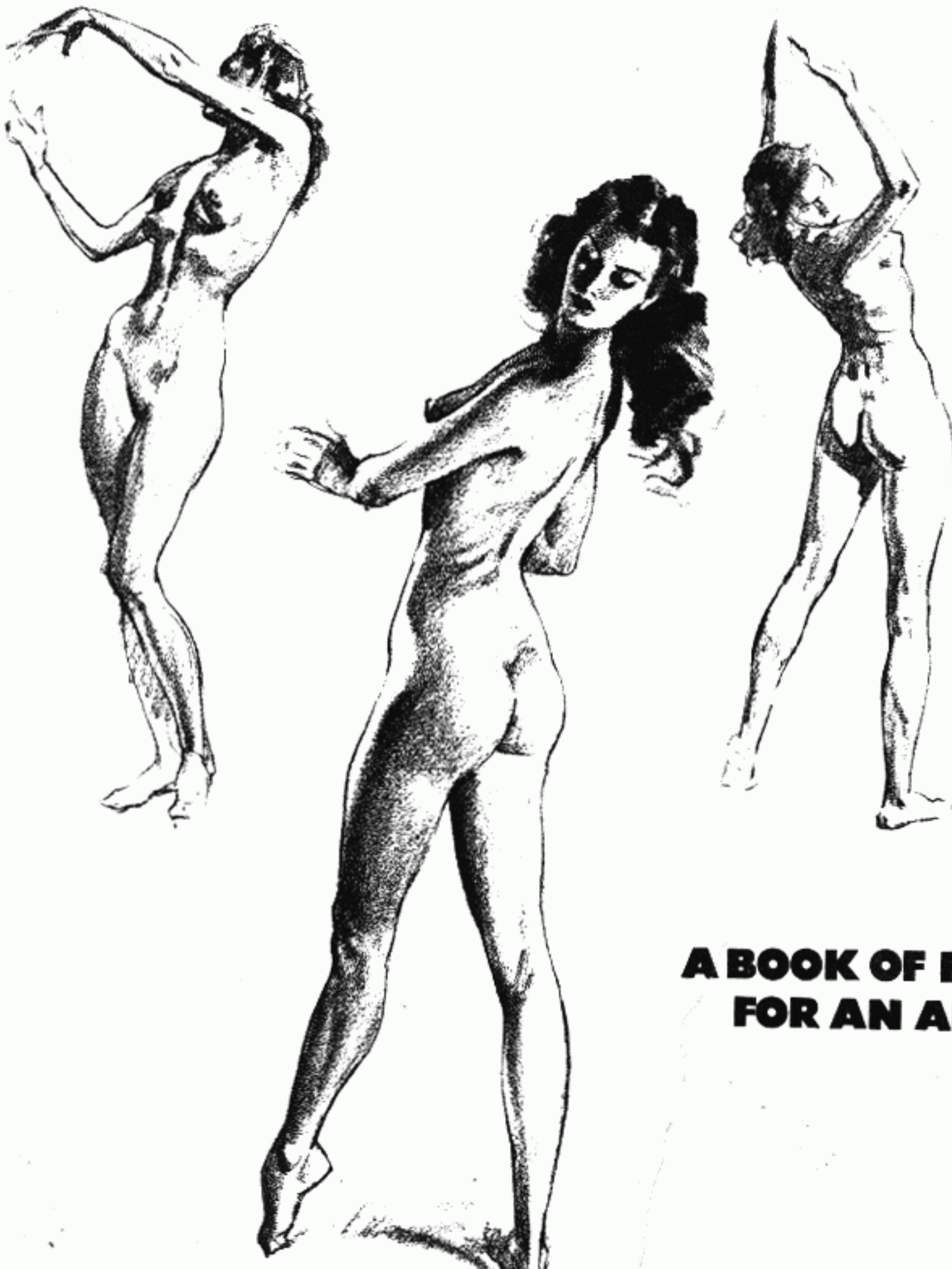


FIGURE DRAWING FOR ALL IT'S WORTH

ANDREW LOOMIS



**A BOOK OF FUNDAMENTALS
FOR AN ARTISTIC CAREER**

CONTENTS, INCLUDING ILLUSTRATIONS

AN OPENING CHAT	15
I. THE APPROACH TO FIGURE DRAWING	21
Observe Your Surroundings	22
The Nude as a Basis	23
What Is Line?	24
Beginners' Work	25
ILLUSTRATIONS	
<i>Ideal Proportion, Male</i>	26
<i>Ideal Proportion, Female</i>	27
<i>Various Standards of Proportion</i>	28
<i>Ideal Proportions at Various Ages</i>	29
<i>The Flat Diagram</i>	30
<i>The Flat Diagram</i>	31
<i>Quick Set-up of Proportions</i>	32
<i>Proportions by Arcs and Head Units</i>	33
<i>Proportion in Relation to the Horizon</i>	34
<i>The John and Mary Problems</i>	35
<i>Finding Proportion at Any Spot in Your Picture</i>	36
<i>"Hanging" Figures on the Horizon</i>	37
<i>We Begin to Draw: First the Mannikin Frame</i>	38
<i>Movement in the Mannikin Frame</i>	39
<i>Details of the Mannikin Frame</i>	40
<i>Experimenting with the Mannikin Frame</i>	41
<i>Outlines in Relation to Solid Form</i>	42
The Mannikin Figure	43
ILLUSTRATIONS	
<i>Adding Bulk to the Frame</i>	44
<i>Adding Perspective to the Solid Mannikin</i>	45
<i>Arcs of Movement in Perspective</i>	46
<i>Placing the Mannikin at Any Spot or Level</i>	47

CONTENTS, INCLUDING ILLUSTRATIONS

<i>Drawing the Mannikin from Any Viewpoint</i>	48
<i>Combining Arcs of Movement with the Box</i>	49
<i>Landmarks You Should Know</i>	50
<i>Landmarks You Should Know</i>	51
<i>Sketching the Figure in Action from Imagination</i>	52
<i>Draw Some of These, But Draw Many of Your Own</i>	53
<i>The Female Mannikin</i>	54
<i>Sketches</i>	55
<i>The Male and Female Skeletons</i>	56
II. THE BONES AND MUSCLES	57
Requirements of Successful Figure Drawing	58
ILLUSTRATIONS	
<i>Important Bones</i>	59
<i>Muscles on the Front of the Figure</i>	60
<i>Muscles on the Back of the Figure</i>	61
<i>Muscles of the Arm, Front View</i>	62
<i>Muscles of the Arm, Varied Views</i>	63
<i>Muscles of the Leg, Front View</i>	64
<i>Muscles of the Leg, Back and Side View</i>	65
<i>Now Just Play with What You Have Learned</i>	66
<i>Try Building Figures without Model or Copy</i>	67
III. BLOCK FORMS, PLANES, FORESHORTENING, AND LIGHTING	68
Foreshortening and Lighting	69
ILLUSTRATIONS	
<i>Block Forms Help to Develop Your Sense of Bulk</i>	70
<i>Feel Free to Invent Your Own Blocks</i>	71
<i>How To Use an Art-Store Wooden Mannikin</i>	72
<i>Quick Sketches from the Wooden Mannikin</i>	73
<i>Foreshortening</i>	74
<i>Some Pen Sketches for Foreshortening</i>	75
<i>Planes</i>	76
<i>Planes</i>	77
<i>Lighting</i>	78

CONTENTS, INCLUDING ILLUSTRATIONS

<i>Lighting</i>	79
<i>Simple Lighting on the Figure</i>	80
<i>True Modeling of Rounded Form</i>	81
IV. DRAWING THE LIVE FIGURE: METHODS OF PROCEDURE	82
ILLUSTRATIONS	
<i>Grouping Shadow Masses</i>	83
<i>The Main Values Stated</i>	84
<i>The Fast Statement of Values</i>	85
<i>Procedure</i>	86
<i>Procedure</i>	87
<i>The Visual-Survey Procedure</i>	88
<i>Drawing from the Model</i>	89
V. THE STANDING FIGURE	91
Variety in the Standing Pose	92
ILLUSTRATIONS	
<i>The Weight on One Foot</i>	93
<i>Distributed Weight</i>	94
<i>There Are Many Ways of Standing</i>	95
<i>Shadow Defines Form</i>	96
<i>The Nearly Front Lighting</i>	97
<i>Building from the Skeleton</i>	98
<i>Accenting the Form</i>	99
<i>Anatomy Test</i>	100
A Typical Problem	101
VI. THE FIGURE IN ACTION: TURNING AND TWISTING	103
ILLUSTRATIONS	
<i>Turning and Twisting</i>	104
<i>Turning and Twisting</i>	105
<i>Turning and Twisting</i>	106
<i>Turning and Twisting</i>	107
<i>Turning and Twisting</i>	108
<i>Turning and Twisting</i>	109
<i>Penline and Pencil</i>	110

CONTENTS, INCLUDING ILLUSTRATIONS

<i>A Good Method for Newspaper Reproduction</i>	111
<i>Quick Sketching with Pen and Pencil</i>	112
A Typical Problem	113
VII. FORWARD MOVEMENT: THE TIPPED LINE OF BALANCE	115
The Mechanics of Movement	116
ILLUSTRATIONS	
<i>Snapshots of Walking Poses</i>	118
<i>Snapshots of Running Poses</i>	119
<i>The Tipped Line of Balance</i>	120
<i>Springlike Movement</i>	121
<i>Action Too Fast for the Eye</i>	122
<i>Twisted Forward Movement</i>	123
<i>Movement Head to Toe</i>	124
<i>Fast Movement</i>	125
<i>Push of the Back Leg</i>	126
A Typical Problem	127
VIII. BALANCE, RHYTHM, RENDERING	129
ILLUSTRATIONS	
<i>Balance</i>	130
<i>Balance</i>	131
<i>Two Methods of Approach</i>	132
<i>Defining Form with Just Tone and Accent</i>	133
<i>Stressing Construction</i>	134
<i>Two Minute Studies</i>	135
<i>Rhythm</i>	136
Rhythm	137
ILLUSTRATIONS	
<i>Rhythm</i>	138
<i>Crossing Lines of Rhythm</i>	139
<i>"Sweep"</i>	140
<i>Relating One Contour to Another</i>	141
<i>Defining by Edges and Shadow without Outline</i>	142
A Typical Problem	143

CONTENTS, INCLUDING ILLUSTRATIONS

IX. THE KNEELING, CROUCHING, SITTING FIGURE	145
ILLUSTRATIONS	
<i>Crouching</i>	146
<i>The Incomplete Statement May Be Interesting</i>	147
<i>Point Technique</i>	148
<i>Planning a Pen Drawing</i>	149
<i>Kneeling and Sitting</i>	150
<i>Kneeling and Twisting or Bending</i>	151
<i>Getting Full Value Range with Ink and Pencil</i>	152
<i>Ink and Pencil in Combination</i>	153
<i>Pen Drawing</i>	154
<i>A "Looser" Treatment</i>	155
<i>Fine Point Brush Drawing</i>	156
A Typical Problem	157
X. THE RECLINING FIGURE	159
ILLUSTRATIONS	
<i>Sketches of Reclining Poses</i>	160
<i>Study</i>	161
<i>Coarse Grain Paper Studies</i>	164
<i>Study in Foreshortening</i>	165
<i>Cemented Tissue Overlay, Spatter and Brush Drawing</i>	166
<i>Pen Studies</i>	168
A Typical Problem	169
XI. THE HEAD, HANDS, AND FEET	171
ILLUSTRATIONS	
<i>Head Building</i>	172
<i>Blocks and Planes</i>	173
<i>Bones and Muscles of the Head</i>	174
<i>The Muscles in Light and Shadow</i>	175
<i>Features</i>	176
<i>Setting the Features into the Head</i>	177
<i>Studies</i>	178
<i>Studies of Miss "G"</i>	179
<i>Young and Old</i>	180

CONTENTS, INCLUDING ILLUSTRATIONS

<i>Make Studies Like These of Your Friends</i>	181
<i>Proportion of the Baby Head</i>	182
<i>Baby Heads</i>	183
<i>Hands</i>	184
<i>Hands</i>	185
<i>The Foot</i>	186
A Typical Problem	187
XII. THE COMPLETE FIGURE IN COSTUME	189
ILLUSTRATIONS	
<i>Draw Figure, Then Costume</i>	190
<i>Clothing Studied from Life</i>	191
<i>Rendering Drapery</i>	192
<i>Draw the Halftones and Shadows</i>	193
<i>Elimination and Subordination</i>	194
<i>Study from Life</i>	195
<i>Brush and Spatter Illustration</i>	196
A Typical Problem	197
CLOSING CHAT	199
How Artists Work	200
Running Your Studio	201
About Your Prices	202
Introducing Yourself	203
Do It Your Way	204

AN OPENING CHAT

DEAR READER:

For many years the need of a further book on the subject of figure drawing has been apparent to me. I have waited for such a book to appear which could be recommended to the many young artists with whom I have come in contact. Finally, I have come to the realization that such a book, regardless of one's ability as an author, could be written only by a man actually in the field of commercial art, who in his experience had met and countered with the actual problems that must be clarified. I recall how frantically, in the earlier days of my own experience, I searched for practical information that might lend a helping hand in making my work marketable. Being in the not unusual position of having to support myself, it was the predicament of having to make good at art or being forced to turn to something else.

Across this wide country there are many of you in that predicament. You, also possessed of that unaccountable urge which seemingly comes from nowhere, want to speak the language of art. You love to draw. You wish to draw well. If there is any chance, you greatly wish to make a living at it. Perhaps I can help you. I sincerely hope so, for I think I have lived through every minute you are now living. Perhaps I can compile some of the information that experience tells me you want and need. I do not pretend to undervalue the fine work that has been done; the difficulty has always been in finding it and sorting out what is of practical value and putting it into practice. I believe that the greater chances of success lie in the mental approach to the work, rather than in sheer technical knowledge, and since the mental approach has not often been stressed, here lies the opportunity to serve you.

I not only assume that my reader is interested

in drawing but that he wishes from his toes up to become an efficient and self-supporting craftsman. I assume that the desire to express yourself with pen and pencil is not only urgent but almost undeniable, and that you feel you *must do something about it*. I feel that talent means little unless coupled with an insatiable desire to give an excellent personal demonstration of ability. I feel also that talent must be in company with a capacity for unlimited effort, which provides the power that eventually hurdles the difficulties that would frustrate lukewarm enthusiasm.

Let us try to define that quality which makes an artist "tick." Every bit of work he does starts out with the premise that it has a message, a purpose, a job to do. What is the most direct answer, the simplest interpretation of that message he can make? Stripping a subject to its barest and most efficient essentials is a mental procedure. Every inch of the surface of his work should be considered as to whether it bears important relationship to a whole purpose. He sees, and his picture tells us the importance of what he sees and how he feels about it. Then within his picture he stresses what is of greatest importance, and subordinates what must be there but is of lesser importance. He will place his area of greatest contrast about the head of the most important character. He will search diligently for means to make that character express the emotion in facial expression and pose that is to be the all important theme. He will first draw attention to that character, by every means available. In other words, he plans and thinks, and does not passively accept simply because it exists. Not far back in the annals of art the ability to achieve just a lifelike appearance might have caused some wonder in a spectator, enough to

AN OPENING CHAT

capture his interest. Today with color photography and the excellence of the camera going perhaps even further in that respect, we are surfeited with realism par excellence, until mere lifelike representation is not enough. There is no other course than somehow to go beyond obvious fact to pertinent fact, to characterization, to the emotional and dramatic, to selection and taste, to simplification, subordination, and accentuation. It is ten per cent how you draw, and ninety per cent *what you draw*. Equally defining everything within your picture area, in value, edge and detail, will add no more than can be achieved in photography. Subordination may be achieved by diffusion, by closeness of color and value to surrounding areas, by simplification of insistent detail, or by omission. Accentuation is achieved by the opposite in each case, by sharpness, contrast, detail, or any added device.

I take this opportunity to impress upon you, my reader, how important you really are in the whole of art procedure. You, your personality, your individuality come first. Your pictures are your by-product. Everything about your pictures is, and should be, a little of you. They will be a reflection of your knowledge, your experience, your observation, your likes and dislikes, your good taste, and your thinking. So the real concentration is centered on you, and your work follows along in the wake of what mental self-improvement you are making. It has taken me a lifetime to realize that. So before we talk at all about drawing, it is important to sell you strongly on yourself, to plant that urge so definitely in your consciousness that you must know at once that most of it comes from the other end of your pencil rather than the business end.

As a student I thought there was a formula of some kind that I would get hold of somewhere, and thereby become an artist. There is a formula, but it has not been in books. It is really plain old courage, standing on one's own feet,

and forever seeking enlightenment; courage to develop your way, but learning from the other fellow; experimentation with your own ideas, observing for yourself, a rigid discipline of doing over that which you can improve. I have never found a book that stressed the importance of myself as the caretaker of my ability, of staying healthy mentally and physically, or that gave me an inkling that my courage might be strained to the utmost. Perhaps that is not the way to write books, but I can see no harm in the author realizing that he is dealing with personalities, and that there is something more important than technique. In art we are dealing with something far removed from a cold science, where the human element is everything. At least I am determined to establish a fellowship with my reader, welcoming him to the craft at which I have spent so many years. If I have any blue chips I can pass on to him, I lay them before him so that he may join in the game. I cannot profess to know more than the experience of one individual. However, one individual experience if wide enough might well cover many of the problems that will doubtless come to others. Solutions of those problems may provide like solutions. I can lay out an assortment of facts and fundamentals that were helpful to me. I can speak of the idealizations, the practical hints and devices that will undoubtedly make drawings more salable. Since the requirements are almost universal, and since my own experience does not vary greatly from the average experience of my contemporaries, I offer my material without setting up myself and my work as a criterion. In fact, I would prefer, if it were possible, to subordinate my own viewpoint, or technical approach, and leave the reader as free as possible for individual decision and self-expression. I use my experience merely to clarify the general requirements.

It should be obvious that, first of all, salable

AN OPENING CHAT

figure drawing must be good drawing, and "good drawing" means a great deal more to the professional than to the beginner. It means that a figure must be convincing and appealing at the same time. It must be of idealistic rather than literal or normal proportion. It must be related in perspective to a constant eye level or viewpoint. The anatomy must be correct, whether exposed to the eye or concealed beneath drapery or costume. The light and shadow must be so handled as to impart a living quality. Its action or gesture, its dramatic quality, expression, and emotion must be convincing. Good drawing is neither an accident nor the result of an inspired moment when the Muses lend a guiding hand. Good drawing is a co-ordination of many factors, all understood and handled expertly, as in a delicate surgical operation. Let us say that each factor becomes an instrument or part of a *means of expression*. It is when the means of expression is developed as a whole that inspiration and individual feeling come into play. It is possible for anybody to be "off" at any time in any one or more of the factors. Every artist will do "good ones" and "bad ones." The bad will have to be thrown out and done over. The artist should, of course, make a critical analysis to determine why a drawing is bad; usually he will be forced to go back to fundamentals, for bad drawing springs from basic faults as surely as good drawing springs from basic merits.

Therefore a useful book of figure drawing cannot treat one phase alone, as the study of anatomy; it must also seek out and co-ordinate all the basic factors upon which good drawing depends. It must consider both aesthetics and sales possibilities, technical rendering and typical problems to be solved. Otherwise the reader is only partially informed; he is taught but one angle, and then left to flounder.

May I assume that you as a young artist are facing a bread-and-butter problem? Whenever

you achieve sufficient technical ability, there will be an income waiting for you. From that point on your earnings will increase in ratio to your improvement. In the fields of practical art the ranks thin out at the top, just as they do everywhere else. There is not an advertising agency, a magazine publisher, a lithograph house, or an art dealer's that will not gladly open its doors to real ability that is new and different. It is mediocrity to which the door is closed. Unfortunately most of us are mediocre when we start out; by and large, most commercial artists of outstanding ability had no more than average talent at the start.

May I confess that two weeks after entering art school, I was advised to go back home? That experience has made me much more tolerant of an inauspicious beginning than I might otherwise have been, and it has given me additional incentive in teaching.

Individuality of expression is, without question, an artist's most valuable asset. You could make no more fatal error than to attempt to duplicate, for the sake of duplication alone, either my work or that of any other individual. Use another's style as a crutch only—until you can walk alone. Trends of popularity are as changeable as the weather. Anatomy, perspective, values remain constant; but you must diligently search for new ways to apply them. The greatest problem here is to provide you with a solid basis that will nurture individuality and not produce imitation. I grant that a certain amount of imitation in the earliest phase of learning may be necessary in order that self-expression may have an essential background. But there can be no progress in any art or craft without an accumulation of individual experience. The experience comes best through your own effort or observation, through self-instruction, the reading of a book, or the study of an old master. These experiences are bundled together to form your

AN OPENING CHAT

working knowledge, and the process should never stop. New, creative ideas are usually variants of the old.

In this volume I shall try to treat the figure as a living thing, its power of movement related to its structure and its movement separated into several kinds. We shall draw the nude for the purpose of better understanding the draped figure. We shall think of the figure as possessed of bulk and weight, as being exposed to light and therefore shadow, and hence set into space as we know it. Then we shall try to understand light for what it is; and how form, with its planes of various direction, is affected by it. We shall consider the head and its structure separately. In other words, we shall provide a foundation that will enable you to make your figures original and convincing. The interpretation, the type, the pose, the drama, the costume, and the accessories will all be yours. Whether your figures are drawn for an advertisement, to illustrate a story, or for a poster or a calendar will not change appreciably the fundamental demands upon your knowledge. Technique is not so important as the young artist is inclined to believe; the living and emotional qualities—the idealization you put into your work—are far more important. So are your selection and taste in costume and setting—provided you have mastered fundamentals. The smartest dress in the world will not be effective on a badly drawn figure. Expression or emotion cannot possibly be drawn into a face that is poorly constructed. You cannot paint in color successfully without some conception of light and color values, or even hope to build a composition of figures until you know how to draw them in absolute perspective. Your job is to glorify and idealize the everyday material about you.

It is my purpose from start to finish of this

book to lend you a hand to the top of the hill, but upon reaching the crest to push you over and leave you to your own momentum. I have hired and paid the best models I could find, knowing that the limited funds of the average young artist, would not permit that. If you study my drawings in the light of a model posing for you, rather than thinking of them as something to be duplicated line for line and tone for tone, I think you will in the end derive greater benefit. With every page I suggest you place your pad at the side of the book. Try to get the meaning behind the drawing much more than the drawing itself. Keep your pencil as busy as possible. Try figures varying as much as possible from those in my pages. Set up figures roughly, from the imagination, make them do all sorts of actions. If it is possible to draw from the live model in school or elsewhere, do so by all means, utilizing as best you can the fundamentals we have here. If you can take photos or have access to them, try your skill in drawing from them, adding what idealization you think should be there.

It might be a good plan to read the entire book at the start so that you will better understand the general plan of procedure. Other kinds of drawing such as still life should be supplemented, for all form presents the general problem of contour, planes, light and shadow.

Get used to using a soft pencil, one that will give considerable range from light to dark. A thin, weak and gray drawing has practically no commercial value. The switching to a pen and black drawing ink is not only interesting but has real value commercially. Use one that is fairly flexible. Pull the pen to make your line, never push it at the paper, for it will only catch and splutter. Charcoal is a fine medium for study. A large tissue or layout pad is excellent to work on.

Perhaps the best way is to suggest that you use the book in whatever manner suits you best.

THE APPROACH TO FIGURE DRAWING

The first chapter of this book will be treated a little differently from the others, as a prelude to the actual figure, and to lay the groundwork of the structure we are later to build. This part of the book will be of especial value to the layout man and to the artist for the preparation of preliminary sketches, roughs, the setting down of ideas, suggestions of actions and pose, where the figure must be drawn without the use of models or copy. This is the sort of work the artist does in advance of the finished work. This, in other words, is the work with which he sells himself to the prospective client. In that respect it is most important since it really creates opportunity. He will be able to prepare this work intelligently so that when he gets to the final work he will not be confused with new problems of perspective, spacing, and other difficulties.

The reader is urged to give this chapter his utmost attention since it is unquestionably the most important chapter in the book, and one to pay good dividends for the concentrated effort involved.



I. THE APPROACH TO FIGURE DRAWING

As we begin the book, let us take note of the broad field of opportunity afforded the figure draftsman. Starting with the comic or simple line drawings of the newspaper, it extends all the way up through every kind of poster, display, and magazine advertising, through covers and story illustration to the realms of fine art, portraiture, sculpture, and mural decoration. Figure drawing presents the broadest opportunity from the standpoint of earning of any artistic endeavor. Coupled with this fact is the great advantage that all these uses are so interrelated that success in one almost assures success in another.

The interrelation of all these uses springs from the fact that all figure drawing is based on the same fundamentals which can be applied no matter what use the work is put to. This brings a further great advantage to the figure man in that he has a constant market if he is capable of good work. The market is constant because his work fits into so many notches in the cycle of buying and selling which must always be present barring financial collapse. To sell one must advertise, to advertise one must have advertising space, to have advertising space there must be attractively illustrated magazines, billboards, and other mediums. So starts the chain of uses of which the artist is an integral part.

To top it all, it becomes the most fascinating of any art effort because it offers such endless variety, encompassing so much that it ever remains new and stimulating. Dealing with the human aspects of life it runs the gamut of expression, emotion, gesture, environment, and the interpretation of character. What other fields of effort offer so great a variety for interest and genuine relief from monotony? I speak of this to build within you that confidence that all is well

once you arrive at your destination; your real concern is making the journey.

Art in its broadest sense is a language, a message that can be expressed better in no other way. It tells us what a product looks like and how we can use it. It describes the clothes and even the manners of other times. In a war poster it incites us to action; in a magazine it makes characters alive and vivid. It projects an idea visually, so that before a brick is laid we may see, before our eyes, the finished building.

There was a time when the artist withdrew to a bare attic to live in seclusion for an ideal. For subject, a plate of apples sufficed. Today, however, art has become an integral part of our lives, and the successful artist cannot set himself apart. He must do a certain job, in a definite manner, to a definite purpose, and with a specified date of delivery.

Start at once to take a new interest in people. Look for typical characters everywhere. Familiarize yourself with the characteristics and details that distinguish them. What is arrogance in terms of light and shadow, form and color? What lines give frustration and forlorn hope to people? What is the gesture in relation to the emotion? Why is a certain childish face adorable, a certain adult face suspicious and untrustworthy? You must search for the answers to these questions and be able to make them clear to your public. This knowledge will in time become a part of you, but it can come only from observation and understanding.

Try to develop the habit of observing your surroundings carefully. Some day you may want to place a figure in a similar atmosphere. You cannot succeed completely with the figure unless you can draw the details of the setting. So

OBSERVE YOUR SURROUNDINGS

begin now to collect a file of the details that give a setting its "atmosphere."

Learn to observe significant details. You must be concerned with more than Martha's hair-dress. Precisely why does Martha in a formal gown look so different in shorts or slacks? How do the folds of her dress break at the floor when she sits down?

Watch emotional gestures and expressions. What does a girl do with her hands when she says, "Oh, that's wonderful!"? Or with her feet when she drops into a chair and says, "Gosh, I'm tired!"? What does a mother's face register when she appeals to the doctor, "Is there no hope?" Or a child's when he says, "Gee, that's good!"? You must have more than mere technical ability to produce a good drawing.

Nearly every successful artist has a particular interest or drive or passion that gives direction to his technical skill. Often it is an absorption in some one phase of life. Harold von Schmidt, for example, loves the outdoors, rural life, horses, the pioneer, drama, and action. His work breathes the fire that is in him. Harry Anderson loves plain American people — the old family doctor, the little white cottage. Norman Rockwell, a great portrayer of character, loves a gnarled old hand that has done a lifetime of work, a shoe that has seen better days. His tender and sympathetic attitude toward humanity, implemented by his marvelous technical ability, has won him his place in the world of art. Jon Whitcomb and Al Parker are at the top because they can set down a poignant, up-to-the-minute portrayal of young America. The Clark brothers have a fondness for drawing the Old West and frontier days, and have been most successful at it. Maude Fangel loved babies and drew them beautifully. None of these people could have reached the pinnacle without their inner drives. Yet none could have arrived there without being able to draw well.

I do not strongly recommend becoming "helper" to a successful artist in order to gain background. More often than not, it is a discouraging experience. The reason is that you are continually matching your humble efforts against the stellar performance of your employer. You are not thinking and observing for yourself. You are usually dreaming, developing an inferiority complex, becoming an imitator. Remember: artists have no jealously guarded professional secrets. How often have I heard students say, "If I could just watch that man work, I'm sure I could get ahead!" Getting ahead does not happen that way. The only mystery, if such it may be called, is the personal interpretation of the individual artist. He himself probably does not know his own "secret." Fundamentals you must master, but you can never do so by watching another man paint. You have to reason them out for yourself.

Before you decide what type of drawing you want to concentrate on, it would be wise to consider your particular background of experience. If you have been brought up on a farm, for instance, you are much more likely to succeed in interpreting life on a farm than in depicting Long Island society life. Don't ignore the intimate knowledge you have gained from long, everyday acquaintance. All of us tend to discount our own experience and knowledge—to consider *our* background dull and commonplace. But that is a serious mistake. No background is barren of artistic material. The artist who grew up in poverty can create just as much beauty in drawing tumble-down sheds as another artist might in drawing ornate and luxurious settings. As a matter of fact, he is apt to know much more about life, and his art is likely to have a broader appeal. Today great interest has developed in the "American Scene." Simple homeliness is its general keynote. Our advertising and much of our illustration, however, de-

THE NUDE AS A BASIS

mand the sophisticated and the smart, but it is wise to bear in mind this newer trend, for which a humble background is no handicap.

It is true that most artists must be prepared to handle any sort of subject on demand. But gradually each one will be chosen for the thing he does best. If you do not want to be typed or "catalogued," you will have to work hard to widen your scope. It means learning broad drawing principles (everything has proportion, three dimensions, texture, color, light, and shadow) so that you will not be floored by commissions that may call for a bit of still life, a landscape, an animal, a particular texture such as satin or knitted wool. If you learn to observe, the demands should not tax your technical capacity, because the rendering of all form is based upon the way light falls upon it and the way light affects its value and color. Furthermore, you can always do research on any unfamiliar subject. Most artists spend as much time in obtaining suitable data as in actual drawing or painting.

The fundamentals of painting and drawing are the same. Perhaps it might be said that drawing in general does not attempt to render the subtleties of values, edges, and planes or modeling that may be obtained in paint. In any medium, however, the artist is confronted with the same problems: he will have to consider the horizon and viewpoint; he will have to set down properly length, breadth, and thickness (in so far as he is able on the flat surface); he will have to consider, in short, the elements that I am talking about in this book.

The nude human figure must serve as the basis for all figure study. It is impossible to draw the clothed or draped figure without a knowledge of the structure and form of the figure underneath. The artist who cannot put the figure together properly does not have one chance in a thousand of success—either as a figure draftsman or as a painter. It would be as reasonable to

expect to become a surgeon without studying anatomy. If you are offended by the sight of the body the Almighty gave us to live in, then put this book aside at once and likewise give up all thought of a career in art. Since all of us are either male or female, and since the figures of the two sexes differ so radically in construction and appearance (a woman in slacks is *not* a man in pants, even when she has a short haircut), it is fantastic to conceive of a study of figure drawing that did not analyze the many differences. I have been engaged in almost every type of commercial art, and my experience confirms the fact that the study of the nude is indispensable to any art career that requires figure drawing. A vocational course without such study is a deplorable waste of time. Life classes generally work from the living model; hence I have tried to supply drawings that will serve as a substitute.

Broadly speaking, there are two kinds of drawing: linear and solid. Linear drawing—for example, a floor plan—embraces design or scale. Solid drawing attempts to render bulk or three-dimensional quality on a flat plane of paper or canvas. The first involves no consideration of light and shadow. The latter gives it every consideration. It is possible, however, without light and shadow, to make a flat or outline drawing of a figure and still suggest its bulk. Therefore it is logical to begin with the figure in flat dimension—start out with proportion, carry it from the flat to the round, and then proceed to render the bulk in space or in terms of light and shadow.

The eye perceives form much more readily by contour or edge than by the modeling. Yet there is really no outline on form; rather, there is a silhouette of contour, encompassing as much of the form as we can see from a single viewpoint. We must of necessity limit that form some way. So we draw a line—an outline. An outline truly belongs within the category of flat rendering, though it can be accompanied by the use of light

WHAT IS LINE?

and shadow. The painter dispenses with outline because he can define contours against other masses or build out the form in relief by the use of values.

You must understand the difference between contour and line. A piece of wire presents a line. A contour is an edge. That edge may be a sharp limitation to the form (the edges of a cube) or a rounded and disappearing limitation (the contour of a sphere). Many contours pass in front of one another, like the contours of an undulating landscape. Line figure drawing, even as landscape drawing, demands foreshortening in order to produce the effect of solid form. You cannot outline a figure with a bent wire and hope to render its solid aspect. Look for two kinds of lines: the flowing or rhythmic line, weaving it about the form; and, for the sake of stability and structure, the contrasting straight or angular line.

Line can have infinite variety, or it can be intensely monotonous. Even if you start with a bent wire, you need not make it entirely monotonous. You can vary the weight of line. When you are drawing a contour that is near a very light area, you can use a light line or even omit it entirely. When the line represents a contour that is dark and strong, you can give it more weight and vitality. The slightest outline drawing can be inventive and expressive.

Take up your pencil and begin to swing it over your paper; then let it down. That is a "free" line, a "rhythmic" line. Now, grasping your pencil lightly between thumb and index finger, draw lightly or delicately. Then bear down as though you really meant it. That is a "variable" line. See if you can draw a straight line and then set down another parallel to it. That is a "studied" line.

If you have considered a line as merely a mark, it may be a revelation to you that line alone possesses so much variation that you can worry over it for the rest of your days. Remem-

ber that line is something to turn to when your drawings are dull. You can start expressing your individuality with the kinds of line you draw.

Now to the figure. What is the height-to-width relationship of an ideal figure? An ideal figure standing straight must fit within a certain rectangle. What is that rectangle? See drawing, page 26. The simplest and most convenient unit for measuring the figure is the head. A normal person will fall short of our ideal by half a head—he will measure only seven and a half heads instead of eight. You need not take eight heads as an absolute measure. Your ideal man may have any proportions you wish, but he is usually made tall. On pages 26 to 29 you will find various proportions in head units. Note that at any time you can vary your proportions to suit the particular problem. Study these carefully and draw them, two or three times, for you will use them, consciously or not, every time you set up a figure. Some artists prefer the legs even a little longer than shown. But, if the foot is shown tipped down in perspective, it will add considerable length and be about right.

It is remarkable that most beginners' work looks alike. Analyzing it, I have found certain characteristics that should be mentioned here. I suggest that you compare this list with your own work to see if you can locate some of the characteristics for improvement.

1. Consistently gray throughout.

What to do: First get a soft pencil that will make a good black.

Pick out the blacks in your subject and state them strongly.

By contrast, leave areas of white where subject is white or very light.

Avoid putting overstated grays in light areas.

Do not surround things that are light with heavy lines.

BEGINNERS' WORK

2. *An overabundance of small fuzzy line.*

Do not "pet" in your line, draw it cleanly with long sweep.
Do not shade with a multitude of little "pecky" strokes.
Use the side of the lead with the pencil laid almost flat for your modeling and shadows.
3. *Features misplaced in a head.*

Learn what the construction lines of the head are and how spaced. (See Head Drawing.)
Build the features into the correct spaces.
4. *Rubbed and dirty, usually in a roll.*

Spray with fixative. If on thin paper, mount on heavier stock.
Try never to break the surface of your paper. This is very bad. If you have done so, start over. Keep your drawings flat. Keep untouched areas scrupulously clean with a kneaded eraser.
5. *Too many mediums in same picture.*

Make your subject in one medium. Do not combine wax crayons with pencil, or pastel with something else. Make it all pencil, all crayon, all pastel, all water color, or all pen and ink. It gives a certain consistency. Later on you may combine different mediums effectively but do not start that way.
6. *The tendency to use tinted papers.*

A black and white drawing looks better on white paper than anything else.
If you have to use tinted paper, then work in a color that is harmonious. For instance a brown or red conte crayon on a tan or cream paper.
It is better to put your color on white for clarity.
7. *Copies of movie stars.*

This gets intensely monotonous to anyone inspecting a beginner's work. The heads are usually badly lighted from a drawing standpoint. Take a head that is not well known.
8. *Bad arrangement.*

If you are doing a vignetted head, plan interesting and attractive shapes. Don't run over to the edge of the paper unless whole space is to be squared off.
9. *Highlights in chalk.*

It takes a very skillful artist to do this successfully.
10. *Uninteresting subjects.*

Just a costume does not make a picture. Every picture should have some interest if possible other than a technical demonstration. Heads should portray character, or expression. Other subjects should have mood or action or sentiment to make it interesting.

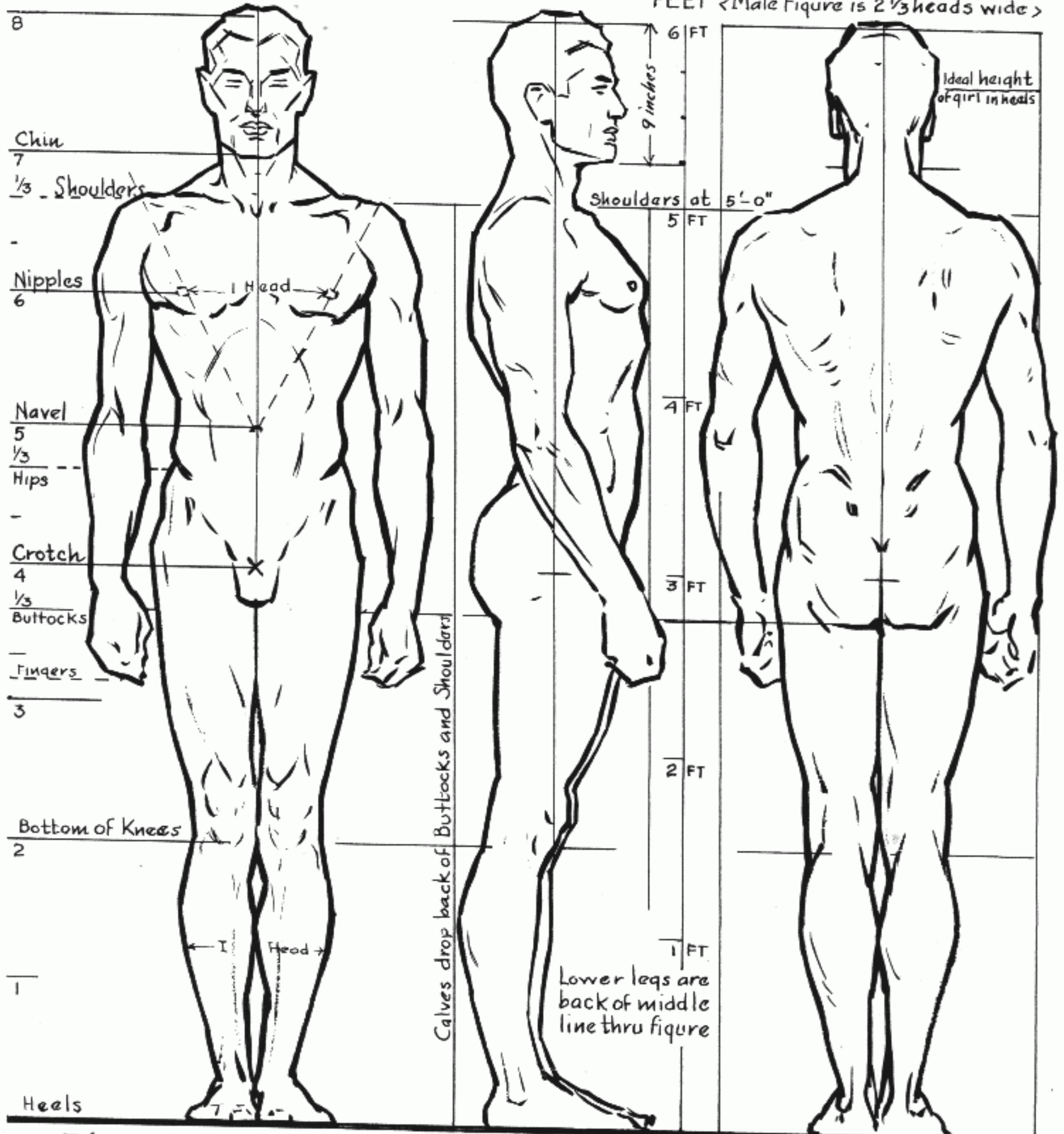
Water color is perhaps the most tricky medium of all. Yet most beginners take to it. Water color to be effective should be broad in treatment, with large loose washes, and not too finicky. If you find yourself stippling and pecking you can be pretty sure it will not be liked.

Water color should have a feeling of the "accidental" or color that has done something of its own and dried that way. Lovely effects are obtained by dampening an area first and then flowing the color into the wet area. Use a real water color paper or board, for it can get very messy on a soft and very absorbent paper. The less you have to go over what you have once put down, the better. Generally water-colorists prefer not to leave a lot of pencil, especially dark or shaded pencil showing through. Some water-colorists work by washing in a general tone, scrubbing out the lights with a soft sponge or brush, and washing in the halftones and darks over the original tone. If you are unable to handle water color in any other way than by pecking in little strokes, I would suggest you try pastel which can be spread and rubbed at will. Oil paint has the advantage that it stays wet long enough to maneuver the color as you wish.

IDEAL PROPORTION, MALE

HEAD UNITS

FEET < Male Figure is $2\frac{1}{3}$ heads wide >

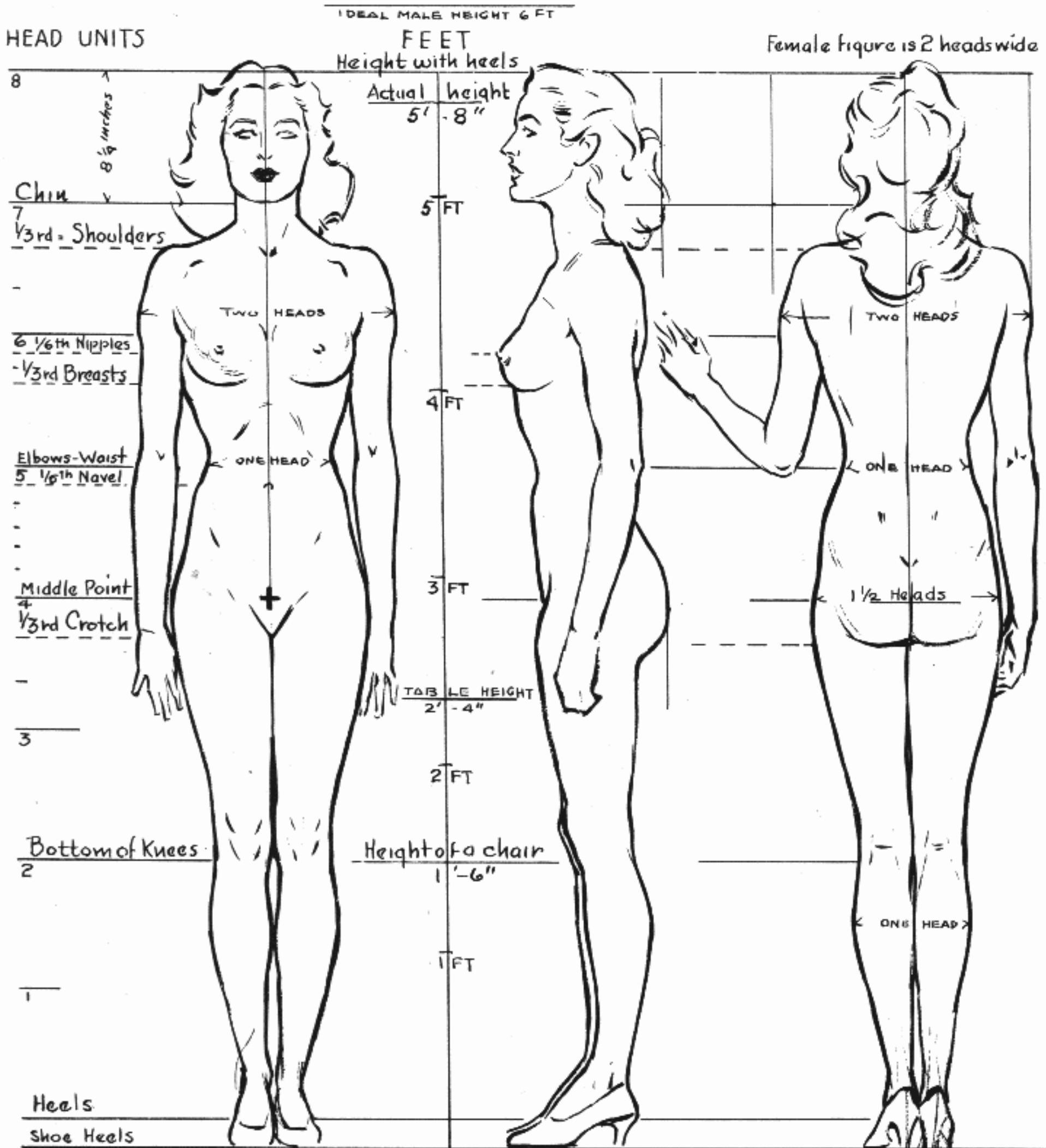


Take any desired height, or place points for top of head and heels. Divide into eighths. Two and one third of these units will be the relative width for the male figure. It is not necessary at this stage to attempt to render the anatomy correctly. But fix in your mind the divisions.

Draw the figure in the three positions: front, side, and back. Note the comparative widths at shoulders, hips, and calves. Note that the space

between nipples is one head unit. The waist is a little wider than one head unit. The wrist drops just below the crotch. The elbows are about on a line with the navel. The knees are just above the lower quarter of the figure. The shoulders are one-sixth of the way down. The proportions are also given in feet so that you may accurately relate your figure to furniture and interiors.

IDEAL PROPORTION, FEMALE



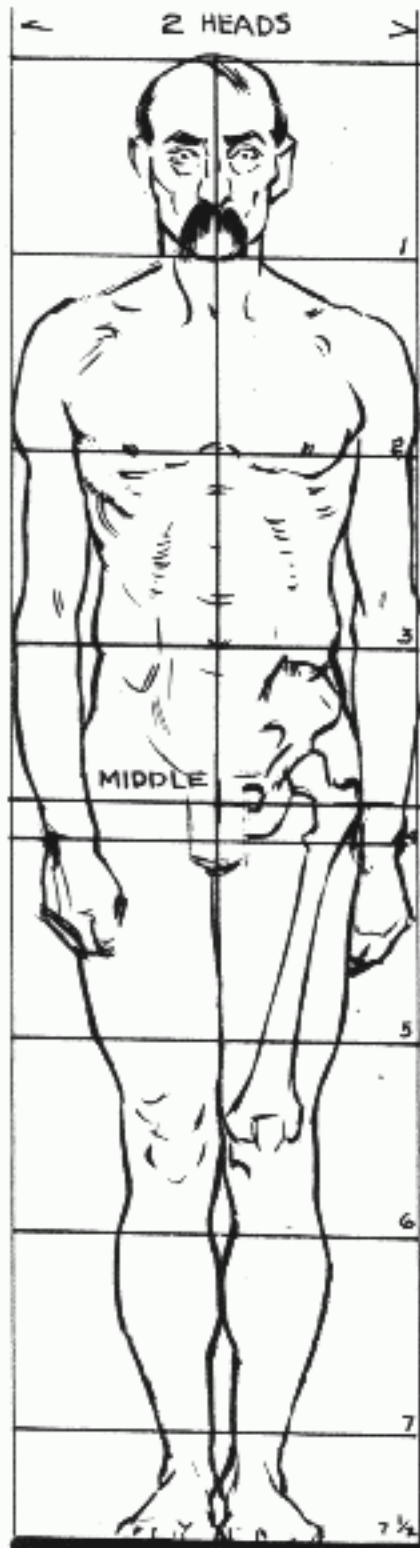
The female figure is relatively narrower—two heads at the widest point. The nipples are slightly lower than in the male. The waistline measures one head unit across. In front the thighs are slightly wider than the armpits, narrower in back. It is optional whether or not you draw the legs even a little longer from the knees down. Wrists are even with crotch. Five feet eight inches (in heels) is considered an ideal height

for a girl. Actually, of course, the average girl has shorter legs and somewhat heavier thighs. Note carefully that the female navel is below the waistline; the male, above or even with it. The nipples and navel are one head apart, but both are dropped below the head divisions. The elbow is above the navel. It is important that you learn the variations between the male and female figure.

VARIOUS STANDARDS OF PROPORTION

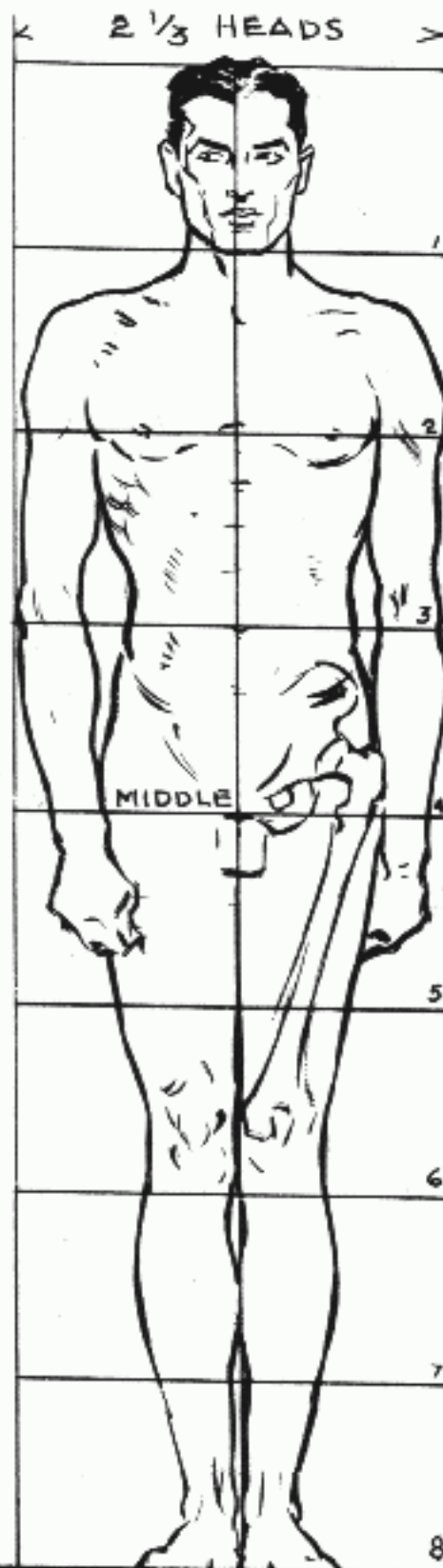
NORMAL, $7\frac{1}{2}$ HDS

THE ACADEMIC PROPORTIONS USED IN MOST SCHOOLS. (RATHER DUMPY)



IDEALISTIC, 8 HDS

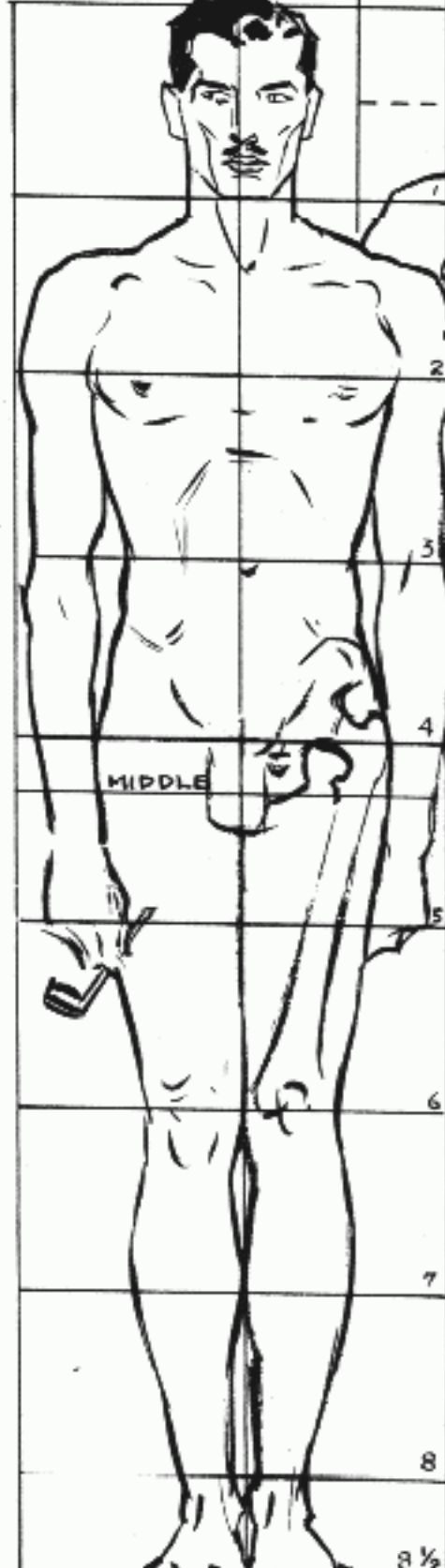
MOST ARTISTS ACCEPT 8 HEADS AS NORMAL



FASHION, $8\frac{1}{2}$ HDS

ACCEPTED

$2\frac{1}{3}$ or $\frac{1}{2}$ HEADS



HEROIC, 9 HDS

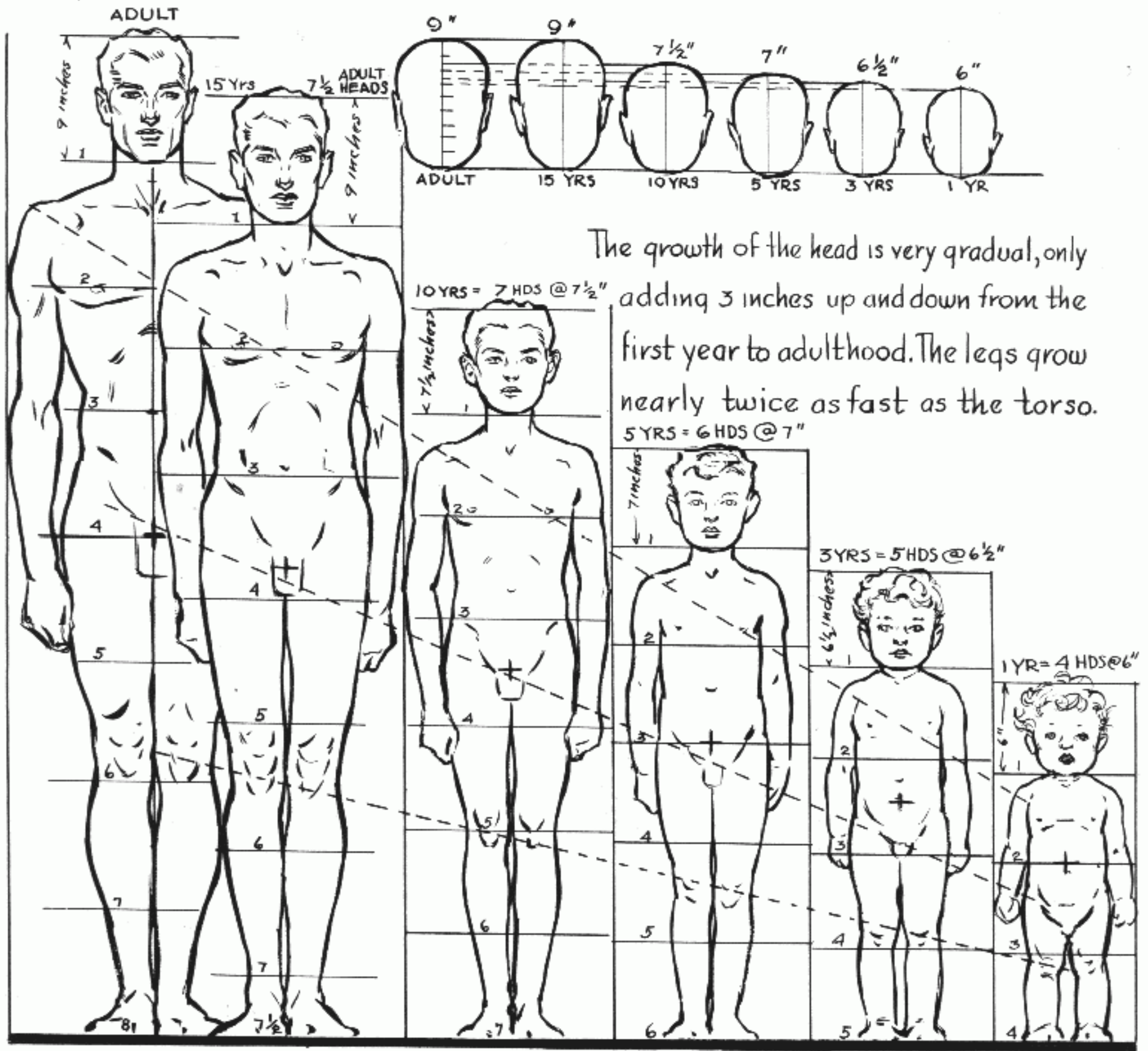
$2\frac{2}{3}$ HEADS



You can see at a glance why the actual or normal proportions are not very satisfactory. All academic drawings based on normal proportions have this dumpy, old-fashioned look. Most fashion artists stretch the figure even beyond eight heads, and in allegorical or heroic figures the "superhuman" type — nine heads — may be used effectively. Note at what point, or head

unit, the middle of the figure falls in each. It would be well to draw the side and back in these various proportions, using the previous page for a general guide but changing the proportion. You can control the appearance of height or shortness in any figure by the relative size of the head you use.

IDEAL PROPORTIONS AT VARIOUS AGES

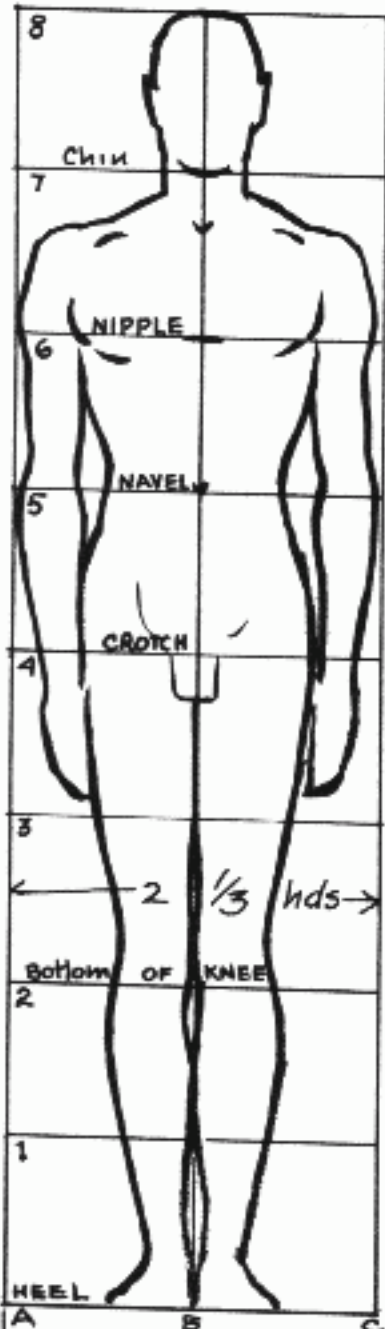


The growth of the head is very gradual, only adding 3 inches up and down from the first year to adulthood. The legs grow nearly twice as fast as the torso.

These proportions have been worked out with a great deal of effort and, as far as I know, have never before been put down for the artist. The scale assumes that the child will grow to be an ideal adult of eight head units. If, for instance, you want to draw a man or a woman (about half a head shorter than you would draw the man)

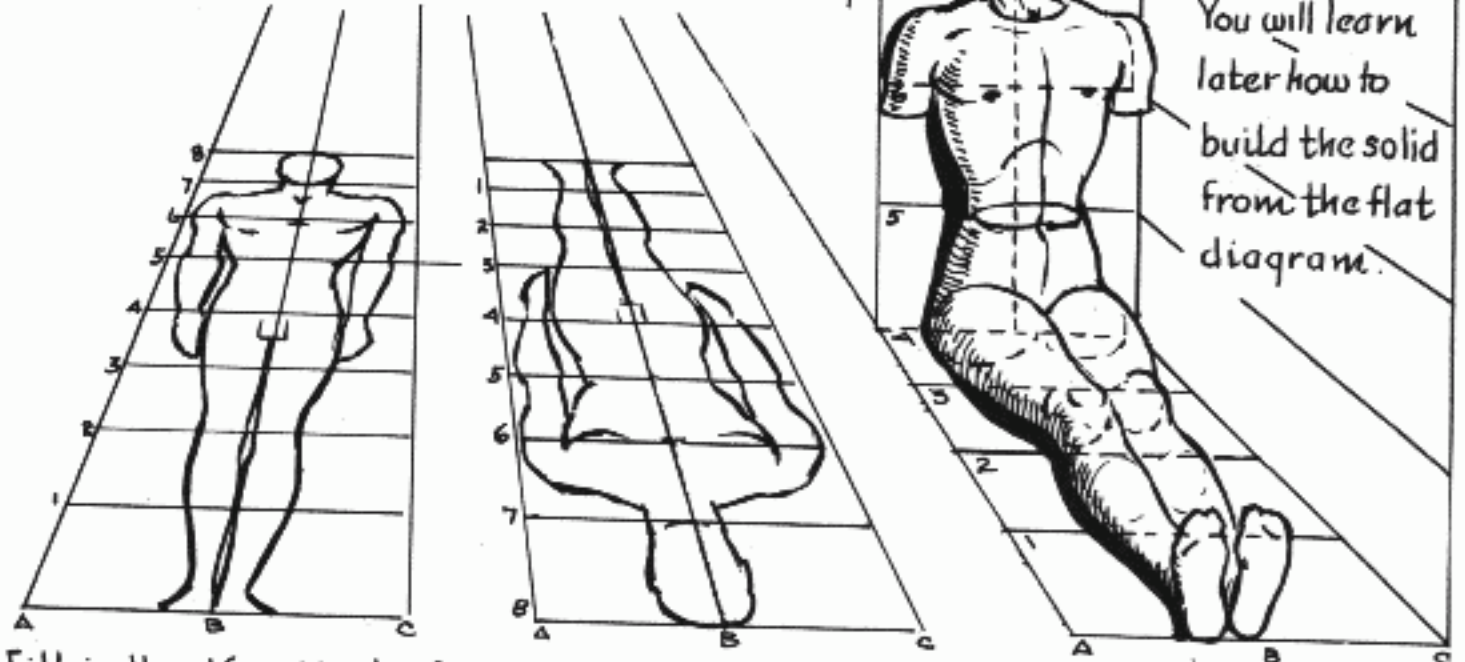
with a five-year-old boy, you have here his relative height. Children under ten are made a little shorter and chubbier than normal, since this effect is considered more desirable; those over ten, a little taller than normal — for the same reason.

THE FLAT DIAGRAM



vanishing point.
 HOW TO PROJECT THE "FLAT DIAGRAM" ONTO THE GROUND PLANE

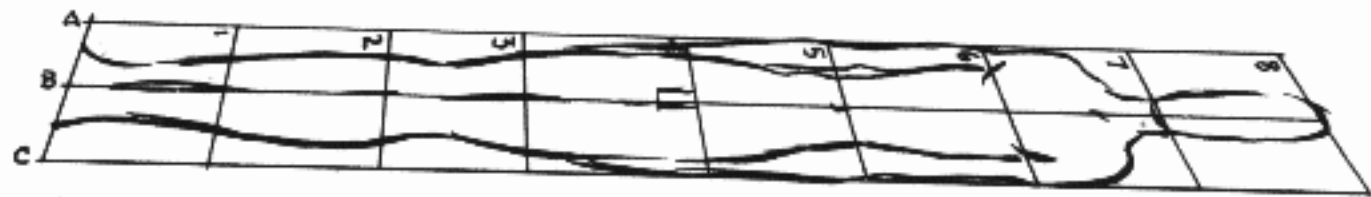
This will prove most useful when you have to draw without a model and in foreshortening



You will learn later how to build the solid from the flat diagram.

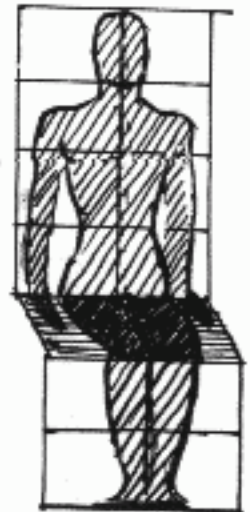
Fill in the 16 units by following the Flat Diagram

Using two planes

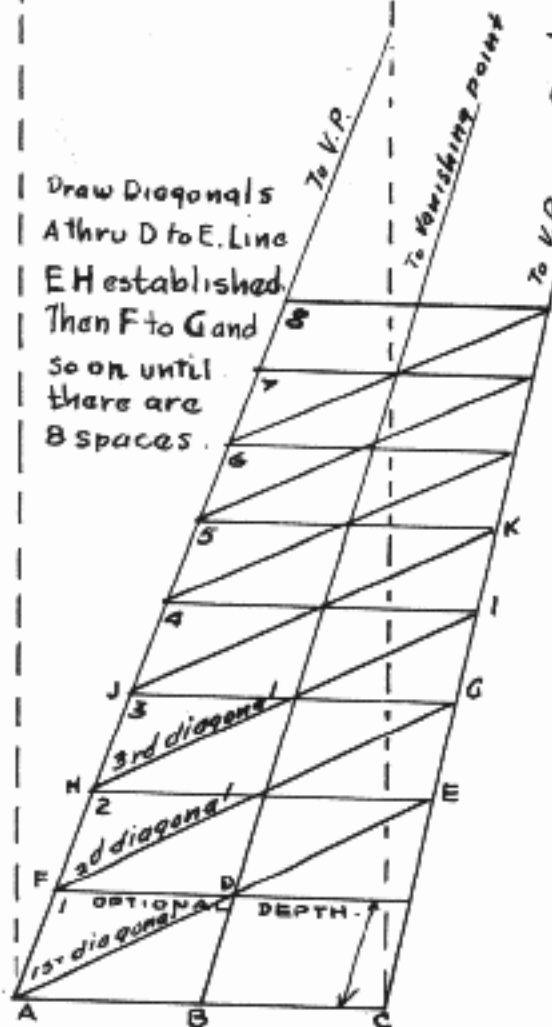


Shadows can be drawn by this plan. It is a guide for the solid in perspective.

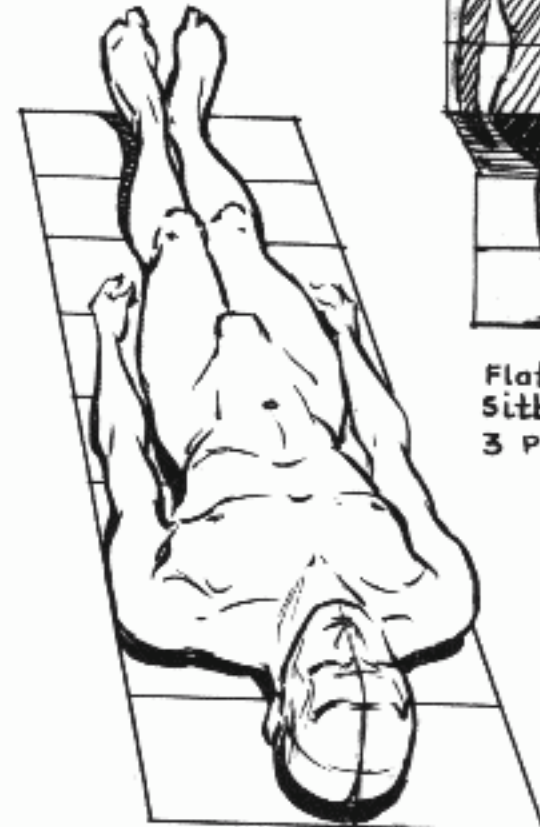
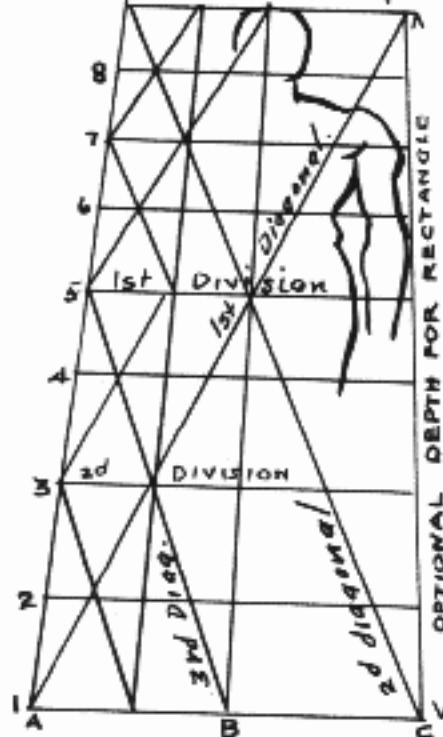
THE FLAT DIAGRAM IS NO MORE THAN A TRACING OF A SHADOW - WITH ONLY TWO DIMENSIONS - BUT IT IS OUR "MAP". WE CAN'T DO WITHOUT IT - UNTIL WE KNOW THE WAY.



Flat Diagram Sitting pose 3 PLANE S



Divide by diagonals until there are 8 cross spaces.

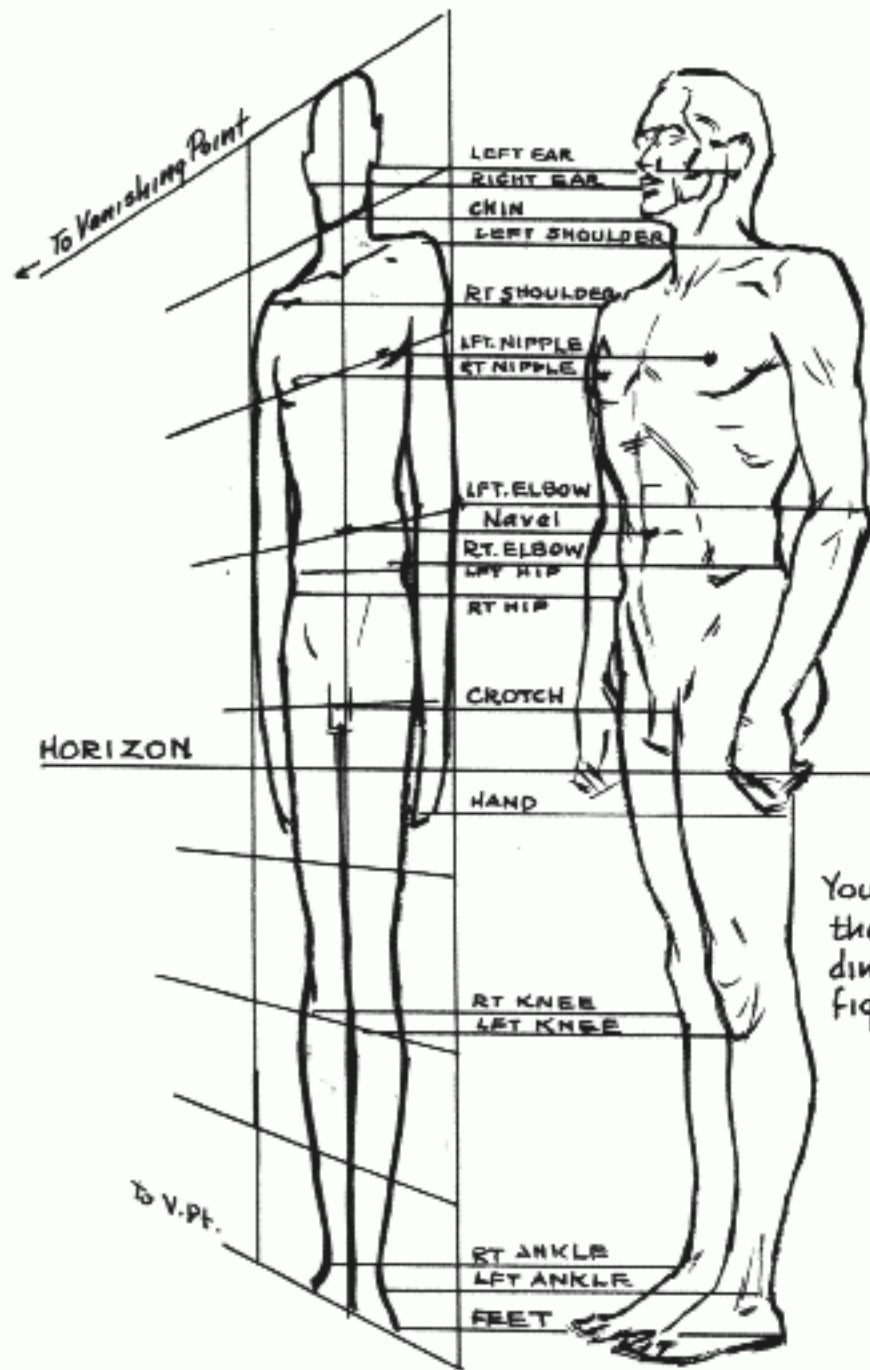


Two ways of rendering the "Box" of the Flat Diagram in perspective. You are urged to learn this now. It will help you out of many difficulties later on.

Showing how the principle applies to difficult foreshortening to be explained.

THE FLAT DIAGRAM

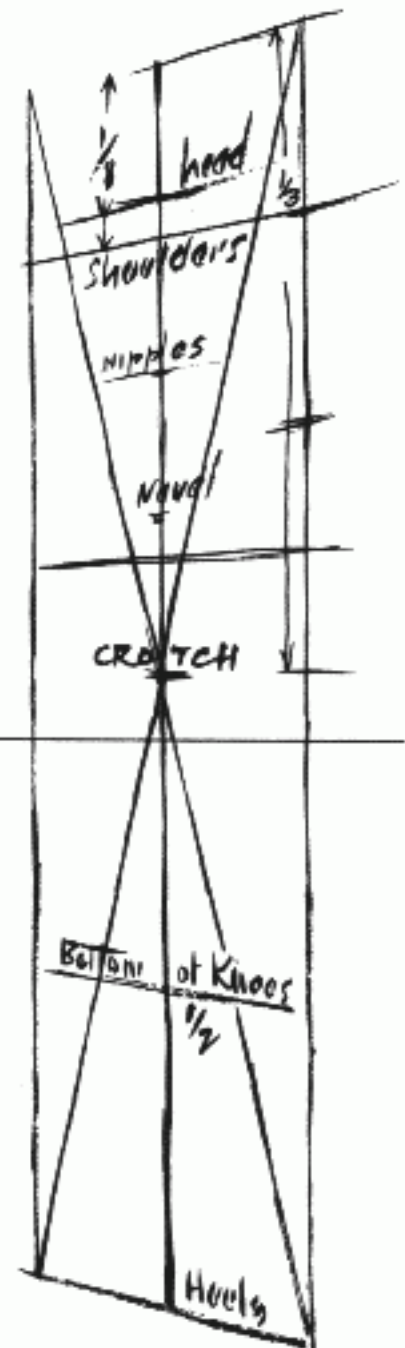
OTHER IMPORTANT USES OF THE "MAP" OR FLAT DIAGRAM.



You will build the three dimensional figure later

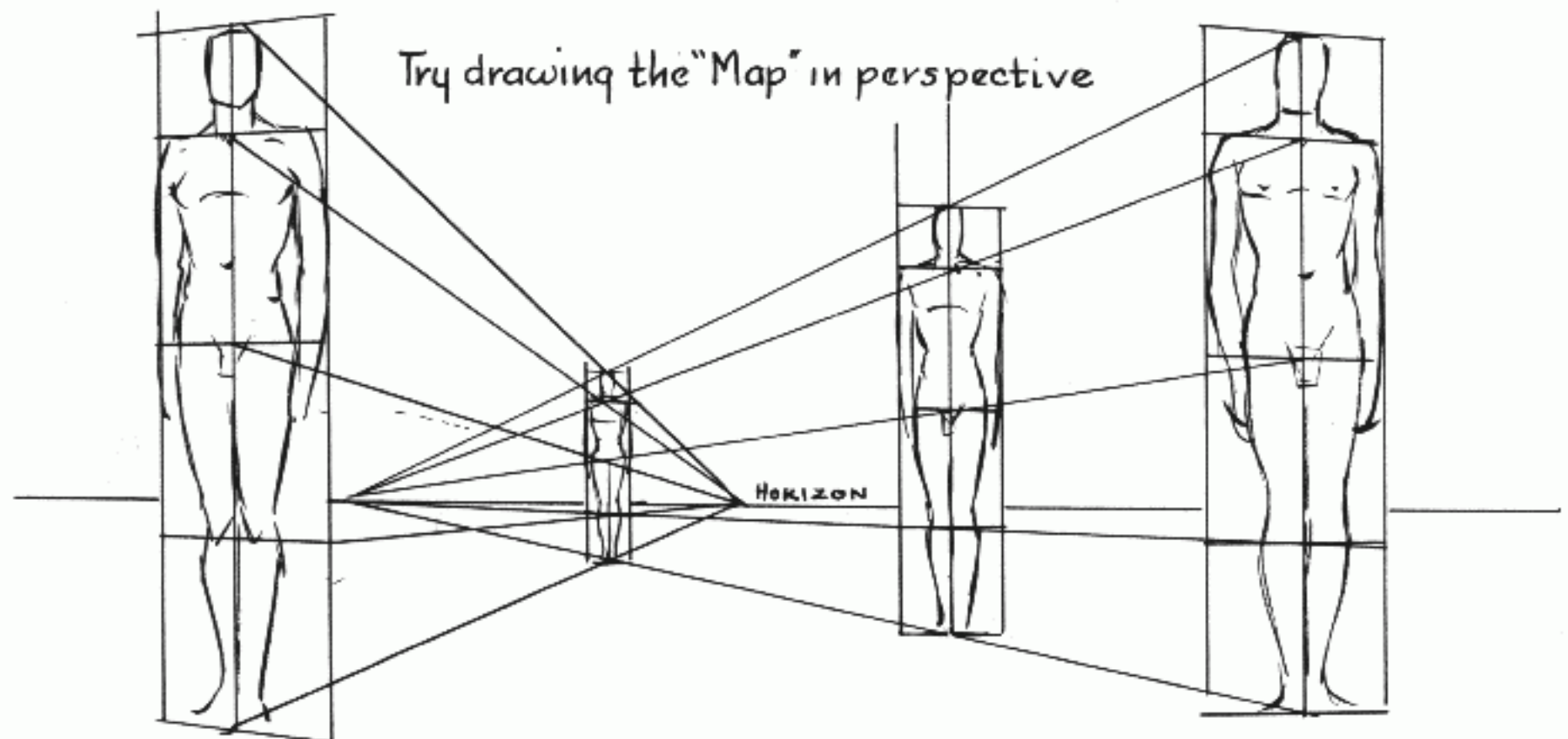


Quick "Set up" in perspective



Quick "Set up" of the "Map".

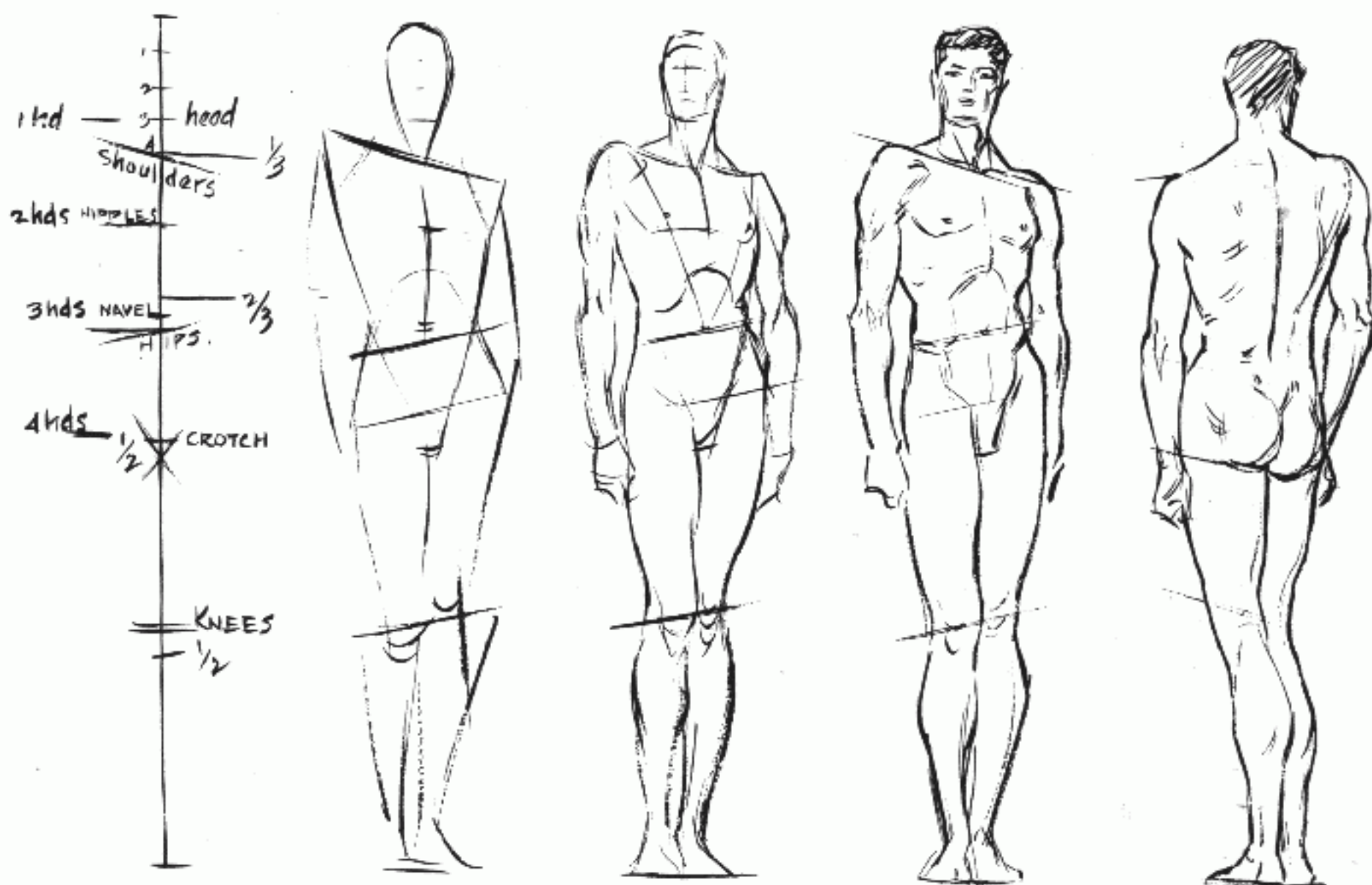
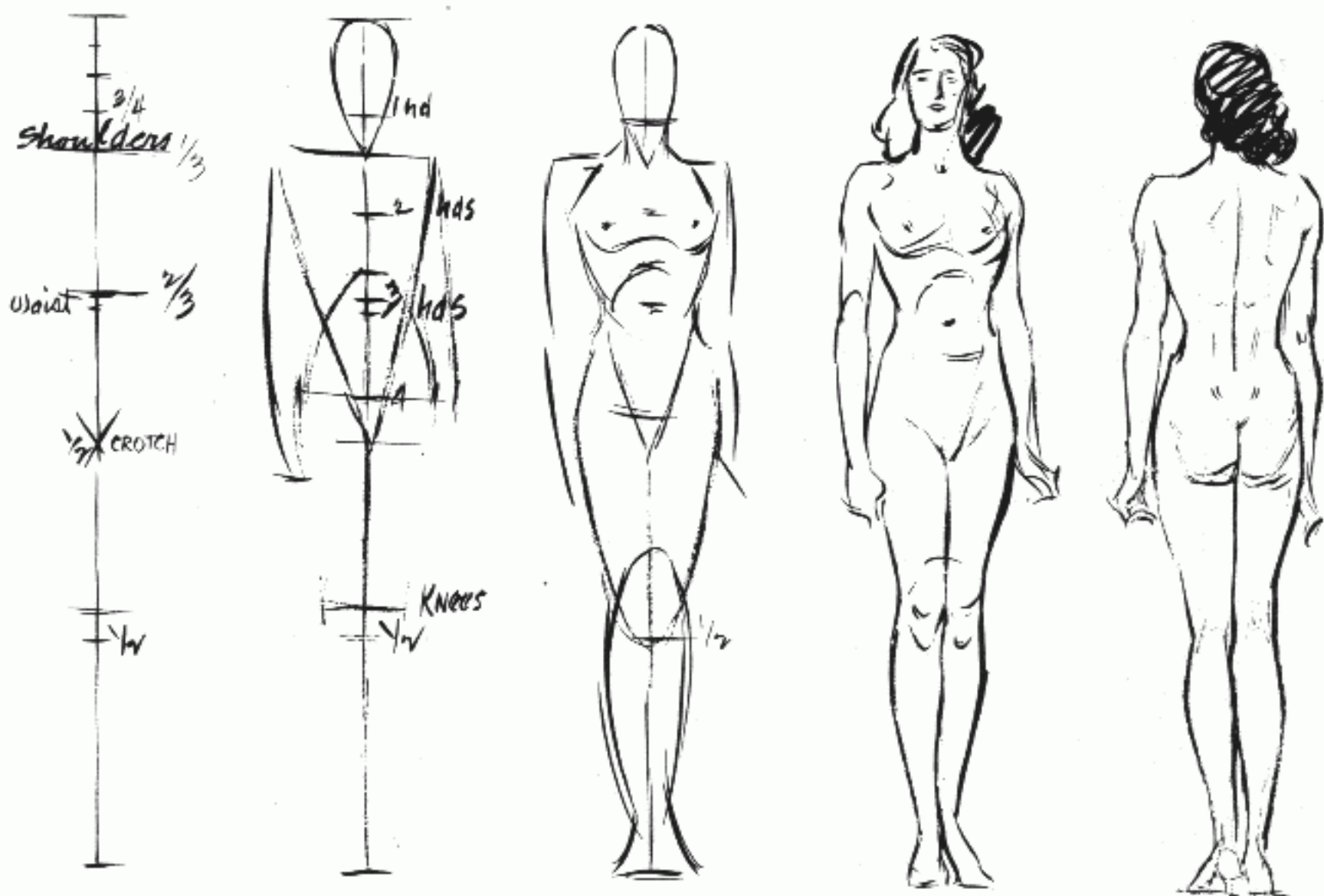
All points of the figure can be put in perspective with the "Map" as guide



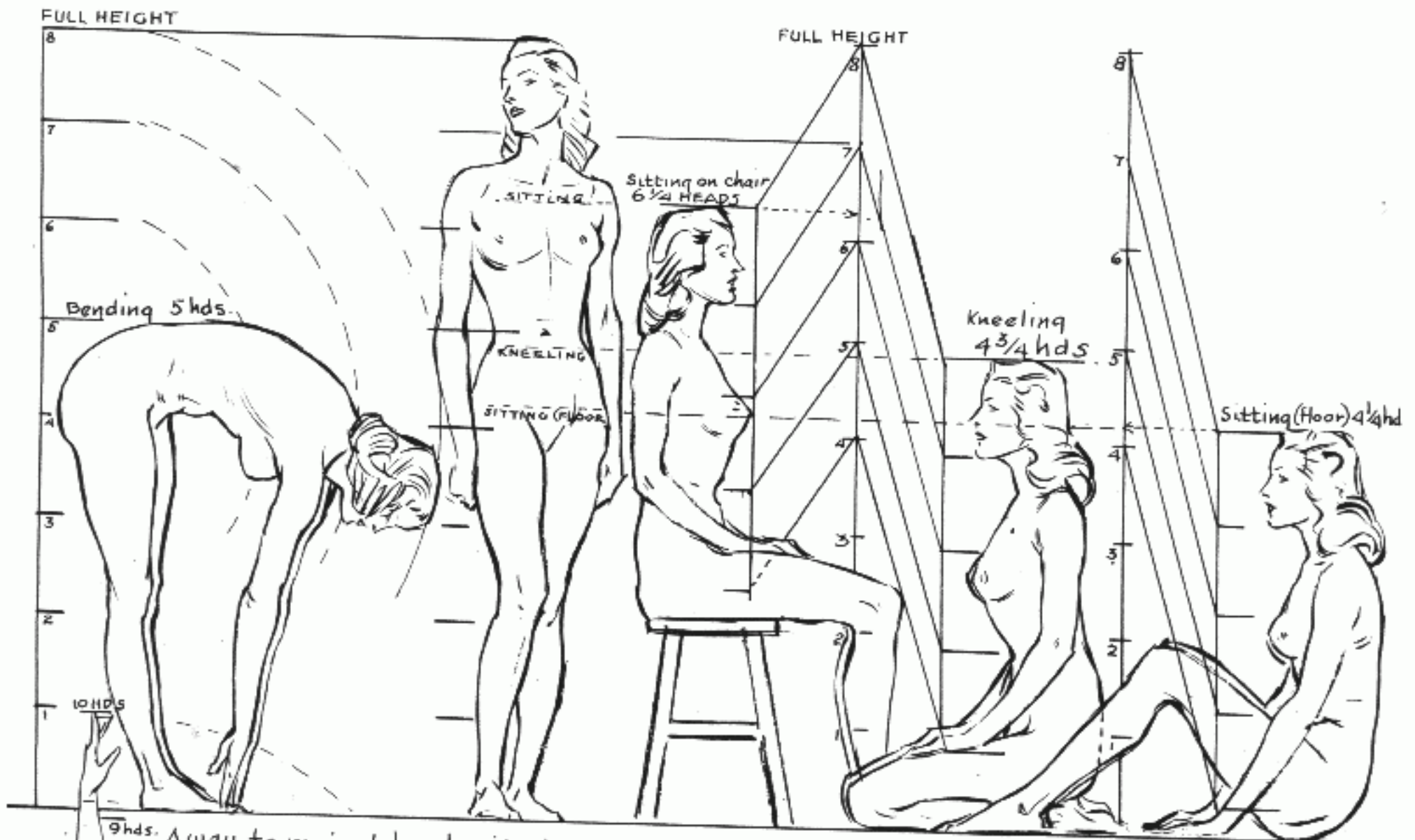
Try drawing the "Map" in perspective

The proportions of one figure can easily be projected by perspective to others.

QUICK SET-UP OF PROPORTIONS

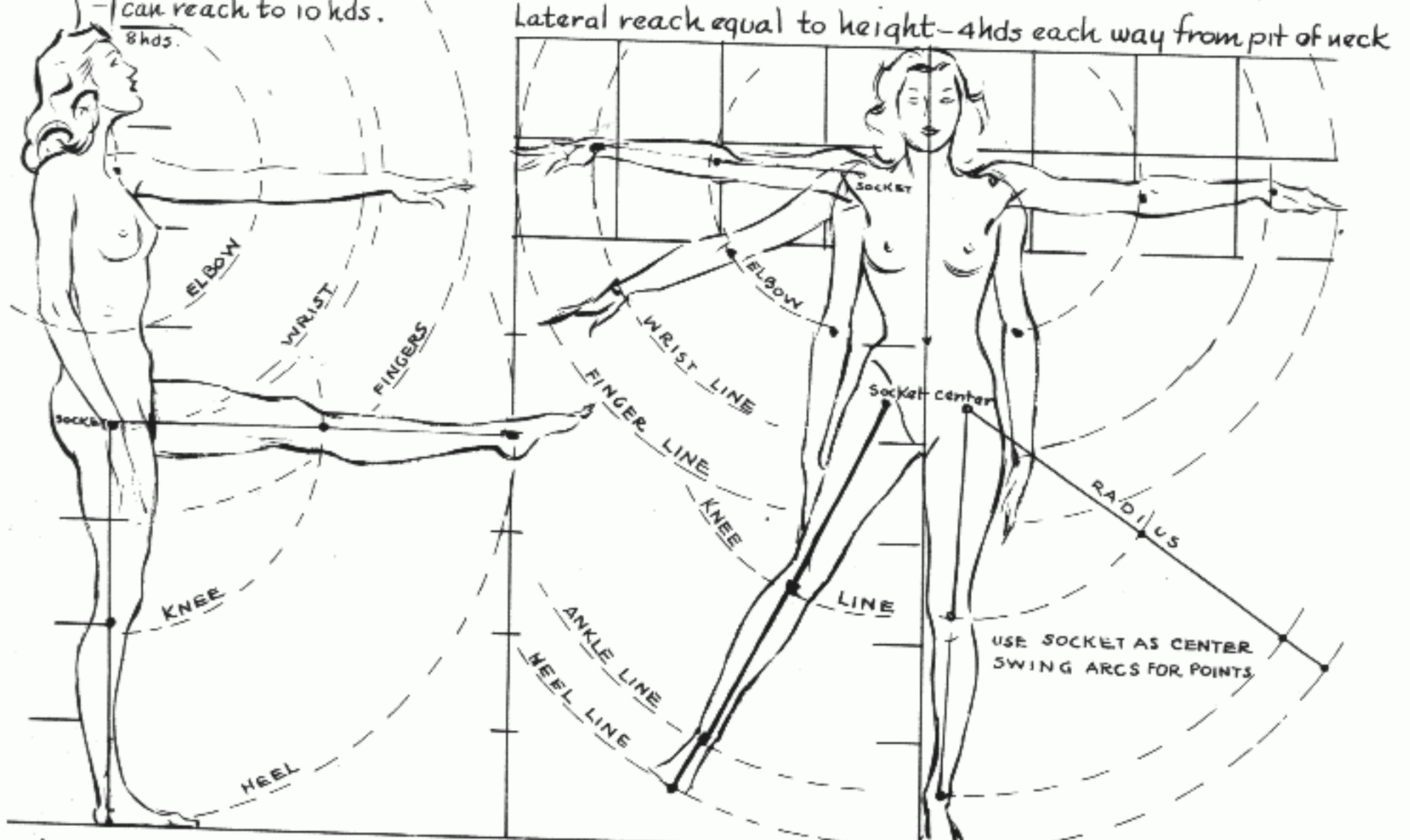


PROPORTIONS BY ARCS AND HEAD UNITS



9 hds. Away to project head units to poses other than standing - showing relative heights of each can reach to 10 hds.

Lateral reach equal to height - 4 hds each way from pit of neck



A simple method of finding lengths of extended limbs. Later you will do this in perspective.


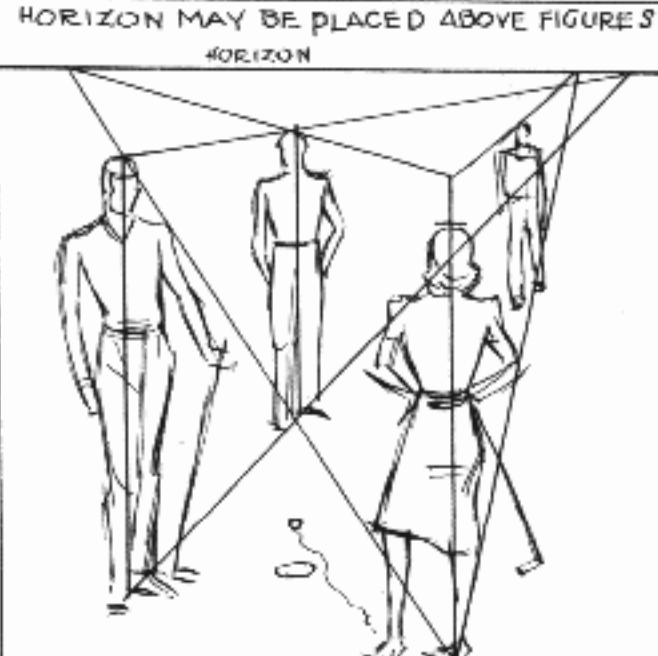
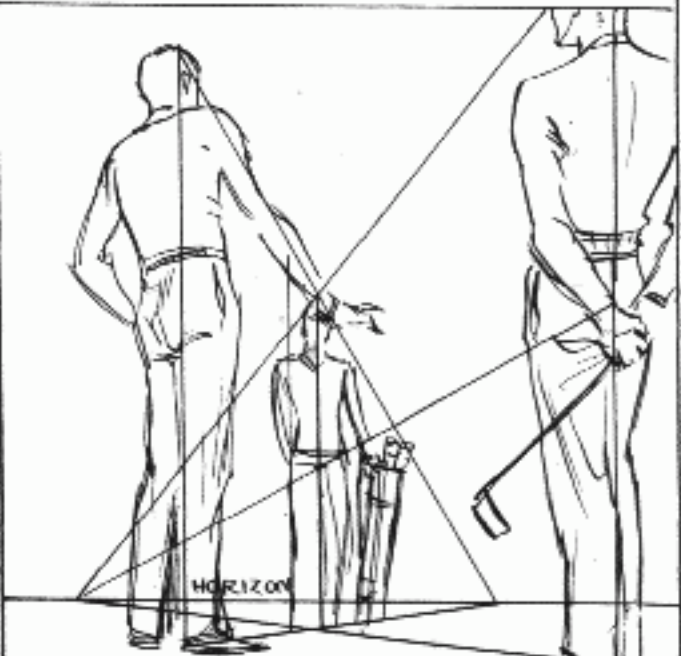
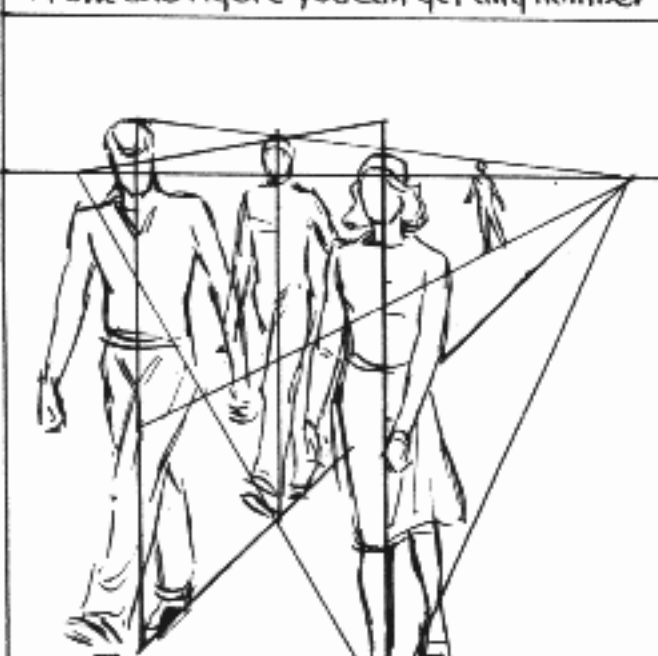
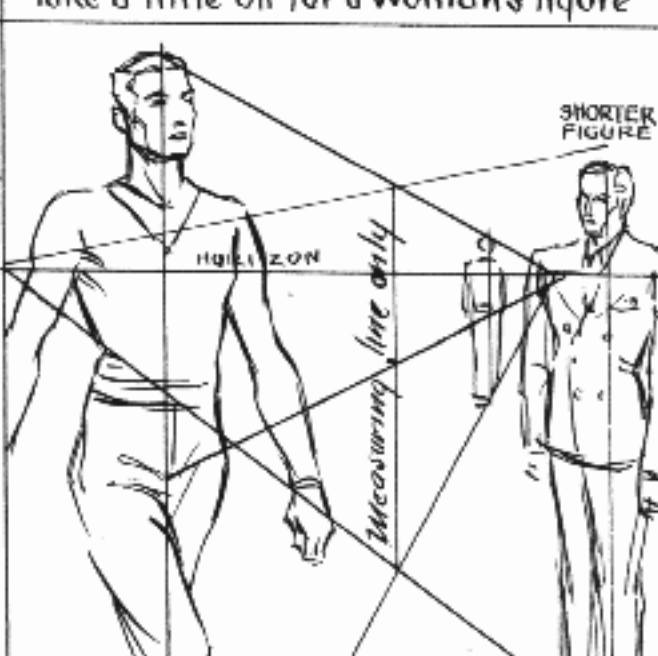
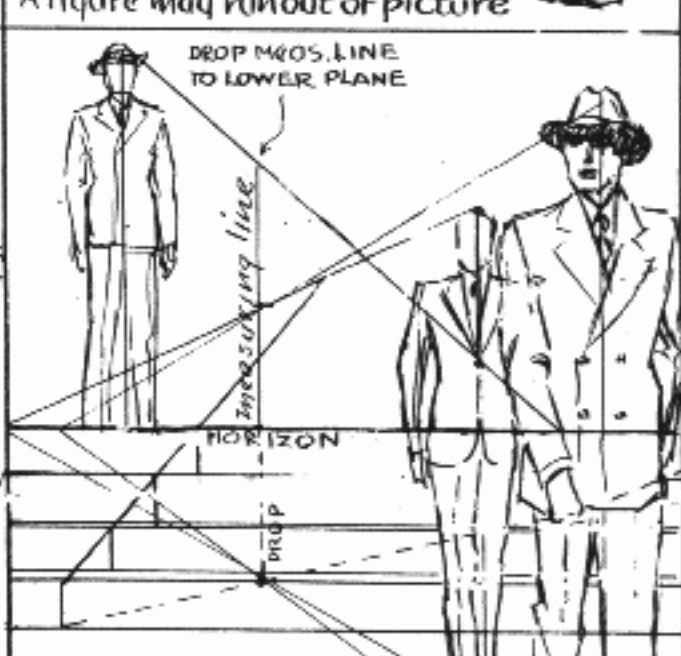
PROPORTION IN RELATION TO THE HORIZON

How to build your picture and figures from any eye level (or Horizon, which means the same)

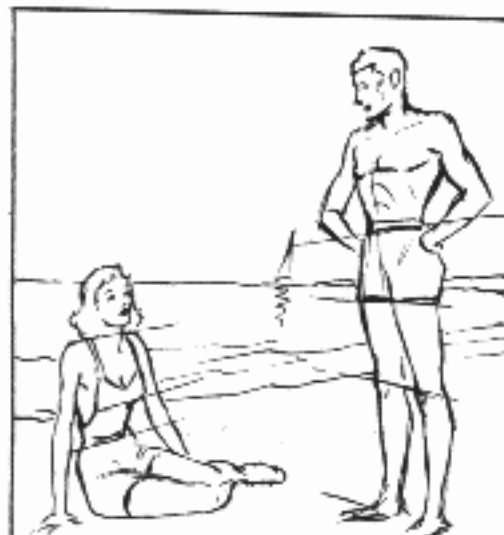




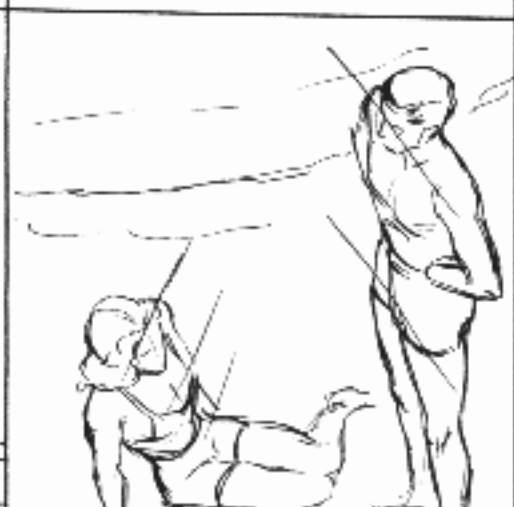

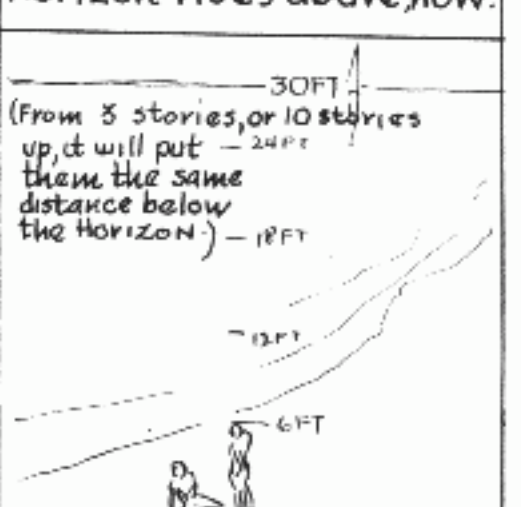
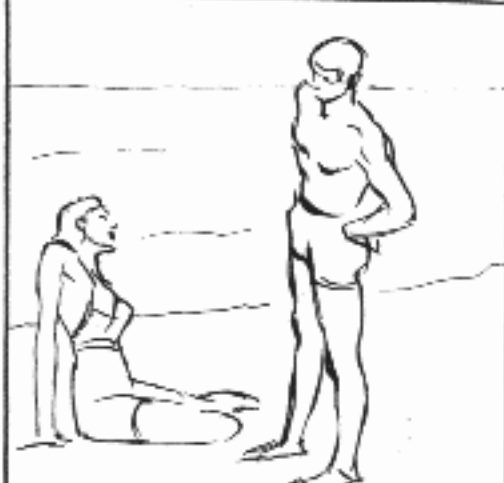






1	2	3	4	5	6
EYE LEVEL SELECTED	(HORIZON)		VP	A	A
Select a placement for the Horizon	Establish height of first figure. (Any height)	Set point for feet of 2 ^d Figure. (Place anywhere)	Draw line through point to Horizon	Then back to "A" at top 1st Figure	Erect perpendicular at "C". CB is 2 ^d Figure
7	8	9	10	11	12
Divide into 4ths.	Build figures. If you want more-	Take another point "D" thru "C" to Horizon	Divide as you did before	Complete 3rd Fig.	Build your picture to same Horizon.

Rule: Horizon must cross all similar figures on a level plane at the same point. (above, at knees)

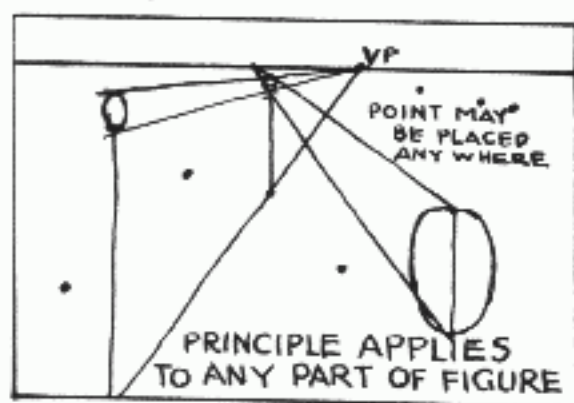
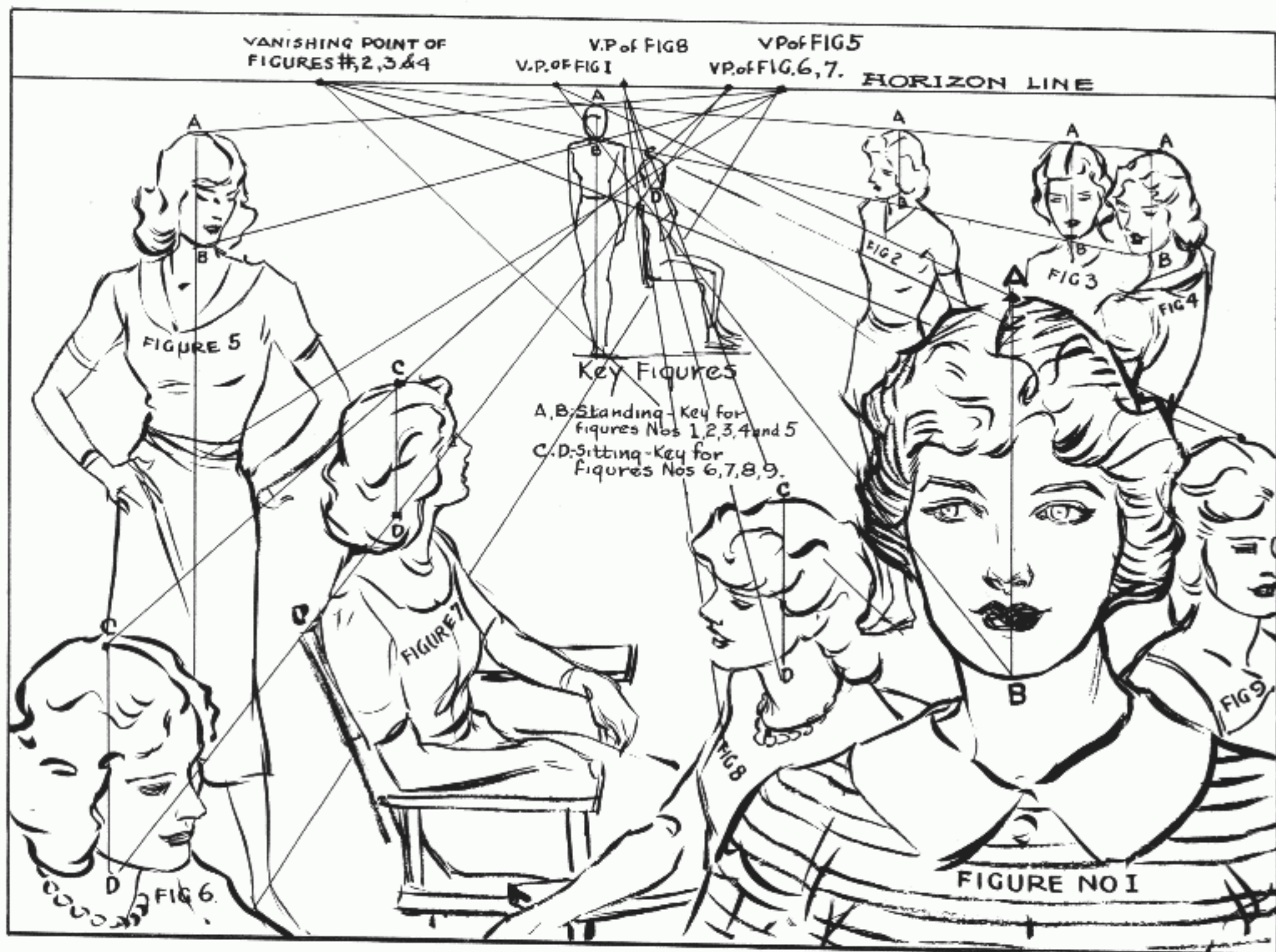
HOW TO LAY OUT THUMBNAIL SKETCHES FOR FIGURE PLACEMENTS AND SIZES

 <p>From one figure you can get any number</p>	<p>HORIZON MAY BE PLACED ABOVE FIGURES</p>  <p>Take a little off for a woman's figure</p>	 <p>A figure may run out of picture</p>
 <p>One figure is wrong! Explain why.</p>	 <p>For close figure find half of it.</p>	 <p>Here are two levels</p>

THE JOHN AND MARY PROBLEMS

 <p>John and Mary, how they look if we are sitting near them on the sand.</p>	 <p>The picture changes if we stand. The horizon goes up with us.</p>	 <p>Now if we lie down the horizon drops too. The perspective changes.</p>	 <p>We walk backward and upward on the beach. Horizon rises above, now.</p>
 <p>If we get beneath them so does the horizon. The figures change again.</p>	 <p>Now the Horizon moves up beyond the picture. But it still affects figures.</p>	 <p>Even when we see them from nearly directly overhead. No matter</p>	 <p>where we are, every figure is affected by our own eye level, or "my Horizon"</p>
<p>SOME THINGS THAT MAY HAPPEN WHEN FIGURES ARE NOT RELATED TO A SINGLE TRUE HORIZON</p>			
 <p>The figures appear tipped</p>	 <p>or somehow wrong -</p>	 <p>John may be falling - or</p>	 <p>Mary doing gymnastics</p>
 <p>Mary gets too big - or she</p>	 <p>may get too small - or</p>	 <p>appear to be diving -</p>	<p>YOUR DRAWING IS REJECTED AND NO ONE REALLY SEEMS TO KNOW WHAT IS WRONG</p> <p>Thus endeth John and Mary.</p>

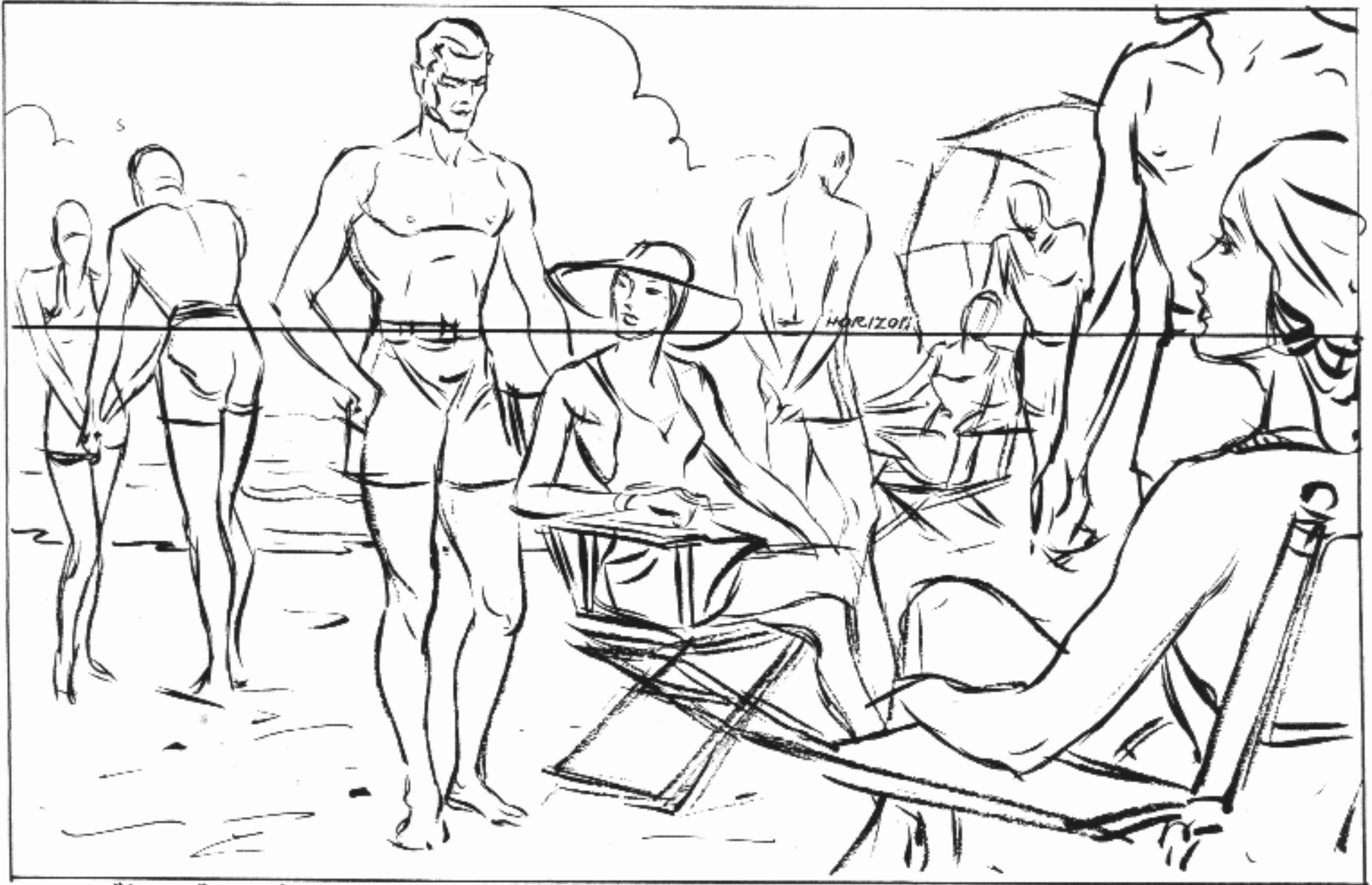
FINDING PROPORTION AT ANY SPOT IN YOUR PICTURE



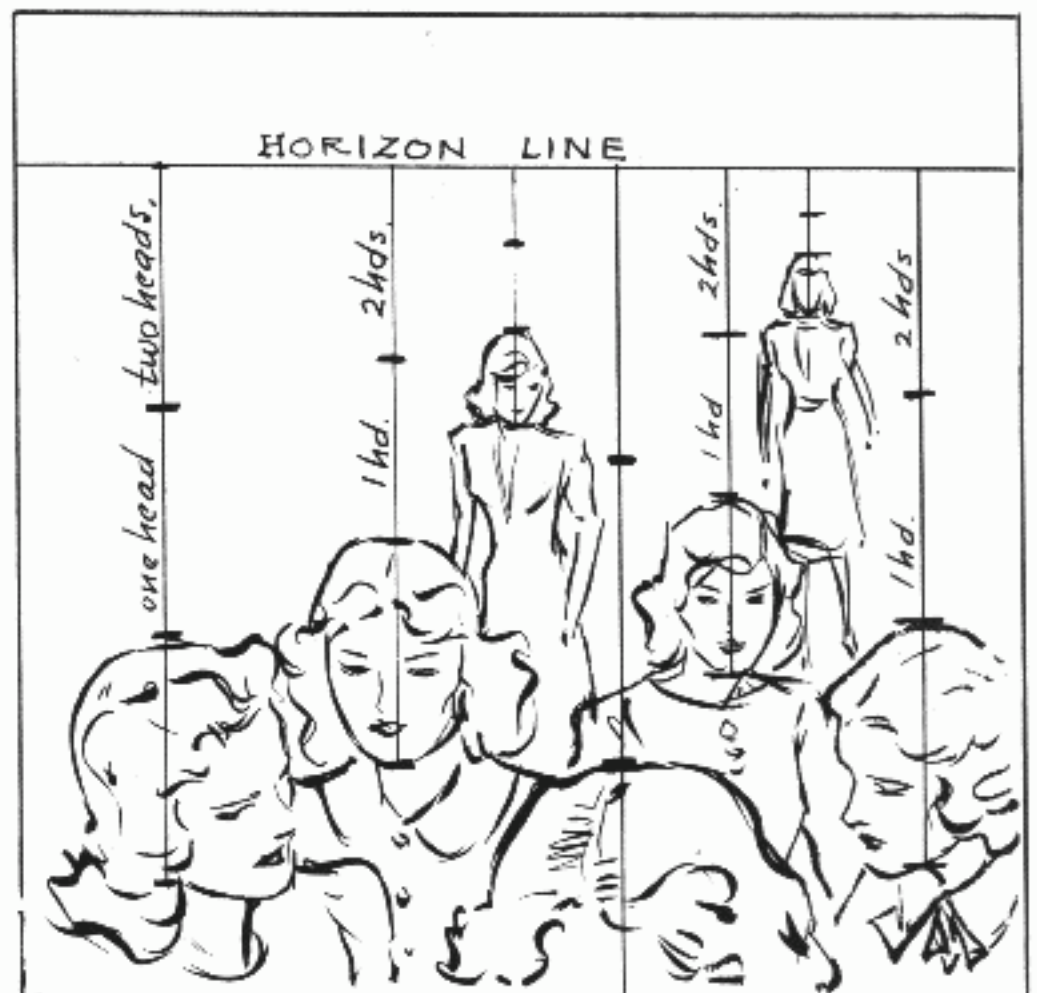
Many artists have difficulty in placing figures in their picture and properly relating them to each other, especially if the complete figure is not shown. The solution is to draw a key figure for standing or sitting poses. Either the whole figure or any part of it can then be scaled with the horizon. AB is taken as the head measurement and applied to all standing figures; CD to the sitting figures. This applies *when all figures are on the same ground plane.* (On page 37 there is an explanation of how to proceed when

the figures are at different levels.) You can place a point anywhere within your space and find the relative size of the figure or portion of the figure at precisely that spot. Obviously everything else should be drawn to the same horizon and scaled so that the figures are relative. For instance, draw a key horse or cow or chair or boat. The important thing is that all figures retain their size relationships, no matter how close or distant. A picture can have only one horizon, and only one station point. The horizon moves up or down with the observer. It is not possible to look over the horizon, for it is constituted by the eye level or lens level of the subject. The horizon on an open, flat plane of land or water is visible. Among hills or indoors it may not be actually visible, but your eye level determines it. If you do not understand perspective, there is a good book on the subject, *Perspective Made Easy*, available at most booksellers.

"HANGING" FIGURES ON THE HORIZON



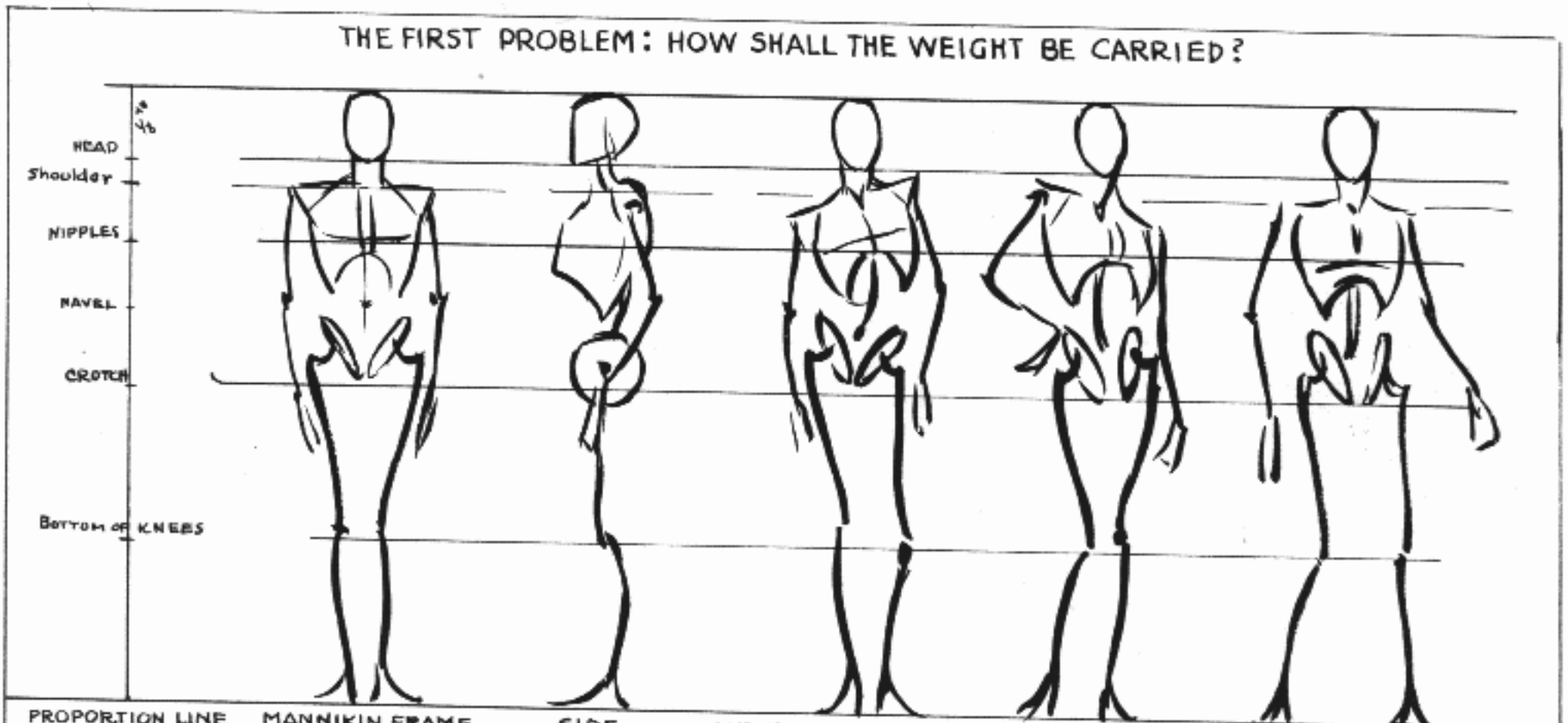
You can "hang" your figures on the Horizon line by making it cut through similar figures in the same place. This keeps them on the same ground plane. Note Horizon cuts men at waist and the seated women at chin. The one standing woman at left is drawn relative to the men. Simple?



You can also "hang" heads on the Horizon: Here we have measured a proportionate line. In this case it cuts men's heads at the mouth, the women at the eyes. : distance down from the Horizon. I have taken two heads as an optional space.

WE BEGIN TO DRAW: FIRST THE MANNIKIN FRAME

THE FIRST PROBLEM: HOW SHALL THE WEIGHT BE CARRIED?

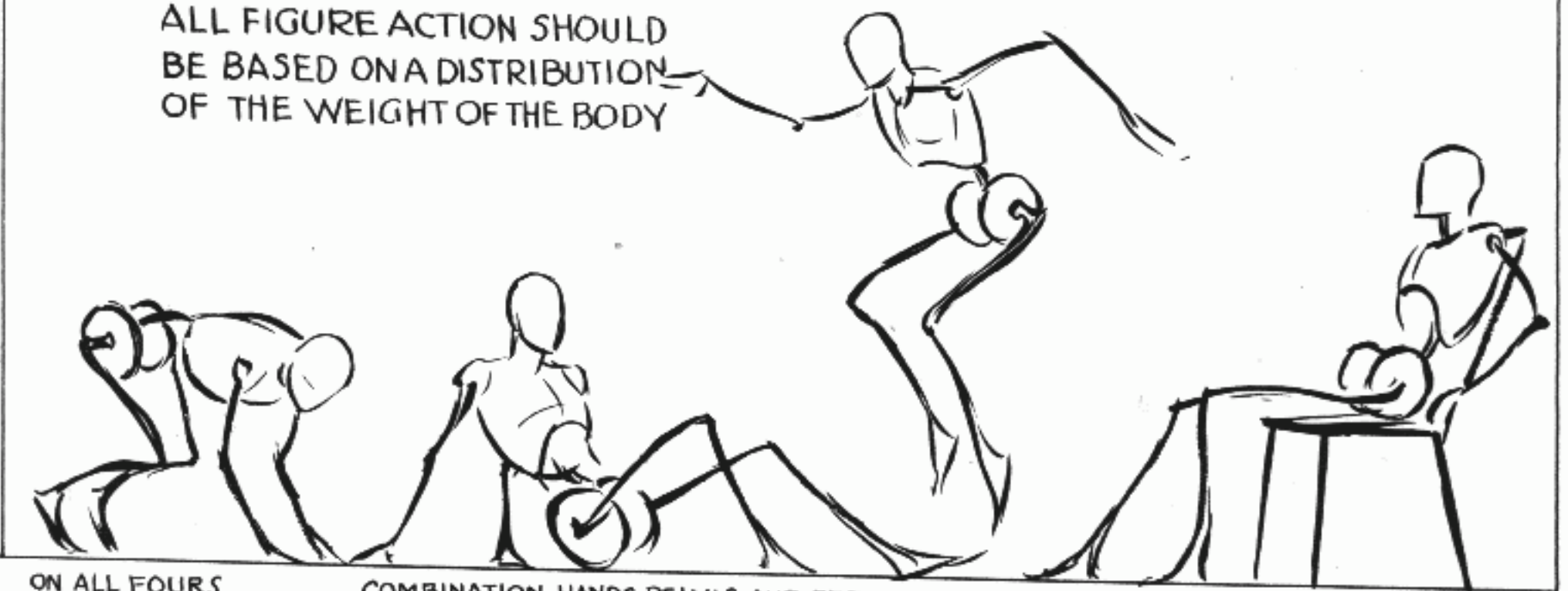


PROPORTION LINE MANNIKIN FRAME SIDE WEIGHT ON RT. FOOT WT. ON LFT. FOOT WT. ON BOTH FEET



WEIGHT ON PELVIS WT. ONE KNEE, ONE FOOT BOTH KNEES HANDS AND KNEES ONE FOOT ONLY

ALL FIGURE ACTION SHOULD BE BASED ON A DISTRIBUTION OF THE WEIGHT OF THE BODY



ON ALL FOURS COMBINATION HANDS, PELVIS AND FEET SUSPENDED BACK AND PELVIS

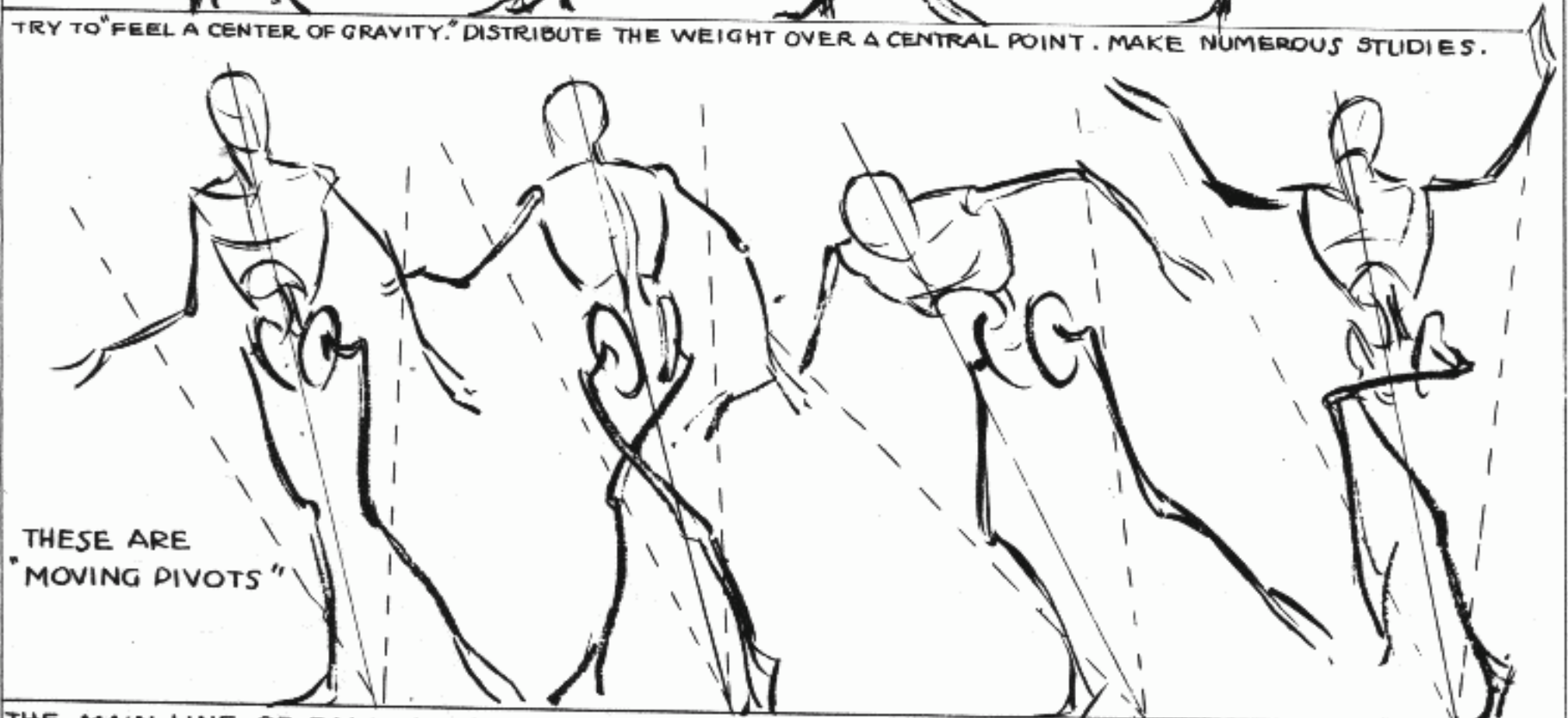
MOVEMENT IN THE MANNIKIN FRAME

LET US STRIVE FOR LIFE AND ACTION FROM THE VERY BEGINNING. DRAW, DRAW.



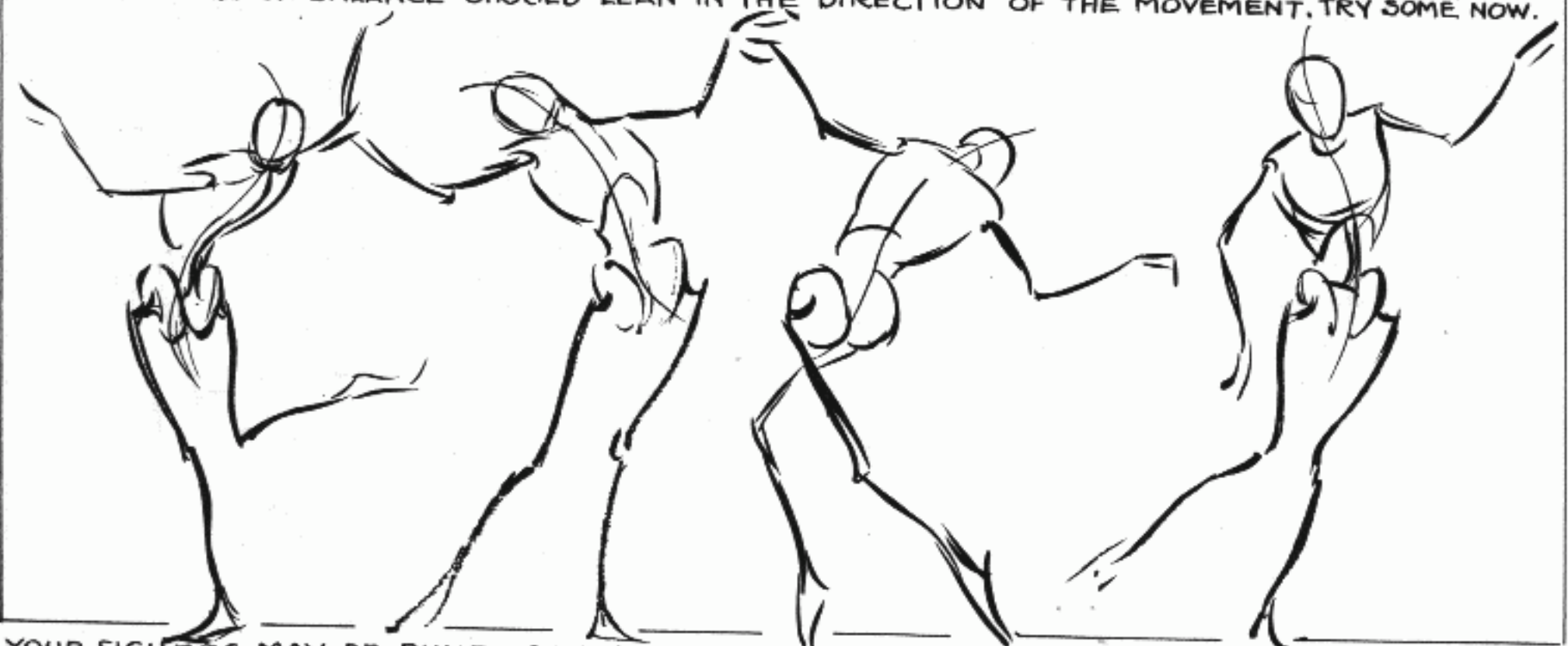
THESE ARE
"STATIONARY
PIVOTS"

TRY TO "FEEL A CENTER OF GRAVITY." DISTRIBUTE THE WEIGHT OVER A CENTRAL POINT. MAKE NUMEROUS STUDIES.



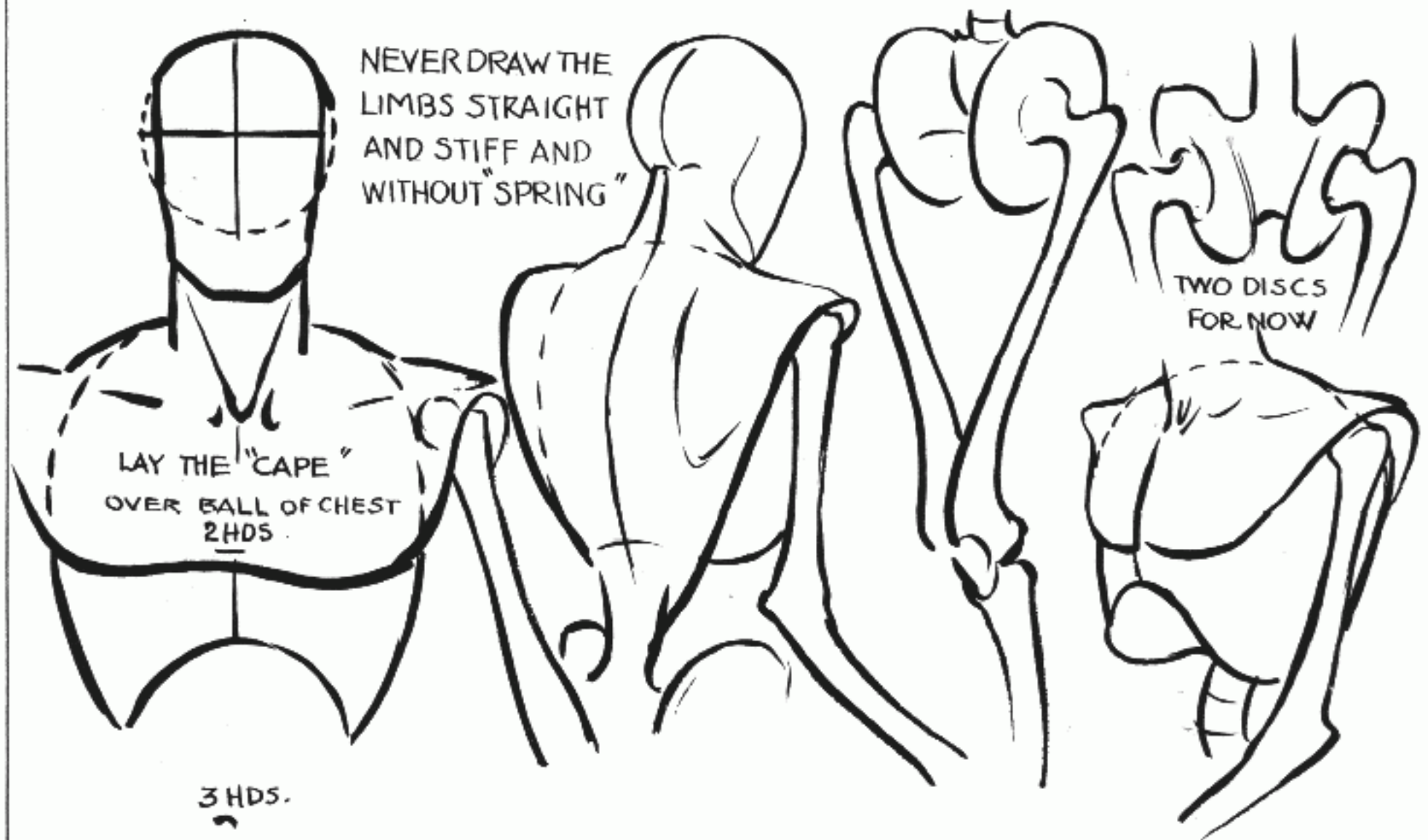
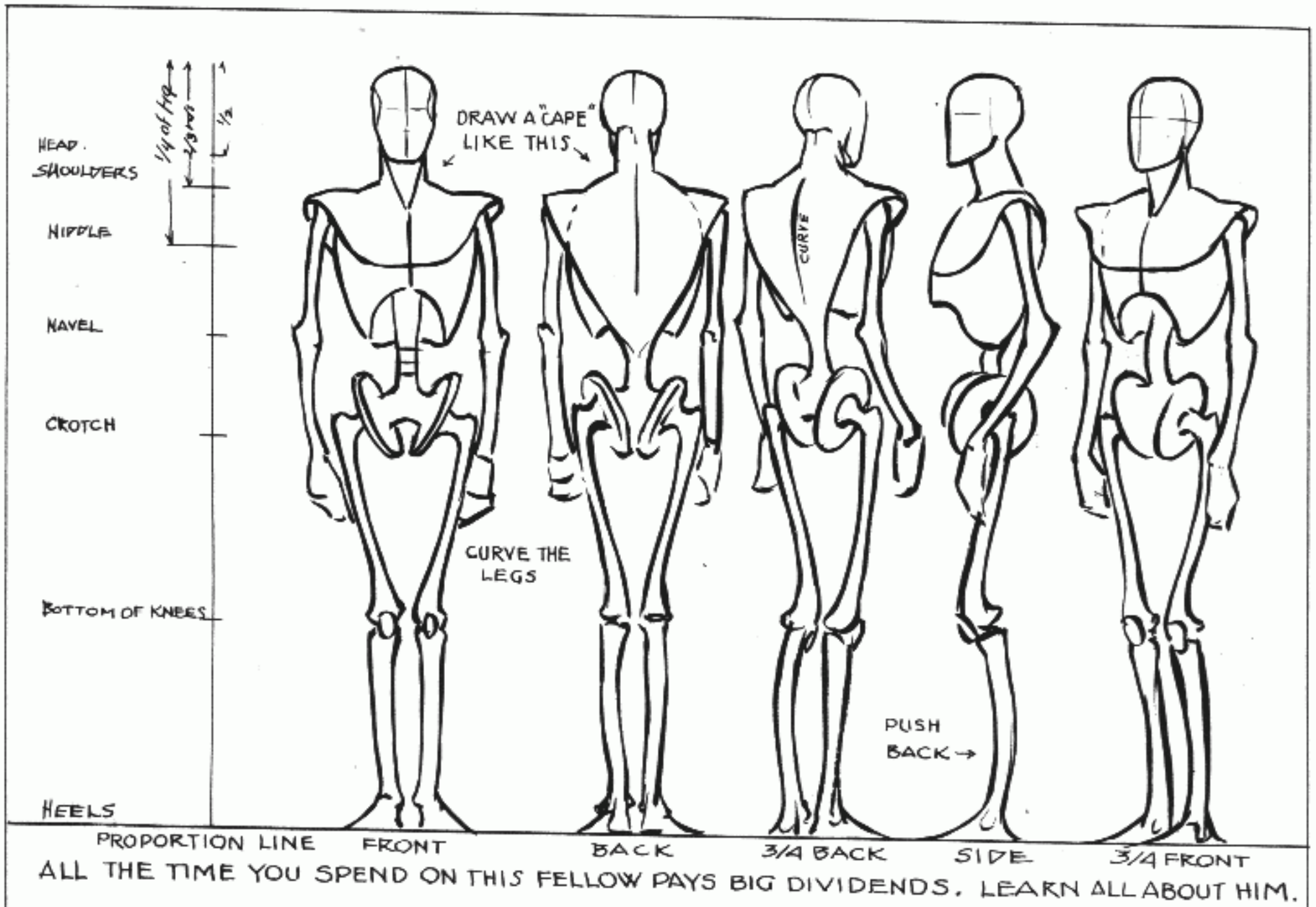
THESE ARE
"MOVING PIVOTS"

THE MAIN LINE OF BALANCE SHOULD LEAN IN THE DIRECTION OF THE MOVEMENT. TRY SOME NOW.



YOUR FIGURES MAY BE BUILT UPON CURVED LINES FOR MOVEMENT AND GRACE. AVOID RIGHT ANGLES

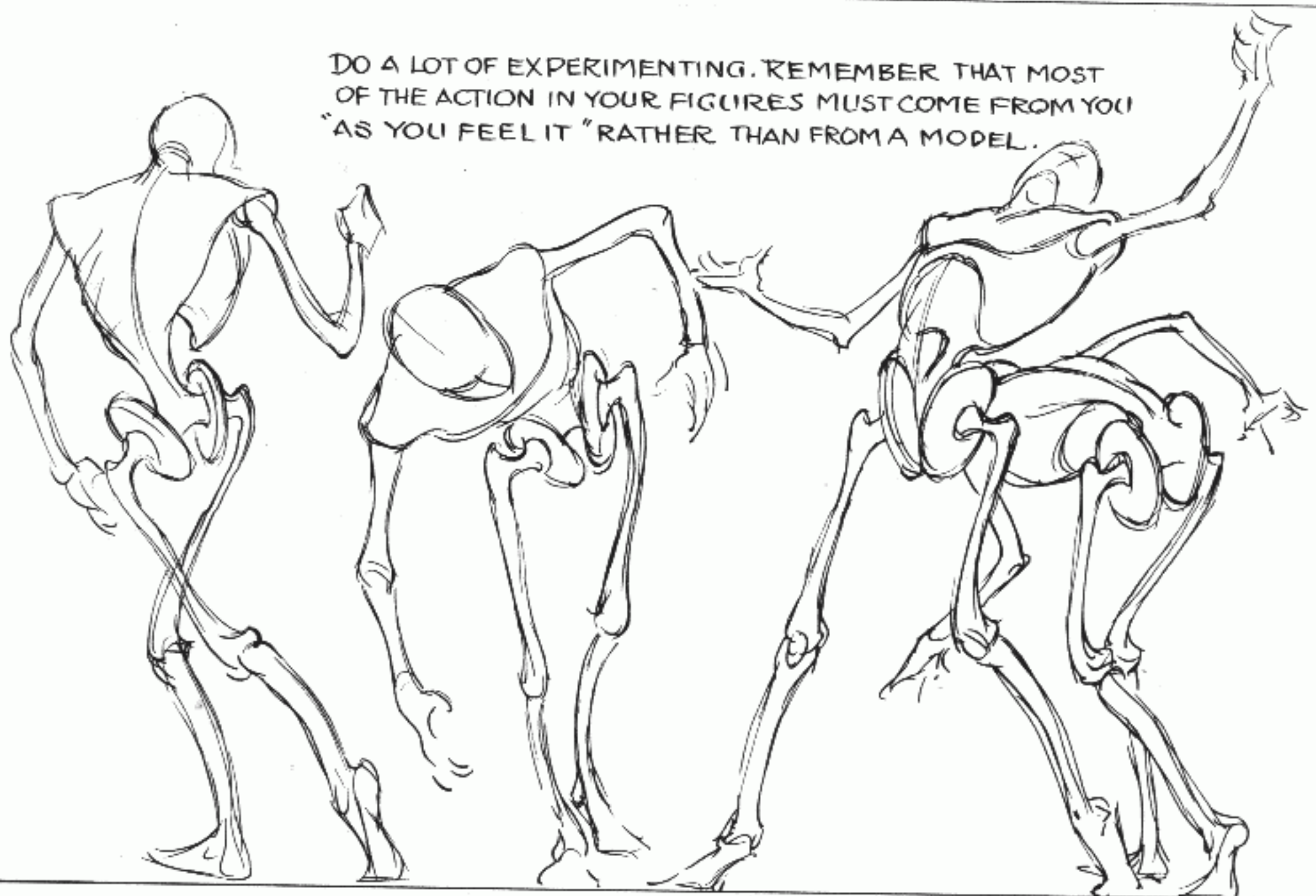
DETAILS OF THE MANNIKIN FRAME



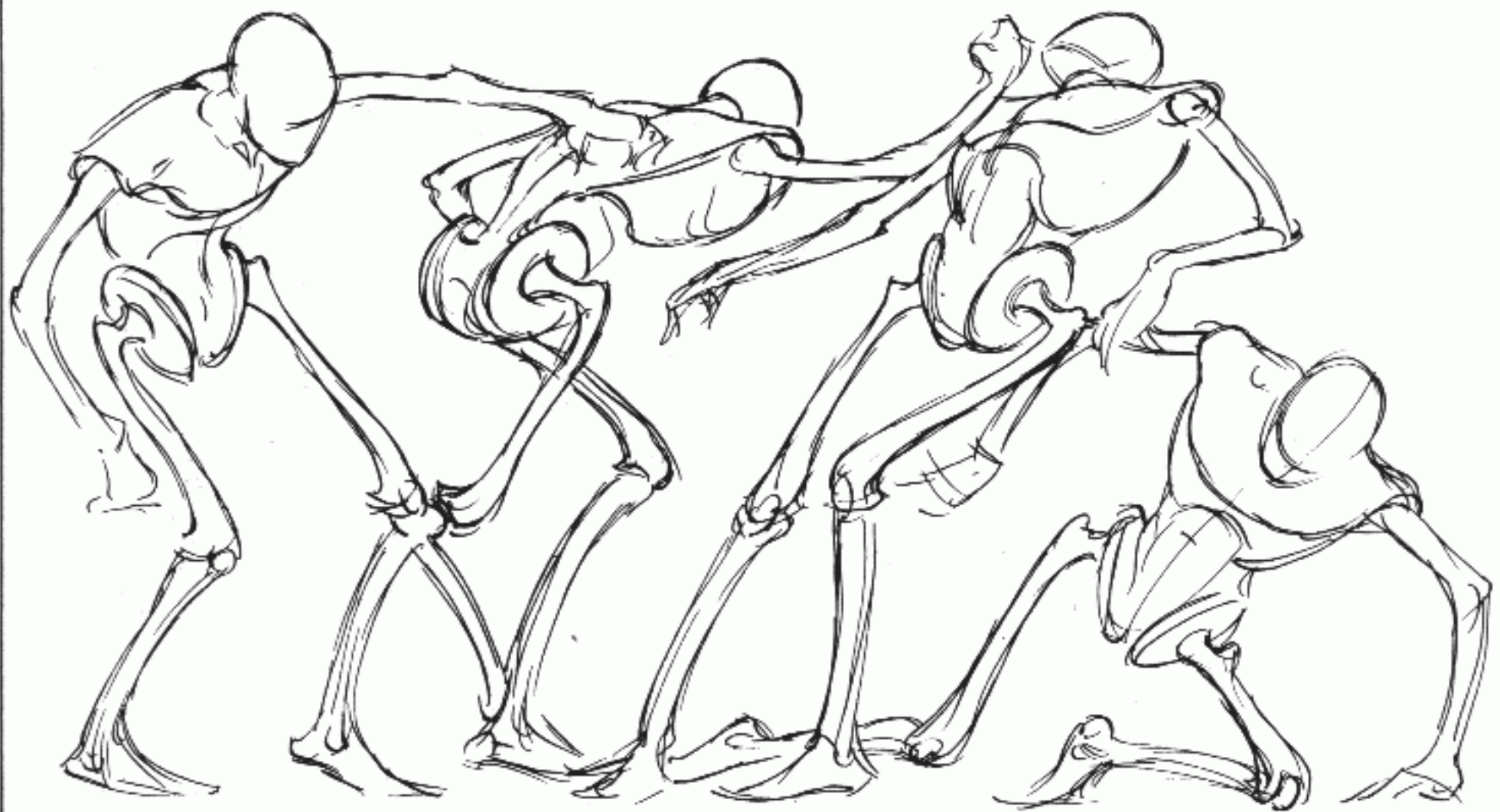
THIS IS A SIMPLIFIED VERSION OF THE ACTUAL FRAME - ALL YOU NEED FOR A START

EXPERIMENTING WITH THE MANNIKIN FRAME

DO A LOT OF EXPERIMENTING. REMEMBER THAT MOST OF THE ACTION IN YOUR FIGURES MUST COME FROM YOU "AS YOU FEEL IT" RATHER THAN FROM A MODEL.



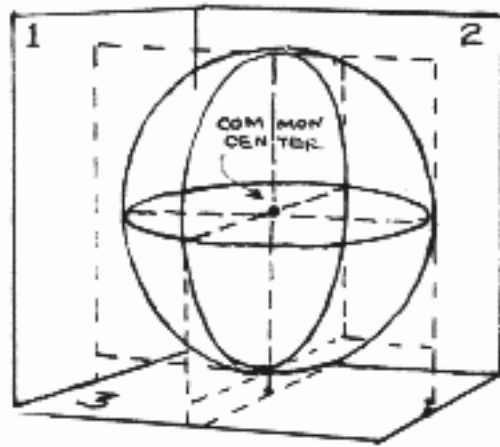
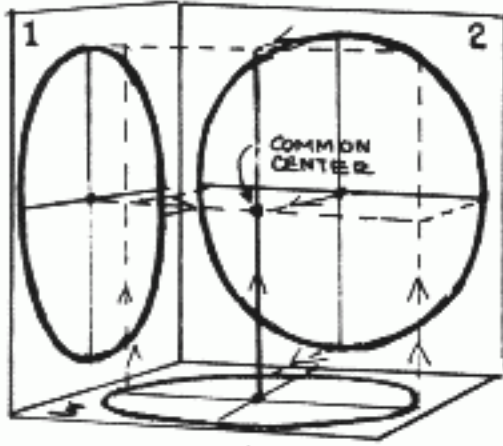
YOU WILL SOON LEARN TO EXPRESS YOURSELF. A VITAL EXPRESSION IS MORE IMPORTANT HERE THAN ACCURACY.



YOU CAN USE THIS TYPE OF SKELETON WHEN PLANNING ROUGHS, LAYOUTS, COMPOSITIONS.

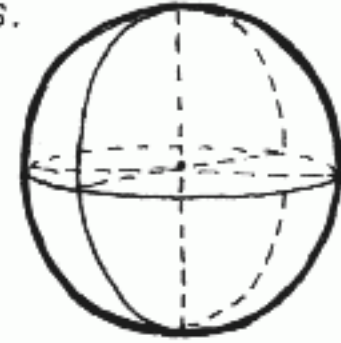
OUTLINES IN RELATION TO SOLID FORM

A. LET US ASSUME WE HAVE OUTLINES OF THREE CIRCLES SET ON 3 ADJACENT PLANES.

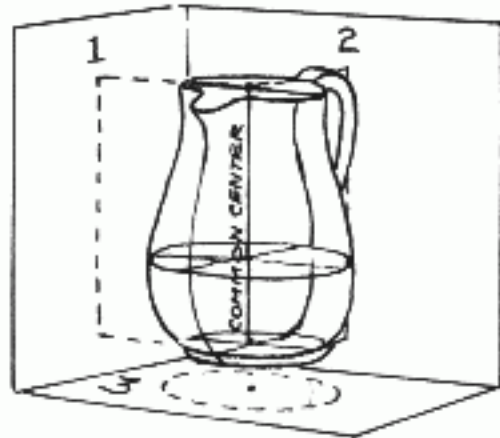
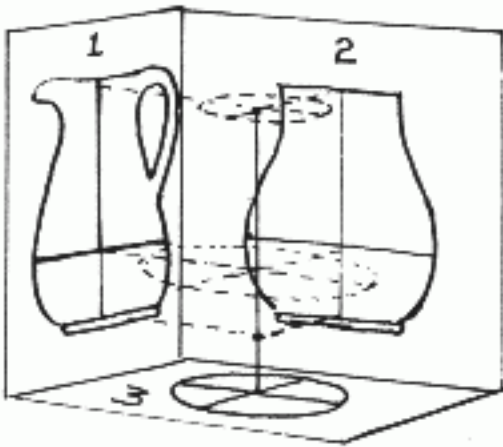


ALL SOLIDS MUST HAVE THESE THREE DIMENSIONS.

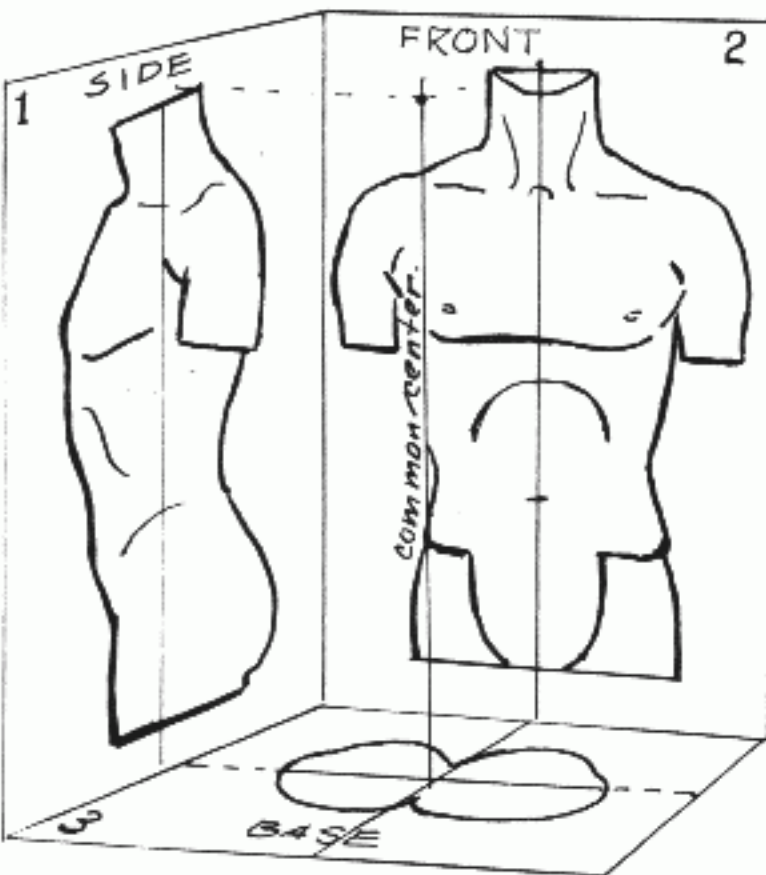
- 1 LENGTH
- 2 BREADTH
- 3 THICKNESS



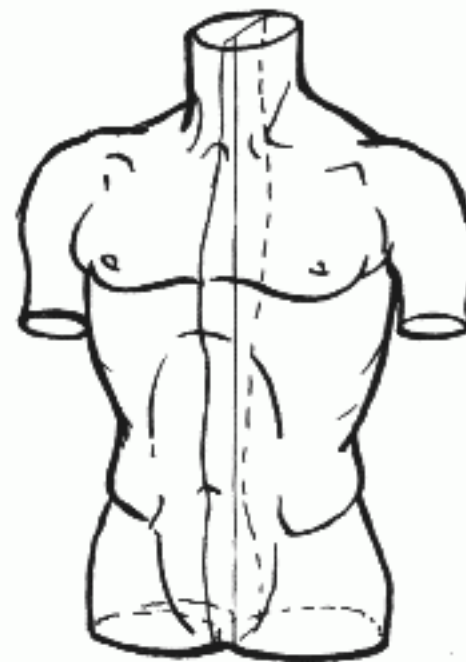
B. BY MOVING CIRCLES FORWARD TO A COMMON CENTER, WE PRODUCE A "SOLID" BALL.
NOW TAKE A COMMON OBJECT.



THE "OUTLINES" OF EACH PLANE MAY BE VERY DIFFERENT, BUT PUT TOGETHER, FORM THE SOLID.



FLAT



SOLID

SO, IN DRAWING WE MUST ALWAYS TRY TO "FEEL" THE MIDDLE CONTOURS AS WELL AS THE EDGES. THE OUTLINES ALONE CAN SUGGEST SOLIDITY. WATCH HOW EDGES PASS ONE ANOTHER.

THIS WILL NOT BE EASY UNTIL YOU BECOME ABLE TO "THINK ALL AROUND" THE THING YOU HAPPEN TO BE DRAWING, TRULY KNOWING ALL OF THE FORM.

THE MANNIKIN FIGURE

The foregoing has given us a general framework to which we can now add a simplification of the bulk or solid aspect of the figure. It would be both tedious and superfluous if, every time we drew a figure, we went through the whole procedure of figure drawing. The artist will want to make roughs and sketches that can serve as an understructure for pose or action—perhaps to cover with clothing, perhaps to work out a pose that he will finish with a model. We must have some direct and quick way of indicating or setting up an experimental figure—one with which we can tell a story. The figure set up as suggested in the following pages will usually suffice. Properly done, it can always be developed into the more finished drawing. When you are drawing a mannikin figure, you need not be greatly concerned with the actual muscles or how they affect the surface. The mannikin in drawing is used much as is a “lay” figure, to indicate joints and the general proportion of framework and masses.

The mannikin serves a double purpose here. I believe that the student will do much better to set up the figure this way and get the “feel” of its parts in action than to begin at once with the live model. It will not only serve for rough sketches but will also become an ideal approach to the actual drawing of the figure from life or copy. If you have the frame and masses to begin with, you can later break them down into actual bone and muscle. Then you can more easily grasp the placing and functions of the muscles and what they do to the surface. I am of the opinion that to teach anatomy before proportion—before bulk and mass and action—is to put the cart before the horse. You cannot draw a muscle correctly without a fair estimate of the area it occupies within the figure, without an understanding of why it is there and of how it works.

Think of the figure in a plastic sense, or as

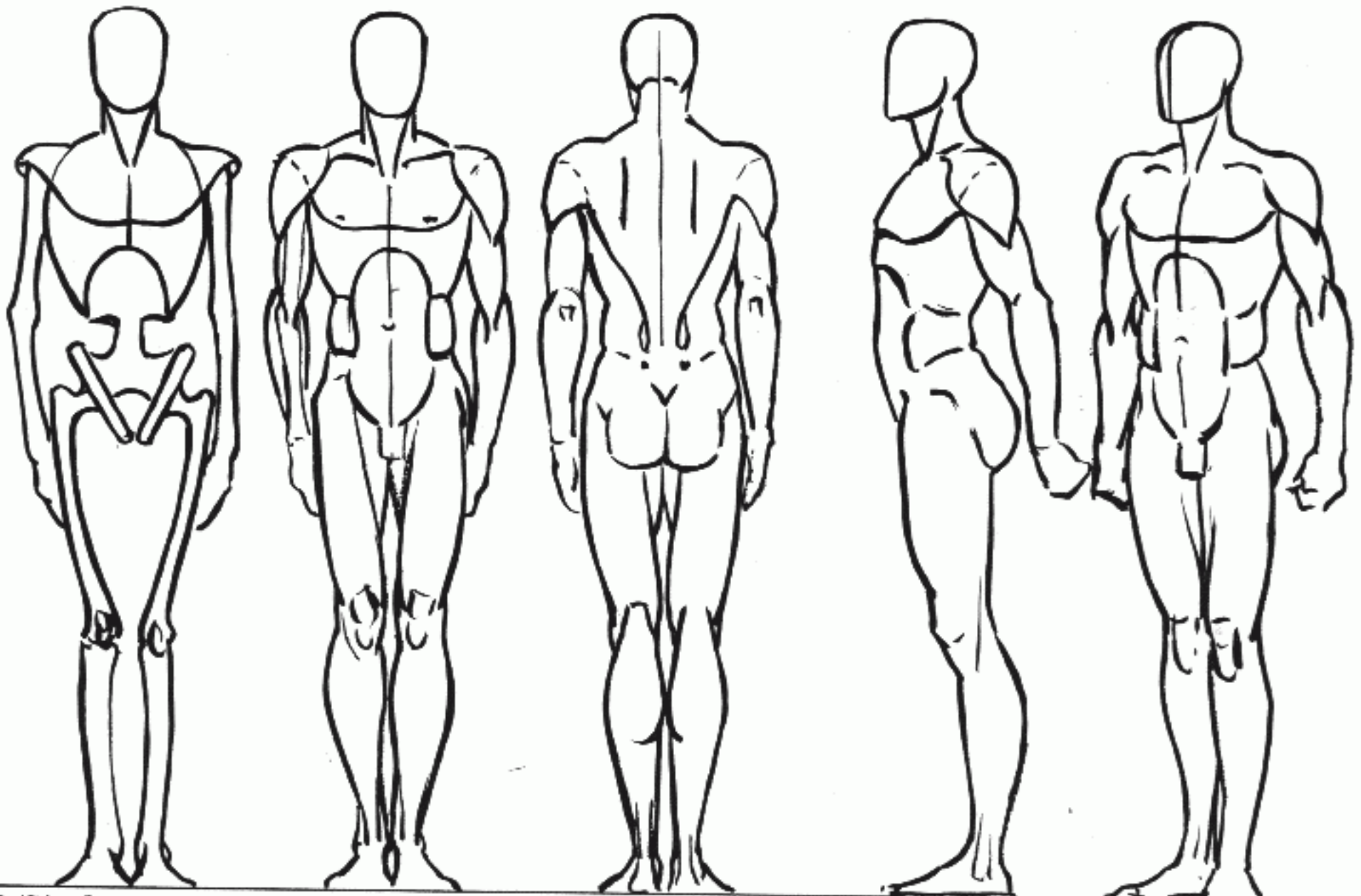
something with three dimensions. It has weight that must be held up by a framework which is extremely mobile. The fleshy masses or bulk follows the frame. Some of these masses are knit together quite closely and adhere to the bony structure, whereas other masses are full and thick and will be affected in appearance by action.

If you have never studied anatomy, you may not know that the muscles fall naturally into groups or chunks attached in certain ways to the frame. We will not treat their physiological detail here, but consider them merely as parts interlocked or wedged together. Hence the human figure looks very much like our mannikin. The thorax, or chest, is egg-shaped and, as far as we are concerned, hollow. Over it is draped a cape of muscle extending across the chest and down the back to the base of the spine. Over the cape, in front, lie the shoulder muscles. The buttocks start halfway around in back, from the hips, and slant downward, ending in rather square creases. A V is formed by the slant above the middle crease. There is actually a V-shaped bone here, wedged between the two pelvic bones that support the spine. The chest is joined to the hips by two masses on either side. In back the calf wedges into the thigh, and in front there is the bulge of the knee.

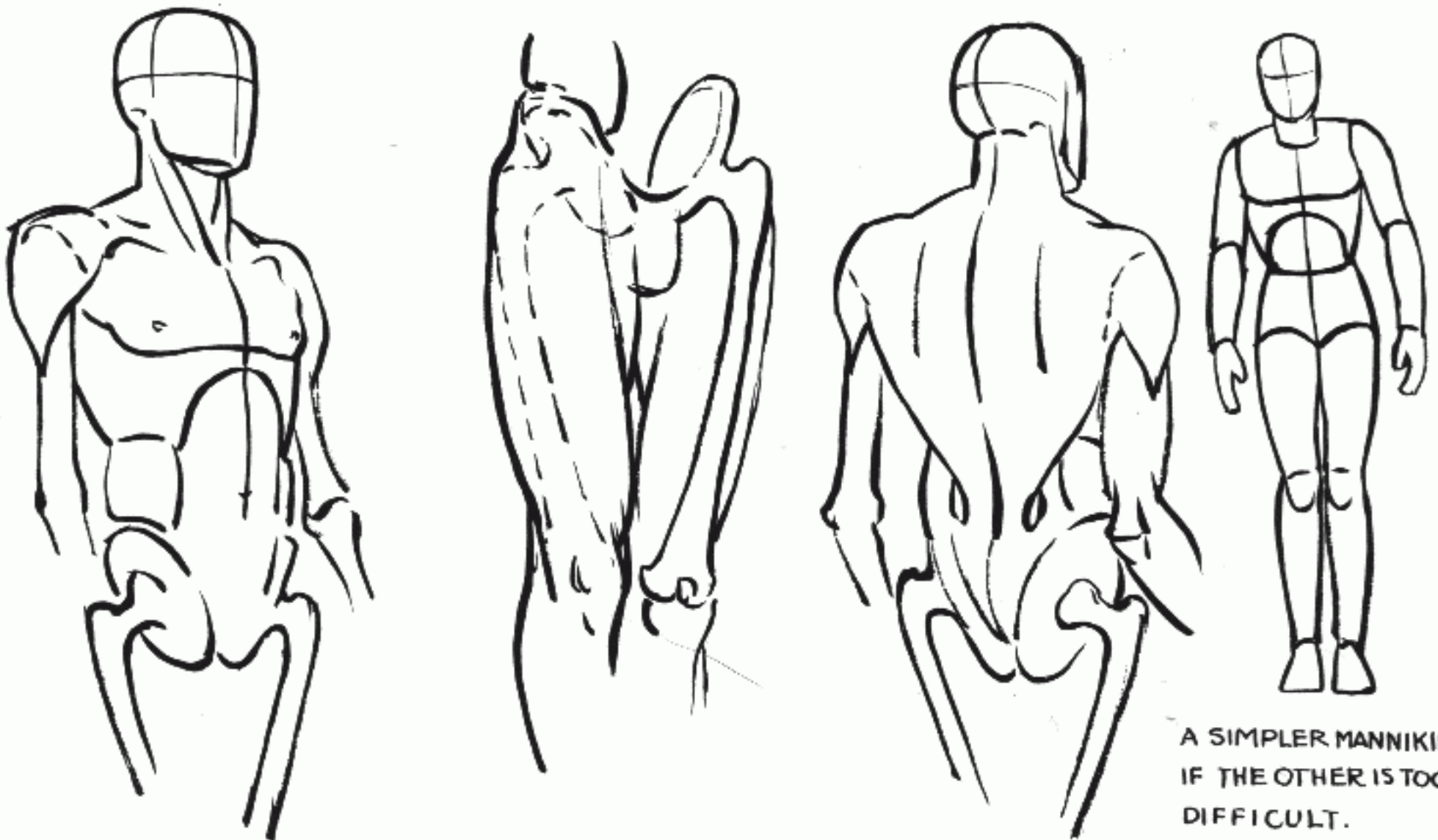
Learn to draw this mannikin as well as you can. You will use it much more often than a careful anatomical rendering. Since it is in proportion in bulk and frame, it may also be treated in perspective. No artist could possibly afford a model for all his rough preliminary work—for layouts and ideas. Yet he cannot intelligently approach his final work without a preliminary draft. If only art directors would base their layouts on such mannikin figures, the finished figures would all stand on the same floor, and heads would not run off the page when drawn correctly.

ADDING BULK TO THE FRAME

THE GROUPS OF MUSCLES SIMPLIFIED.



DEVELOPING THE PREVIOUS FRAME WITH SIMPLIFIED MUSCLE GROUPS LAID ON TOP.



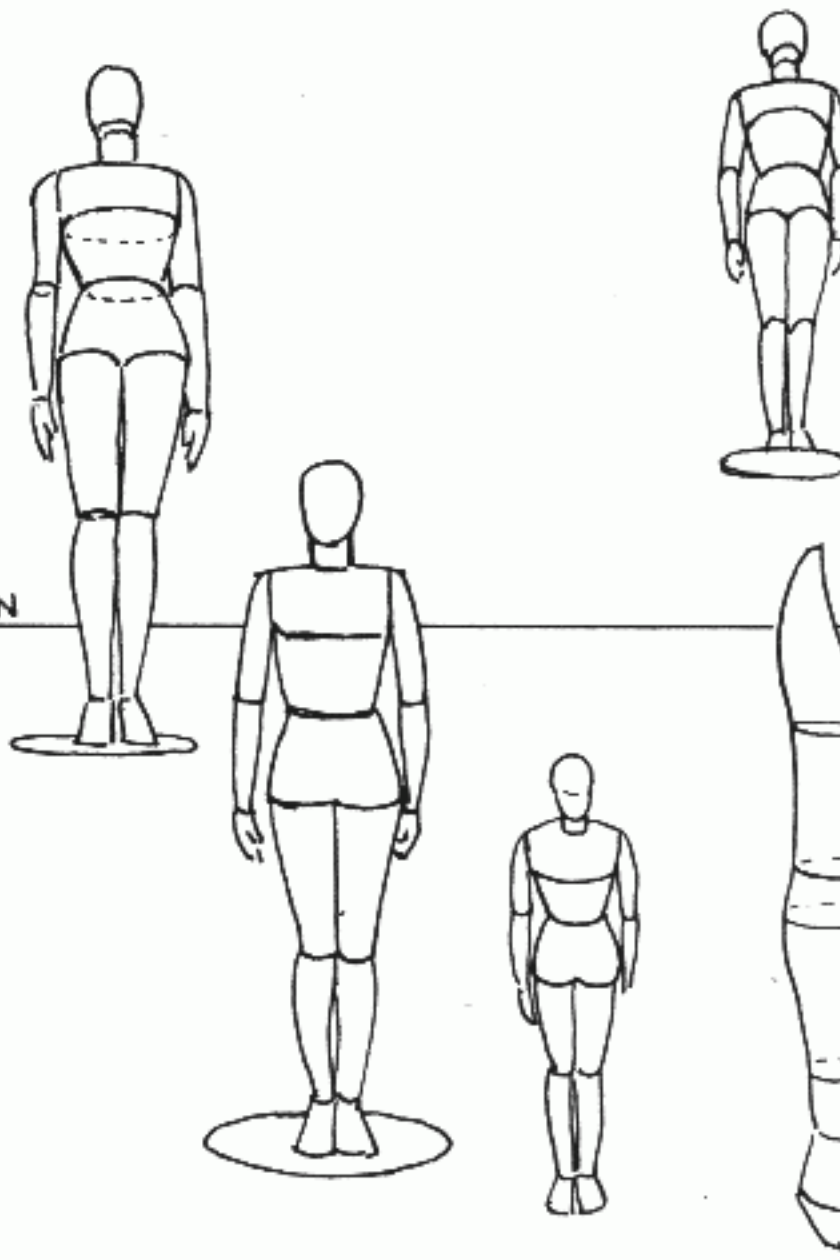
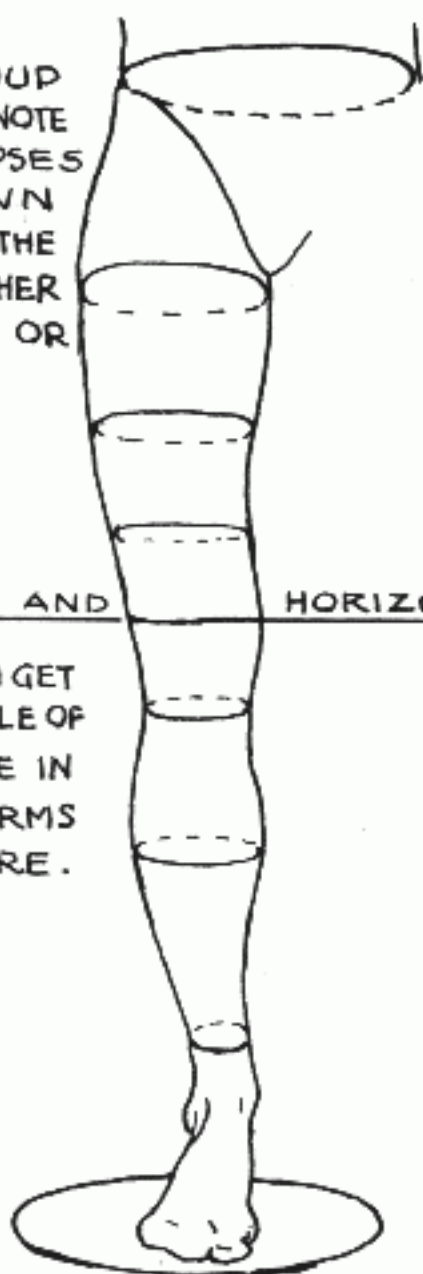
A SIMPLER MANNIKIN
IF THE OTHER IS TOO
DIFFICULT.

WE WILL STUDY THE "ACTUAL" BONE AND MUSCLE CONSTRUCTION LATER. GET THIS.

ADDING PERSPECTIVE TO THE SOLID MANNIKIN



HERE IS A GROUP OF CYLINDERS .NOTE HOW THE ELLIPSES NARROW DOWN AS THEY NEAR THE EYE LEVEL, EITHER FROM ABOVE OR BELOW.

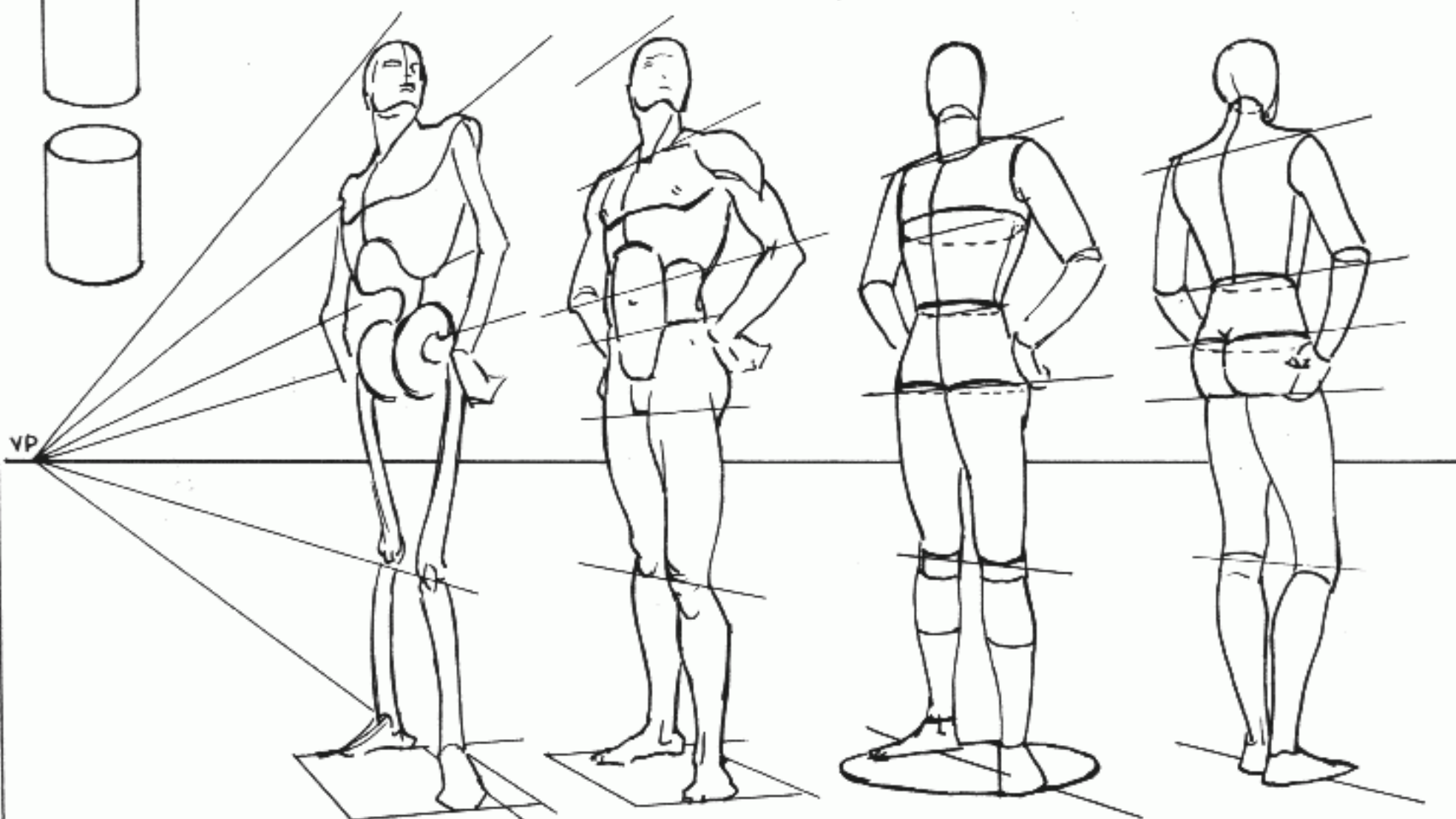


EYE LEVEL AND HORIZON

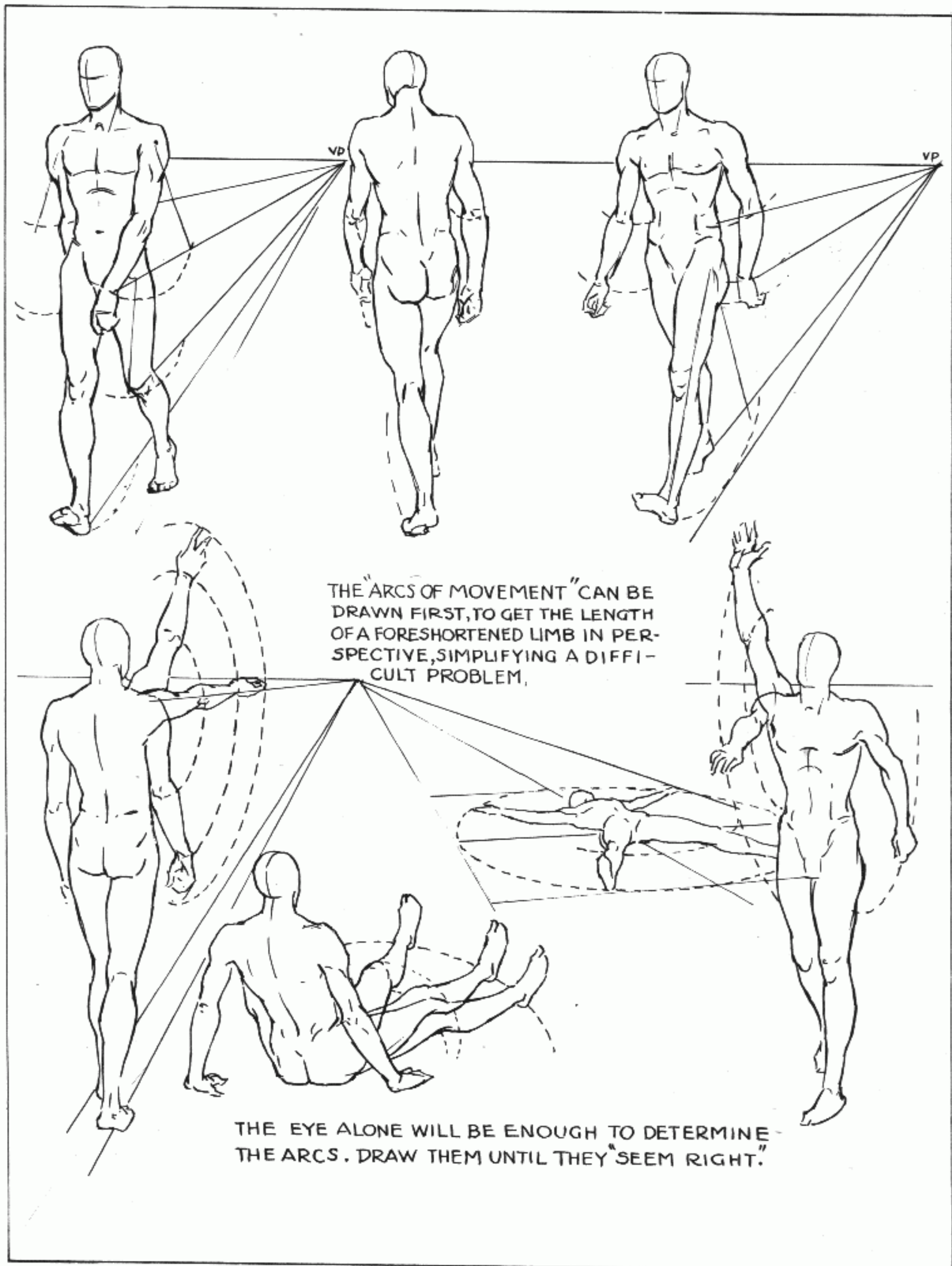


FROM THIS YOU GET THE PRINCIPLE OF PERSPECTIVE IN THE ROUND FORMS ON THE FIGURE .

TRY DRAWING YOUR MANNIKIN FIGURE TO THE HORIZON



ARCS OF MOVEMENT IN PERSPECTIVE



PLACING THE MANNIKIN AT ANY SPOT OR LEVEL

IF YOU DO NOT UNDERSTAND PERSPECTIVE, IT IS ADVISED TO GET A GOOD BOOK ON THE SUBJECT. YOU MUST KNOW IT EVENTUALLY TO SUCCEED. YOU CANNOT SET UP A GOOD DRAWING WITHOUT IT.

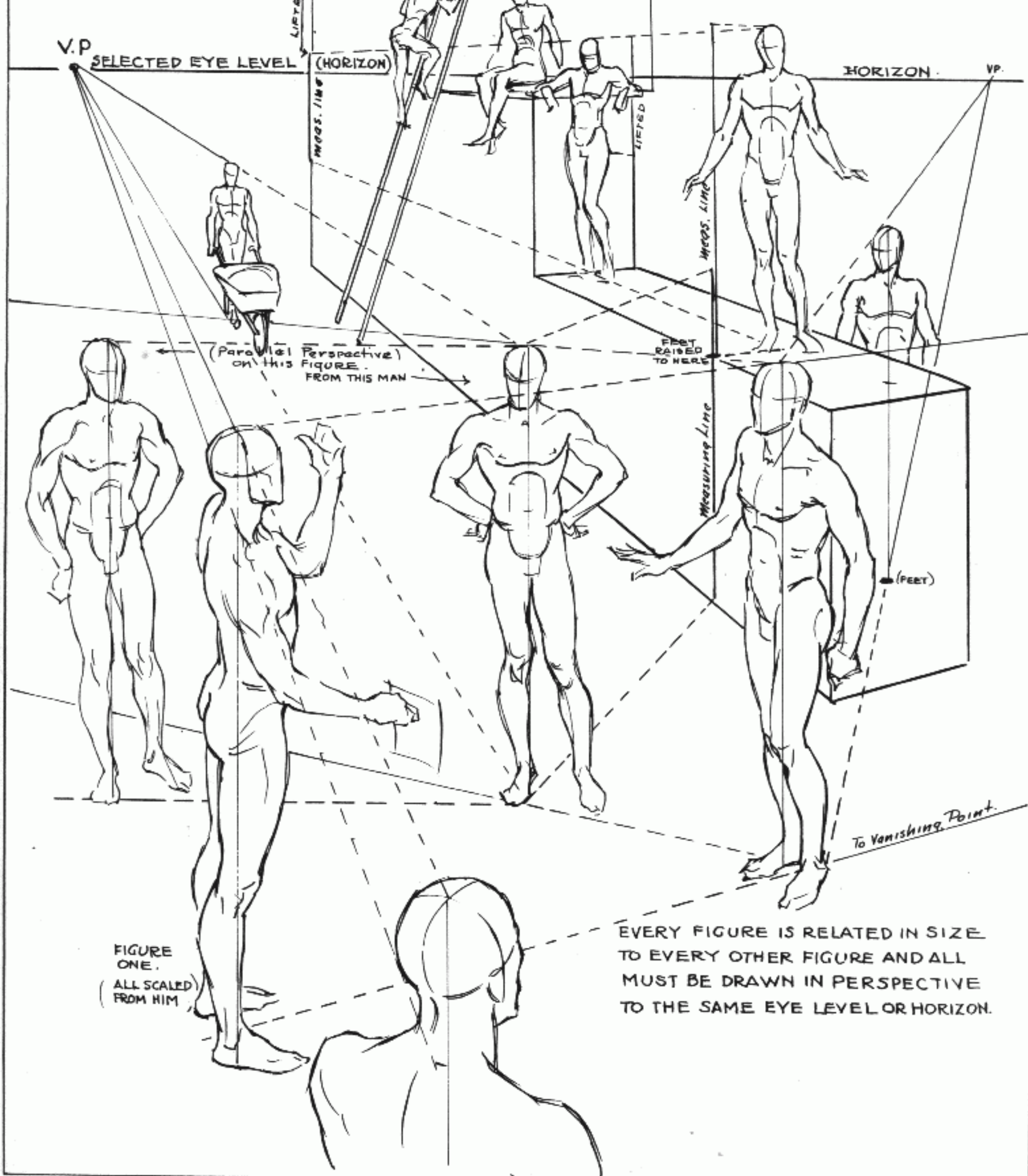


FIGURE ONE.
(ALL SCALED)
FROM HIM

EVERY FIGURE IS RELATED IN SIZE TO EVERY OTHER FIGURE AND ALL MUST BE DRAWN IN PERSPECTIVE TO THE SAME EYE LEVEL OR HORIZON.