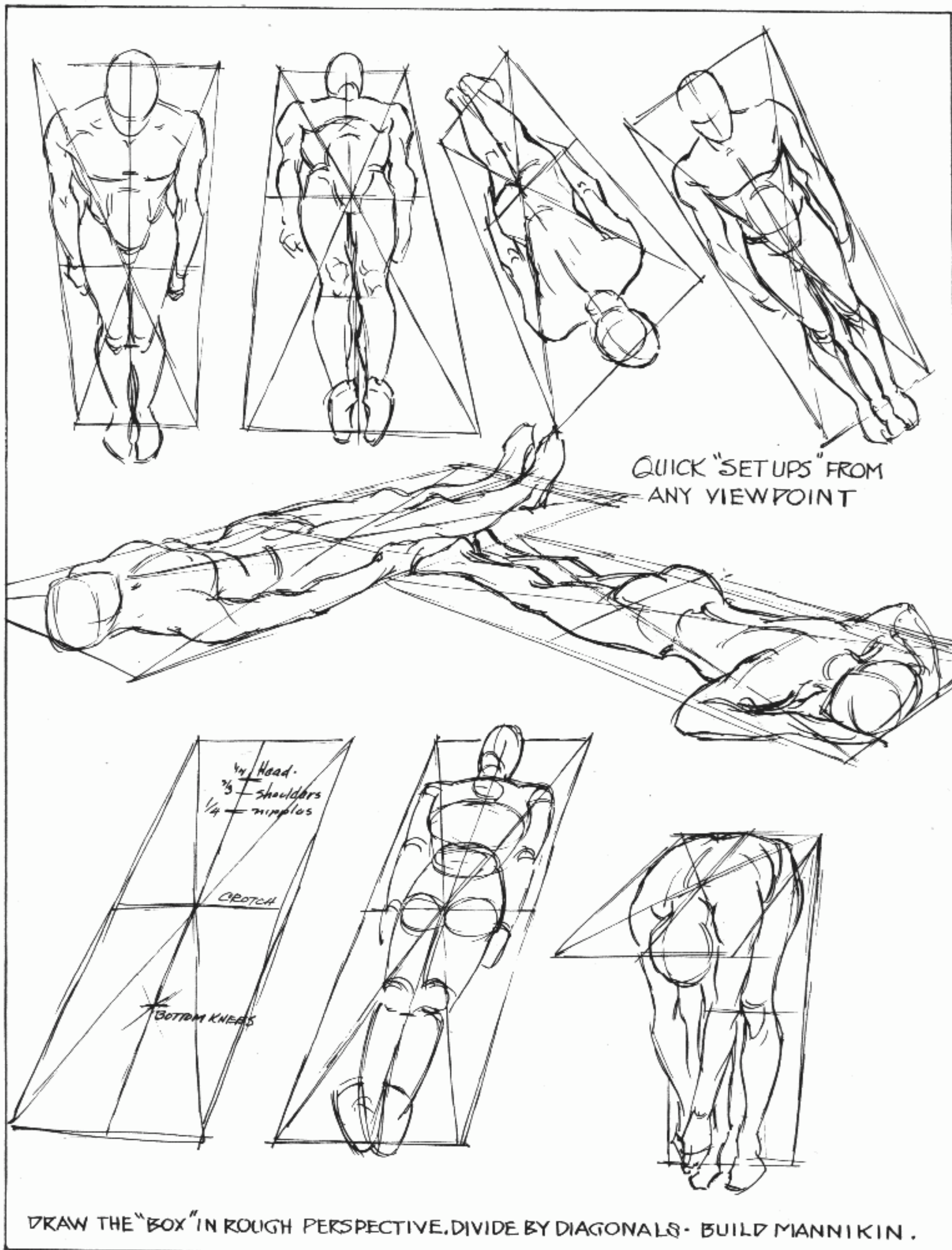
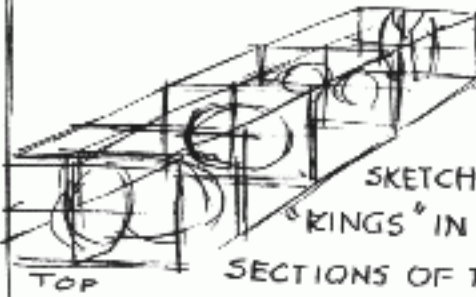
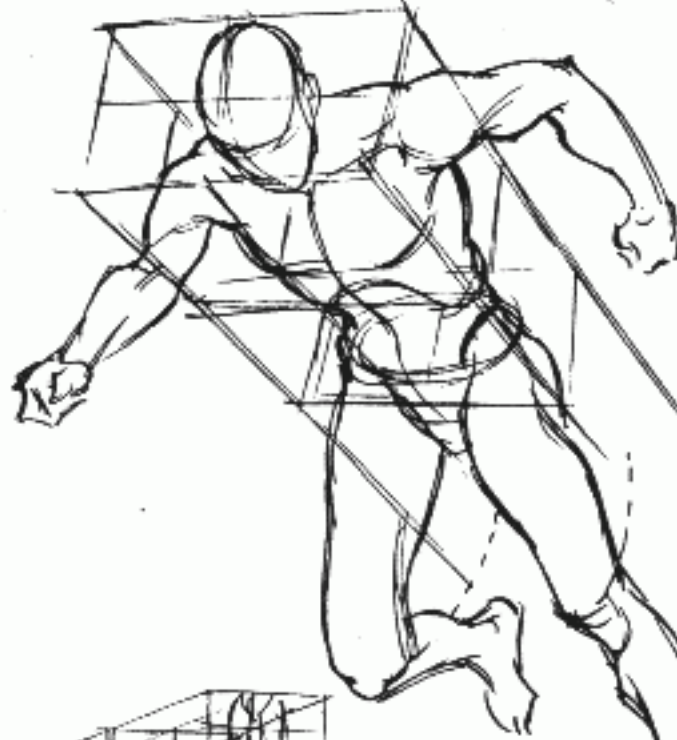
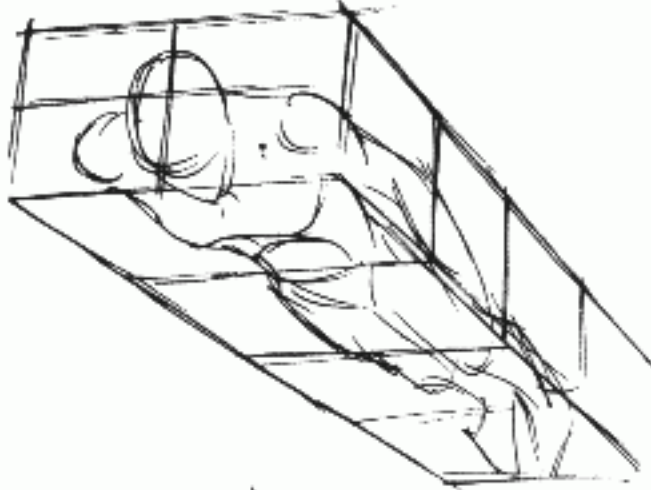


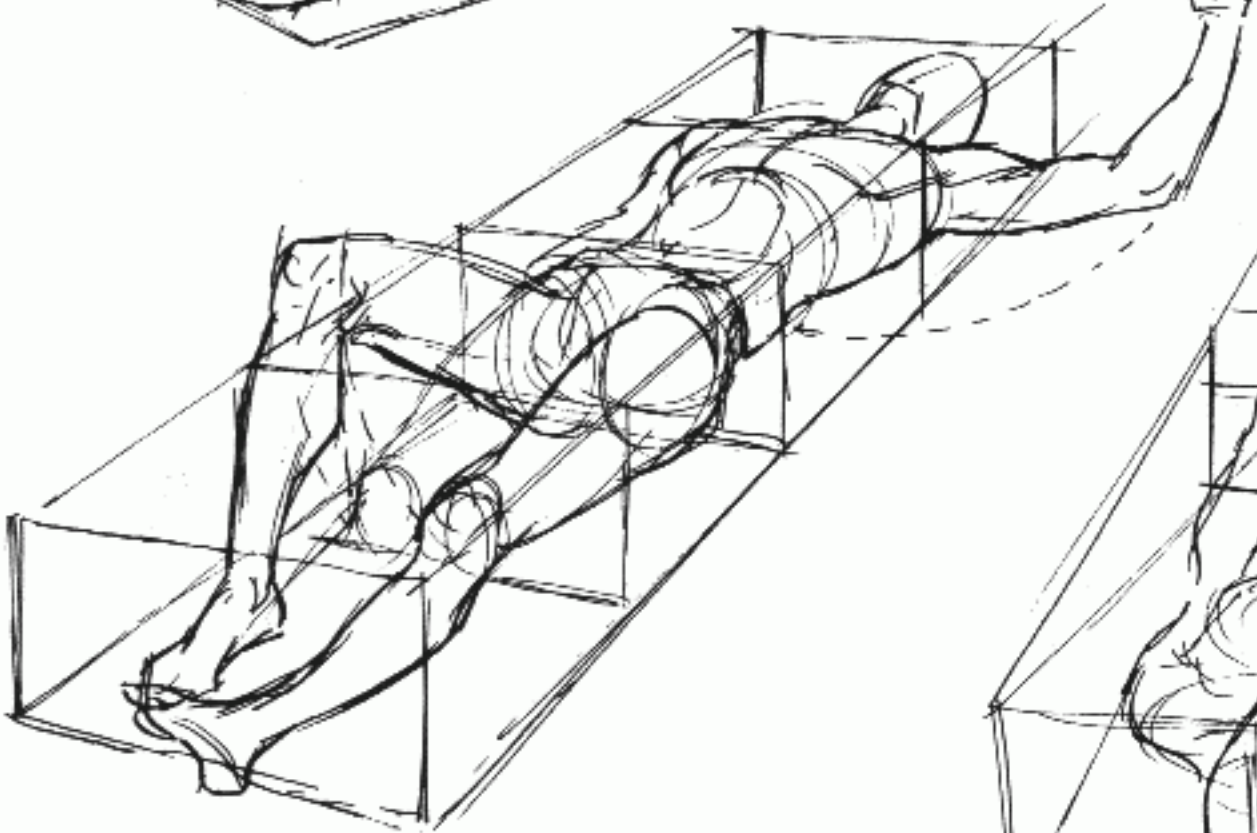
DRAWING THE MANNIKIN FROM ANY VIEWPOINT



COMBINING ARCS OF MOVEMENT WITH THE BOX



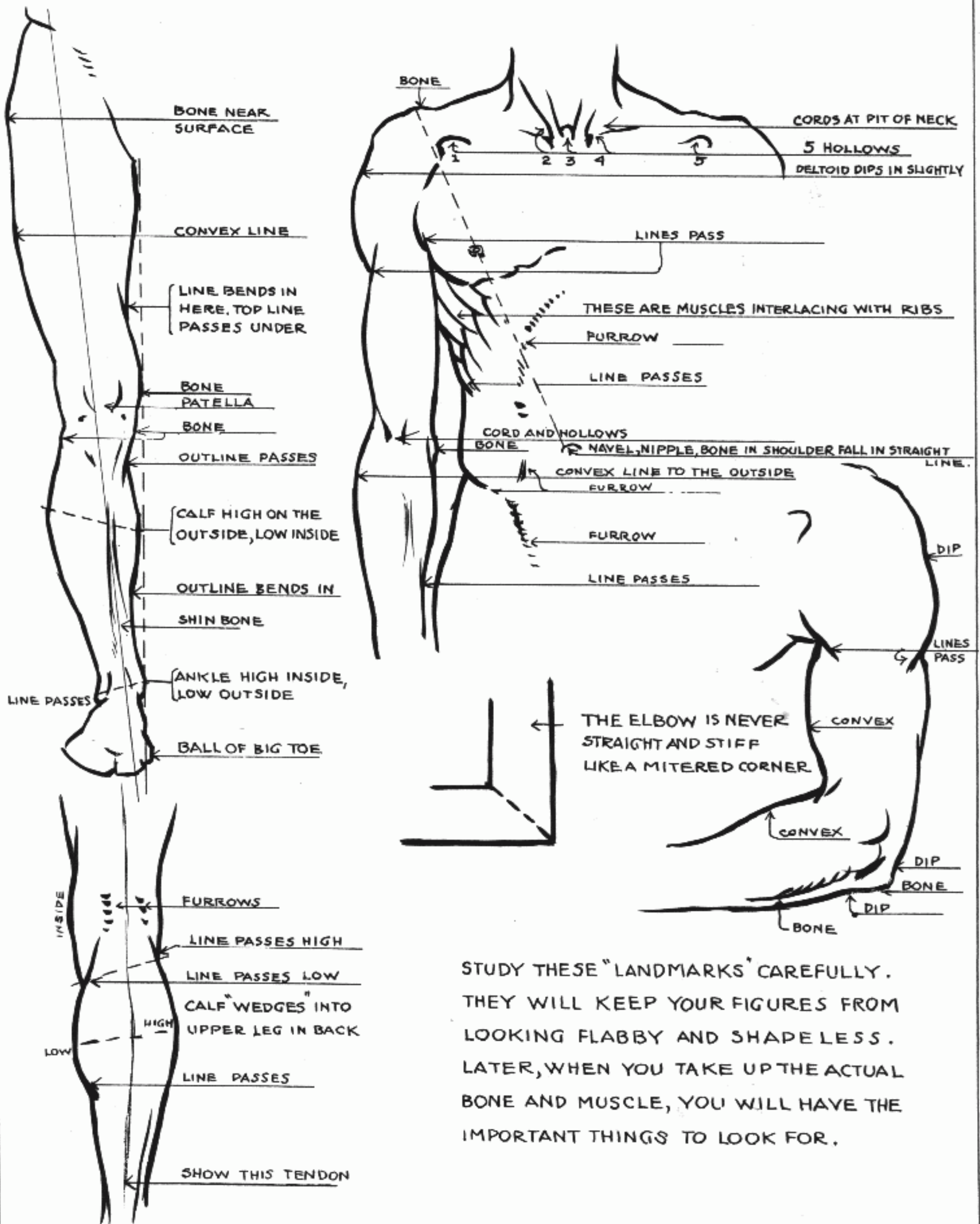
SKETCH YOUR
"KINGS" IN THE 4
SECTIONS OF THE BOX.



THINK IN TERMS OF THE SOLID.

LANDMARKS YOU SHOULD KNOW

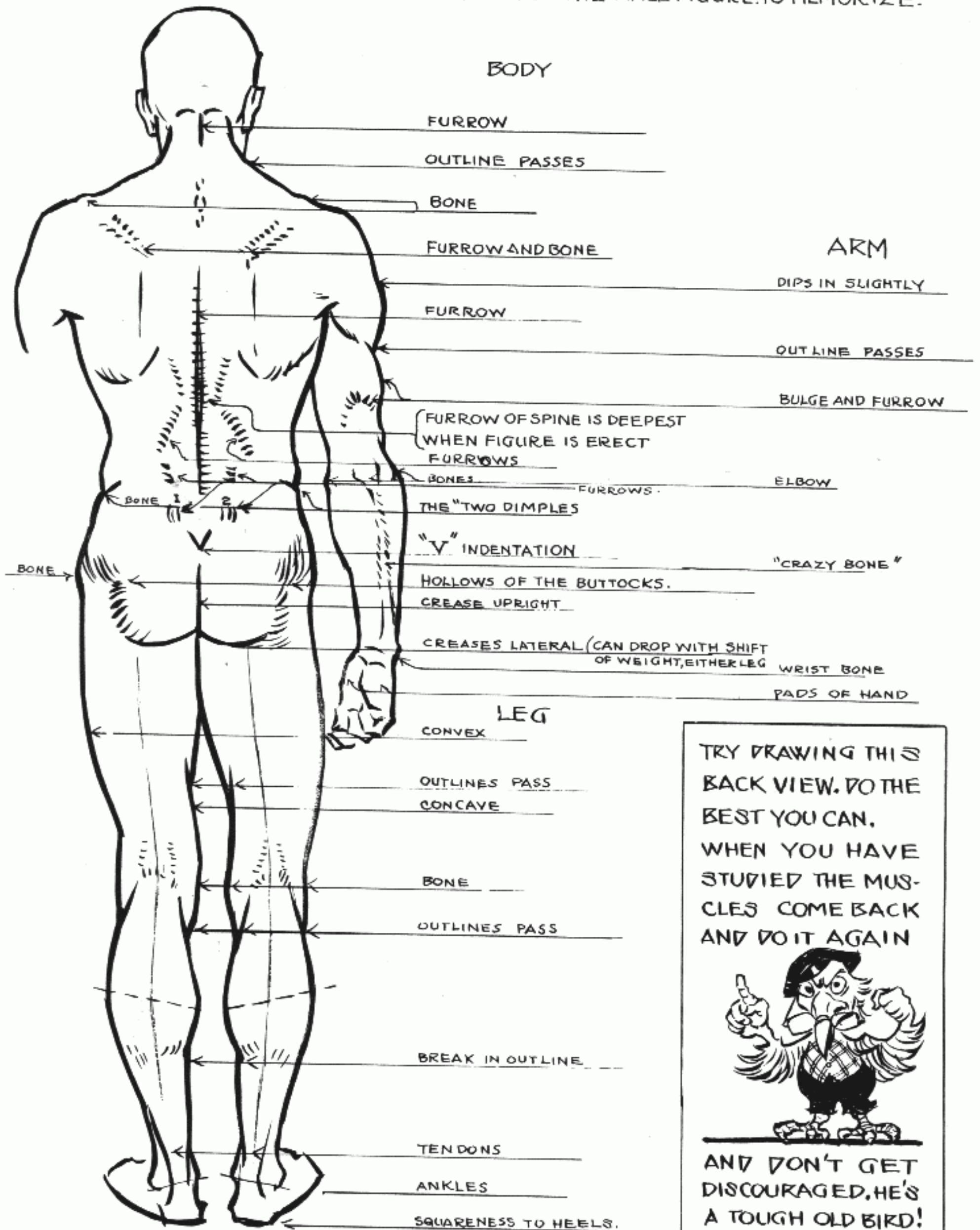
SURFACE CHARACTERISTICS THAT GIVE "PUNCH" TO THE FIGURE DRAWN WITHOUT A MODEL



STUDY THESE "LANDMARKS" CAREFULLY. THEY WILL KEEP YOUR FIGURES FROM LOOKING FLABBY AND SHAPELESS. LATER, WHEN YOU TAKE UP THE ACTUAL BONE AND MUSCLE, YOU WILL HAVE THE IMPORTANT THINGS TO LOOK FOR.

LANDMARKS YOU SHOULD KNOW

SURFACE CHARACTERISTICS ON THE BACK OF THE MALE FIGURE. TO MEMORIZE.

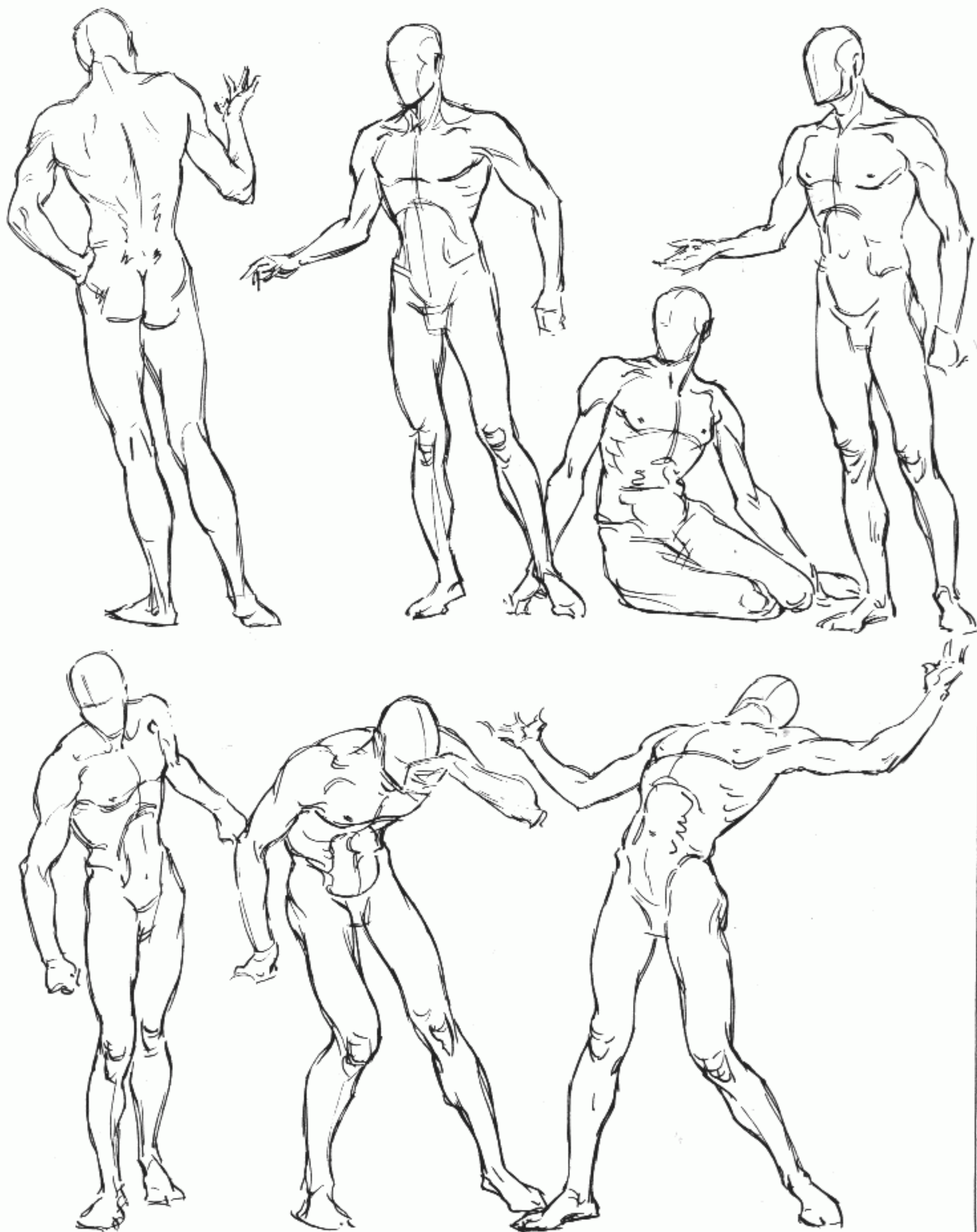


TRY DRAWING THIS BACK VIEW. DO THE BEST YOU CAN. WHEN YOU HAVE STUDIED THE MUSCLES COME BACK AND DO IT AGAIN



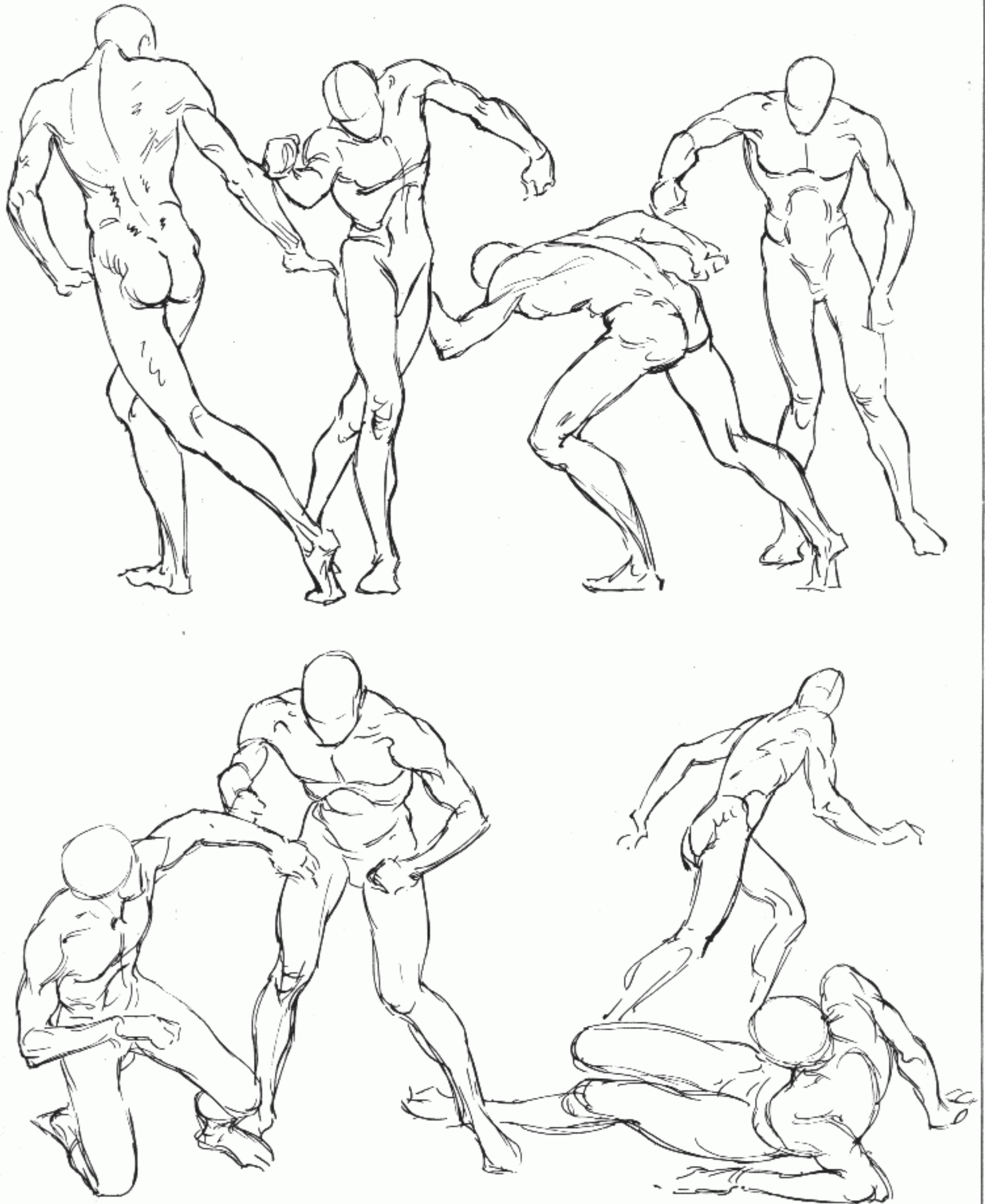
AND DON'T GET DISCOURAGED. HE'S A TOUGH OLD BIRD!

SKETCHING THE FIGURE IN ACTION FROM IMAGINATION



LEARNING TO "FEEL" AND SET UP THE FIGURE IN ACTION IS NOT AS DIFFICULT AS IT LOOKS

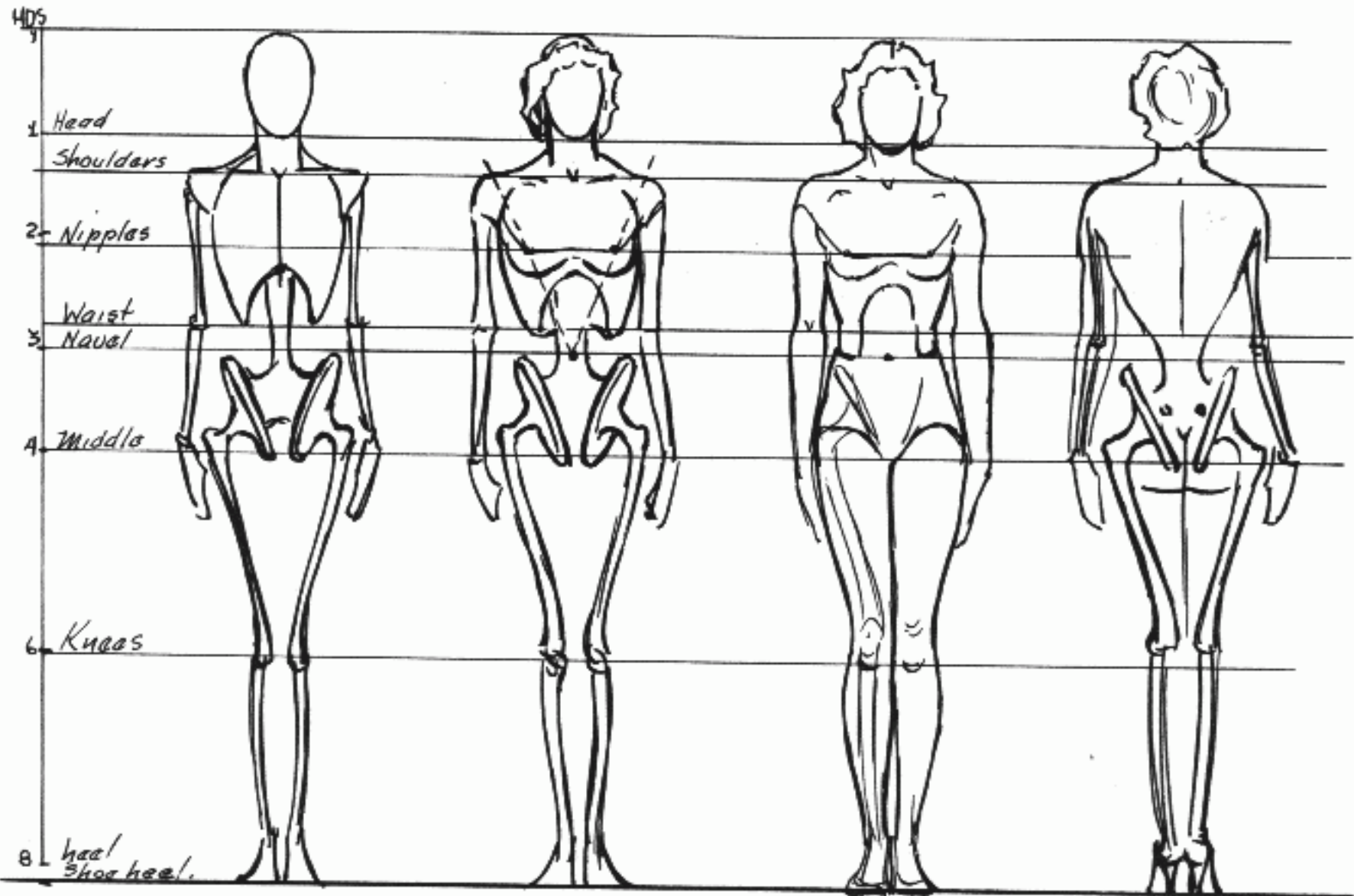
DRAW SOME OF THESE, BUT DRAW MANY OF YOUR OWN



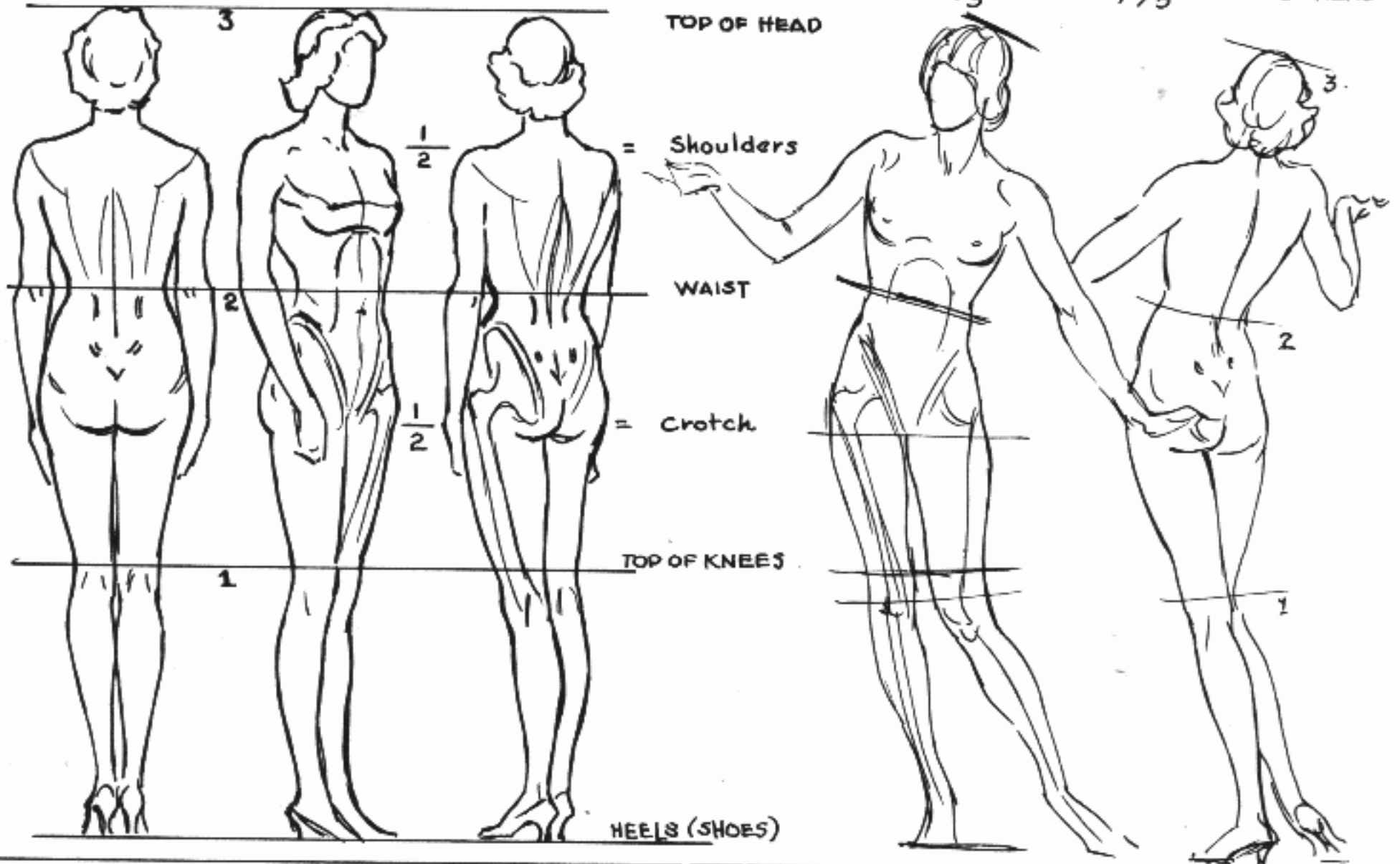
KEEP YOUR DRAWINGS FREE AND SKETCHY. DRAW MANY FIGURES AT VARIOUS EYE LEVELS.

THE FEMALE MANNIKIN

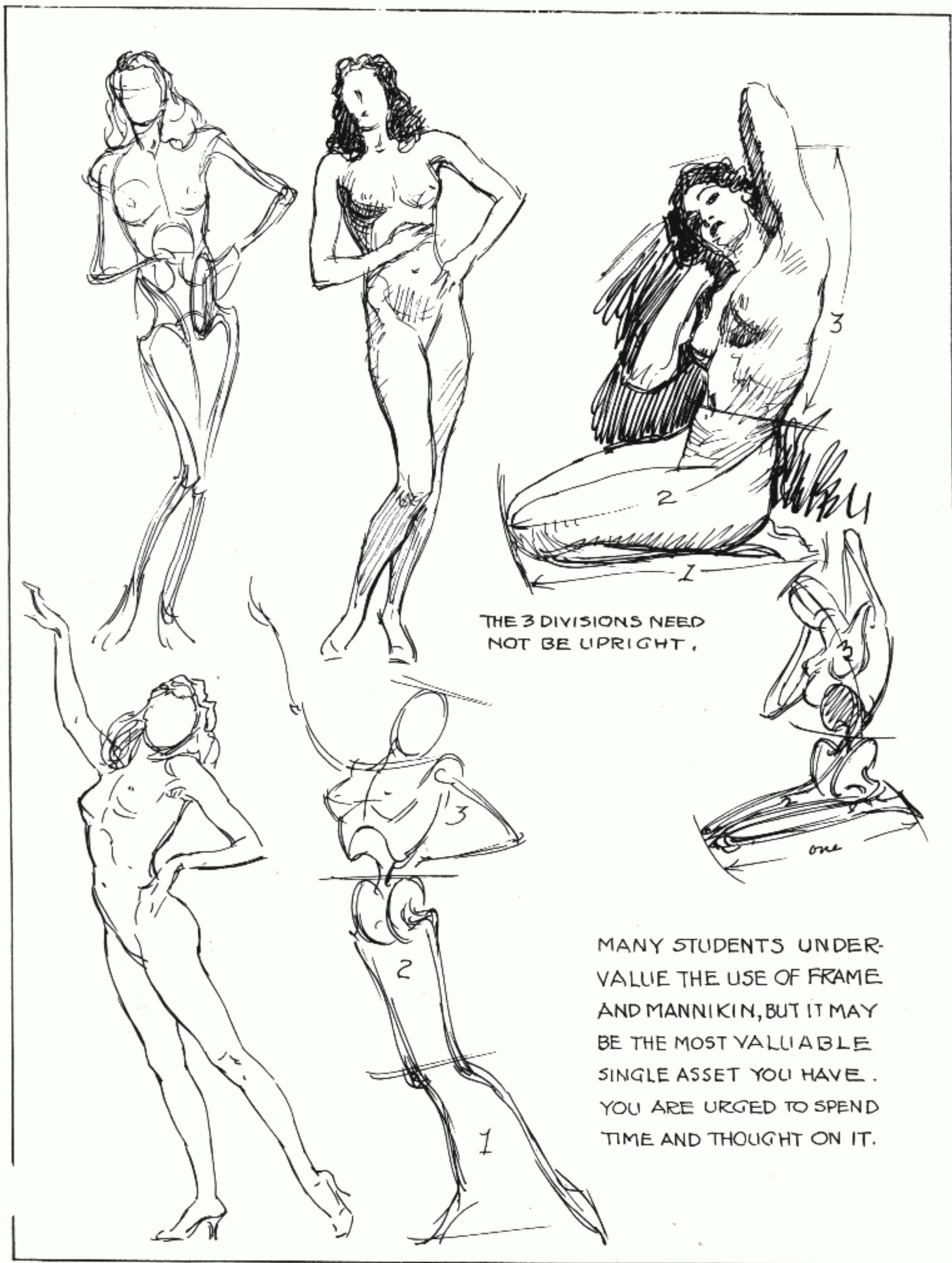
THE MAIN DIFFERENCE BETWEEN THE MALE AND FEMALE MANNIKIN IS IN THE PELVIS (DISCS). THE HIP BONES COME UP TO THE LINE OF THE NAVEL (MALE, THEY ARE TWO OR THREE INCHES BELOW). THE FEMALE WAISTLINE IS ABOVE THE NAVEL, THE MALE AT OR JUST BELOW. FEMALE RIB CASE IS SMALLER, PELVIS WIDER AND DEEPER, SHOULDERS NARROWER. CAPE DROPS IN FRONT TO INCLUDE BREASTS.



A SIMPLE WAY OF GETTING FEMALE PROPORTIONS-TAKE $\frac{1}{3}$ TO KNEES- $\frac{2}{5}$ TO WAIST, $\frac{3}{3}$ TO TOP OF HEAD.



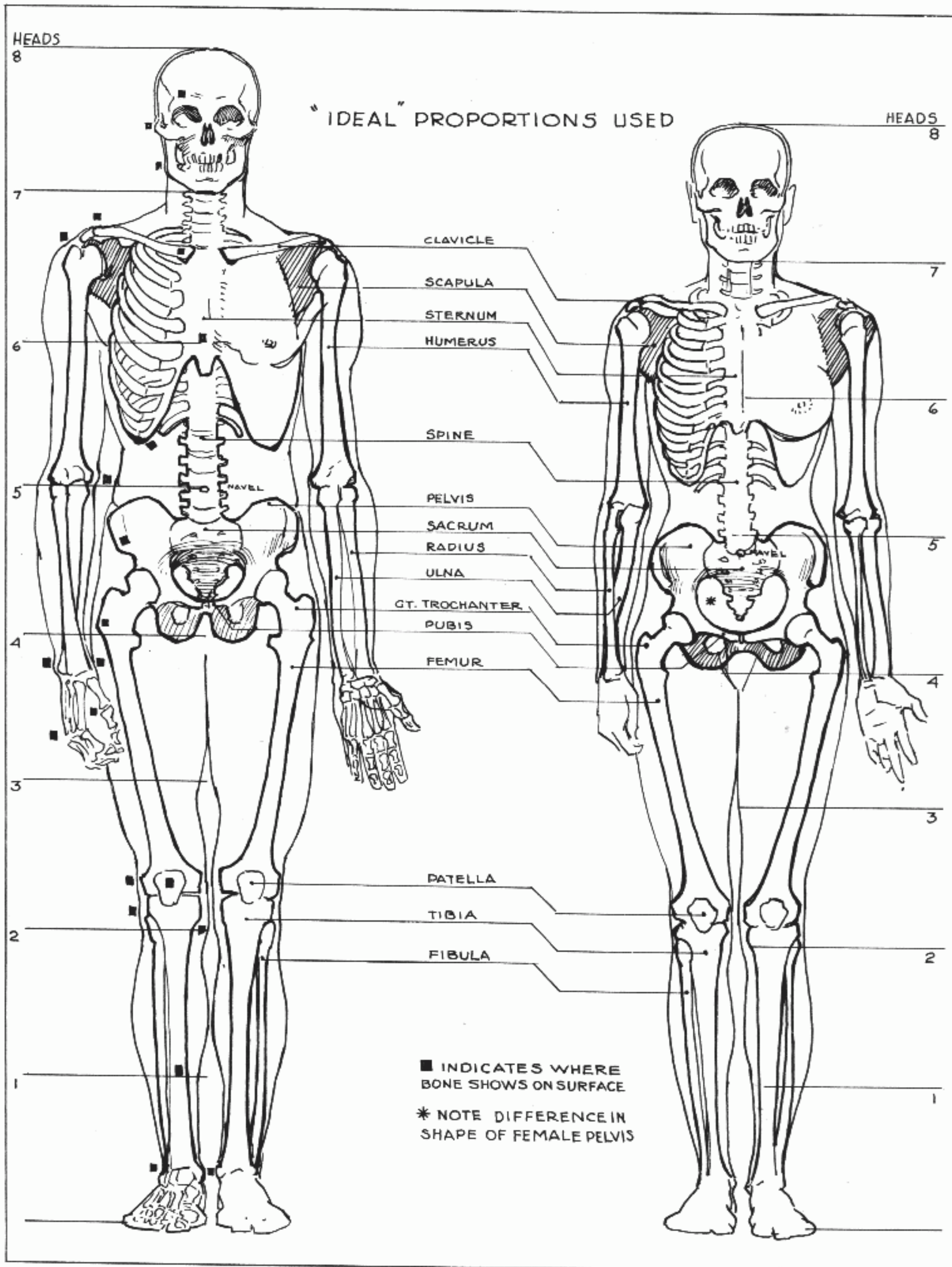
SKETCHES



THE 3 DIVISIONS NEED NOT BE UPRIGHT.

MANY STUDENTS UNDER-VALUE THE USE OF FRAME AND MANNIKIN, BUT IT MAY BE THE MOST VALUABLE SINGLE ASSET YOU HAVE. YOU ARE URGED TO SPEND TIME AND THOUGHT ON IT.

THE MALE AND FEMALE SKELETONS



II. THE BONES AND MUSCLES

The further you go in the study of anatomy, the more interesting it becomes. Made of soft and pliable material, elastic yet strong, capable of unlimited movement and of performing countless tasks, operating on self-generated power, and repairing or renewing itself over a period of time in which the strongest of steel parts would wear out—the human body is indeed an engineering miracle.

On the opposite page the male and female skeletons have been set up. I have kept the head units alongside so that you may relate the bones to the figure in correct proportion.

The skeleton, though strong, is really not so rigid as it appears. Though the spine has a rigid base in the pelvis, it possesses great flexibility; and the ribs, too, though they are fastened firmly into the spine, are flexible. All the bones are held together and upright by cartilage and muscle, and the joints operate on a ball-and-socket plan with a "stop" for stability. The whole structure collapses with a loss of consciousness.

Strain upon the muscles can usually be transferred to the bony structure. The weight of a heavy load, for example, is largely taken over by the bones, leaving the muscles free to propel the limbs. Bones also form a protection to delicate organs and parts. The skull protects the eyes, the brain, and the delicate inner parts of the throat. The ribs and pelvis protect the heart, lungs, and other organs. Where protection is most needed, the bone comes closest to the surface.

It is very important for the artist to know that no bone is perfectly straight. An arm or a leg drawn with a perfectly straight bone will be rigid and stiff-looking. Curvature in the bones has much to do with the rhythm and action of a figure. It helps make it appear alive.

The chief differences between the male and

female skeletons are the proportionately larger pelvis in the female and the proportionately larger thorax, or rib case, in the male. These differences account for the wider shoulders and narrower hips of the male; the longer waistline, lower buttocks, and wider hips of the female. They also cause the female arms to flare out wider when they are swinging back and forth and the femur, or thigh bone, to be a little more oblique. The hair and breasts, of course, distinguish the female figure, but they are merely its most obvious characteristics. The female is different from head to toe. The jaw is less developed. The neck is more slender. The hands are smaller and much more delicate. The muscles of the arms are smaller and much less in evidence. The waistline is higher. The great trochanter of the femur extends out farther; the buttocks are fuller, rounder, and lower. The thighs are flatter and wider. The calf is much less developed. The ankles and wrists are smaller. The feet are smaller and more arched. The muscles, in general, are less prominent, more straplike—all but those of the thighs and buttocks, which are proportionately larger and stronger in the female. This extra strength is, like the larger pelvis, designed to carry the extra burden of the unborn child. Concentrate upon these fundamental differences until you can set up an unmistakable male or female figure at will.

Note the black squares on the male skeleton. These are bony prominences where the bones are so near the surface that they affect the contour. When the body becomes fat, these spots become dimples or recessions in the surface. In thin or aged figures, these bones protrude.

Working from life or photographs will not eliminate the necessity of knowing anatomy and proportion. You should recognize what the

REQUIREMENTS OF SUCCESSFUL FIGURE DRAWING

humps and bumps are—and why they are there. Otherwise your drawing will have the look of inflated rubber, or a wax department-store dummy. The final work on any commission of importance should be drawn from a model or good copy of some kind, since it must compete with the work of men who use models and good copy. Most artists own and operate a camera as a help. But it will not do the whole job. Outlines traced from a photograph, because of the exaggerated foreshortening by the lenses, have a wide and dumpy look. Limbs look short and heavy. Hands and feet appear too large. If these distortions are not corrected, your drawing will simply look photographic.

It might be well to mention here some of the requirements of successful figure drawing. The “smart” female figure has some mannish contours. The shoulders are drawn a little wider than normal, without much slope, the hips a little narrower. The thighs and legs are made longer and more slender, with tapering calves. When the legs are together, they should touch at the thigh, knee, and ankle. The knees should be small. The leg is elongated from the knee down with small ankles. It is merely a waste of time to show an art director a figure that looks large-headed, narrow-shouldered, short-armed or -legged, wide-hipped, short, fat, dumpy, or pudgy. But a figure may be actually bony and unusually tall and still please a fashion editor.

Slimness in figure drawing has become almost a cult. What the artists of the Middle Ages considered voluptuous appeal would be plain fat today. Nothing will kill a sale so quickly as fatness or shortness. (It is a curious fact that short people are apt to draw short figures. A man with a short wife will tend to draw short women.) If my figures seem absurdly tall, remember that I am giving you the conception accepted as a standard. They will not look too tall to the art buyer. In fact, some of my figures here are even

shorter than I would instinctively draw them.

The essence of successful male figure drawing is that it be kept masculine—plenty of bone and muscle. The face should be lean, the cheeks slightly hollowed, the eyebrows fairly thick (never in a thin line), the mouth full, the chin prominent and well defined. The figure is, of course, wide shouldered and at least six feet (eight or more heads) tall. Unfortunately, it is not easy to find these lean-faced, hard-muscled male models. They are usually at harder work.

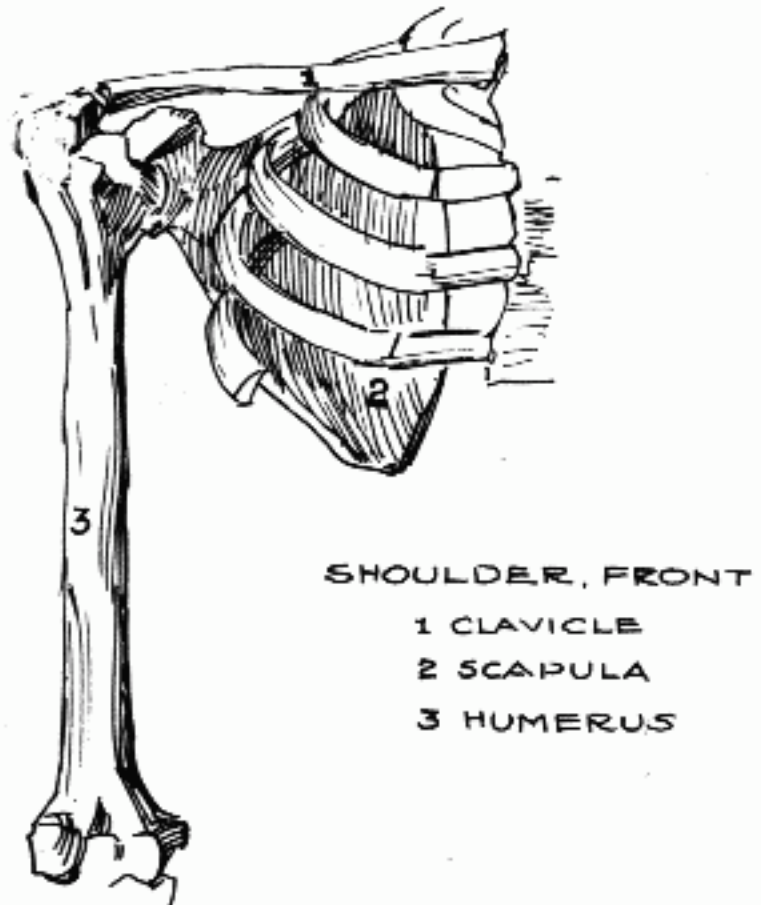
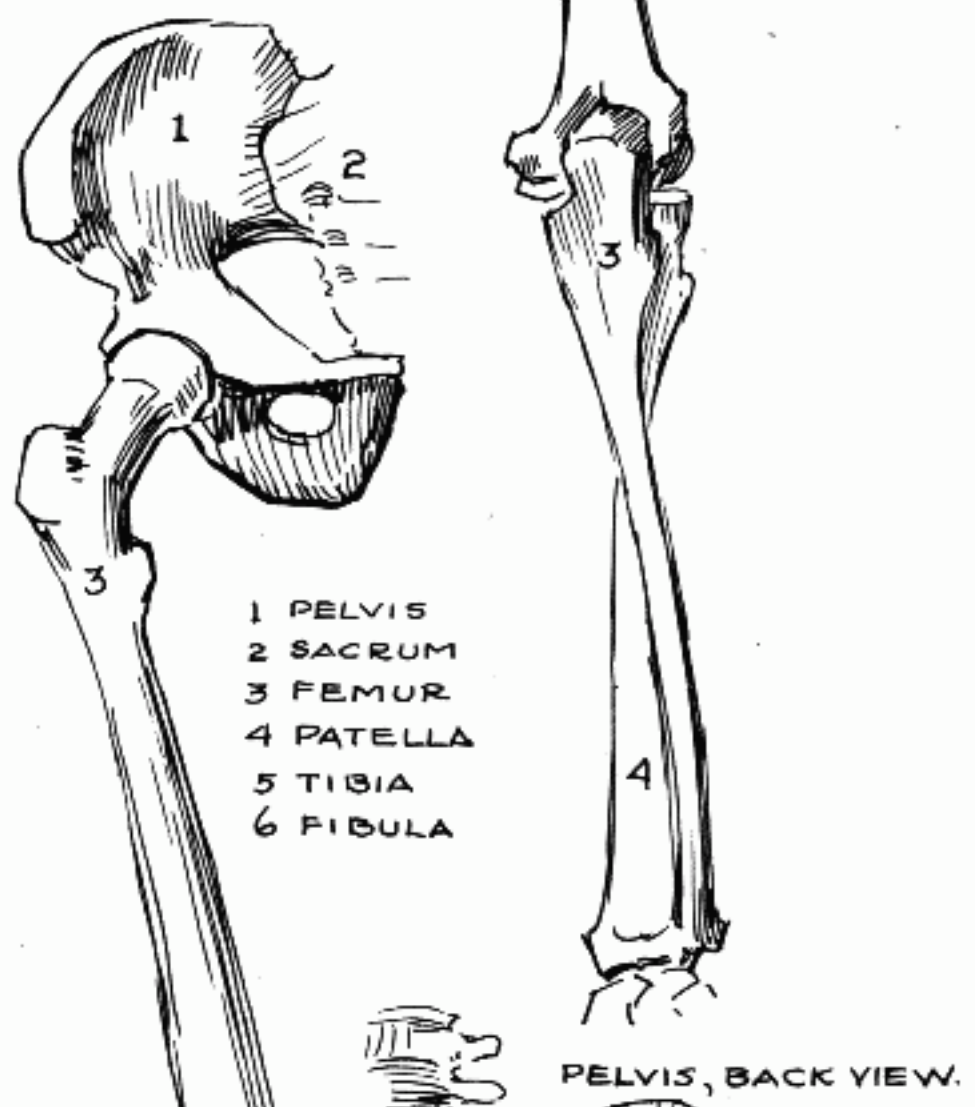
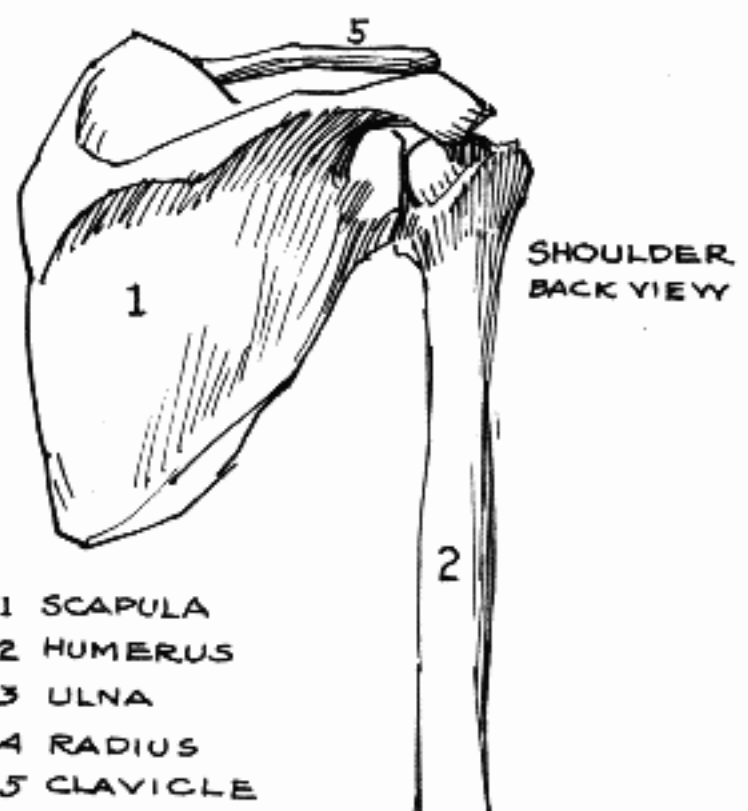
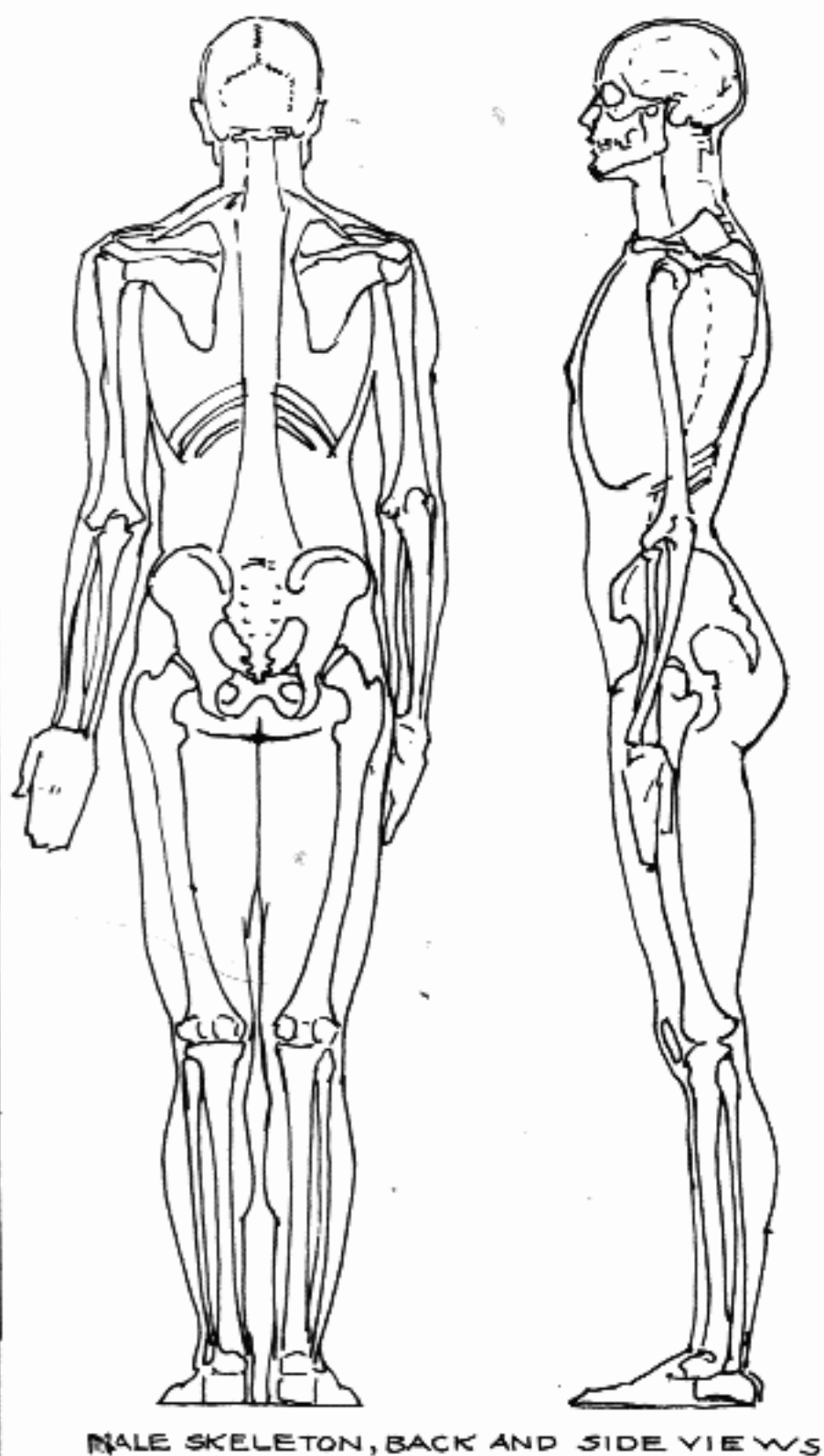
Children should be drawn fairly close to the scale of proportions given in this book. Babies obviously should be plump, dimpled, and healthy. Special study should be given to the folds and creases at the neck, wrists, and ankles. The cheeks are full and round, the chin is well under. The upper lip protrudes somewhat. The nose is round and small and concave at the bridge. The ears are small, thick, and round. The eyes practically fill the openings. The hands are fat and dimpled and there is considerable taper to the short fingers. Until the structure of babies is well understood it is almost fatal to try to draw them without good working material.

Keep all children up to six or eight years quite chubby. From eight to twelve they can be drawn very much as they appear, though the relative size of the head should be a little larger than normal.

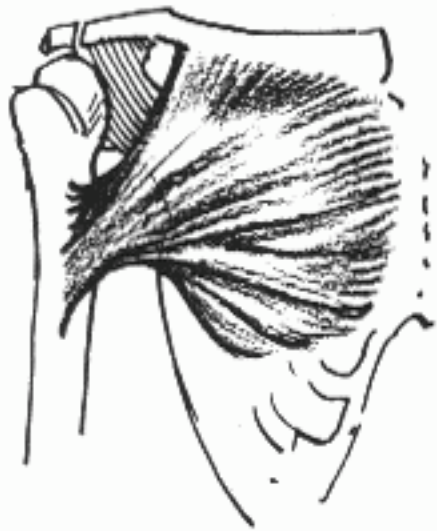
If you get into character drawing, you may do a fat fellow—but don't make him too young. Do not draw ears too large or protruding in any male drawing. The male hands should be exaggerated a little in size and in the ideal type must look bony and muscular. Soft, round hands on a man simply won't go.

The art director seldom points out your faults. He simply says he does not like your drawing. Any one of the above mistakes may account for his dislike. Ignorance of the demands upon you is as great a handicap as ignorance of anatomy.

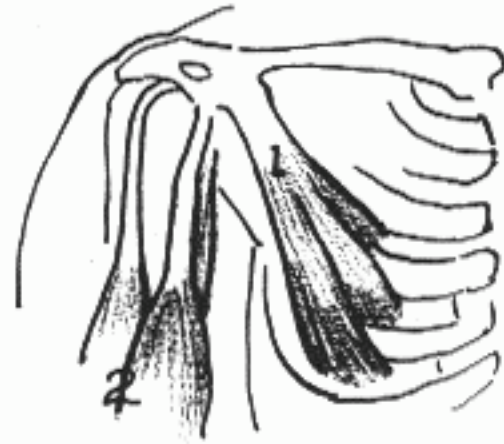
IMPORTANT BONES



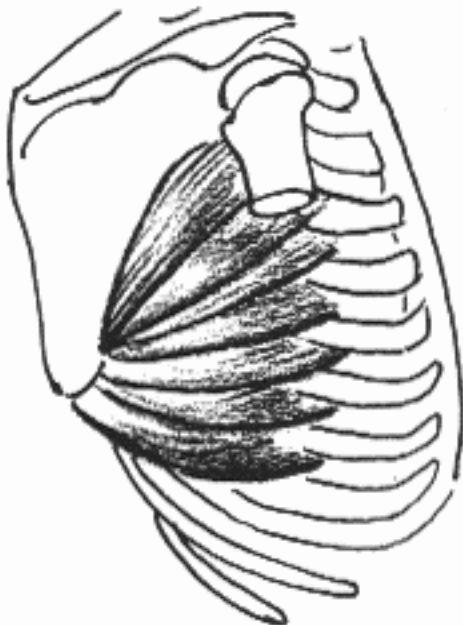
MUSCLES ON THE FRONT OF THE FIGURE



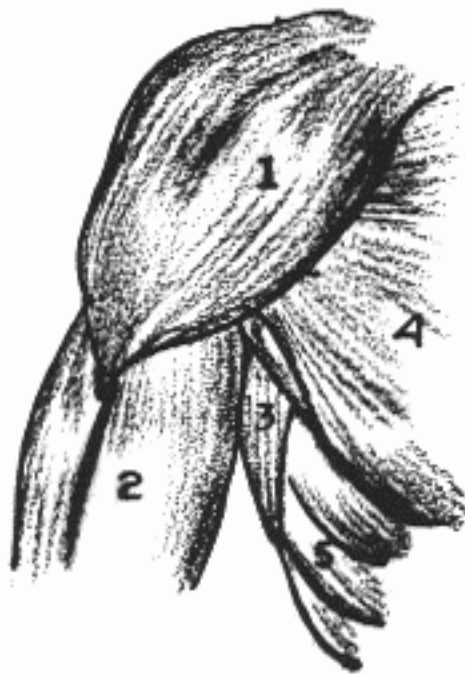
PECTORALIS MAJOR



1 PECTORALIS MINOR
2 BICEPS



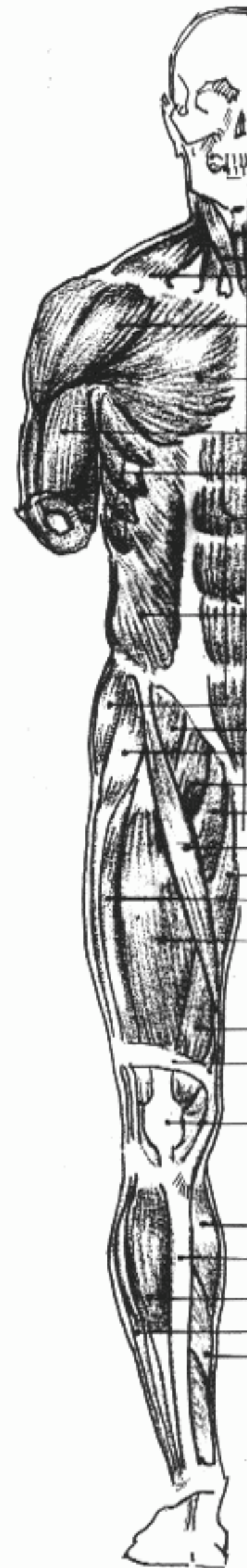
SERRATUS MAGNUS



1 DELTOID
2 BICEPS
3 PECTORALIS MAJOR
4 LATISSIMUS DORSI
5 SERRATUS MAGNUS

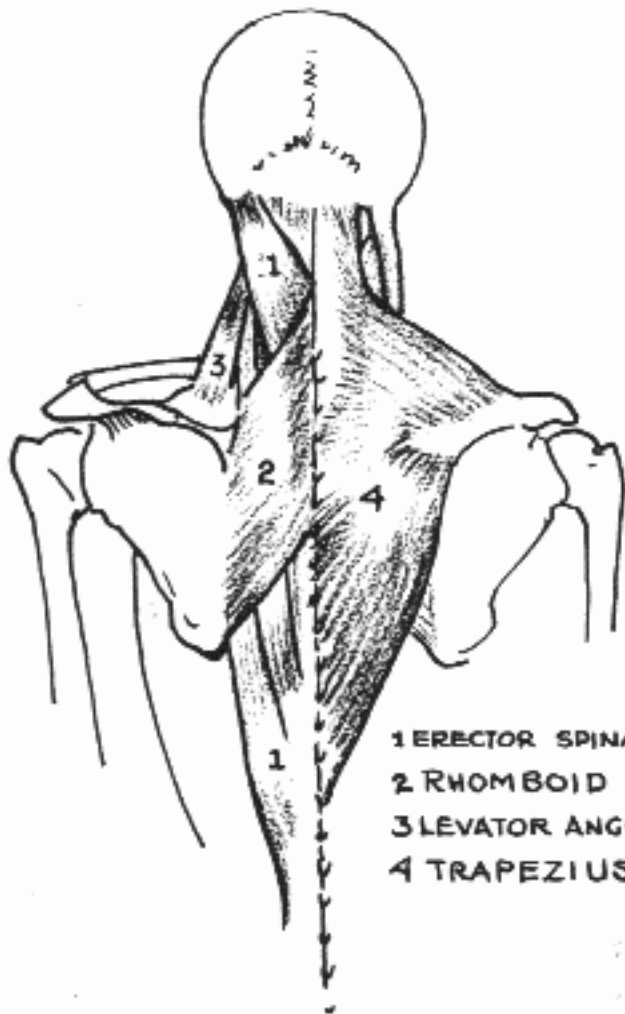
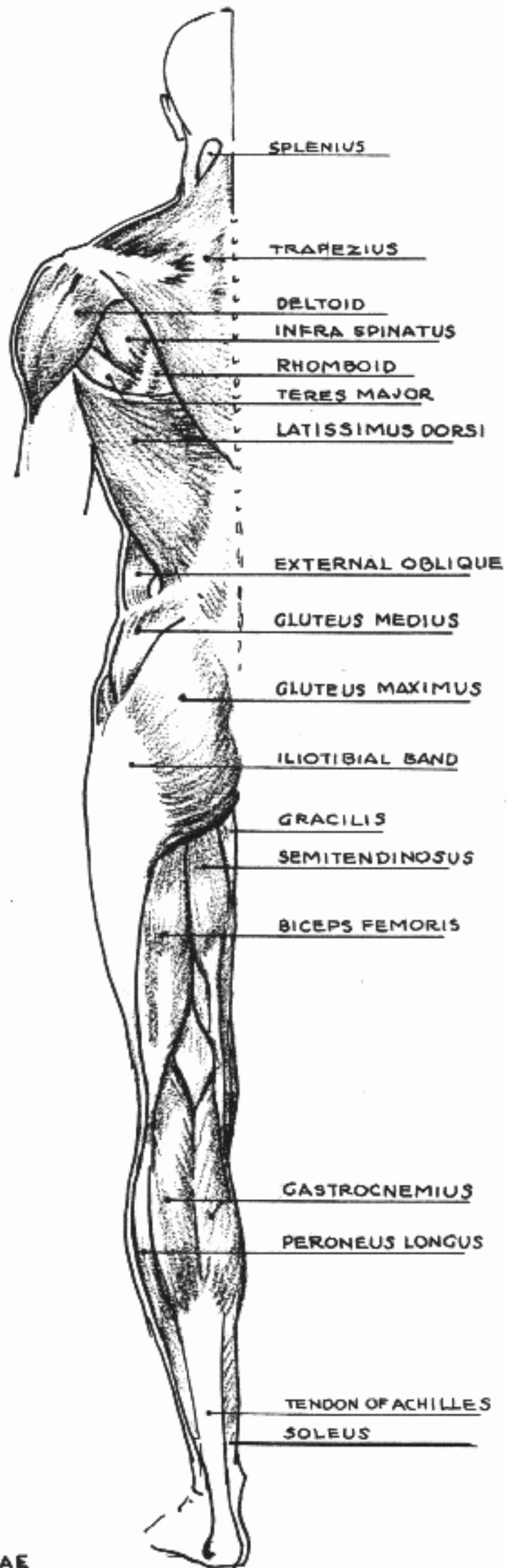
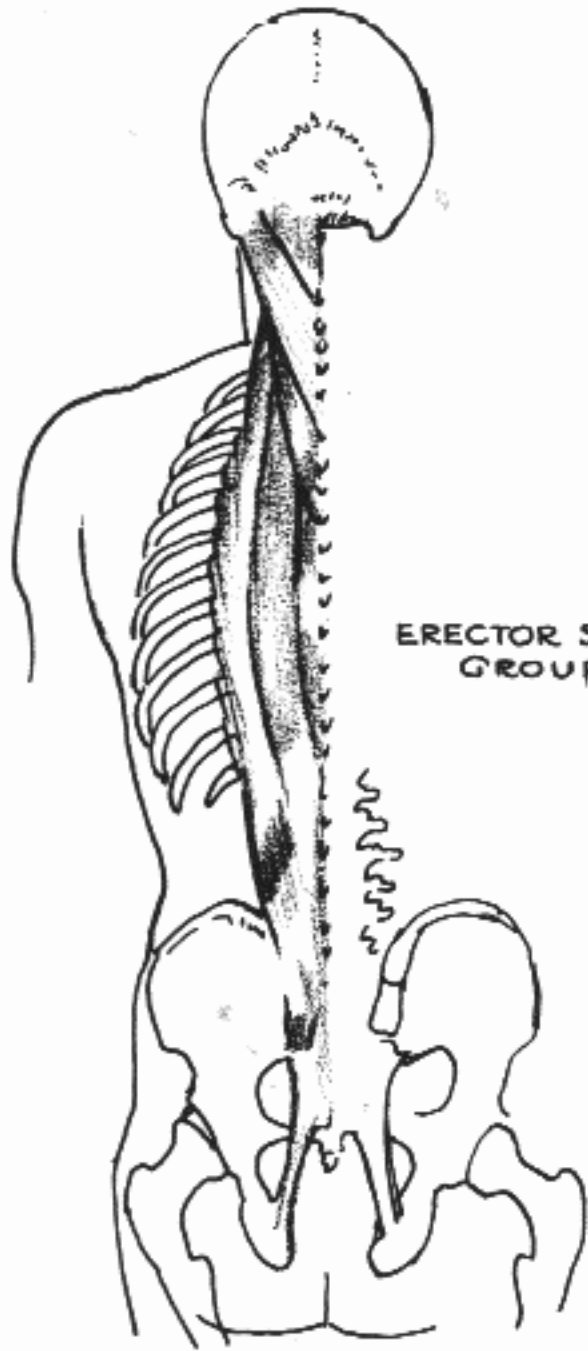


1 STERNO MASTOID
2 TRAPEZIUS
3 STERNOHYOID



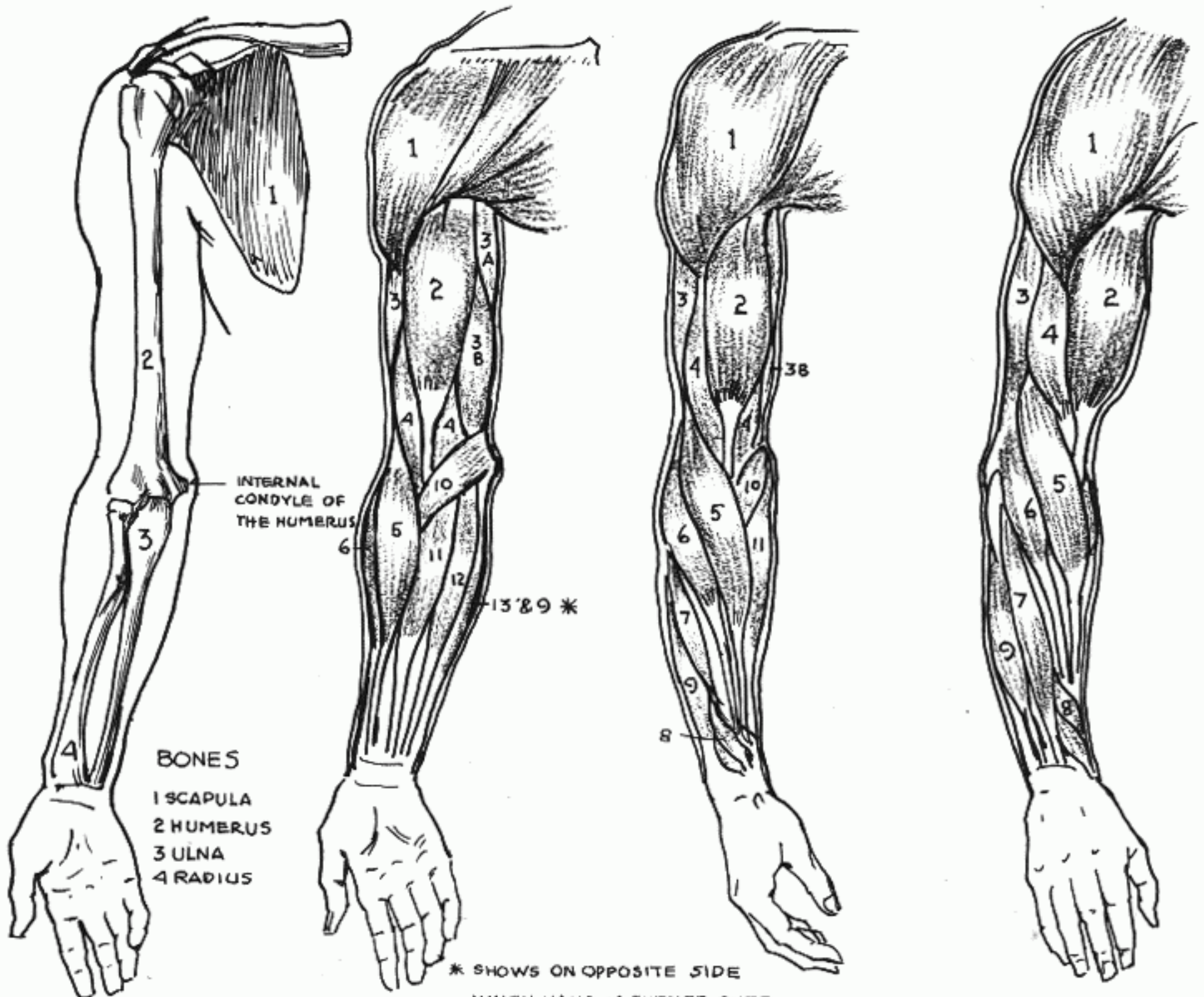
STERNOHYOID
STERNO MASTOID
TRAPEZIUS
DELTOID
PECTORALIS MAJOR
BICEPS
SERRATUS MAGNUS
RECTUS ABDOMINIS
EXTERNAL OBLIQUE
GLUTEUS MEDIUS
PSOAS ILIACUS
TENSOR FASCIAE LATAE
PECTINEUS
ADDUCTOR LONGUS
SARTORIUS
GRACILIS
VASTUS LATERALIS
RECTUS FEMORIS
VASTUS MEDIALIS
BAND OF RICHTER
PATELLA
GASTROCNEMIUS (CALF)
TIBIA (SHIN BONE)
TIBIALIS ANTICUS
PERONEUS LONGUS
SOLEUS

MUSCLES ON THE BACK OF THE FIGURE



- 1 ERECTOR SPINAE GROUP
- 2 RHOMBOID
- 3 LEVATOR ANGULI SCAPULAE
- 4 TRAPEZIUS

MUSCLES OF THE ARM, FRONT VIEW



BONES
 1 SCAPULA
 2 HUMERUS
 3 ULNA
 4 RADIUS

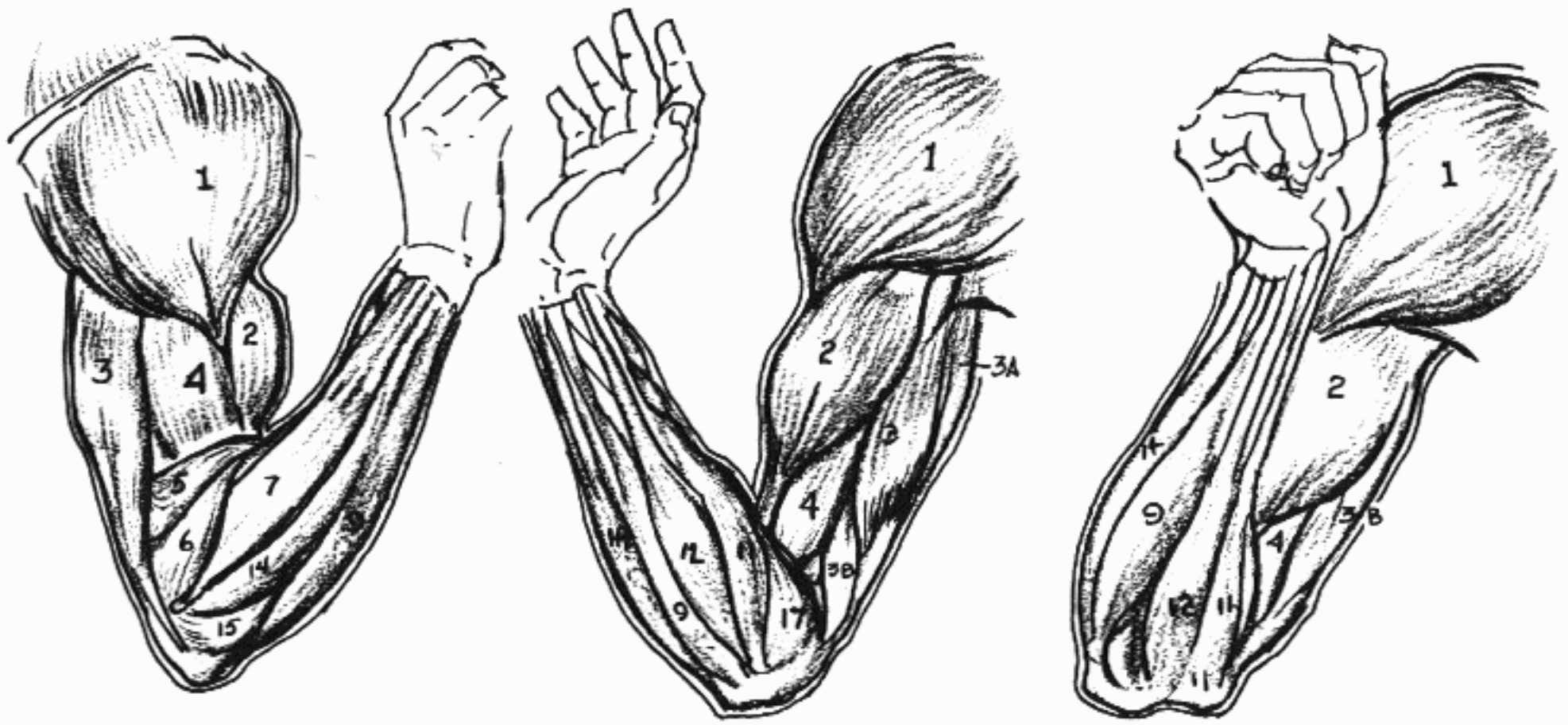
* SHOWS ON OPPOSITE SIDE
 WHEN HAND IS TURNED OVER.

KEY

- 1 DELTOID
- 2 BICEPS
- 3 TRICEPS, OUTER HEAD
- 3A " LONG "
- 3B " INNER "
- 4 BRACHIALIS ANTICUS
- 5 SUPINATOR LONGUS
- 6 EXTENSOR CARPI RADIALIS
- 7 " COMMUNIS
- 8 " S OF THE THUMB
- 9 FLEXOR CARPI ULNARIS
- 10 PRONATOR TERES
- 11 FLEXOR CARPI RADIALIS
- 12 PALMARIS LONGUS
- 9 & 13 FLEXOR CARPI ULNARIS
- 14 EXTENSOR CARPI ULNARIS
- 15 ANCONEUS
- 16 FLEXORS OF THE HAND
- 17 BRACHIORADIALIS

DRAW THESE ARMS
 TO HELP FIX THEM
 IN YOUR MEMORY

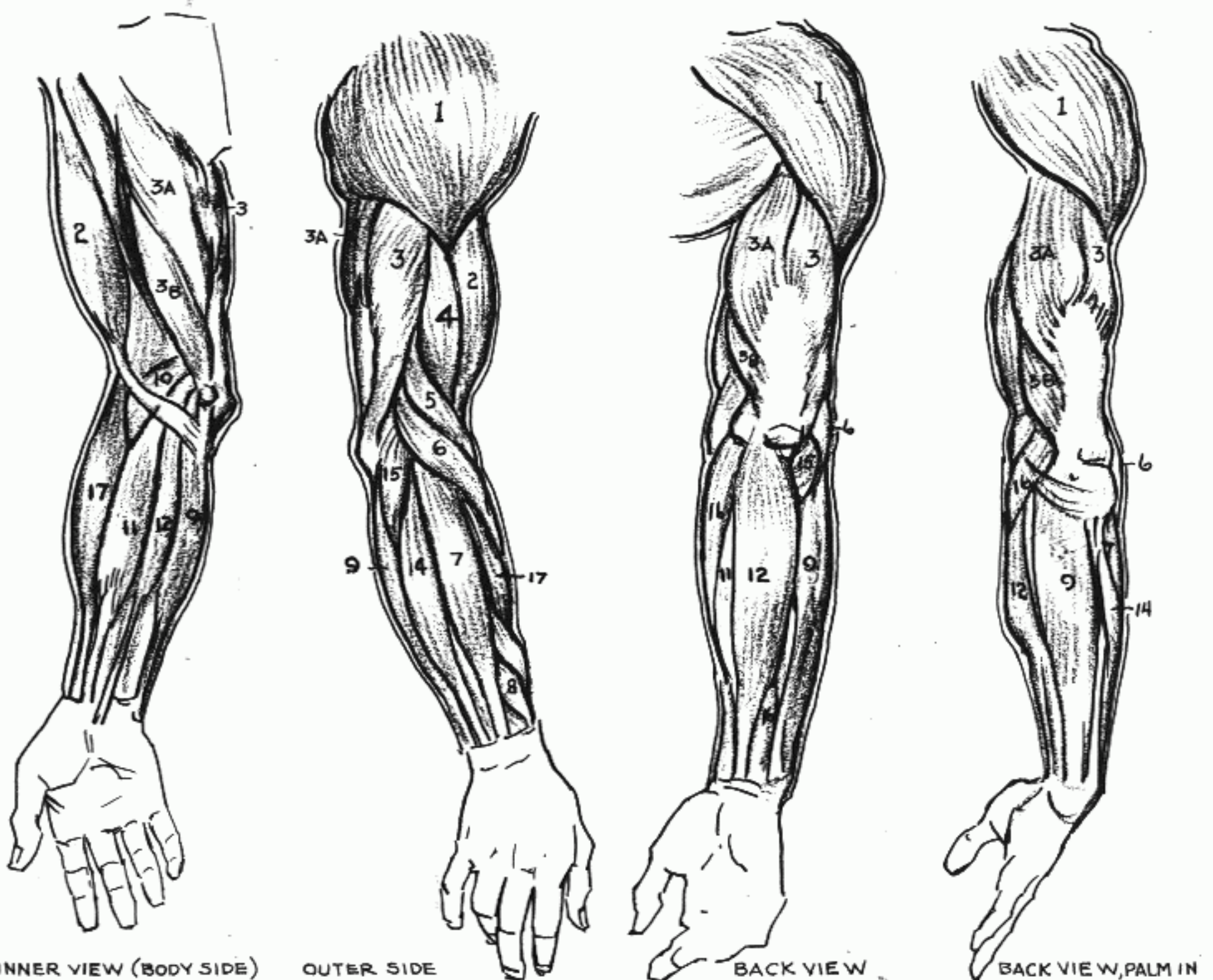
MUSCLES OF THE ARM, VARIED VIEWS



OUTER SIDE VIEW RIGHT ARM

INNER VIEW RIGHT ARM

UNDER AND INSIDE VIEW



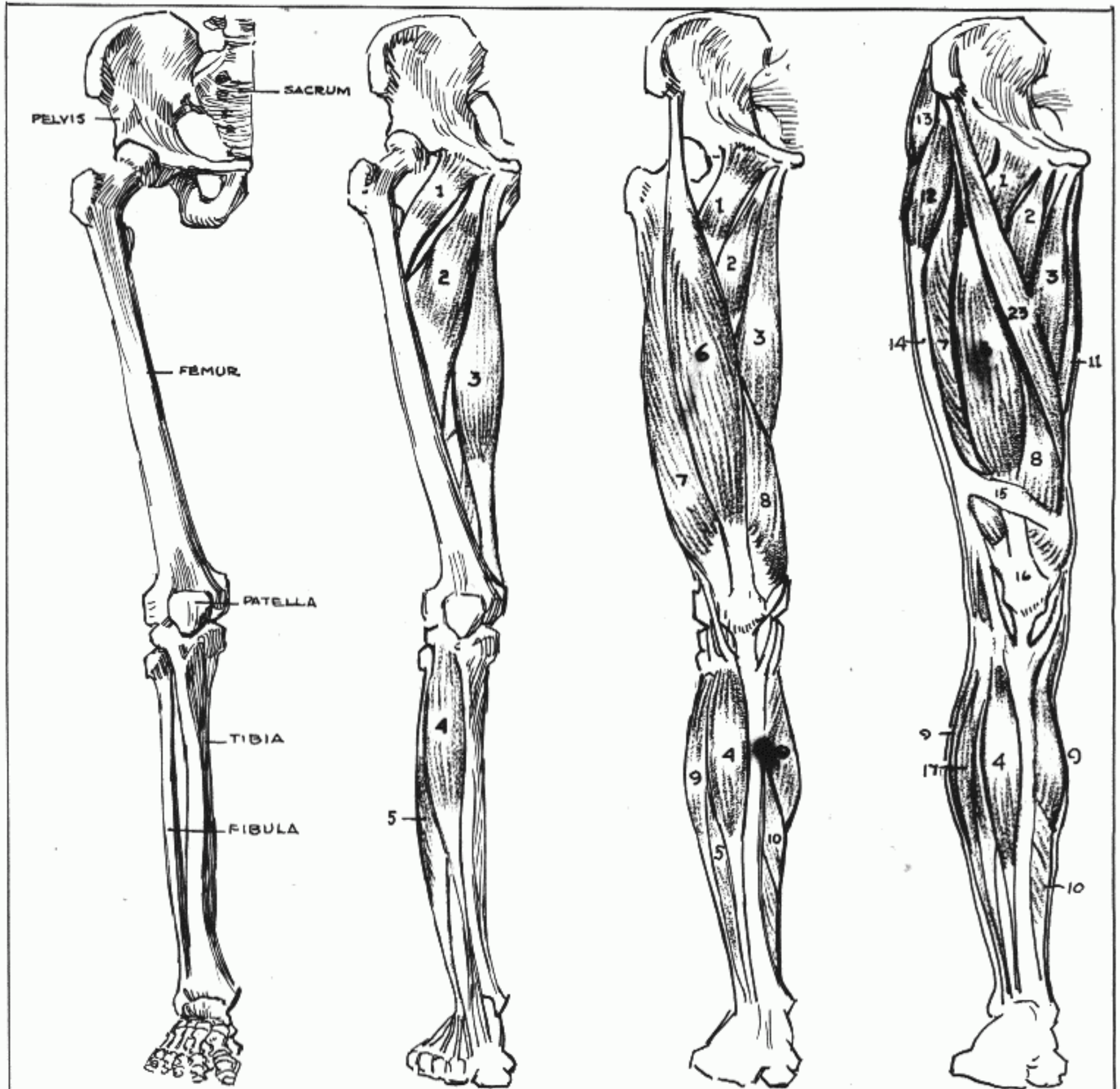
INNER VIEW (BODY SIDE)

OUTER SIDE

BACK VIEW

BACK VIEW W, PALM IN

MUSCLES OF THE LEG. FRONT VIEW



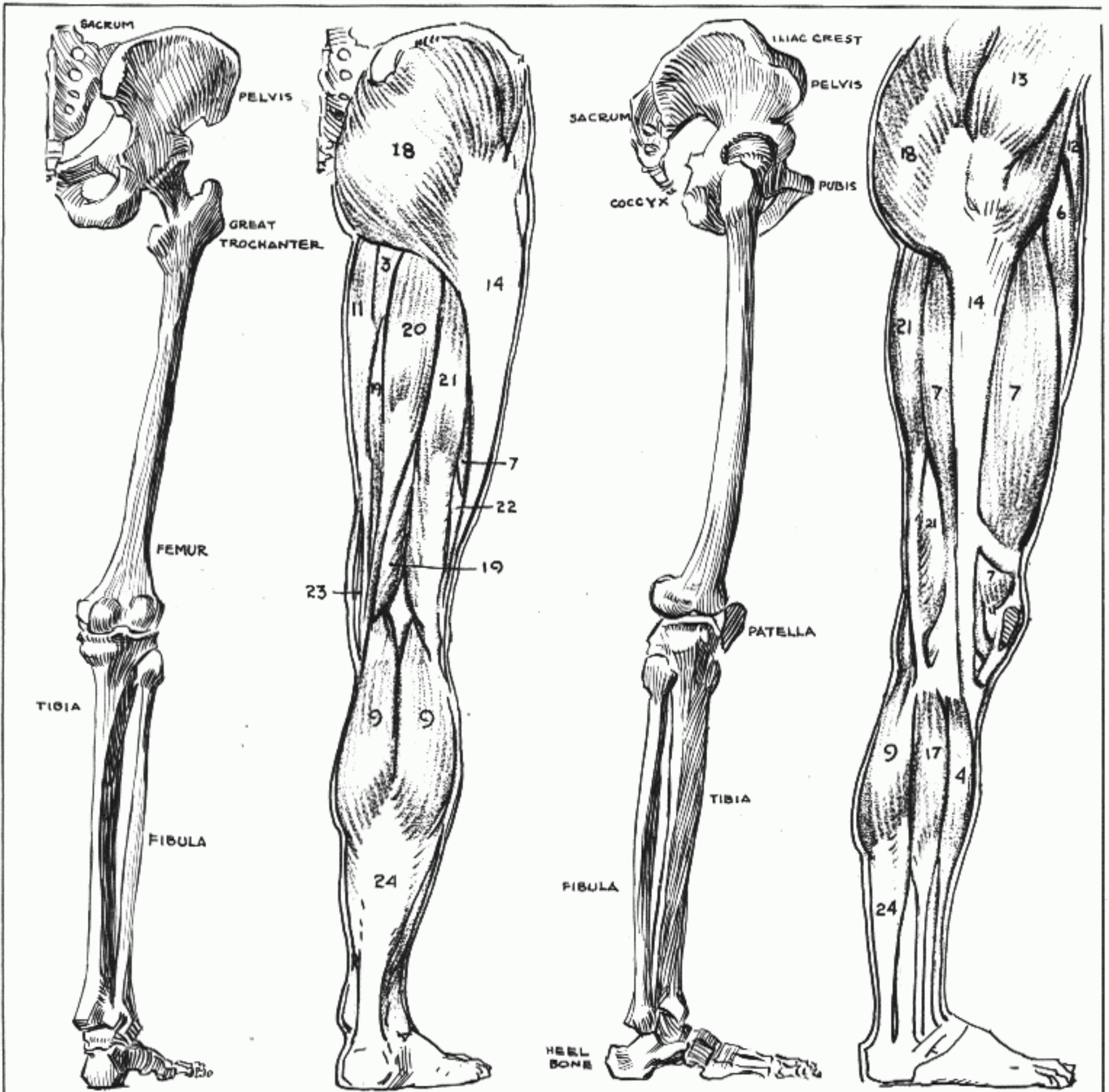
MUSCLES OF THE LEG

- | | | |
|------------------------------|-------------------------|------------------------|
| 1. PSOAS ILIACUS | 11. GRACILIS | 21. BICEPS FEMORIS |
| 2. PECTINEUS | 12. TENSOR FASCIAE LATÆ | 22. VASTUS INTERMEDIUS |
| 3. ADDUCTOR MAGNUS | 13. GLUTEUS MEDIUS | 23. SARTORIS |
| 4. TIBIALIS ANTICUS | 14. ILIOTIBIAL BAND | 24. TENDON OF ACHILLES |
| 5. EXTENSOR LONGUS DIGITORUM | 15. BAND OF RICHTER | |
| 6. RECTUS FEMORIS | 16. PATELLAR LIGAMENT | |
| 7. VASTUS LATERALIS | 17. PERONEUS LONGUS | |
| 8. VASTUS MEDIALIS | 18. GLUTEUS MAXIMUS | |
| 9. GASTROCNEMIUS | 19. SEMIMEMBRANOSUS | |
| 10. SOLEUS | 20. SEMITENDINOSUS | |



STAY WITH IT!

MUSCLES OF THE LEG BACK AND SIDE VIEW



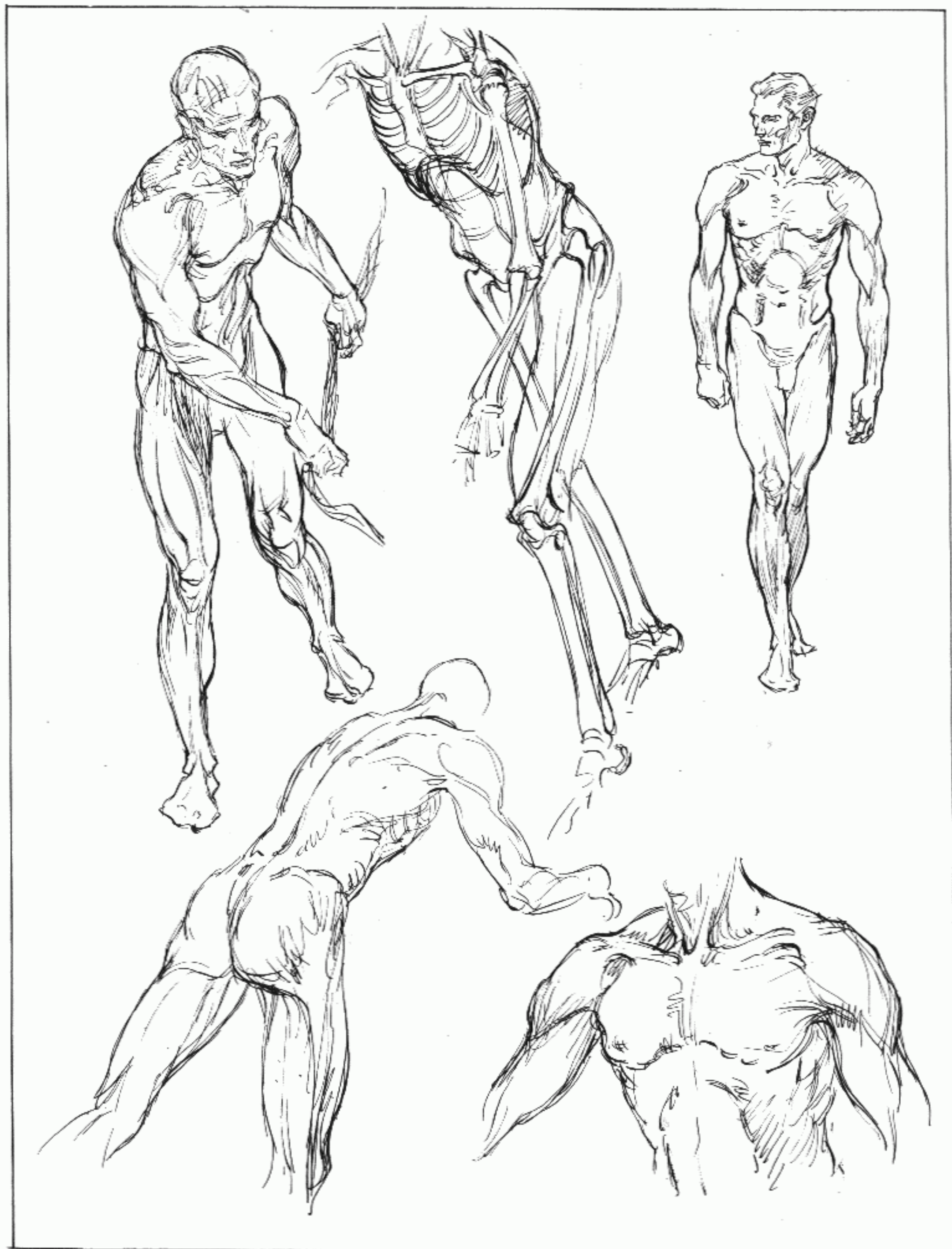
BACK VIEW

OUTER SIDE VIEW

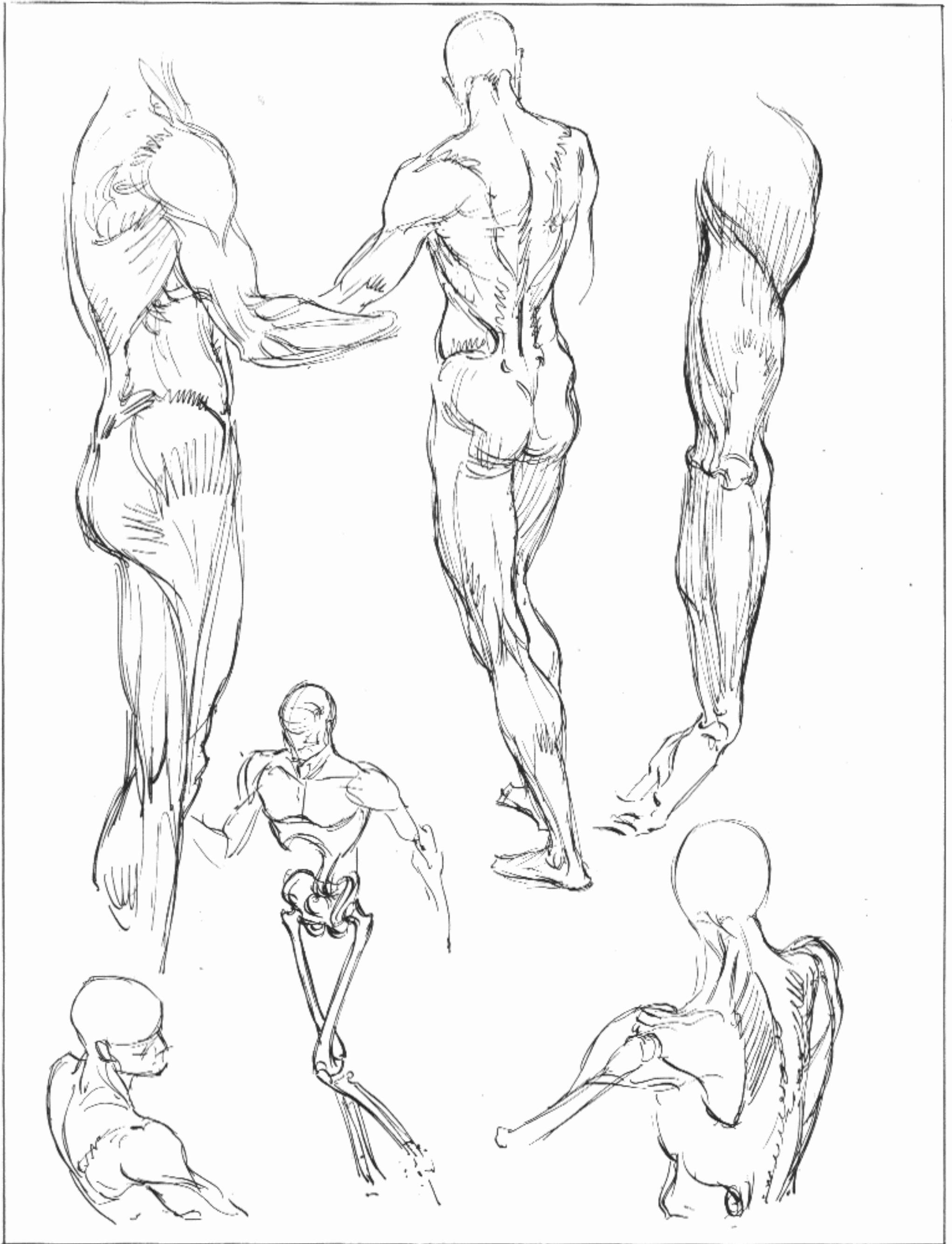
THERE IS NO OTHER WAY TO ACQUIRE A KNOWLEDGE OF ANATOMY THAN TO "DIG IT OUT." STAY WITH IT UNTIL YOU CAN DRAW THE MUSCLES FROM MEMORY. GET FURTHER BOOKS ON THE SUBJECT. THE AUTHOR RECOMMENDS THE BOOKS

BY GEORGE BRIDGMAN AS EXCELLENT. THERE IS ALSO A VERY FINE BOOK OF DIAGRAMS, "ARTISTIC ANATOMY" BY WALTER F. MOSES. IN THESE BOOKS, THE SUBJECT IS MORE EXPERTLY COVERED, AND MUCH MORE COMPLETE. "IT PAYS TO KNOW," SO STAY WITH IT!

NOW JUST PLAY WITH WHAT YOU HAVE LEARNED



TRY BUILDING FIGURES WITHOUT MODEL OR COPY



III. BLOCK FORMS, PLANES, FORESHORTENING, AND LIGHTING

The transition from outline and specific construction to the figure rendered in light and shadow is quite a hurdle. Often the student is unable to make this jump. The difficulty arises from a lack of conception of the solid. Yet there are intermediate steps that can make the rendering of the third dimension (thickness) fairly simple.

How can a solid form be set into space? How do we conceive of it so that we know it has bulk and weight—that we can pick it up or bump into it? The answer is that our eye instinctively recognizes the solid by the way light falls upon it. As far as the artist is concerned, when there is no light there is no form. The only reason an outline drawing can suggest the solid is that theoretically a drawing represents the form in a light that comes from directly behind the artist; hence the form casts no shadow visible to us. As the contours and edges turn away from us and the light, they tend to darken until they begin to look like lines, sharp at the edges and softening as they approach the middle or closer part of the form. We call this “flat lighting.” It is the only way that form can be rendered without shadow, but it does include “halftone,” which is the next step between the full light and the shadow. The shadow is really there also, but we cannot see it from our viewpoint.

When white paper is used for the drawing, the paper theoretically represents the greatest light—that is, the *plane which is at right angles to the source of light*. In all cases other than flat-front lighting, the form is rendered by the correct interpretation of the direction of the planes away from the right-angle planes, or the turning away of the form from the source of light.

The first and brightest planes are called the “light planes.” The next planes are the “halftone planes,” and the third planes, which are unable to receive direct lighting because of their angle, are called “shadow planes.” Within the shadow planes may be those that are still receiving subdued, reflected light; these are called “planes of reflection.” Form cannot be rendered without a clear grasp of this principle. The planes are worked out in the simple order of: (1) light, (2) halftone, (3) shadow—which is the darkest and is at the point where the plane parallels the direction of light, and (4) reflected light. This is called “simple lighting.” It is unquestionably the best for our purpose. When there are several sources of light, the whole composition becomes a hodgepodge, inconsistent with natural light and highly confusing to the student. Sunlight naturally gives us the most perfect rendition of form. Daylight is softer and more diffused, but the principle still holds. Artificial light, unless controlled and based upon the sun principle, is the fly in the ointment. The camera may be able to get away with four or five sources of light; the chances are that the artist cannot.

Before you plunge into the intricacies of light and shadow, it would be well to know what is going to happen to form when light strikes it. Since the light can be made to come from any direction, the organization of the light-to-dark may start with any plane as the light plane. In other words, in a top lighting slightly to the front, the plane across the breast would be the light plane. Move the light to the side, and that plane would become a halftone plane. Set the light below, and the same plane is in shadow. Hence *all planes are relative to the light source*.

FORESHORTENING AND LIGHTING

Let us start, then, with the form in the simplest possible terms. By drawing block forms we cut out the extreme subtleties of halftone. Continuing a plane as a single tone on a surface as long as we can before turning it in another direction is simplification, or massing. Actually the figure is very rounded. But rounded surfaces produce such a delicate gradation of light and shadow that it is difficult to approach without a simplification and massing of these tones. Strangely enough, the simplification is a good deal better in the end than the exact photographic and literal interpretation. It is somewhat like trying to paint a tree by painting every leaf instead of massing the foliage into its big forms and working for bulk rather than intricate detail.

After we have mastered the larger plane, we can soften it at its edges to mold it into the more rounded form, while retaining all we can of the bigness of conception. Or, we can start with a big block, as the sculptor would start with a block of stone or marble. We hew away the excess and block in the general mass that we want. We then subdivide the big, straight planes into smaller ones until the rounded effect has been produced. It is like going around a circle with a series of short, straight lines. You may question why we do not at once proceed to the finished, smooth, and round form. The answer is that in a drawing or painting, something of the individual procedure and structural quality should remain. When it is too much smoothed down and polished, it becomes entirely factual. The camera can do *that*. In a drawing, however, "finish" is not necessarily art. It is the interpretation and process of individual conception that is art and that has value. If you include all the literal facts and actualities, the result will be boring. It is your selection of relevant facts that will create interest. A sweeping conception carries with it vitality, purpose, and conviction. The more detailed and involved we get, the less

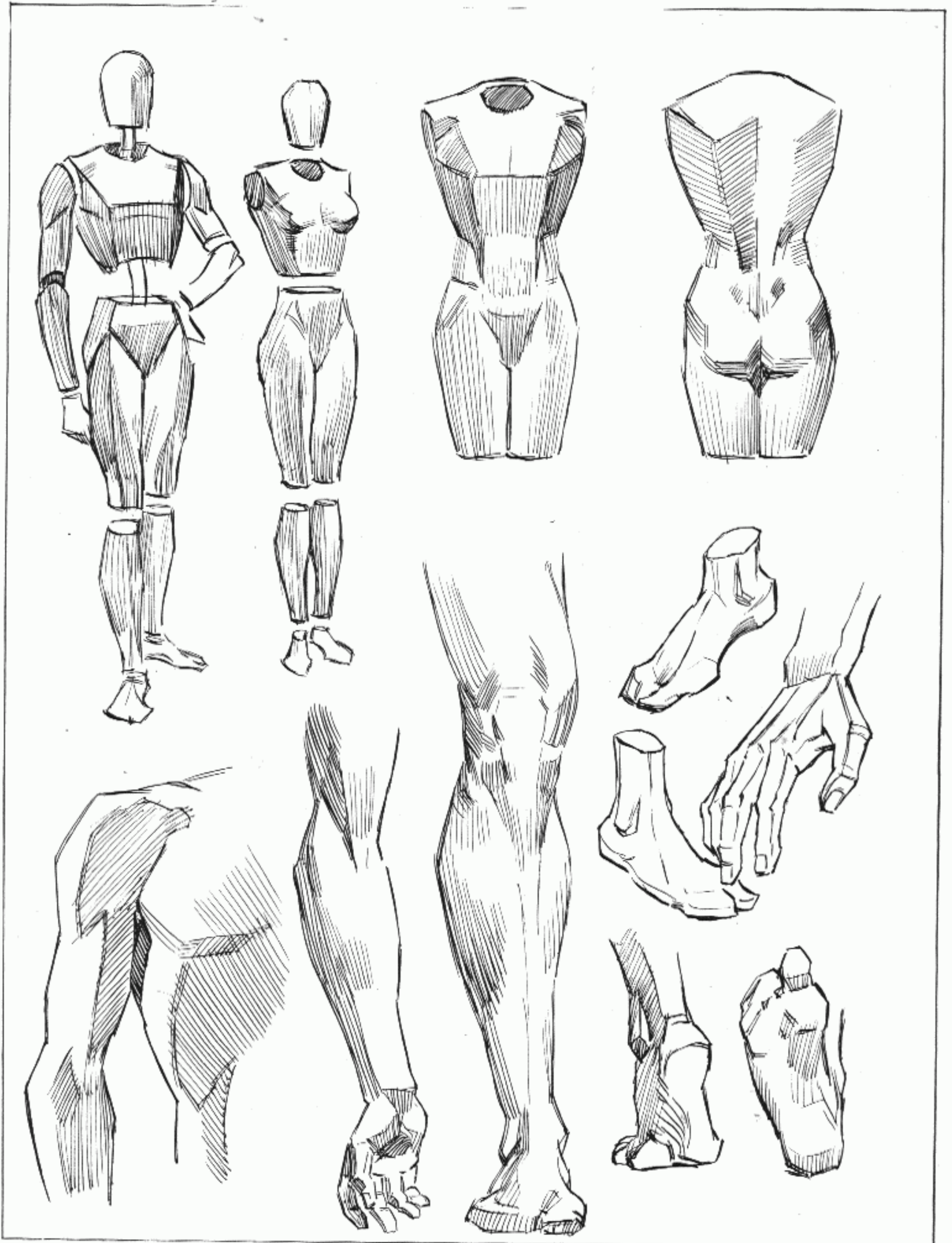
forceful and powerful is our message. We can take a compass and draw a circle perfectly, but we have left no trace of ourselves in what we have set down. It is the big form that does the job—not the little and the exact.

On pages 70 and 71 I have tried to give an inkling of what I mean. Here the surface is conceived of as having mass and bulk. The effect is sculptural. It is looking at our mannikin a little differently. If we are to compose the mannikin of simplified blocks, how shall we shape those blocks? Your way is as good as mine. Shape them any way you will to arrive at a massed or bulk effect. This is the real approach to "solidity" in your work: actually thinking of the mass, bulk, and weight of it.

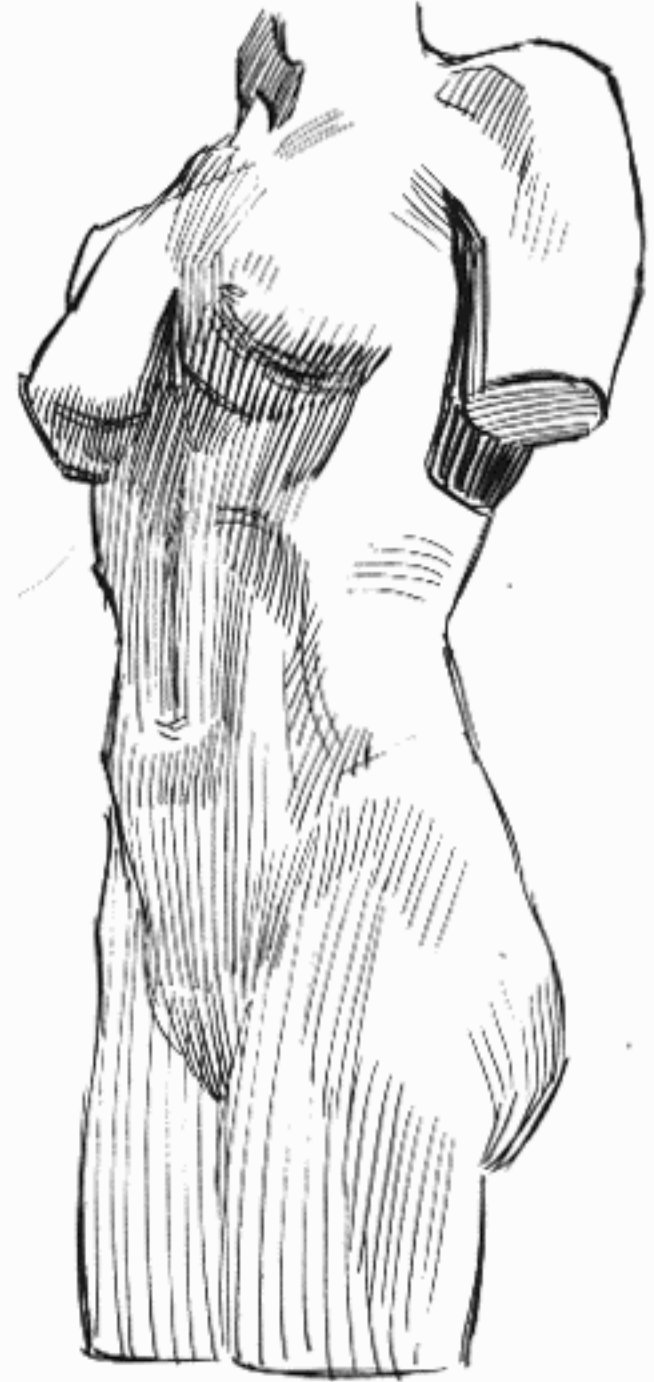
With this approach, we take the art-store wooden mannikin and use it as a basis for setting up a figure (page 72). We go a step further with the mannikin on page 73 and attempt to eliminate the stiffness of the jointed parts, still thinking though in terms of masses.

Retaining these terms we take solids (page 74) and tip them, remembering at all times what each *section* of the mass would be and where it belongs in relation to the whole. We must depend chiefly upon line to render the form, or that part of it which goes back into space, as seen by the eye of the observer. This is foreshortening. Actual measurement of length cannot be made, since viewing the form from one point is like looking at a gun barrel aimed directly at you. We must think of the contours and form as sections lined up one behind the other. An outline is rarely sufficient, however, to represent the receding sections; most often halftone and shadow are needed as well, as shown on page 75. Pages 76 and 77 are an interpretation of the rounded figure flattened into planes that go a step further than our simplest block forms. On pages 78 and 79 we place the simplified form of the head under various kinds of lighting.

BLOCK FORMS HELP TO DEVELOP YOUR SENSE OF BULK

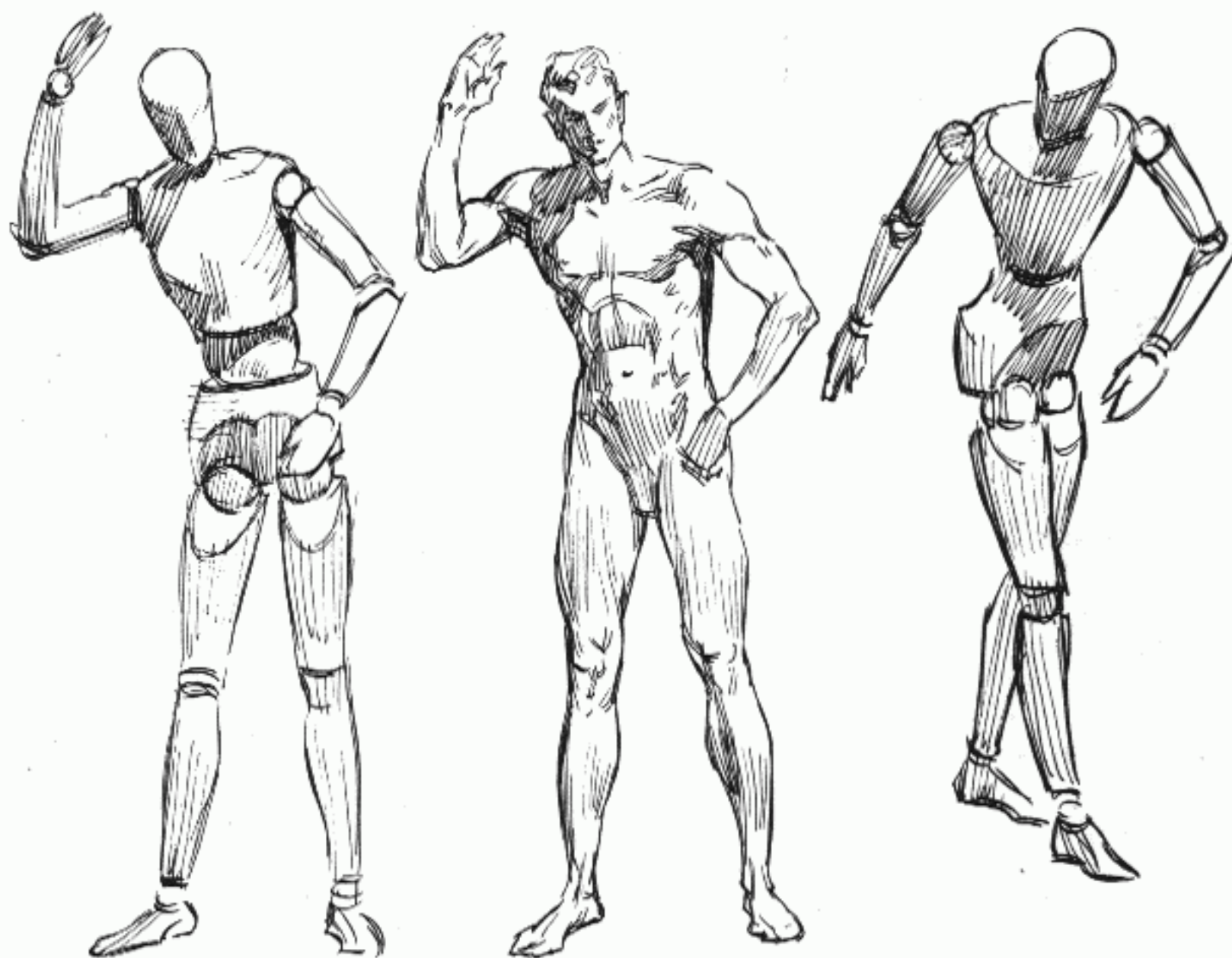


FEEL FREE TO INVENT YOUR OWN BLOCKS.



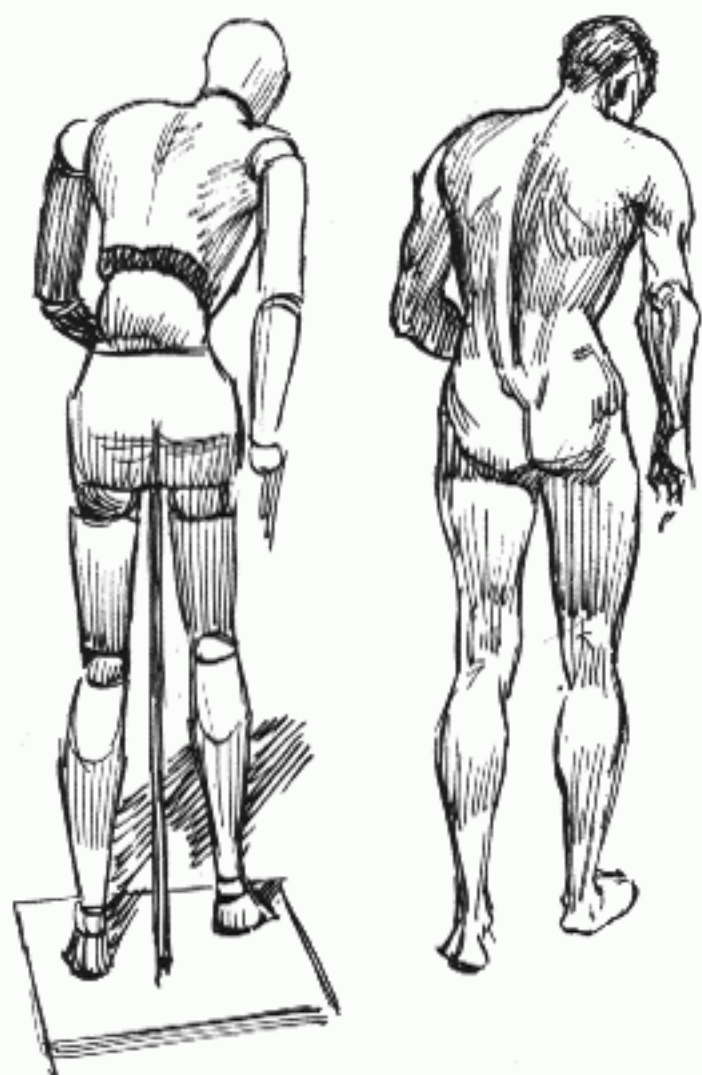
BLOCKING IN "FORM" IS THE FOUNDATION FOR ALL WORK RENDERED IN LIGHT AND SHADOW. TRY TO REDUCE THE FORM TO ITS SIMPLEST TERMS, ADDING WHATEVER DEGREE OF "FINISH" YOU WISH. REMEMBER, A SIMPLE CLEAN CUT STATEMENT IS BETTER THAN SAYING TOO MUCH. ANATOMY IS STUDIED FIRST TO HELP YOU BUILD SIMPLE FORMS CONVINCINGLY. A MANNIKIN WILL HELP YOU NOW, OR SOME CASTS. YOU NEED NOT, AT THIS STAGE, ATTEMPT LIGHT AND SHADOW, IF IT'S TOO DIFFICULT. JUST DRAW BIG BLOCKY SHAPES. TRY TO SENSE THE FORM ALL THE WAY ROUND. THE OBJECT IS "TO GET OUT OF THE FLAT INTO THE SOLID".

HOW TO USE AN ART-STORE WOODEN MANNIKIN



SKETCH THE MANNIKIN

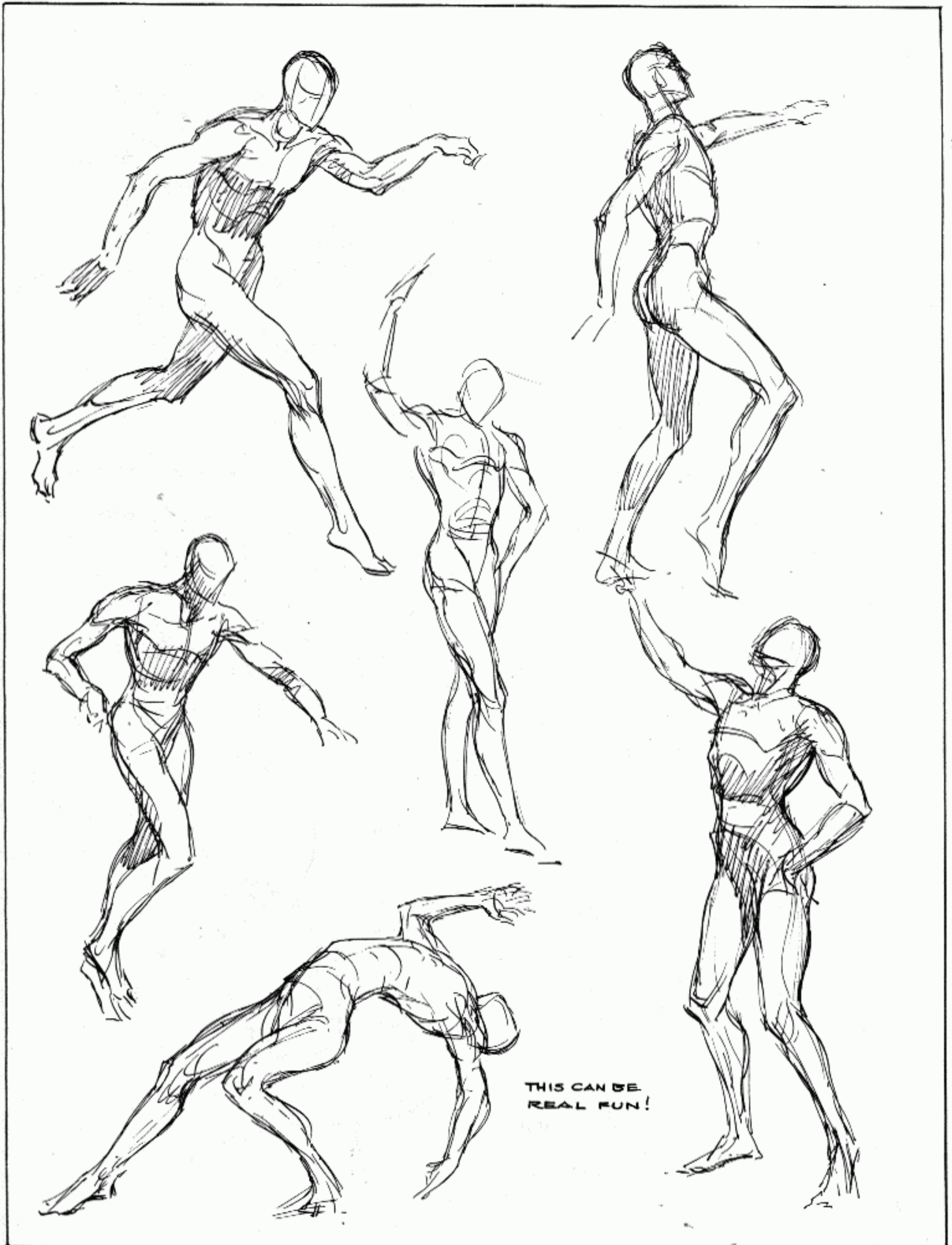
THEN BUILD YOUR FIGURE



WHEN USED WITH A BIT OF ANATOMICAL KNOWLEDGE THE WOODEN MANNIKIN CAN BE A GREAT HELP IN MAKING PRELIMINARY SKETCHES, LAYOUTS AND COMPOSITIONS. YOUR ART DEALER MAY HAVE ONE OR CAN GET IT FOR YOU.

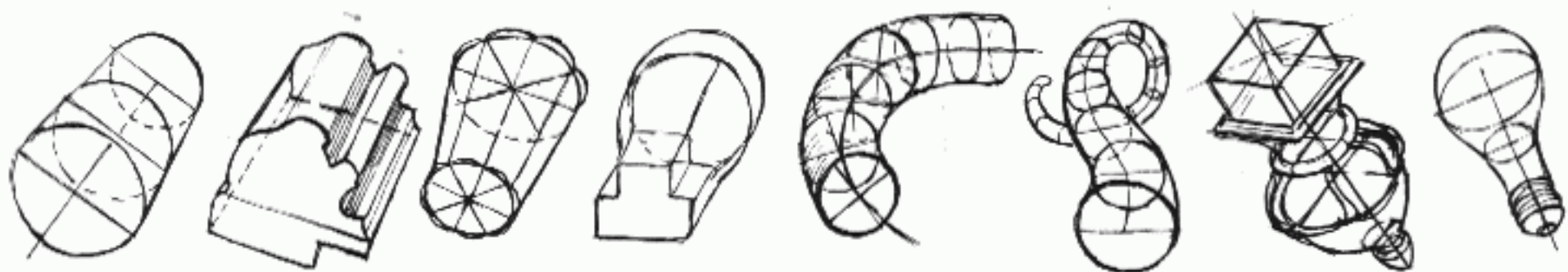


QUICK SKETCHES FROM THE WOODEN MANNIKIN



THIS CAN BE
REAL FUN!

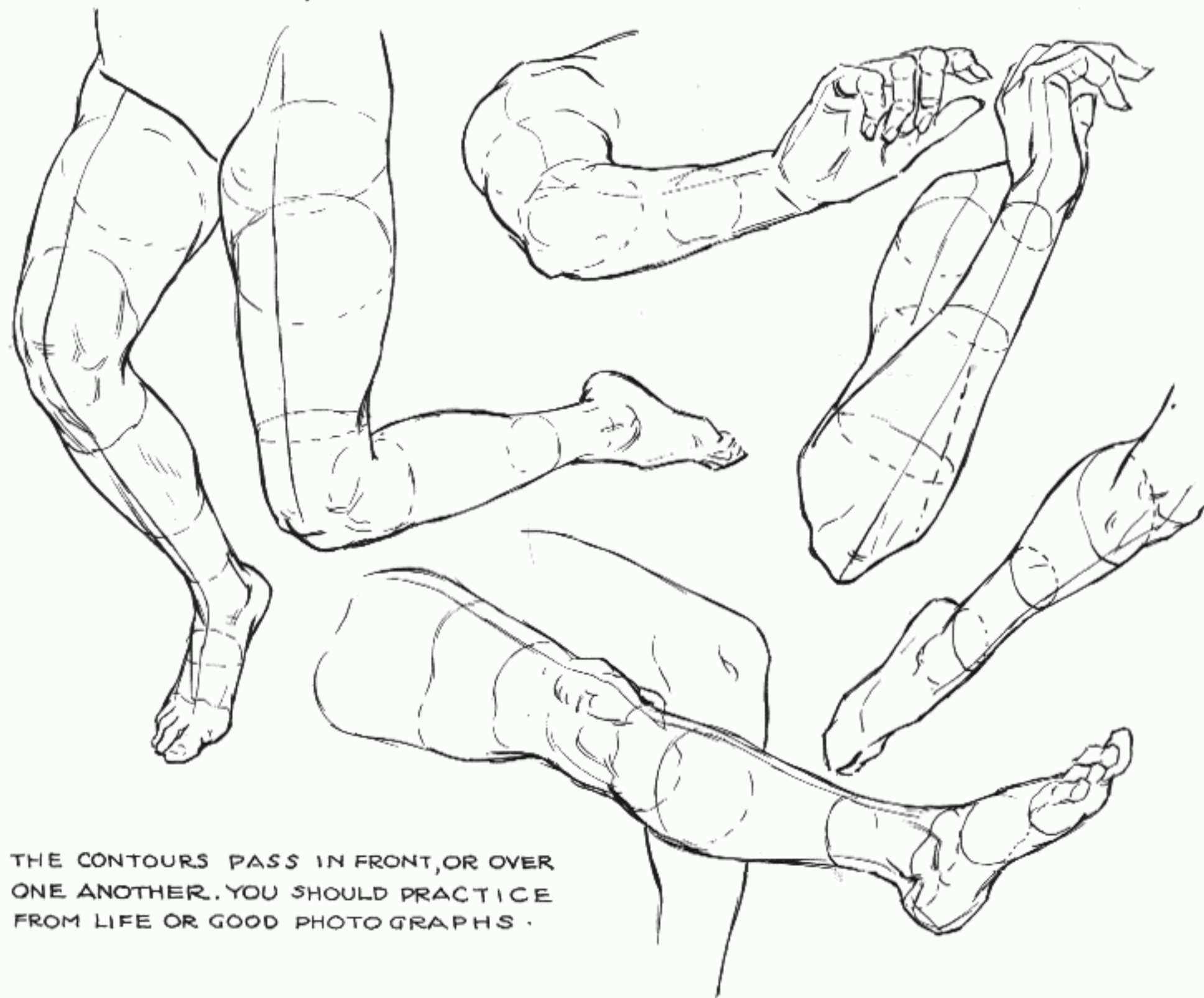
FORESHORTENING



YOU CAN FORESHORTEN ANY FORM BY DRAWING INTERMITTENT CROSS SECTIONS AND CONNECTING.

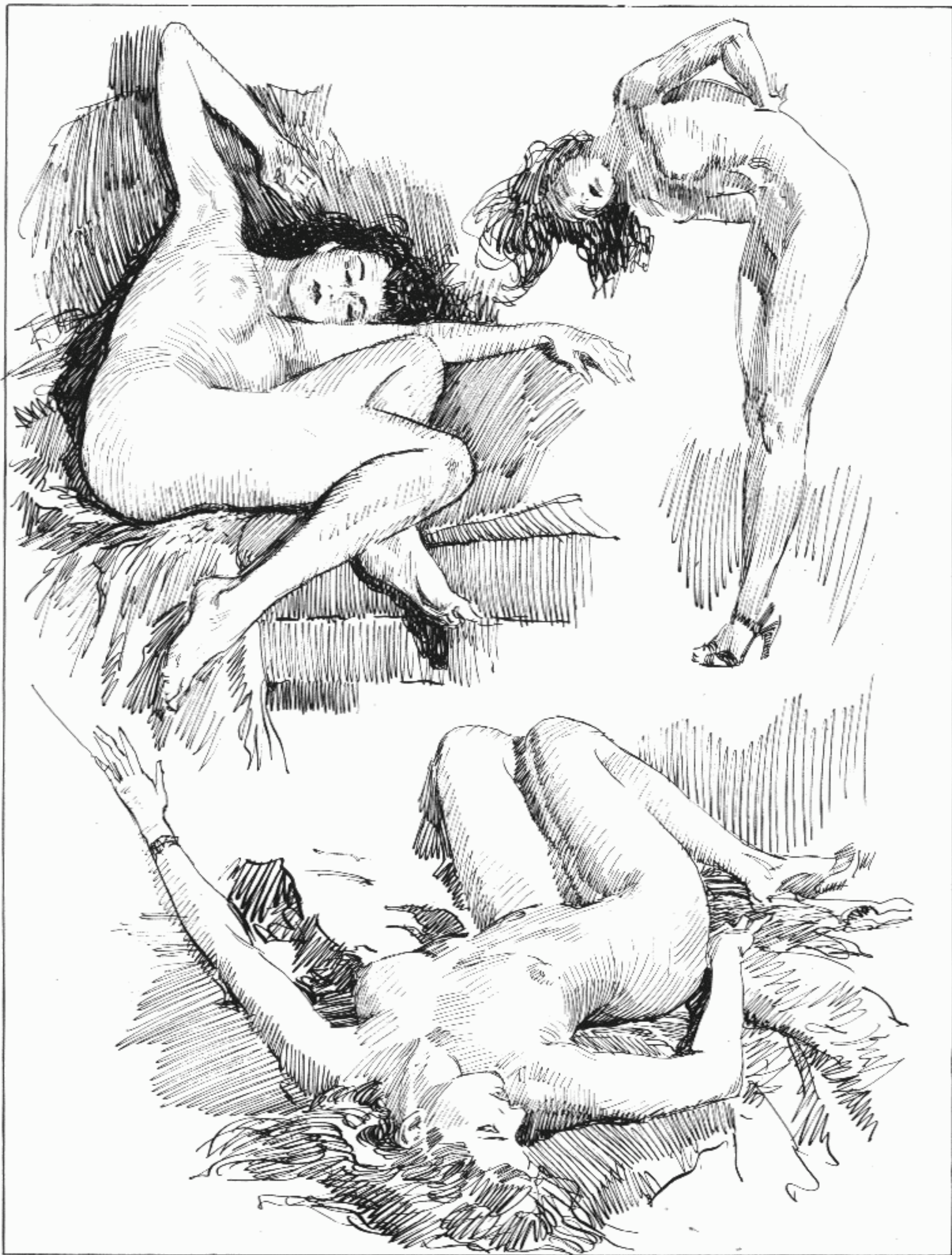


NO MATTER WHAT THE FORM IS LIKE, IT CAN BE DRAWN THIS WAY. BUT YOU MUST CONSIDER THE COMPLETE FORM, NOT JUST THE VISIBLE PORTION. SENSE THE FORM ALL AROUND



THE CONTOURS PASS IN FRONT, OR OVER ONE ANOTHER. YOU SHOULD PRACTICE FROM LIFE OR GOOD PHOTOGRAPHS.

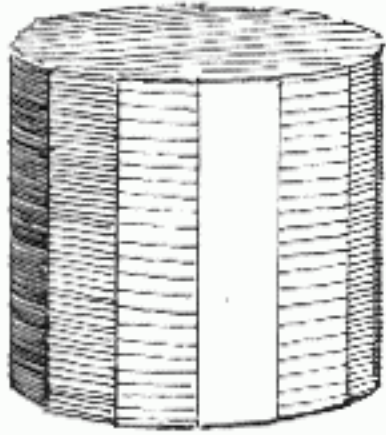
SOME PEN SKETCHES FOR FORESHORTENING



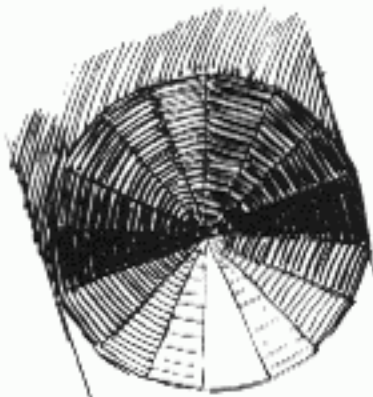
PLANES

PLANES ARE THEORETICAL FLATTENING OF ROUNDED FORMS AS WELL AS ACTUAL FLAT AREAS. IN ART AN EXTREME SMOOTHNESS AND ROUNDNESS OF FORM TENDS TOWARD THE "SLICK" AND "PHOTOGRAPHIC." IT SHOULD BE AVOIDED "LIKE THE MEASLES."

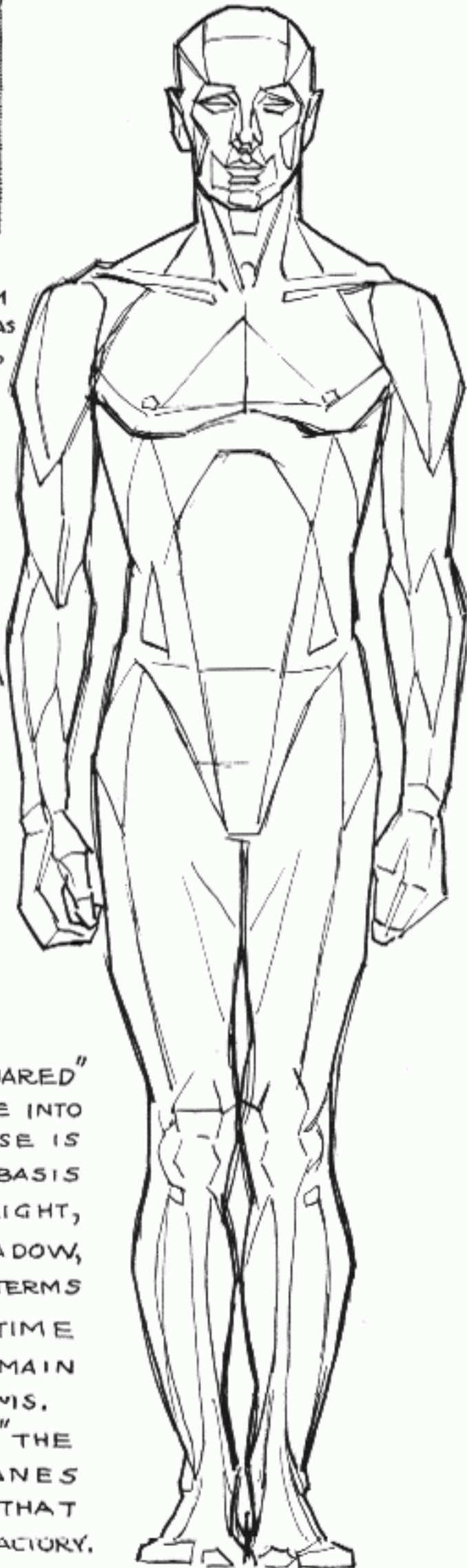
THE USE OF PLANES GIVES MORE OF AN INDIVIDUAL QUALITY. NO TWO ARTISTS WILL SEE PLANES ALIKE. *SQUARENESS" OF ROUNDED FORM IMPARTS A CERTAIN RUGGEDNESS AND VITALITY. A GOOD AXIOM IS, "SEE HOW SQUARE YOU CAN MAKE THE ROUND."



HERE IS A ROUND FORM SET INTO "PLANES" OR AREAS OF LIGHT HALFTONE AND SHADOW.



(DIRECTION OF LIGHT)



HERE WE HAVE "SQUARED" THE ROUNDED FIGURE INTO PLANES. THE PURPOSE IS TO USE THEM AS A BASIS FOR RENDERING LIGHT, HALFTONE AND SHADOW, IN THE SIMPLEST TERMS AND AT THE SAME TIME PRESERVING THE MAIN STRUCTURAL FORMS. WE THEN "SOFTEN" THE EDGES OF THE PLANES TO THE DEGREE THAT WE DEEM SATISFACTORY.



THERE IS NO SET RULE FOR PLANES. YOU DRAW THEM AS YOU THINK BEST TO SUIT THE SUBJECT.

THE "LIGHT" PLANES ARE THOSE IN FULL LIGHT. THE "HALFTONE" PLANES ARE THOSE IN HALF LIGHT. THE "PASSAGE TONE" IS THAT WHICH MERGES THE HALFTONE AND SHADOW. THE "REFLECT" IS THE LIGHTEST TONE IN THE SHADOW.

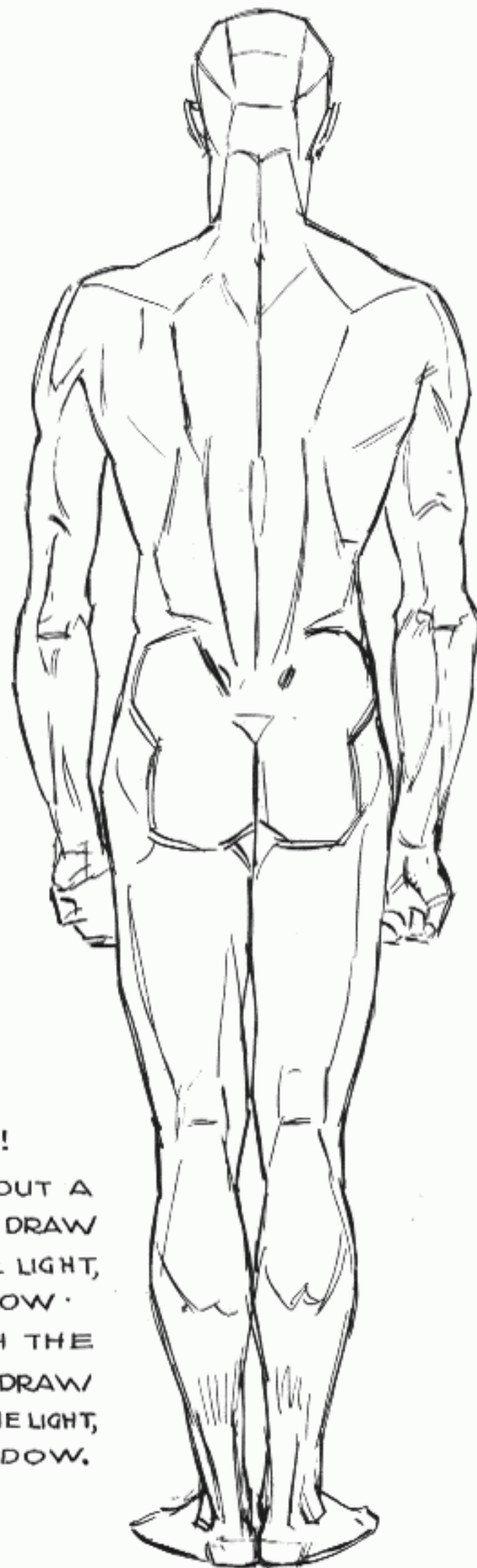


PLANES ARE A "PRELIMINARY CARVING" OF THE SURFACE FORM.

PLANES

THERE IS NO SET OF PLANES WHICH WILL FIT THE FIGURE AT ALL TIMES, SINCE THE SURFACE FORM CHANGES WITH MOVEMENT SUCH AS BENDING AT THE WAIST, MOVEMENT OF THE SHOULDERS, ETC. THE PLANES ARE GIVEN MAINLY TO SHOW HOW

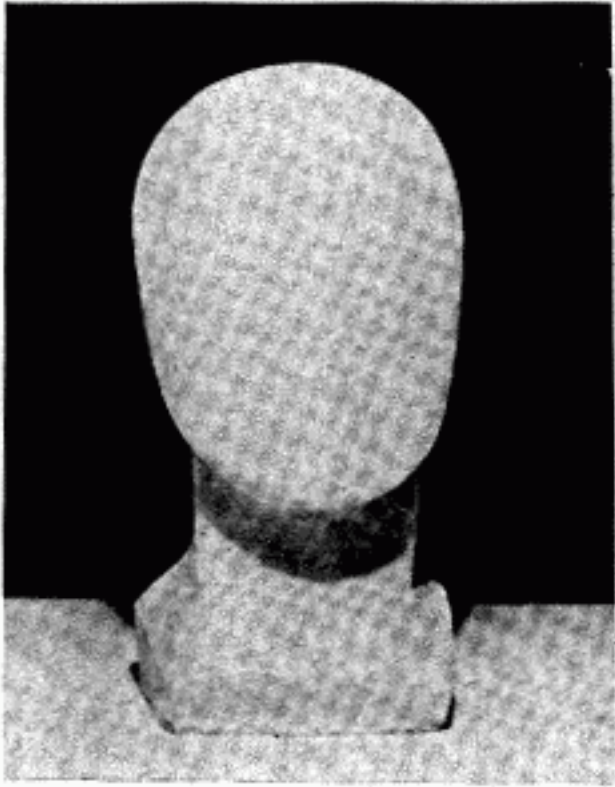
THE FORMS CAN BE SIMPLIFIED. EVEN WHEN YOU HAVE THE LIVE MODEL OR COPY, YOU STILL WORK FOR THE MAIN PLANES OF LIGHT, HALFTONE AND SHADOW. OTHERWISE YOU MAY HAVE AN OVERPOWERING CONFUSION OF TONES.



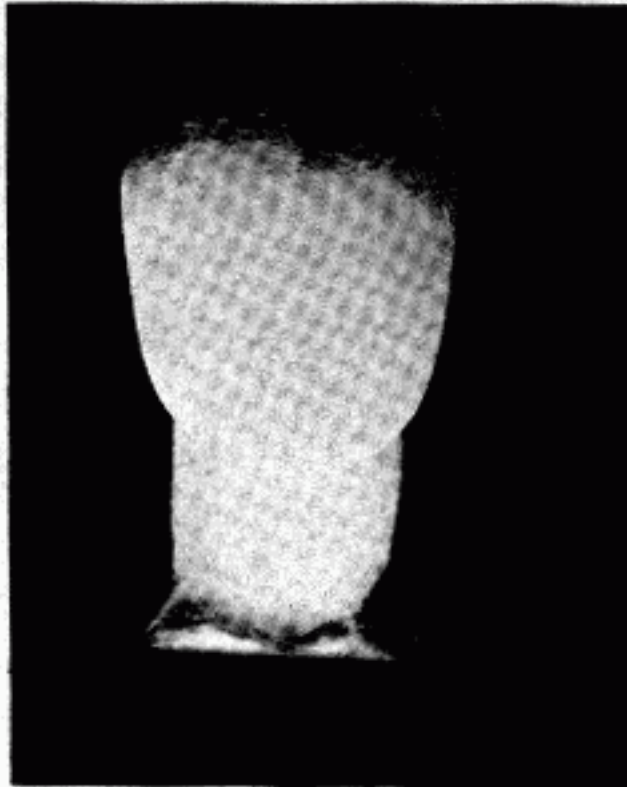
REMEMBER!

WHEN WORKING WITHOUT A MODEL OR COPY, YOU DRAW THE PLANES FOR THE LIGHT, HALFTONE AND SHADOW. WHEN WORKING WITH THE MODEL OR COPY, YOU DRAW THE PLANES FROM THE LIGHT, HALFTONE AND SHADOW.

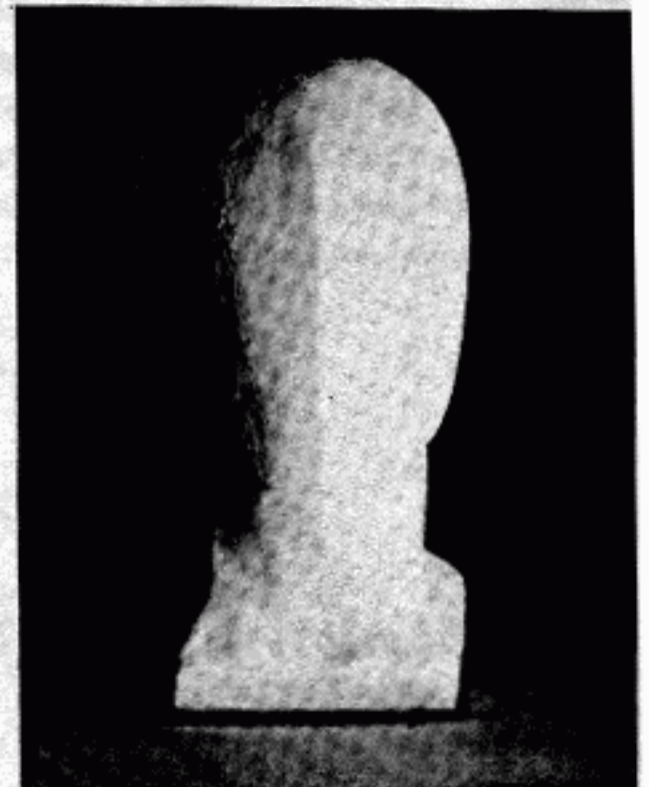
LIGHTING



1. "FLAT LIGHTING" - (FROM DIRECTLY IN FRONT) GOOD FOR POSTER, DECORATIVE, SIMPLICITY.



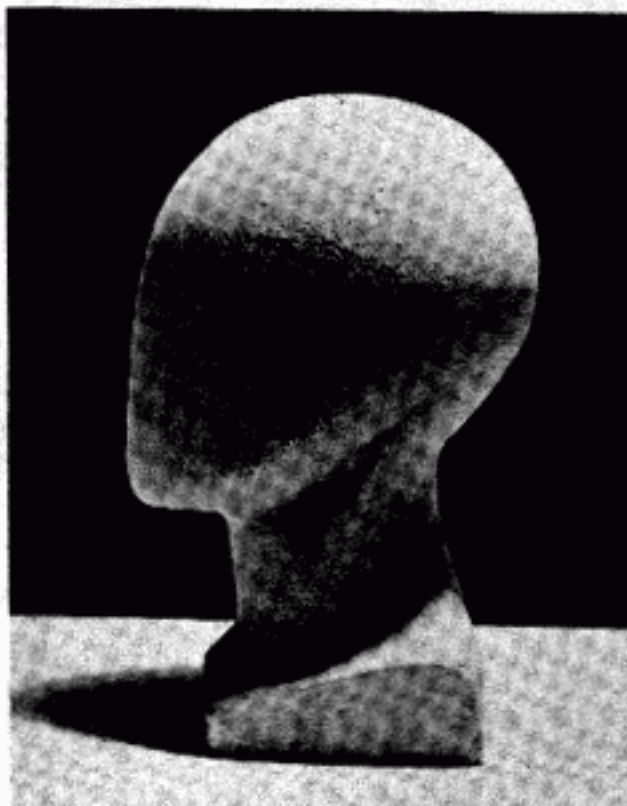
2. "STAGE" - DRAMATIC, WEIRD, GHOSTLY, LIKE THE LIGHT FROM A CRATER. (LOW FRONT)



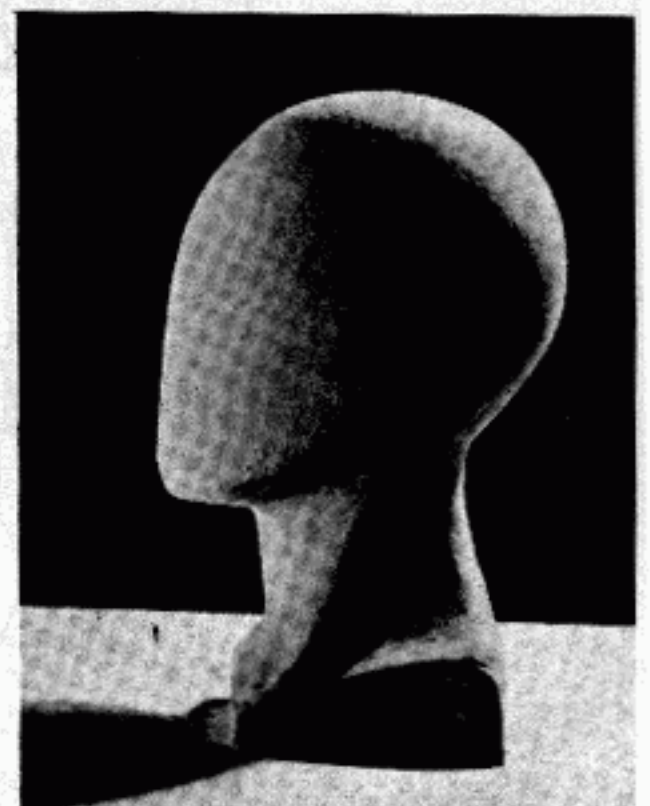
3. "3/4 SIDE" - A GOOD LIGHTING. PLACE THE LIGHT 45° FRONT. USE ONE LIGHT ONLY.



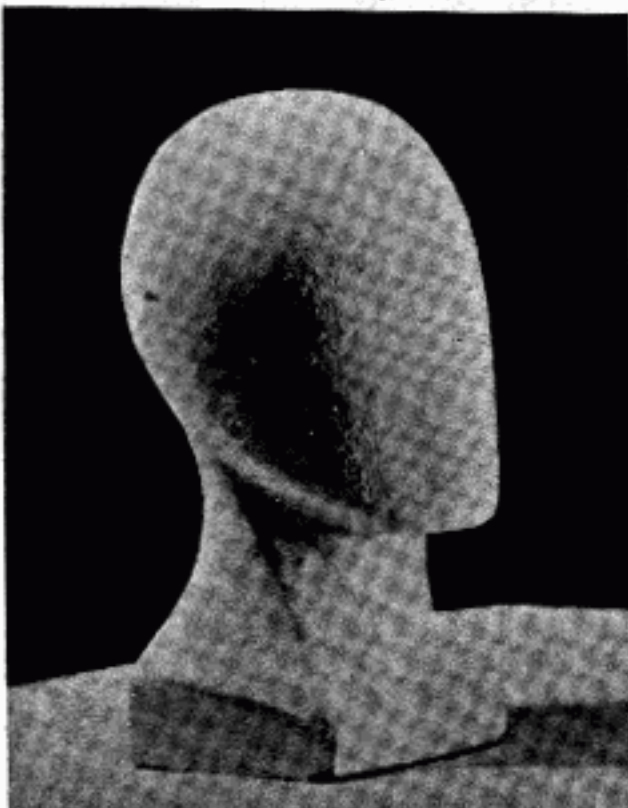
4. "3/4 TOP SIDE" - ONE OF THE BEST. IT GIVES MAXIMUM LIGHT, HALFTONE, SHADOW & REFLECT.



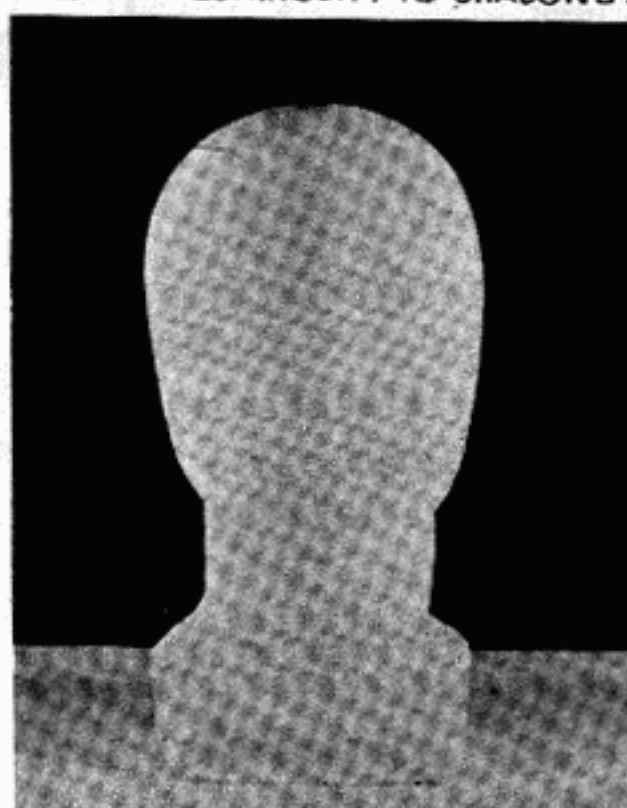
5. "TOP" - A VERY BEAUTIFUL LIGHTING. THIS GIVES GREAT LUMINOSITY TO SHADOWS.



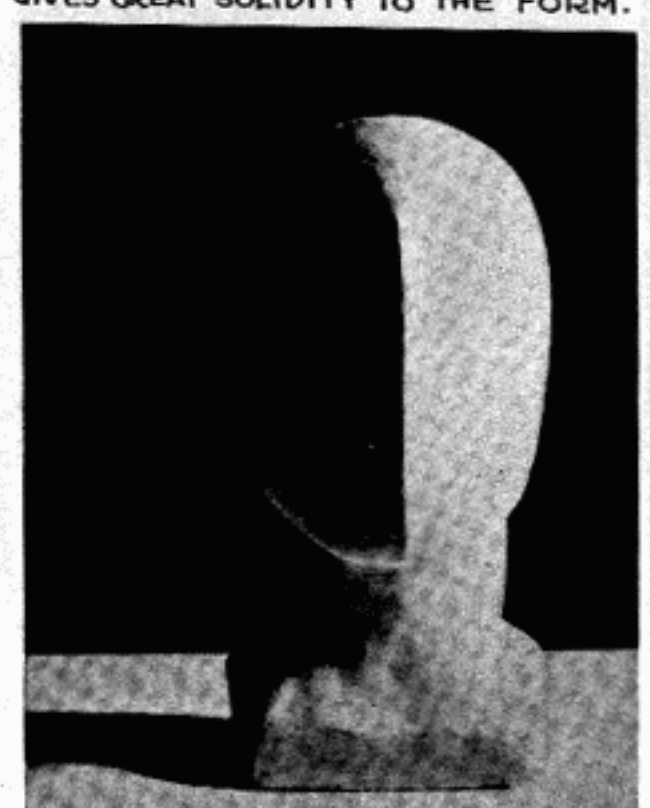
6. "TOP BACK" - WITH REFLECTOR, VERY GOOD. GIVES GREAT SOLIDITY TO THE FORM.



7. "CRISSCROSS" - USUALLY BAD. NEVER HAVE LIGHT EQUAL ON BOTH SIDES. CUTS UP FORM.



8. "ALL FLAT" - PROVING HOW EXCESS LIGHTS MAY ACTUALLY ELIMINATE SOLID FORM.



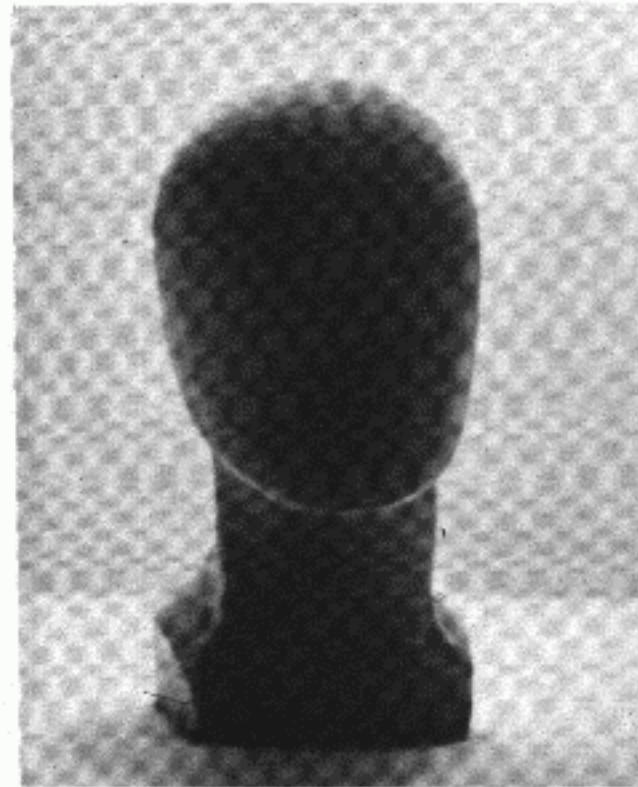
9. "1/2 and 1/2" - BAD. AREAS OF LIGHT & SHADOW SHOULD NEVER BE EQUAL. GIVE ONE THE EDGE.

LIGHTING

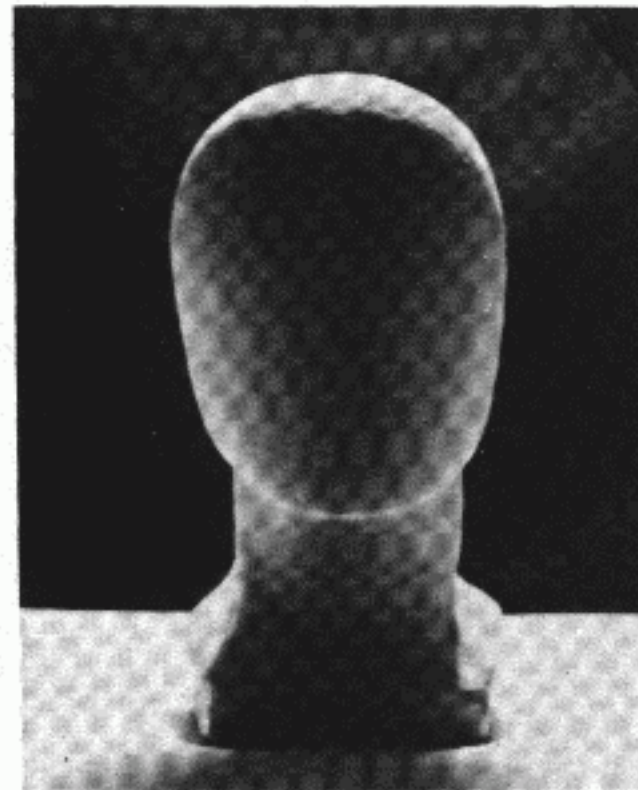
Here the camera lends us a helping hand by showing the "actual" light as it falls on a simplified form. The form has been rounded to give you the gradation from light through halftone to shadow. Number 1 is a front lighting, corresponding to the treatment of a flat and unshaded outline drawing. The only shadow, under the chin, occurs because the light was raised a little to allow the camera to be placed under it. Camera and light, of course, could not have been placed in the identical spot. Had this been possible, there would have been no shadow. An all-flat or formless lighting may be obtained by piling in equal lighting from every direction (Number 8).

When there is a single source of light on the object, the shadowed side reflects some of the light in a luminous manner. The reflected-light areas within the shadow, however, never become competitive with the areas in light, and the unity of the mass of light as opposed to the mass of shadow is maintained. In drawing nothing within a shadow area should ever be as light as that within a light area, because reflected light is never so strong as its source. One exception might be the use of a mirror. That, however, would be a duplication of the light source rather than reflection (refraction). The dazzling light upon water is another example of refraction.

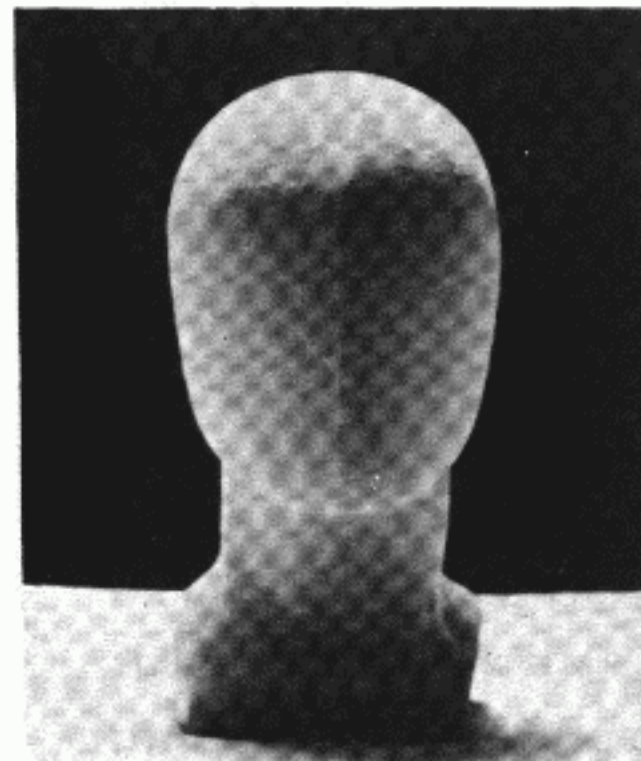
Simple lighting, which means lighting from a single source, and the reflected light of that source, is the most perfect lighting there is. It renders form in its actual contours and bulk. True modeling of form cannot be approached any other way, since to change the normal or true value of the plane is to change and upset the form; if the value is "off," the form is incorrect. Since the photographer may not have reasoned this out, it is better to make your own photographs, or at least supervise the lighting of any photographic copy. The photographer hates shadows; the artist loves them.



10. "SILHOUETTE" - THE REVERSE OF NO. 1
GOOD FOR POSTER, DESIGN & FLAT EFFECTS.



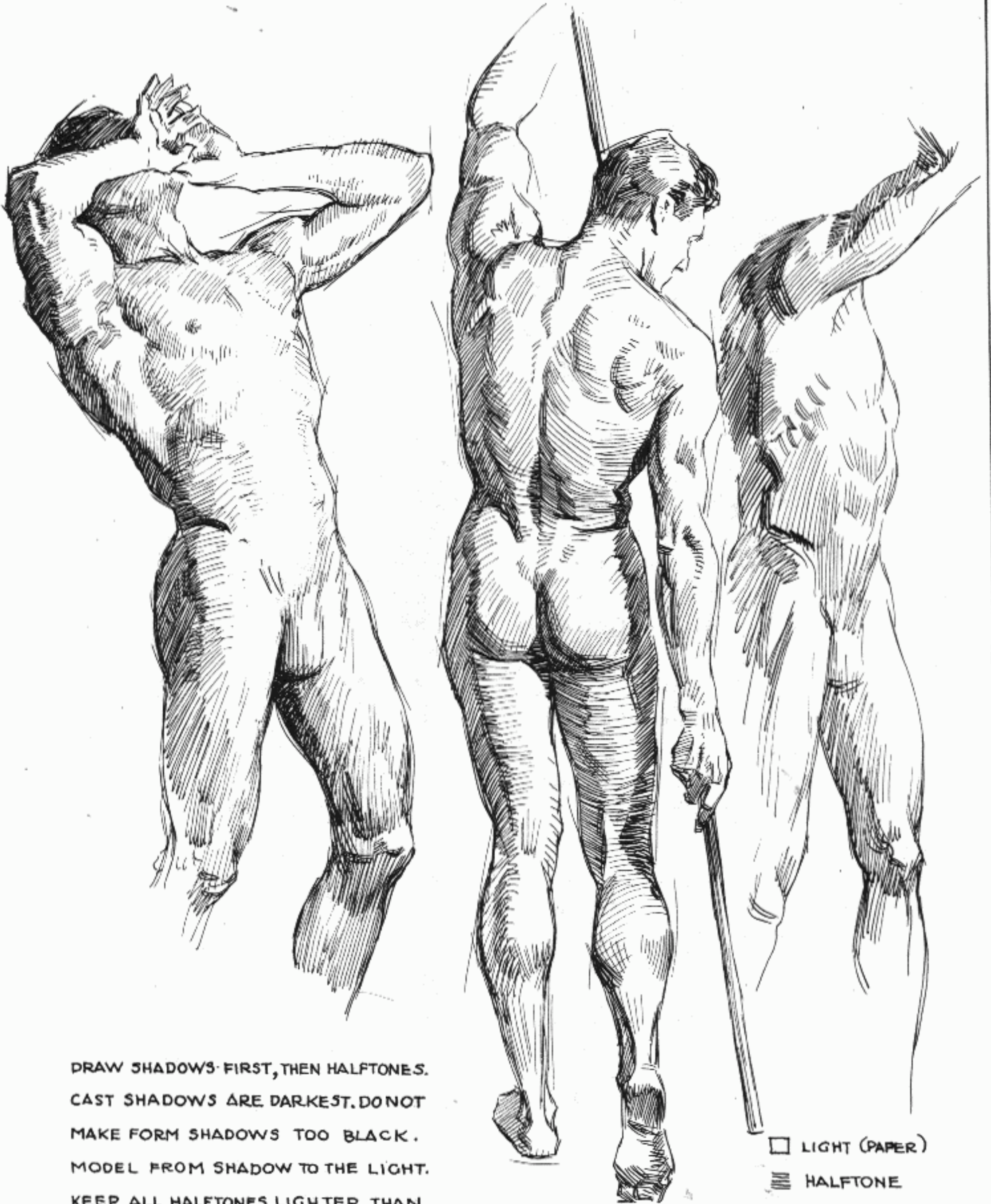
11. "FRINGE" - LIGHTED DIRECTLY FROM
BACK SLIGHTLY TOP. VERY EFFECTIVE.



12. "SKY" - TOP WITH A LIGHT GROUND
FOR REFLECTION. NATURAL, VERY GOOD.



SIMPLE LIGHTING ON THE FIGURE



DRAW SHADOWS FIRST, THEN HALFTONES.
CAST SHADOWS ARE DARKEST. DO NOT
MAKE FORM SHADOWS TOO BLACK.
MODEL FROM SHADOW TO THE LIGHT.
KEEP ALL HALFTONES LIGHTER THAN
SHADOWS. DON'T "OVER MODEL" LIGHT.

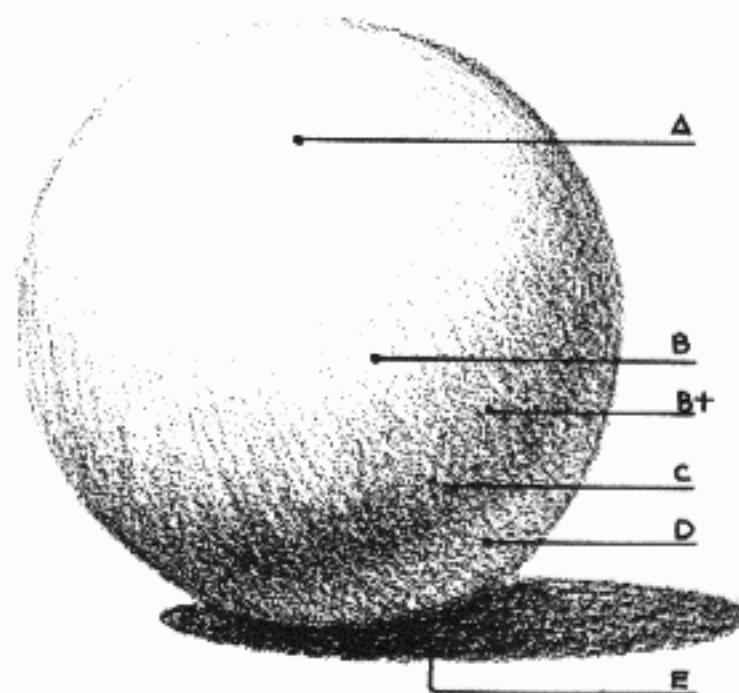
□ LIGHT (PAPER)
▨ HALFTONE
■ SHADOW

TRUE MODELING OF ROUNDED FORM

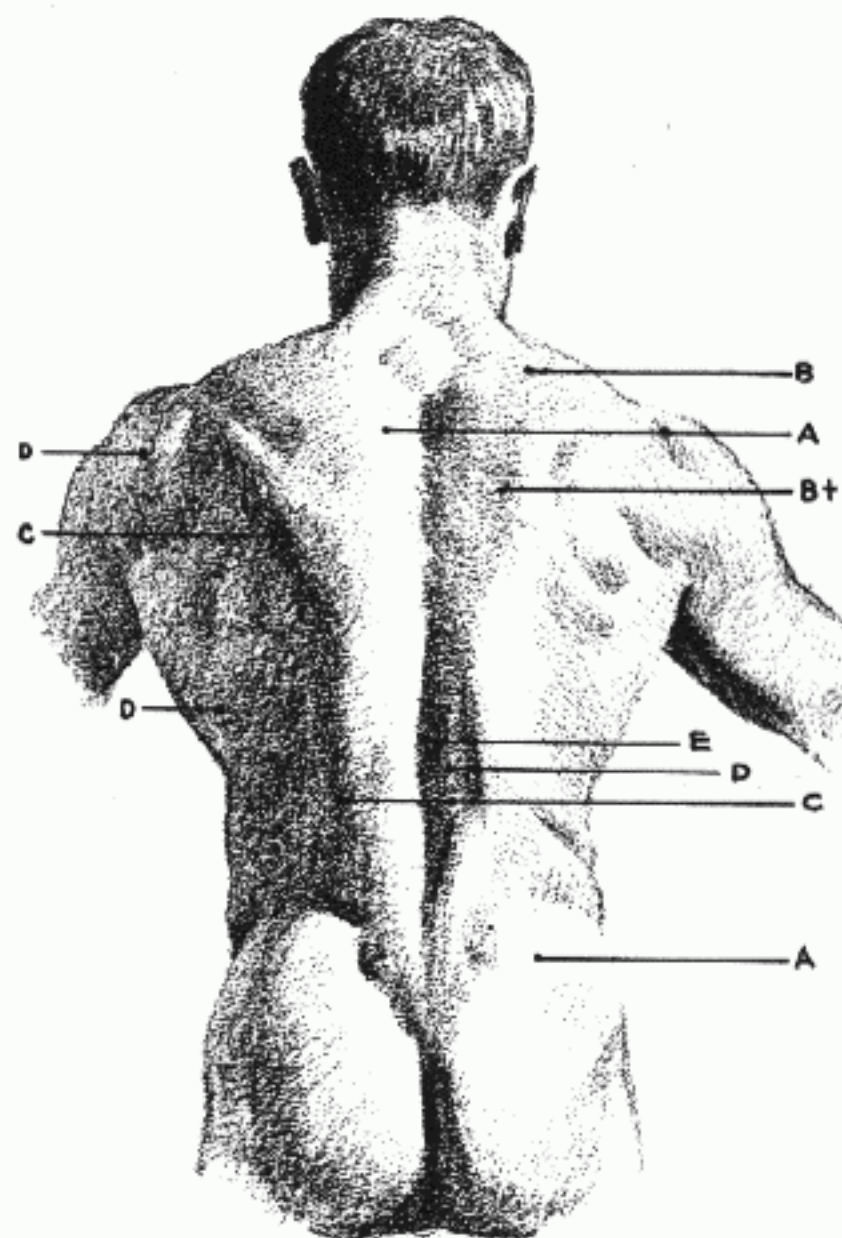
The simplest way to explain the fundamental principle of rendering light and shadow is to think of a ball with light focused upon it just as the sun lights the earth. The area on the ball closest to the light is the high light (A), comparable to noon. If we move on the surface of the sphere away from the high light in any direction, we find that the light begins imperceptibly to fade into the halftone area (B), which may be compared to twilight, and then to last light (B+), and on to night (C). If there is nothing to reflect the light, there is true darkness; however, if the moon, a reflector of the sun's light, comes up, it will reflect light into the shadow (D). When light is intercepted by a body, its silhouette falls upon the adjacent light plane. This, the darkest of the shadows, is called "cast shadow." It is still possible, however, for a cast shadow to pick up some reflected light.

The artist should be able to look at any given place on his subject and determine to which area it belongs — the light, the halftone, the shadow, or the reflected light. Correct values must be given in order to obtain unity and organization of these four fundamental areas. Otherwise a drawing will not hold together. Treatment of light gives a drawing cohesion no less than structural form.

There are many things you can learn from photographs if you use them intelligently. Remember, however, that the range of light to dark is much greater in the eye than in pigment. You cannot possibly put down the full range; you have to simplify.



- A. HIGHLIGHT = "NOON"
- ▒ B. HALFTONE = "TWILIGHT", B+ LAST LIGHT
- C. SHADOW = "NIGHT"
- ▒ D. REFLECT = "MOONLIGHT"
- E. CAST SHADOW = "ECLIPSE"



IV. DRAWING THE LIVE FIGURE: METHODS OF PROCEDURE

Before you undertake to draw from the living model, be sure you have absorbed all the preliminaries so far discussed. These are:

- The proportions of the idealized figure
- The general framework
- The relationship of perspective to the figure
- Movement and action
- The mannikin and simplified building of the form
- The anatomic construction
- The planes by which we build light and shadow
- Foreshortening
- The fundamentals of light and shadow
- The true modeling of form

Now when you have to draw something set up in front of you, you must possess still another fundamental skill—intelligent measurement. I say “intelligent” because your aim is not mere duplication.

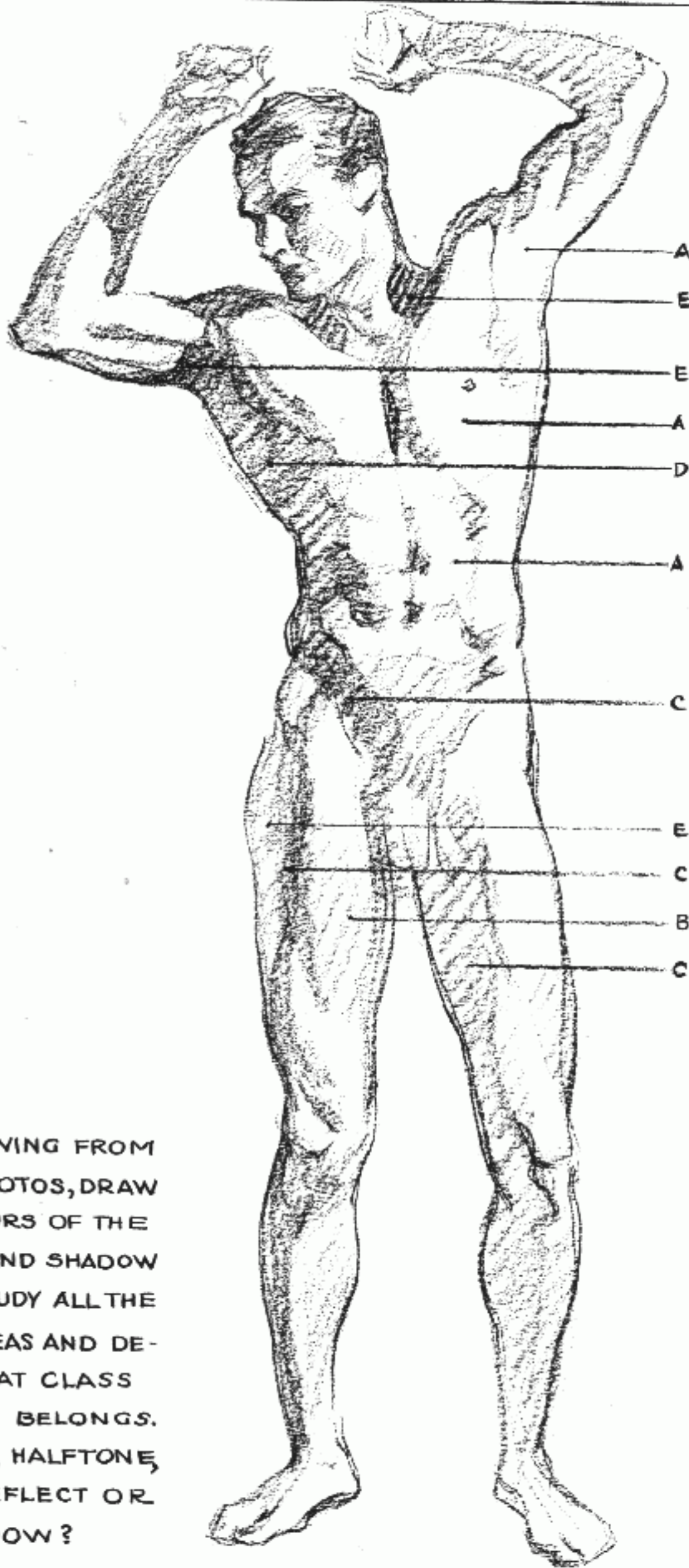
Suppose you begin to draw a husky young man, arms uplifted, whom you want to interpret in terms of light, halftone, and shadow. You have set your light source low and to the right, so that there will be a varied play of light across the form. First, look for the area of greatest light. It is found on the chest under the left arm of the model. Now look for the whole mass of light as opposed to the whole mass of shadow. Sketch in the contours of the figure and block in these masses. (On page 83 you will find the halftones added and the shadows relatively darkened.) I suggest that you use the point of your pencil for the contours and the side of the lead for the massing of the halftone and shadow. When you are drawing with a pen, shadows and halftones

can be achieved only by combinations of lines. But a brush or pencil adapts itself to mass. Observe, too, that the grain of your paper will add to or detract from the attractiveness of the texture of the drawing. Because of the method of reproduction, a coated, smooth paper could not be used for the drawings in this book. Beautiful grays and darks are possible, however, on the smooth papers if the side of a soft lead pencil is used. The halftones and darks may be produced in either pencil or charcoal by rubbing with the finger or a stump of paper. The whole figure drawing may be rubbed with a rag and the lights picked out with a kneaded eraser.

On pages 86 and 87, look over my shoulder as I proceed with my own method for drawing a figure. On page 88 see a plan of approach that I call the “visual survey.” It is less complicated than it looks, for I have included visual measurement lines that, ordinarily, are not set down. It is a plan of finding level points and plumb points and the angles established by sighting a continuation of the line to see where it emerges. This is the only plan I know that can be depended upon to offer any degree of accuracy in freehand drawing.

It is easiest to sight in vertical and horizontal lines, so that important points directly across or under each other are quickly “checked.” When a point falls outside the figure, such as a hand, angles of points within the figure will help to find it. When you have correctly placed one point, proceed to others, and finally your drawing will check with the model. This principle, also illustrated on page 89, applies to any subject before you and provides a valuable means of corroborating the accuracy of your drawing.

GROUPING SHADOW MASSES

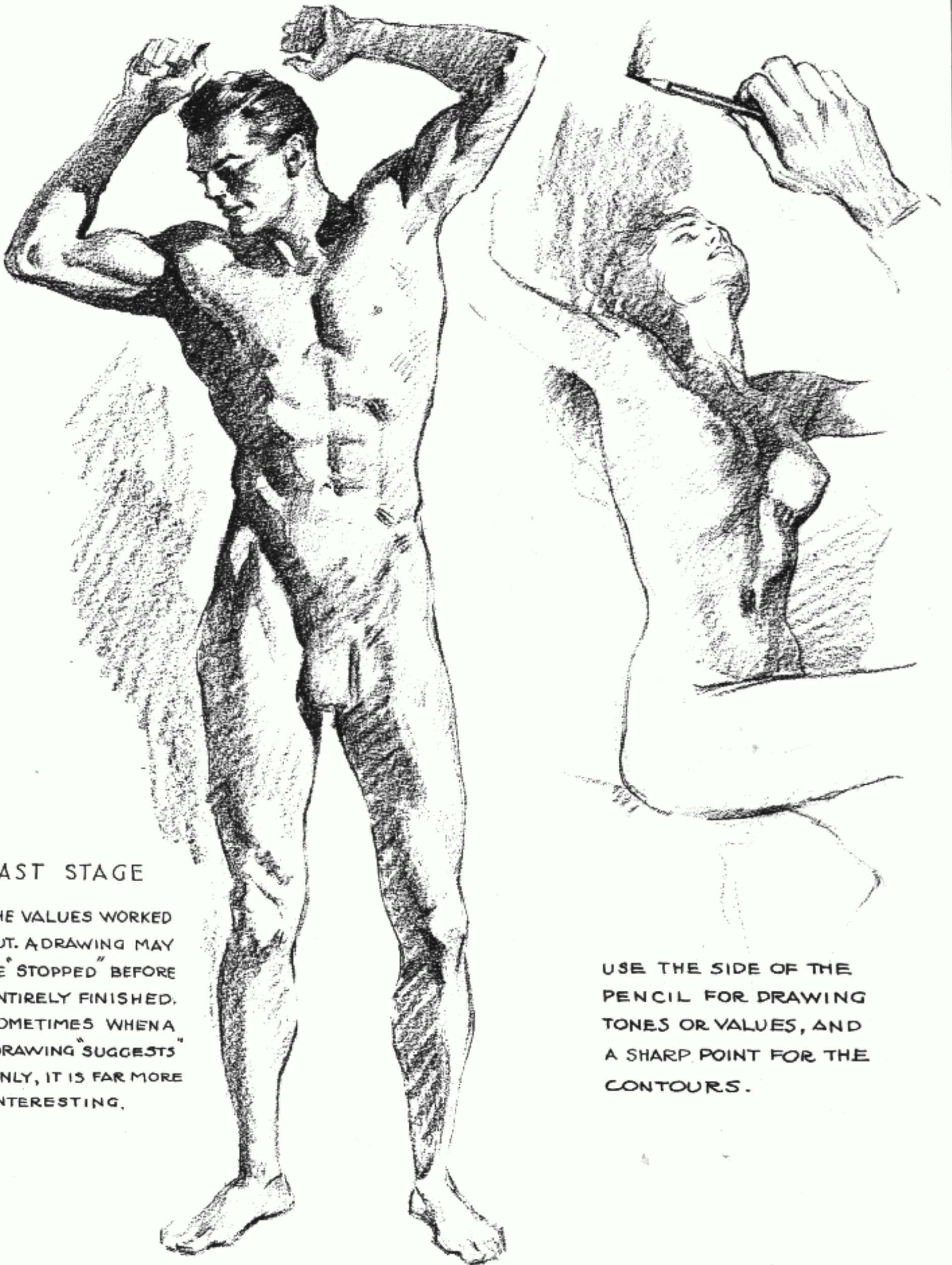


WHEN DRAWING FROM LIFE OR PHOTOS, DRAW THE CONTOURS OF THE HALFTONE AND SHADOW MASSES. STUDY ALL THE SURFACE AREAS AND DECIDE TO WHAT CLASS EACH AREA BELONGS. IS IT LIGHT, HALFTONE, SHADOW, REFLECT OR CAST SHADOW?

- A LIGHT
- B HALFTONE
- B+ DK. HALFTONE
- C SHADOW
- D REFLECT
- E CAST SHADOW

FIRST STAGE

THE MAIN VALUES STATED



LAST STAGE

THE VALUES WORKED OUT. A DRAWING MAY BE "STOPPED" BEFORE ENTIRELY FINISHED. SOMETIMES WHEN A DRAWING "SUGGESTS" ONLY, IT IS FAR MORE INTERESTING.

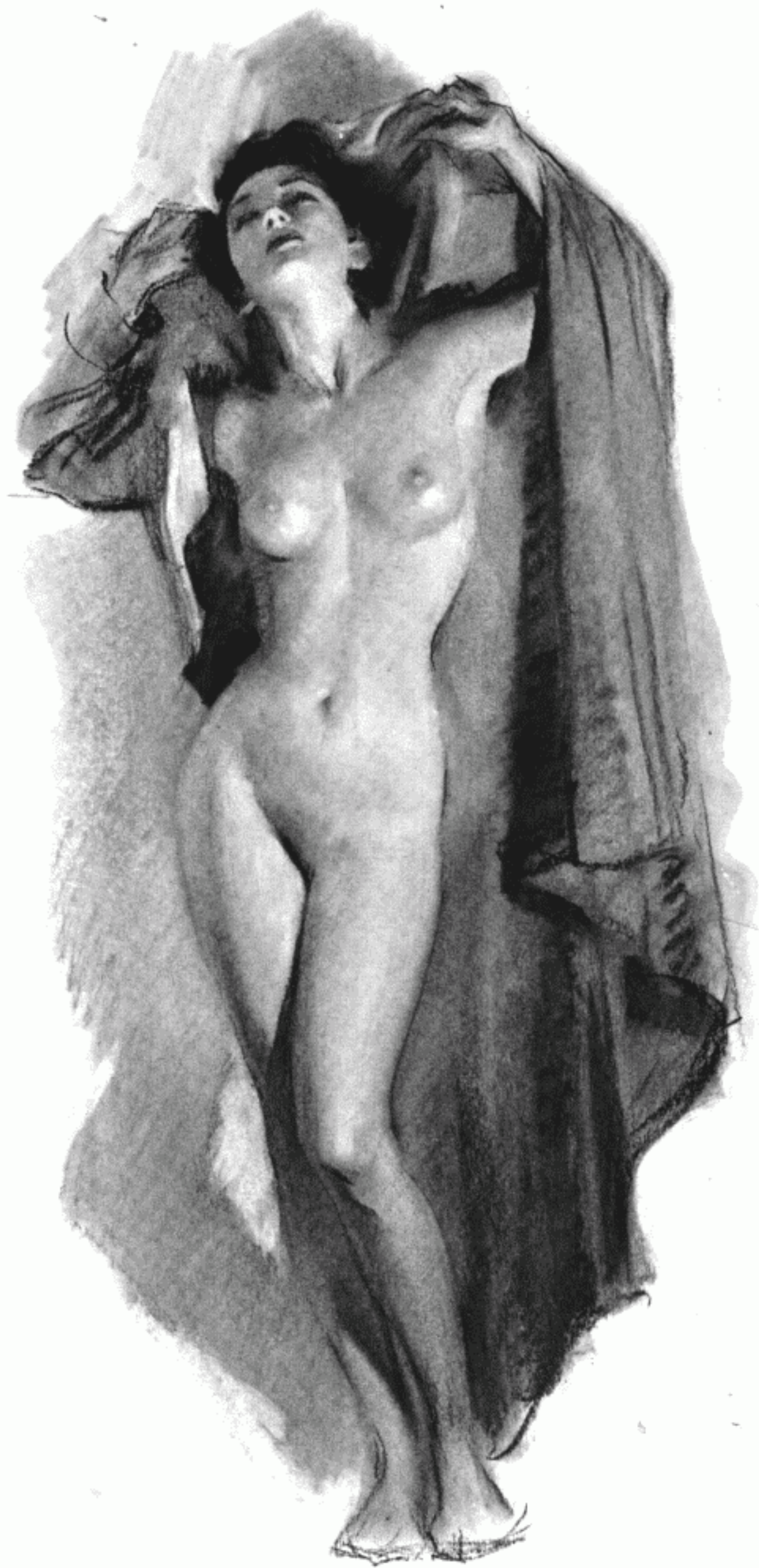
USE THE SIDE OF THE PENCIL FOR DRAWING TONES OR VALUES, AND A SHARP POINT FOR THE CONTOURS.

THE FAST STATEMENT OF VALUES



SHADOWS SIMPLY STATED ARE
ESSENTIAL IN FAST SKETCHING

PROCEDURE



PROCEDURE

