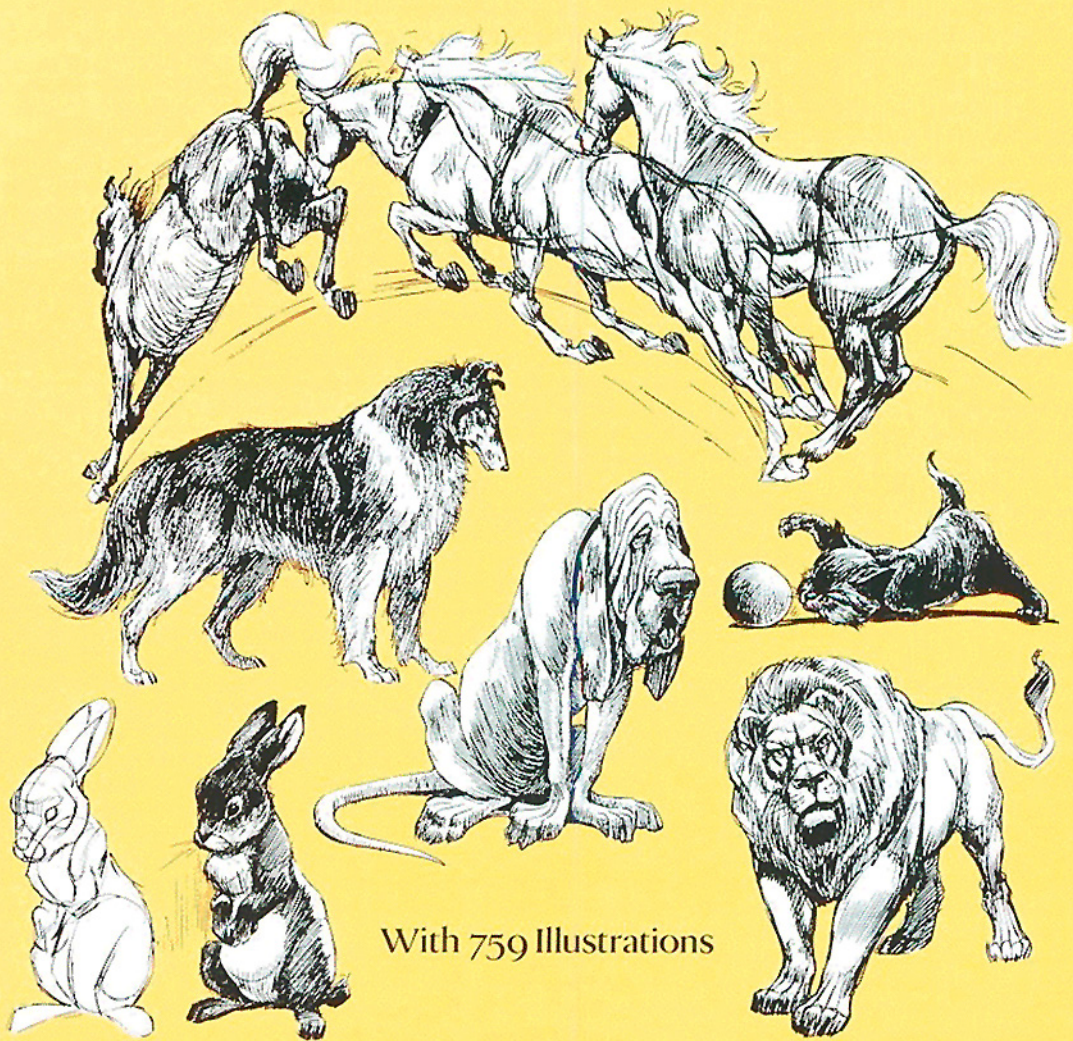


Ken Hultgren

THE ART OF ANIMAL DRAWING

Construction, Action Analysis, Caricature



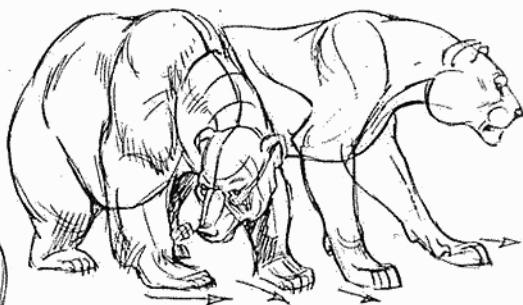
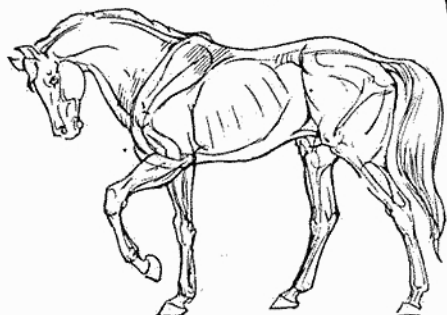
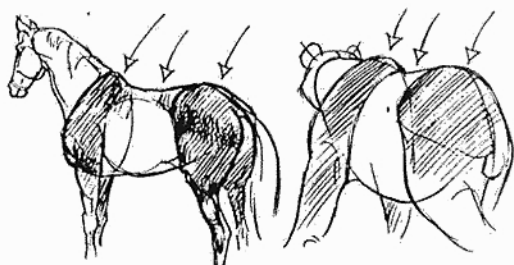
With 759 Illustrations

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TIPS ON DRAWING ANIMALS

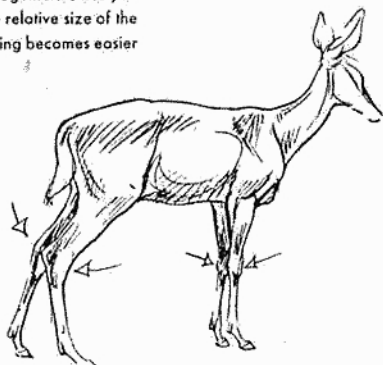
It is well to divide the body into three parts — forequarters, belly, and rear quarters. Since this is a natural division, it aids in achieving proper proportion. Draw in dorsal stripe (line of vertebrae). This helps to center the animal.



Bears have a tendency to be pigeon-toed. The paws of the cat family spread out slightly.

Always indicate skeleton bones; these will hold the sketch together. Once you are familiar with the relative size of the various bones, drawing becomes easier.

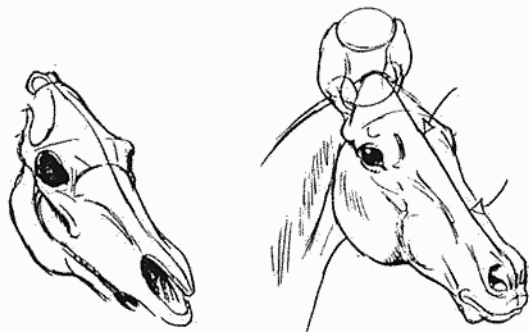
Most hoofed animals are slightly knock-kneed — more so when they're young.



Divide the skull into three parts also: the muzzle, the long part of the nose, and the base of the skull.



Fasten ears onto the back of the head. For simplicity, indicate the base with an oval.

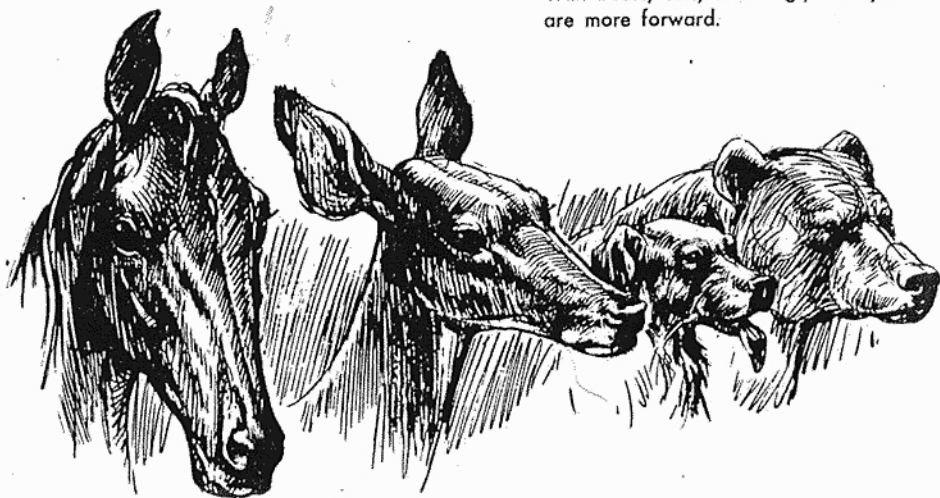


Divide the head in the middle for construction; it's a natural division.

Line up the eye with the ears and nostrils; this is a good guide and is correct for most animals.

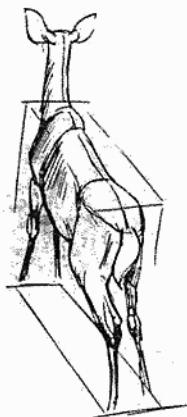
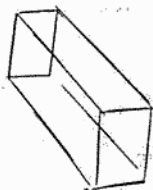
Bear in mind that the eyes are usually on the side of the head. Draw your guide lines when constructing.

With bears, cats, and dogs, the eyes are more forward.

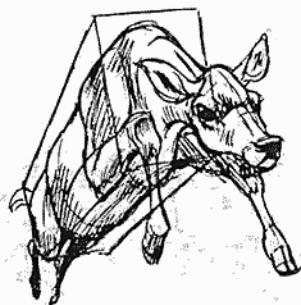
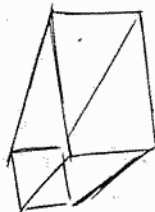
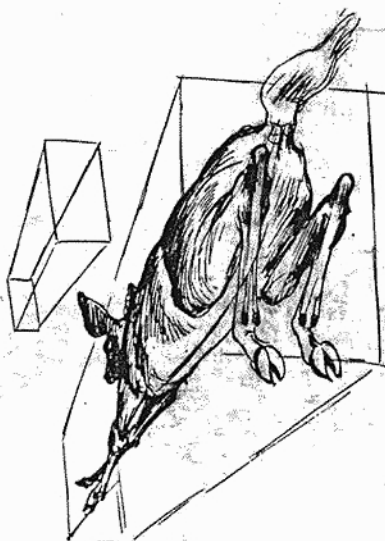




When drawing animals, try to get variety in leg positions. Note the added interest in a sketch when the legs are placed at different angles, in contrast with the stiff, stilted pose with the legs parallel.



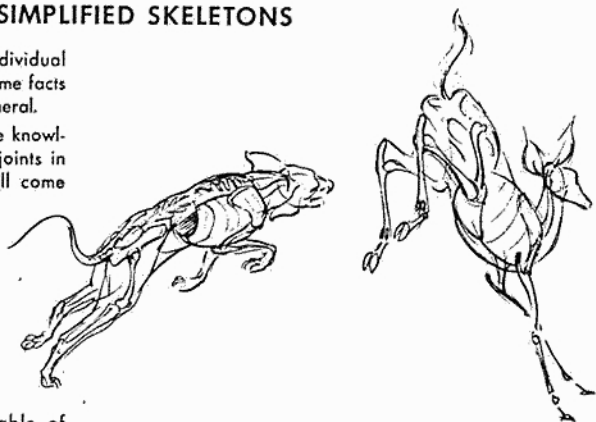
It is well to keep these box forms in mind when working with angle shots. If in doubt about a pose, rough in your box lightly, and check your perspective.



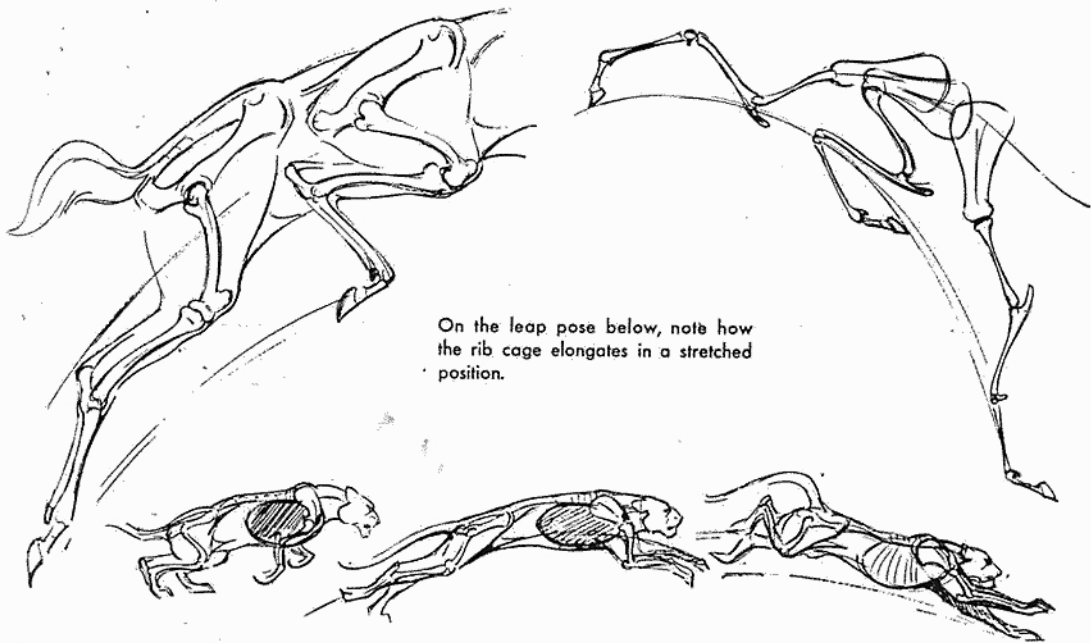
SIMPLIFIED SKELETONS

Before concentrating on individual animals, it is helpful to note some facts concerning the skeleton in general.

Once you have acquired some knowledge of the pivot points or joints in a skeleton, your drawing will come more easily.



Legs are very pliable, capable of doubling up and stretching out.

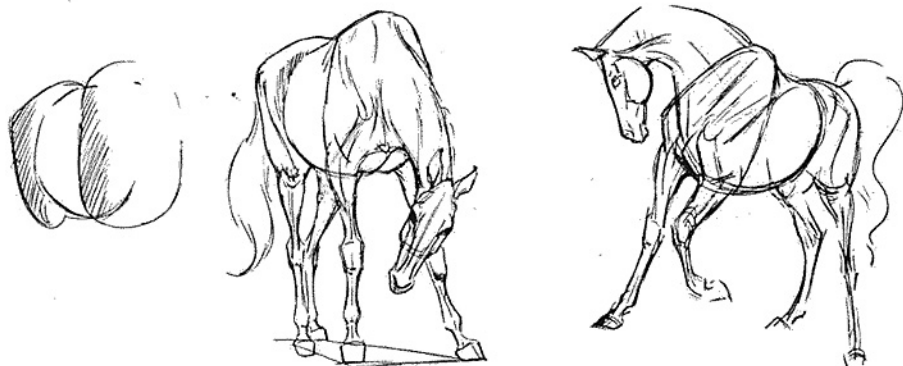


On the leap pose below, note how the rib cage elongates in a stretched position.

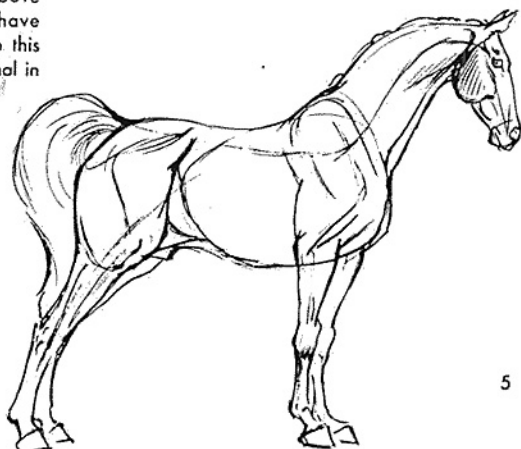


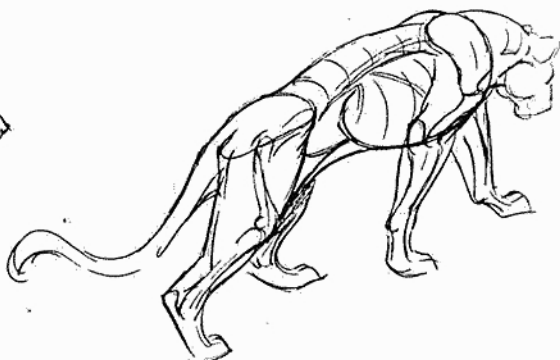
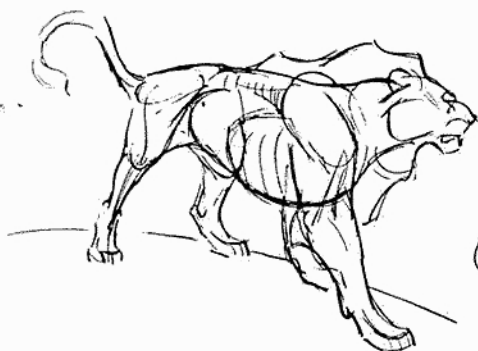
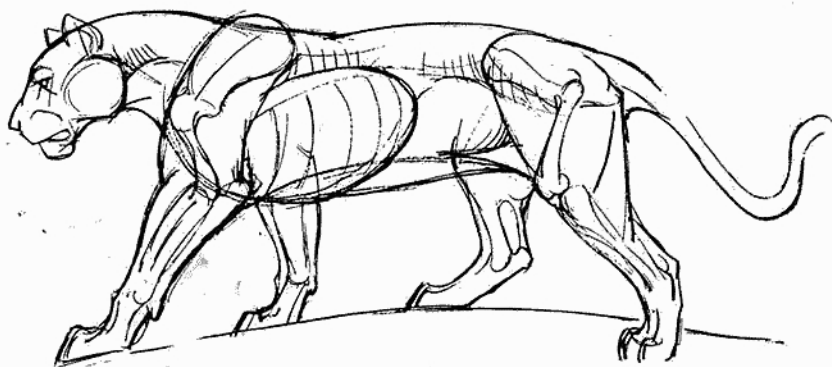
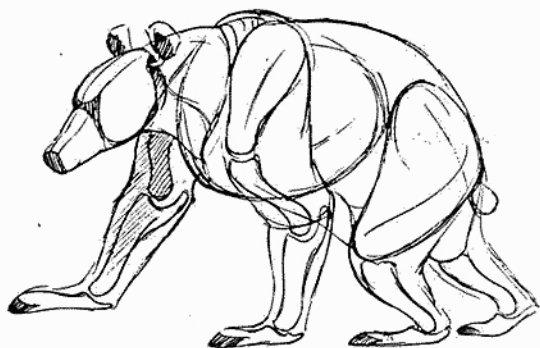
SKETCHING IN FORMS

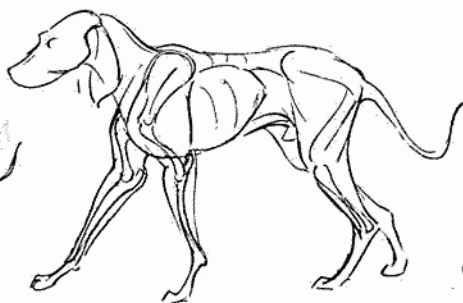
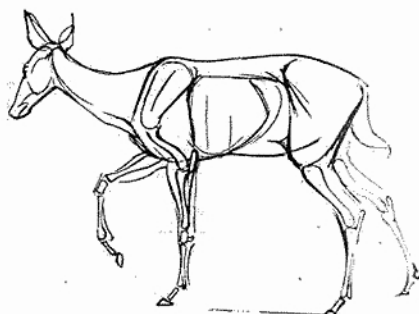
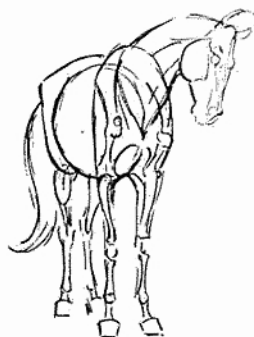
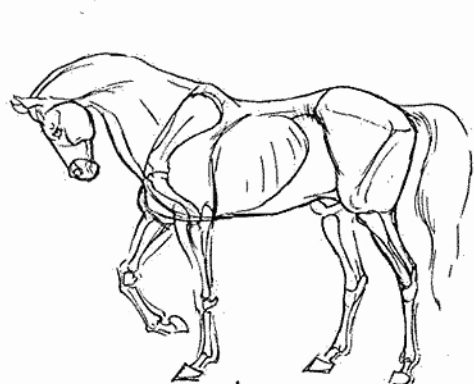
Once you have the basic principles of the skeleton in mind, you may proceed with more assurance in your drawing. In sketching, it is helpful to indicate the positions, or pivot points, on the sketch. After locating these, draw the main forms of your animal.



A diagram such as the one above will prove helpful when you have forms behind one another. Keep this in mind when drawing any animal in this position.

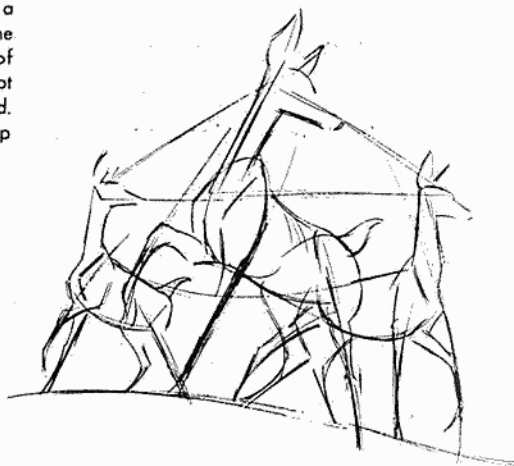




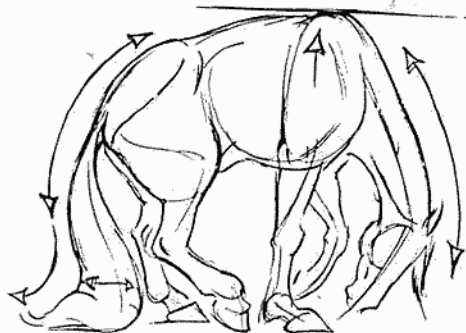


MOOD AND FEELING

Every artist is an actor, in that he conveys to the observer the mood or attitude of his animal characters and must feel the situation before he can put it down on paper. If the mood is a tense one, such as that of the deer group, then you strive for a taut; tense mood in your characters. At such a time, animals drop lower on their hindquarters, prepared for a quick departure if the situation warrants. The ears and tail are perked up. The whites of the eyes are seldom visible in animals except when they are extremely tense and frightened. In the deer sketch, the stretched necks also help to convey tension.



In a very tired pose, like that of the horse, the effect requires as much droop as possible. Animals shift their weight from leg to leg when tired. Their heads hang low. Keeping the withers high accents that effect.

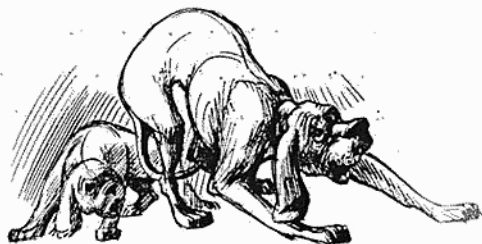




To convey excitement, flaring the manes of the horses was helpful. The nostrils are wide, ears back, and the whites of the eyes visible. The neck muscles are taut.



The best way to stage the cowering pose for the dogs seemed to be to keep the heads low, with their attention drawn up. The rear quarters are dropped, and the tails are between the legs.



The lions below express a mood of lazy contentment. Like their domestic cousins, lions lazily swish their tails in relaxed moods such as these. The head of the farther animal resting on the other cat's back gives the scene a quiet peace.

Whatever the mood, see it mentally before you start to work. It may be necessary to sketch several rough poses before you find one which you feel is satisfactory. The following are good test questions to ask yourself: Will this pose convey the meaning in silhouette? Is my staging clear? How can I make this pose stronger?



THE USE OF LINE

Basically there are two kinds of line: a straight line, and a curved line of varying degree. Primarily we use line to build form and solids and to create movement.



Fig. 1



Fig. 2



Fig. 3

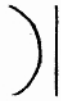


Fig. 4



Fig. 5

Here are some basic lines used to build forms and solids.

An example of Fig. 1 is the cat. Note heavy lines in these examples.



Fig. 2



Fig. 3



Fig. 3 is a good one also to create weight in horizontal view.

Fig. 4

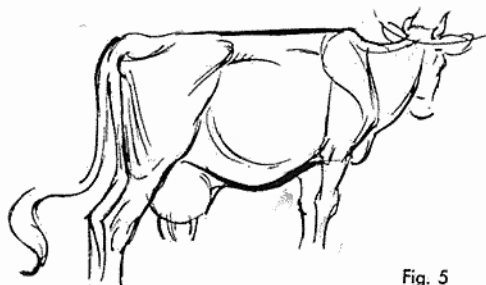
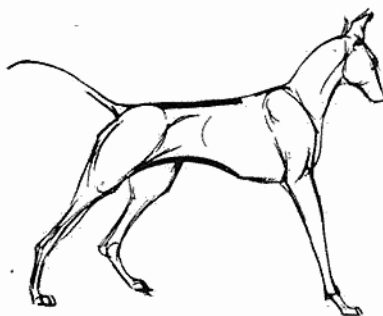


Fig. 5

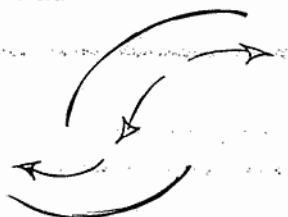


The next use of line is to create motion.

With this arc two directions of movement have been started.



To create more movement, reverse the arc.

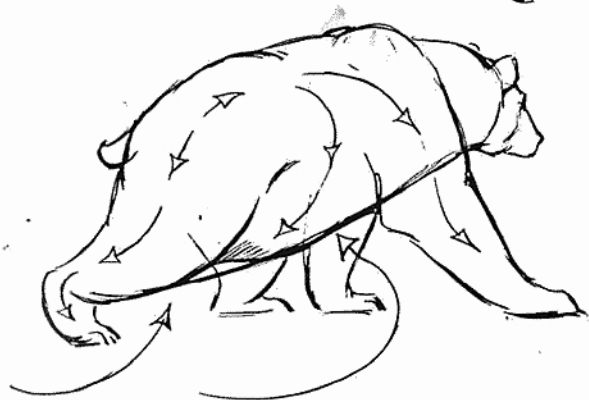


To build further, use the straight line, which relieves the monotony of all curves.

In this step, note how the stomach line opposes the leg line. Opposition is always good because it is a part of good composition. Work forces against forces.



Repetition of line is also very good, since it furnishes a necessary contrast to opposition. Note bear's right rear leg and the line of the stomach.



Remember your horizontals, verticals, and diagonals. Every picture should have them.

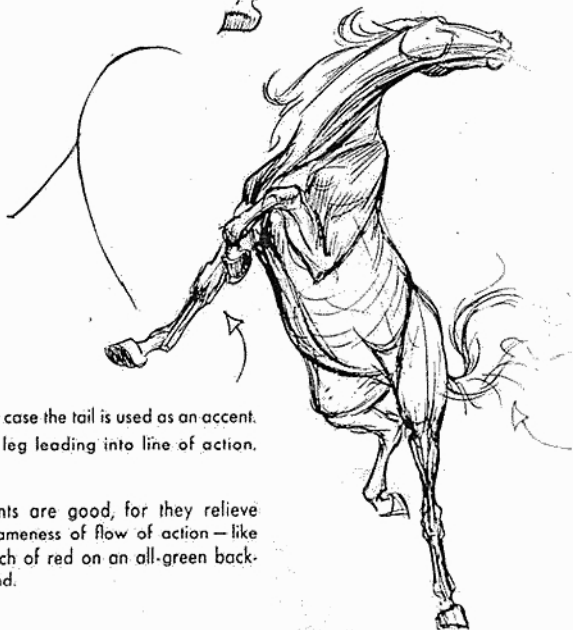
For rhythm and sweep in your drawings always establish a line of action. Some of the accepted lines are these.



Basically the line of action is the flow of a graceful line.



The neck and tail are excellent for establishing this flow; either can be used in different ways. In these two poses, both are part of the line of action.

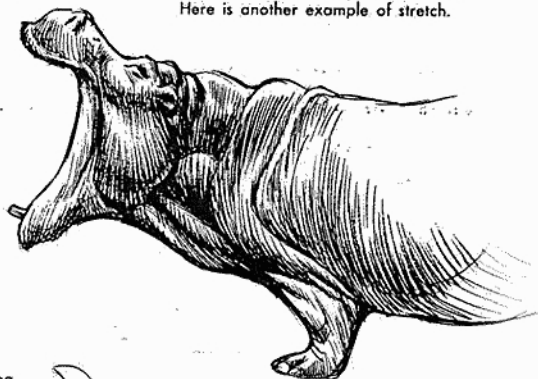


In this case the tail is used as an accent. Note leg leading into line of action.

Accents are good, for they relieve the sameness of flow of action — like a touch of red on an all-green background.

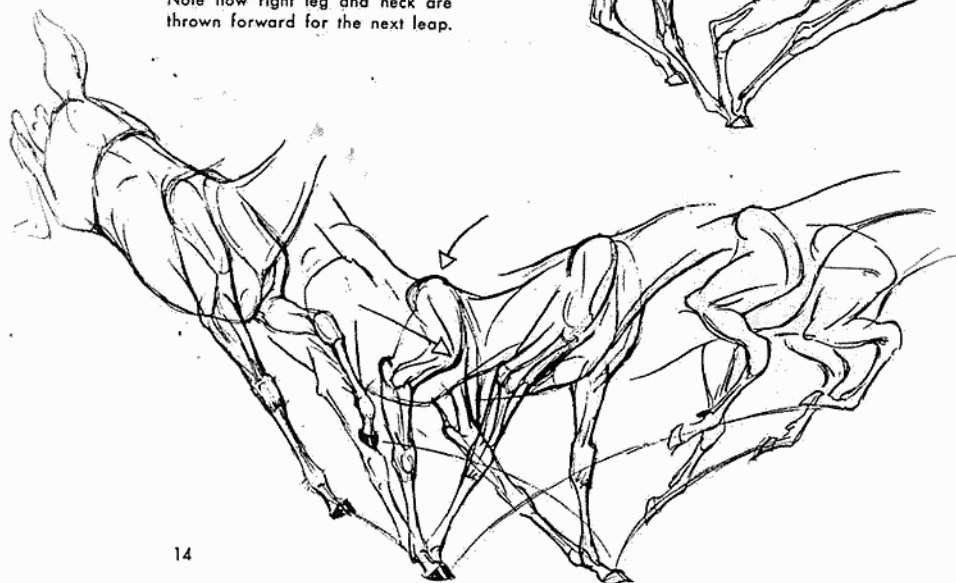
Exaggeration

Get the full use of your pose, whatever it may be. If a horse is taking off in a leap, really stretch its legs; throw the head and body into the take-off. Here is another example of stretch.



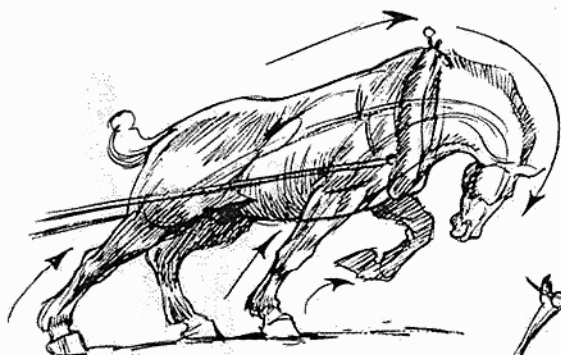
Weight

In the sketch below, note the changing leg actions and the stretching of legs reaching for the ground. Observe in the middle drawing how the right leg reacts to the weight of the body. Note that the left leg is still stretched, and doesn't receive the weight of the body until the next pose. Note how right leg and neck are thrown forward for the next leap.



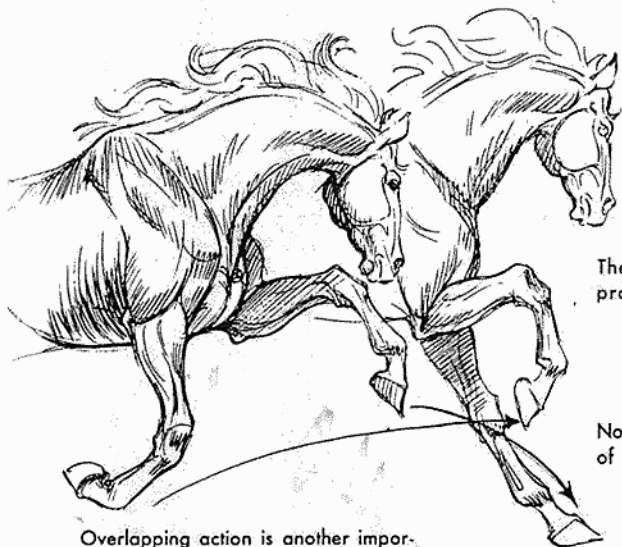
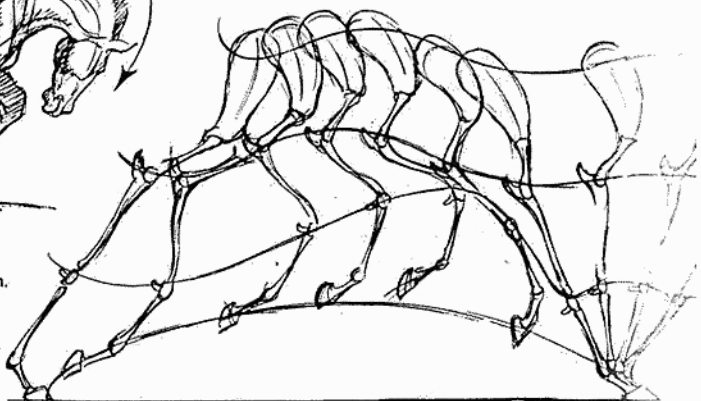
ACTION ANALYSIS — ANIMATION

Feel weight, stress and strain, action and reaction.



Arrows indicate the flow of action.

Arcs are important in animation. There is always a pivot point, but even that pivot point is movable, as below.



Overlapping action is another important factor in animation, where parts of the body take different paths of action. Note legs.



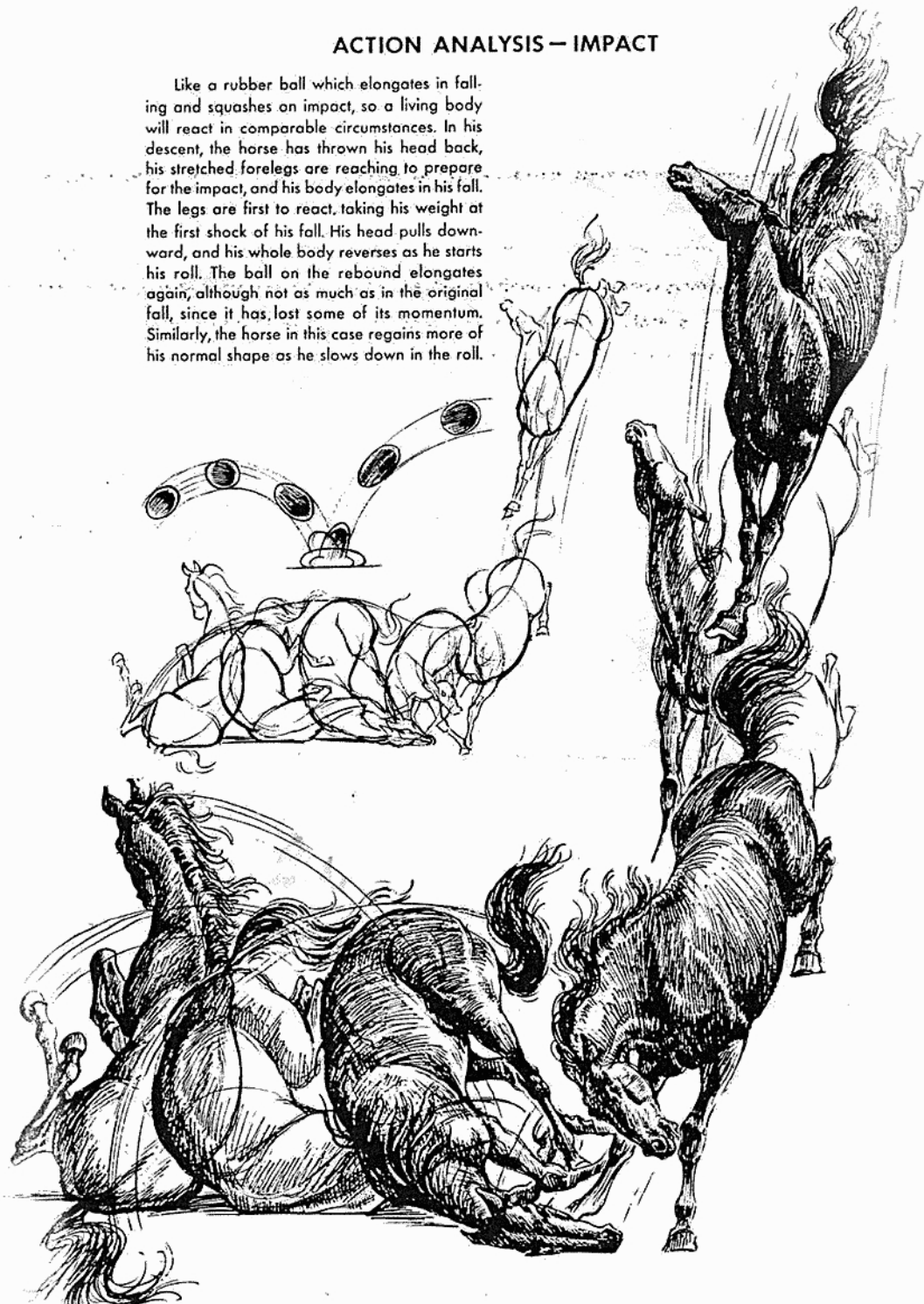
The use of reverse action is good practice.

Note the bunching up and elongating of forms, as in a rabbit taking off.



ACTION ANALYSIS — IMPACT

Like a rubber ball which elongates in falling and squashes on impact, so a living body will react in comparable circumstances. In his descent, the horse has thrown his head back, his stretched forelegs are reaching to prepare for the impact, and his body elongates in his fall. The legs are first to react, taking his weight at the first shock of his fall. His head pulls downward, and his whole body reverses as he starts his roll. The ball on the rebound elongates again, although not as much as in the original fall, since it has lost some of its momentum. Similarly, the horse in this case regains more of his normal shape as he slows down in the roll.



BRUSH TECHNIQUE

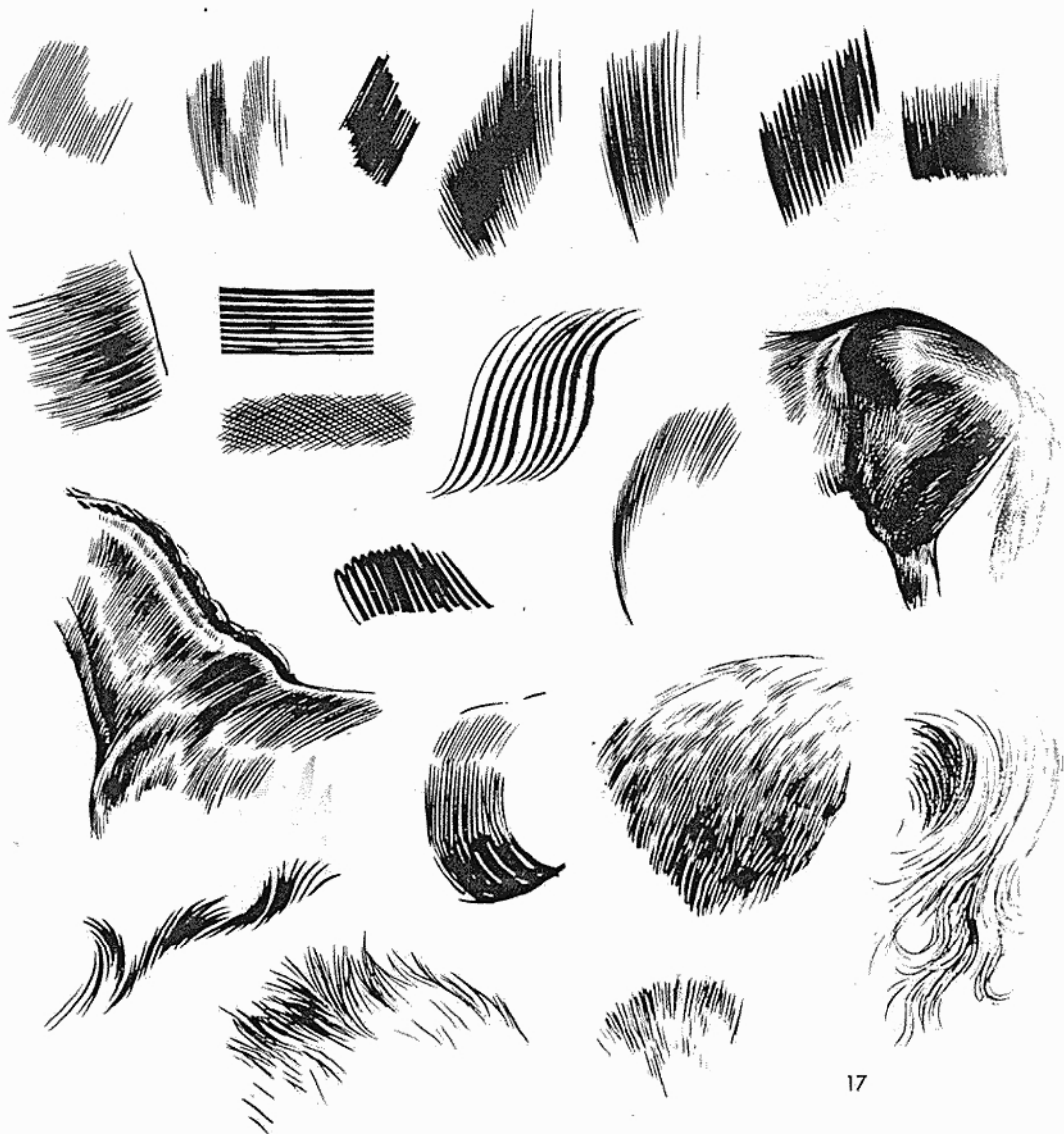
Brush and ink is an excellent medium for drawing animals. Since the fur textures of animals vary, your brush technique will vary also. To show the high sheen of a race horse, for example, I keep my brush stroke thin, close together, and even, leaving open areas to suggest high lights.

Shagginess, which is a characteristic of some camels, dogs, etc., may be conveyed by a dry-brush style. This is obtained by thinning out your brush on scratch paper after

you have dipped it in ink. The desire here is to have the tip of the brush flat, with the thin edges of the hairs of the brush just wet enough to give a soft tone. The wetness of the brush and the pressure of the brush on the paper determine the tone value you will achieve.

Regardless of the technique, I always hold my brush as I would a pencil, using wrist action for my brush strokes.

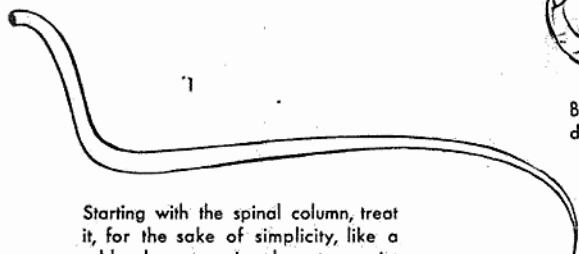
Here are some practice exercises for the two styles described.



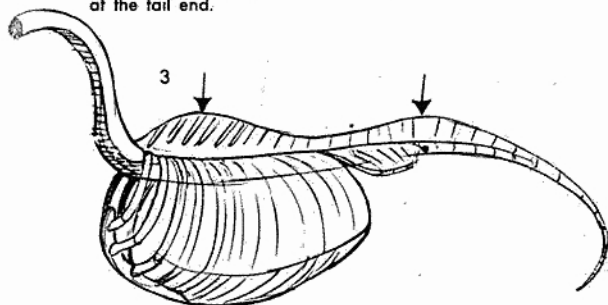


THE HORSE FAMILY — Bone Structure

Without knowledge of the principles of bone structure, it would be difficult to show construction, animation, or caricature. Naturally the skeleton varies with the conformation of each type of animal, but there is a basic similarity in the skeletons of all animals. Here is a simplified approach for the skeleton of a horse.



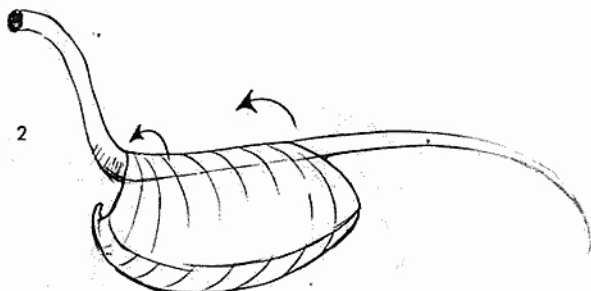
Starting with the spinal column, treat it, for the sake of simplicity, like a rubber hose, tapering down to a point at the tail end.



Next add the vertebrae, simplified again. Note variety in shape. The two high points are support for leg bones.



View showing shape of skull.



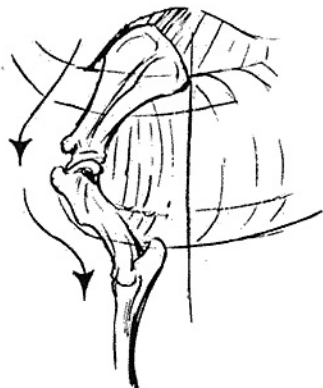
Build on the rib cage (here the rib details are omitted).



Now attach skull.



Next attach the scapula. Arrow points to socket for humerus bone.

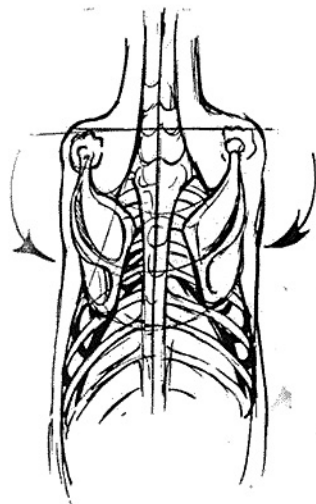


Add humerus, elbow, and foreleg.

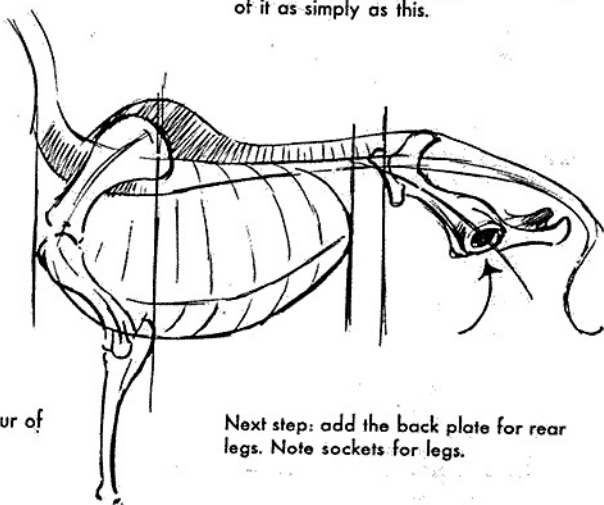


Finished leg.

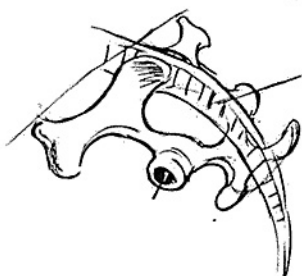
For sketching purposes, you can think of it as simply as this.



The scapula fits around the contour of the rib cage.



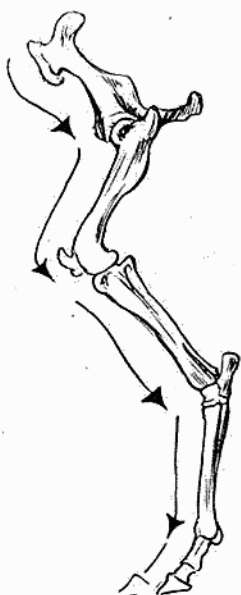
Next step: add the back plate for rear legs. Note sockets for legs.



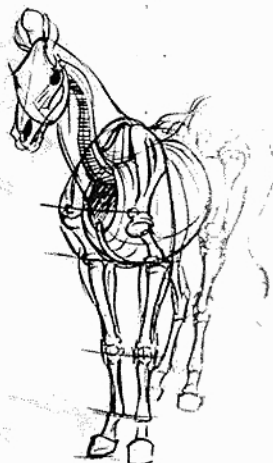
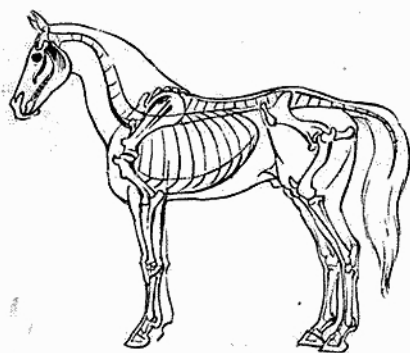
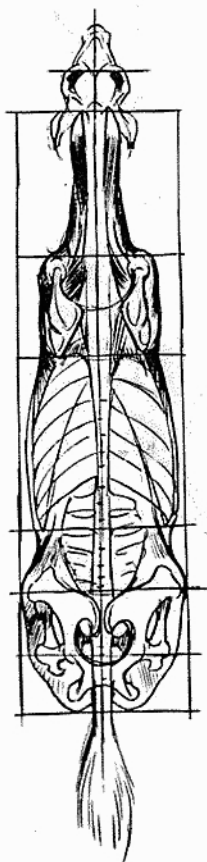
Perspective view of back plate and socket.



Bone fits into socket.

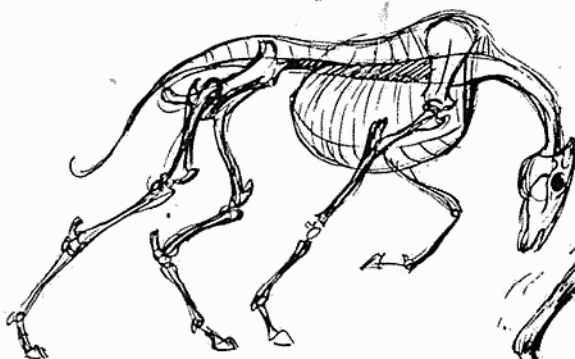
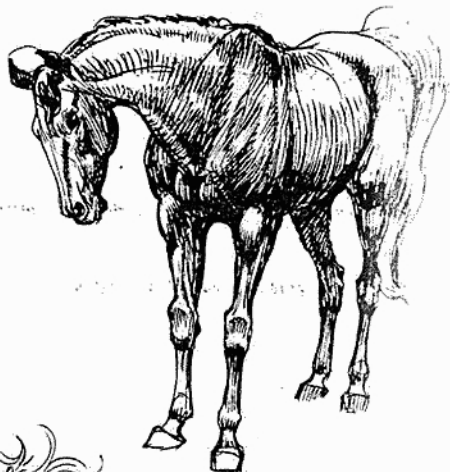
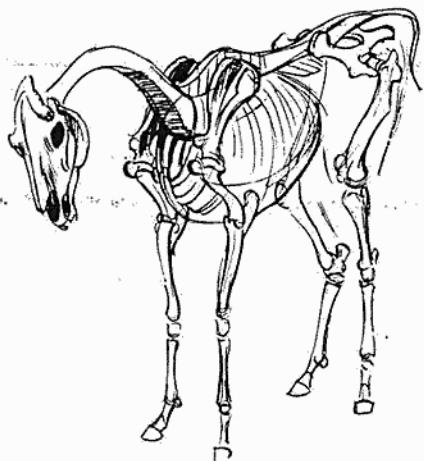


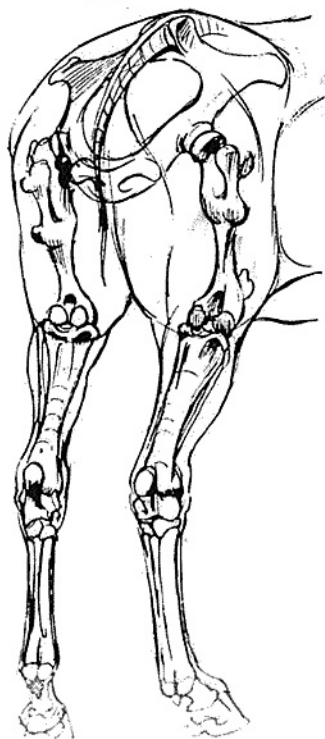
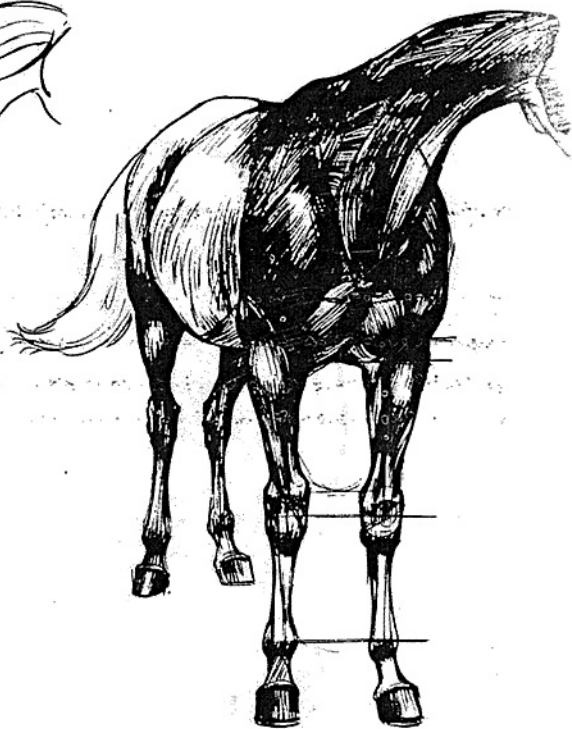
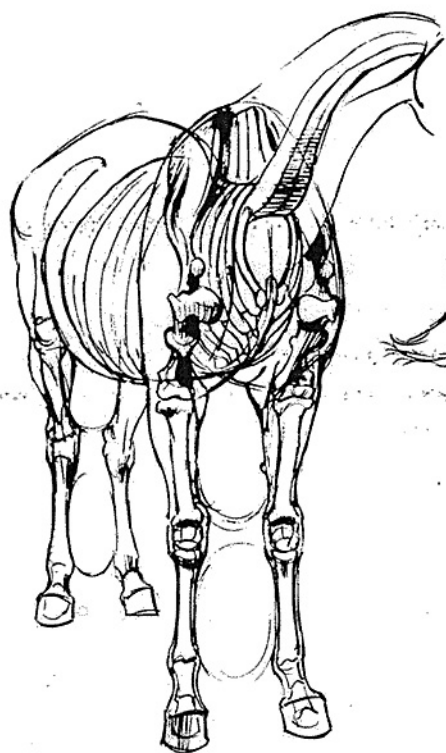
With the building downward of the rear leg, the skeleton is completed.



Finished sketches of bone structure

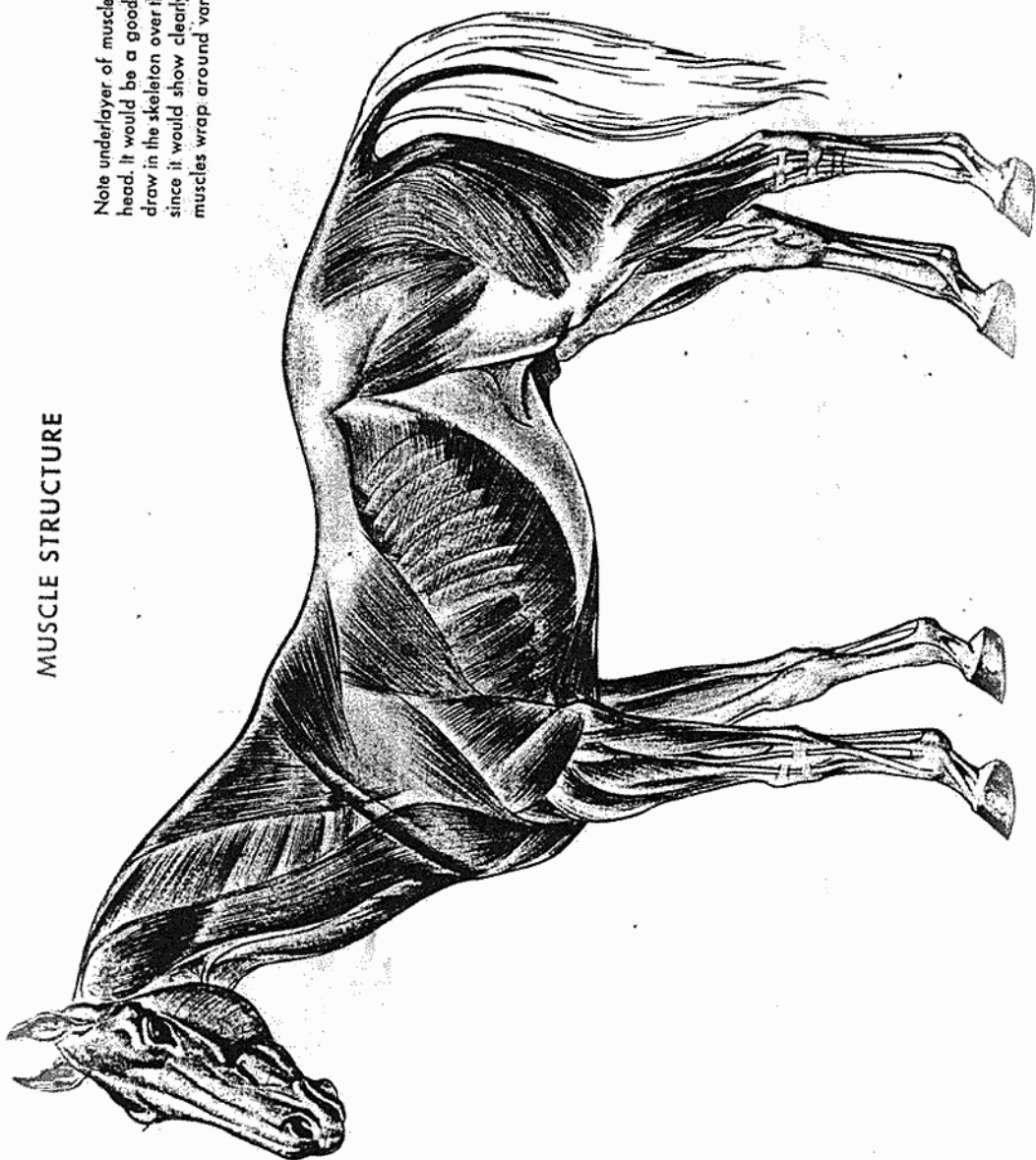
Study each skeleton with the related drawing. Observe how flanks turn out and knees turn in on hindquarters — also slight knock-knee in standing pose.

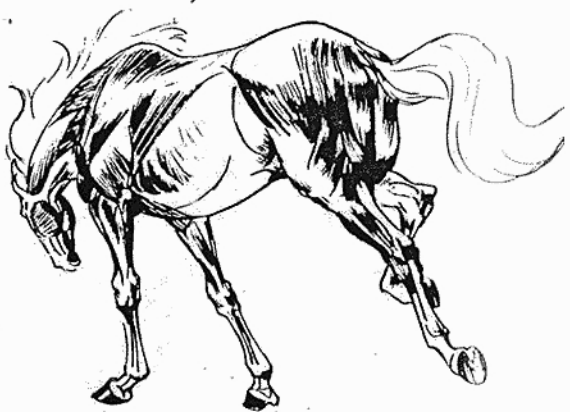
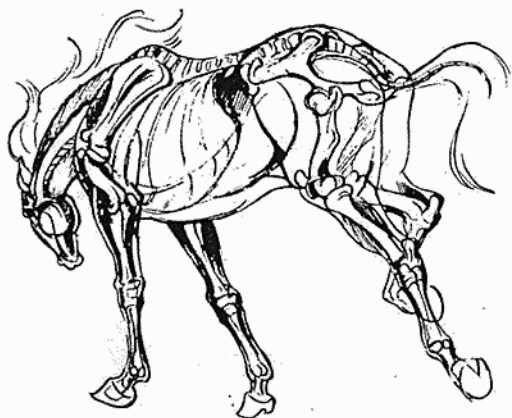




MUSCLE STRUCTURE

Note underlayer of muscles leading to head. It would be a good exercise to draw in the skeleton over this drawing since it would show clearly where the muscles wrap around various bones.

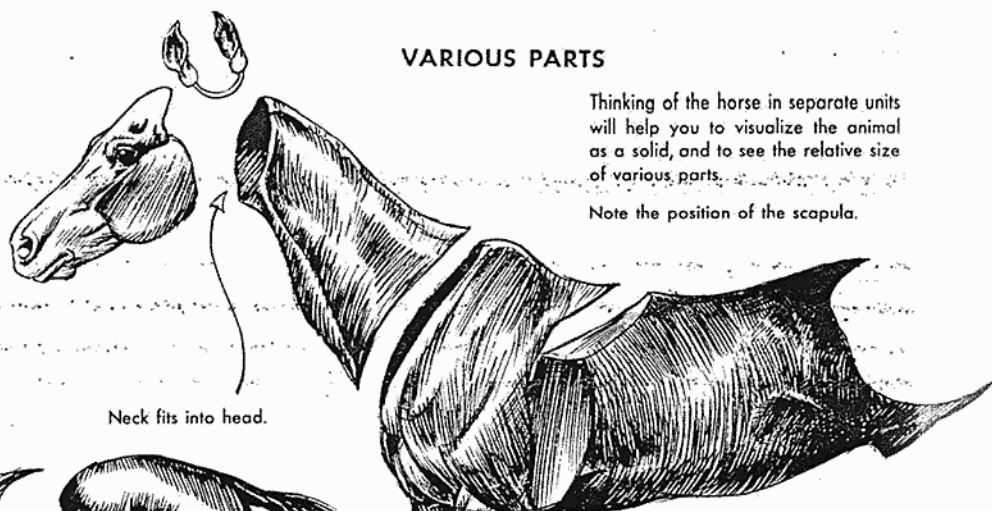




VARIOUS PARTS

Thinking of the horse in separate units will help you to visualize the animal as a solid, and to see the relative size of various parts.

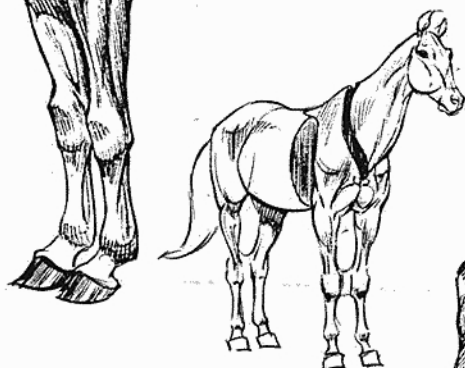
Note the position of the scapula.



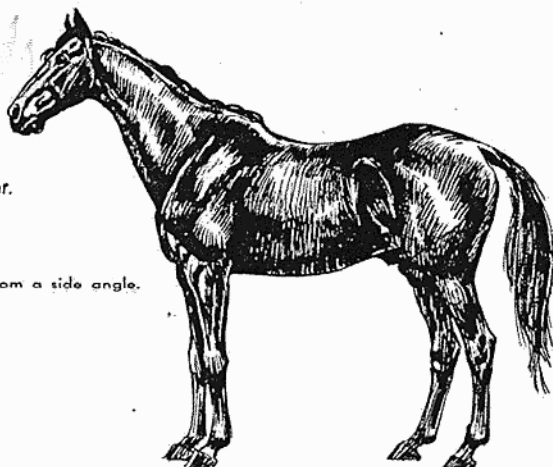
Neck fits into head.



Fit the stomach under.

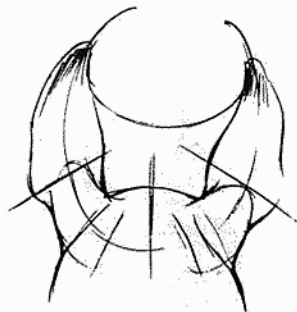
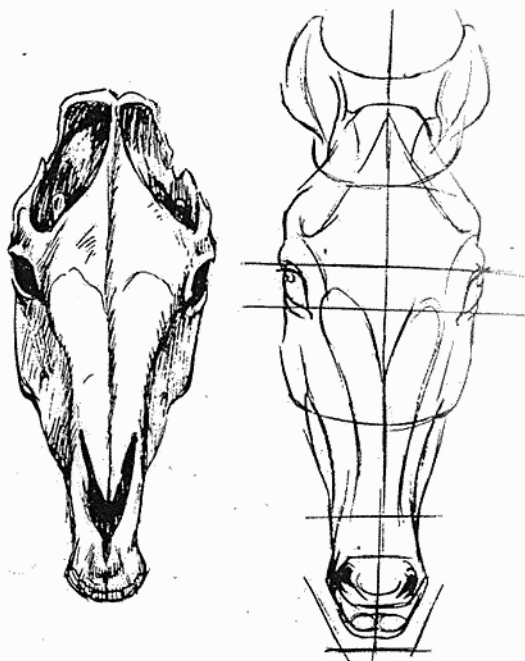
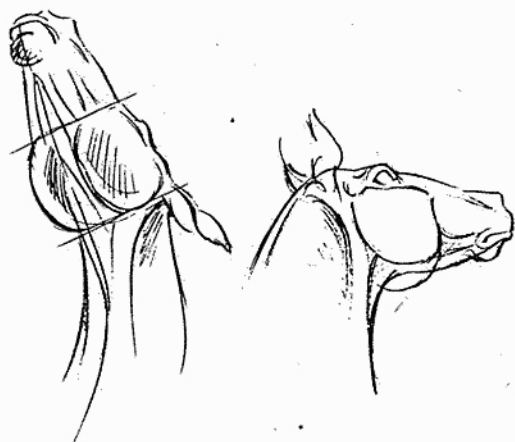


Parts put together from a side angle.

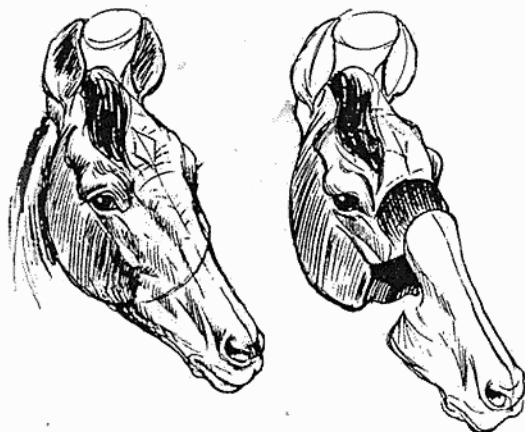


HEADS

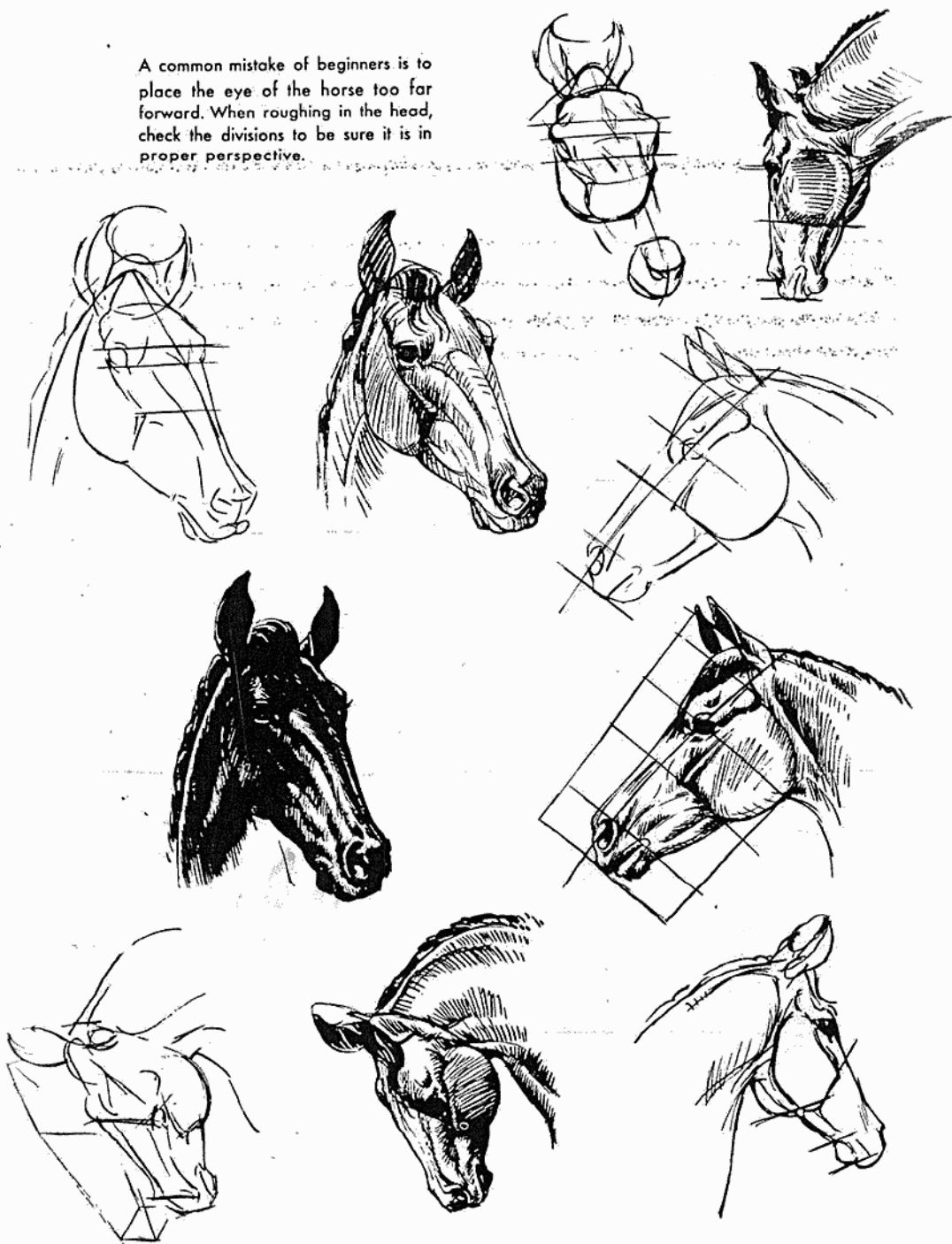
There is no easy way to block in a horse's head, since there are so many planes to consider. Once you are familiar with the skull, the job will be relatively simple, especially since much of the bone structure of the head is very pronounced.



Thinking of the head in two sections may help you. In the lower right-hand sketch, note how both the neck muscle and the bone behind the eye follow around the ear.



A common mistake of beginners is to place the eye of the horse too far forward. When roughing in the head, check the divisions to be sure it is in proper perspective.



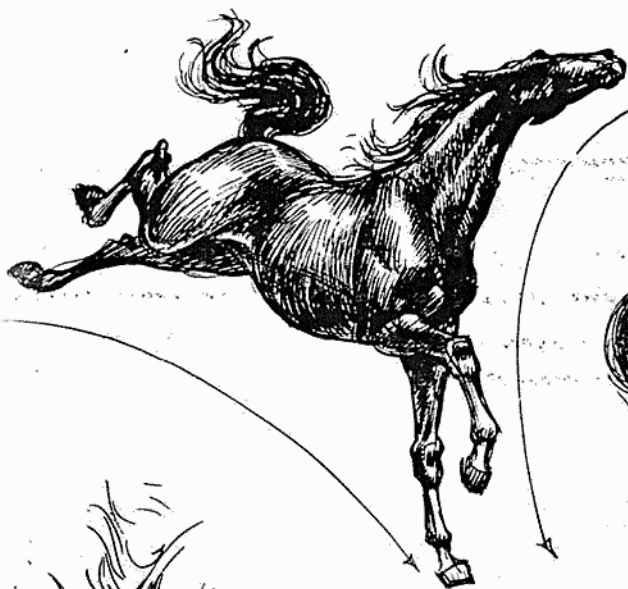
MUSCLE ACTION



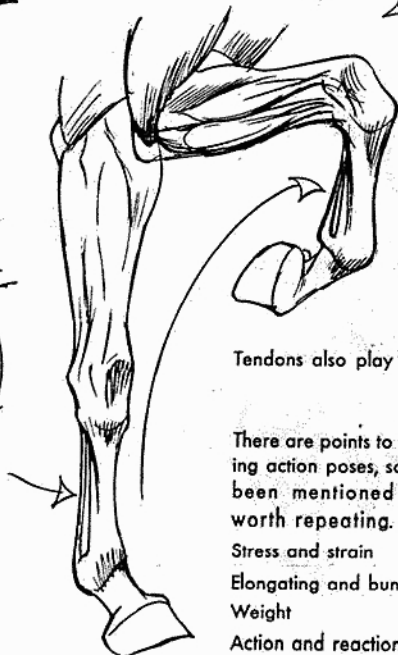
Like a taut rubber band, the muscles elongate in stretched positions. In crouched positions, as in the first sketch, the muscles bunch up.



When the horse pushes off with his forefeet, not only do the legs stretch out, but the whole forequarter section as well. The neck becomes longer, with a lot of tension on the under muscles connecting to his head.



Always think of the elasticity of form
Even the rib cage is pliable for squash
and elongation.



Tendons also play an important part.

There are points to remember in drawing
action poses, some of which have
been mentioned before but are
worth repeating. They are:

Stress and strain

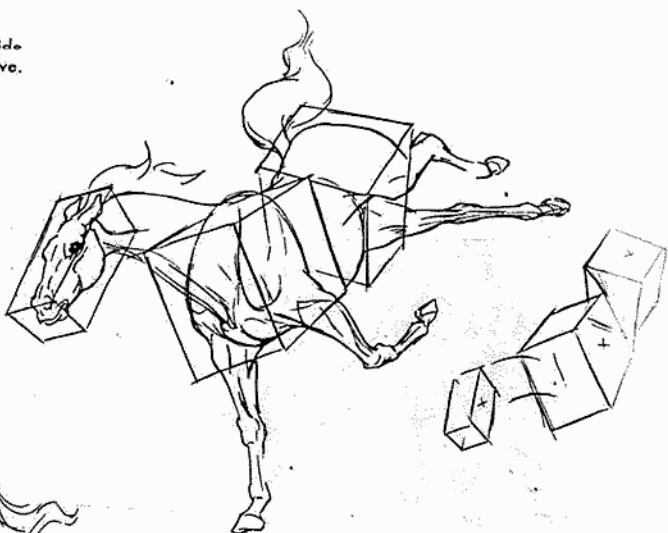
Elongating and bunching of form

Weight

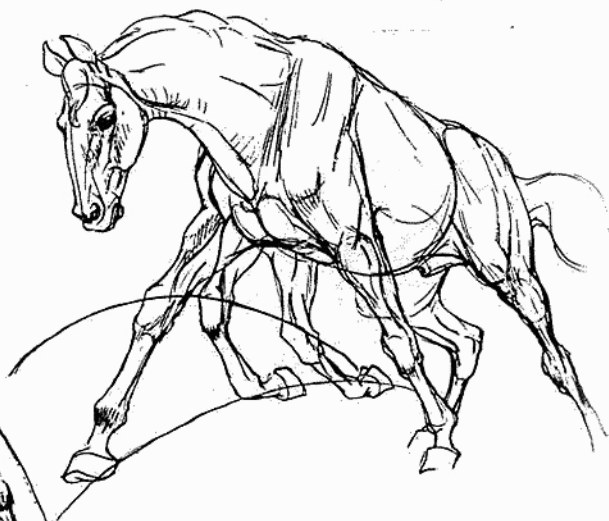
Action and reaction

Weight reaction, as in the impact from
a high fall.

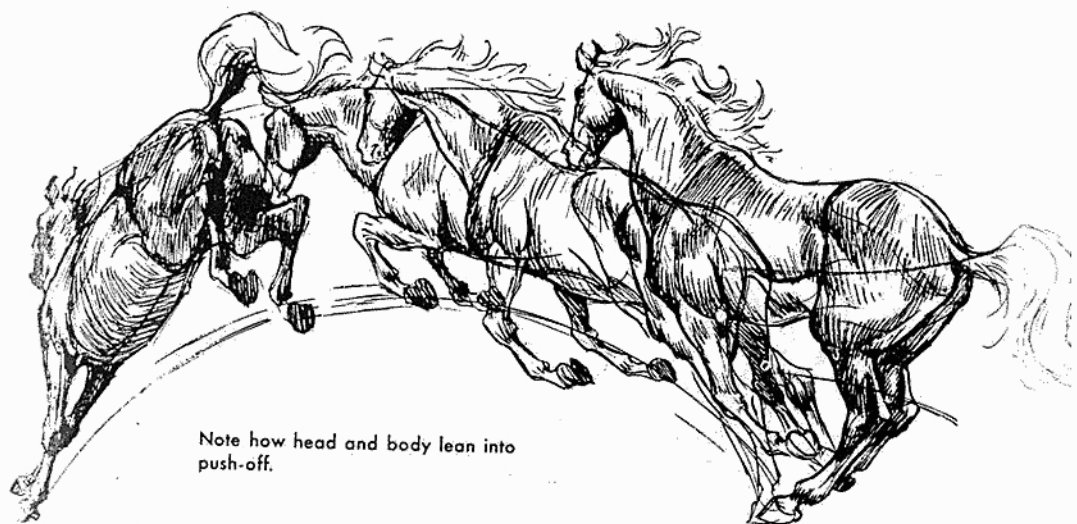
Boxing in, as shown here, is a good guide in keeping your figures in perspective. Without it, it's very easy to miss.



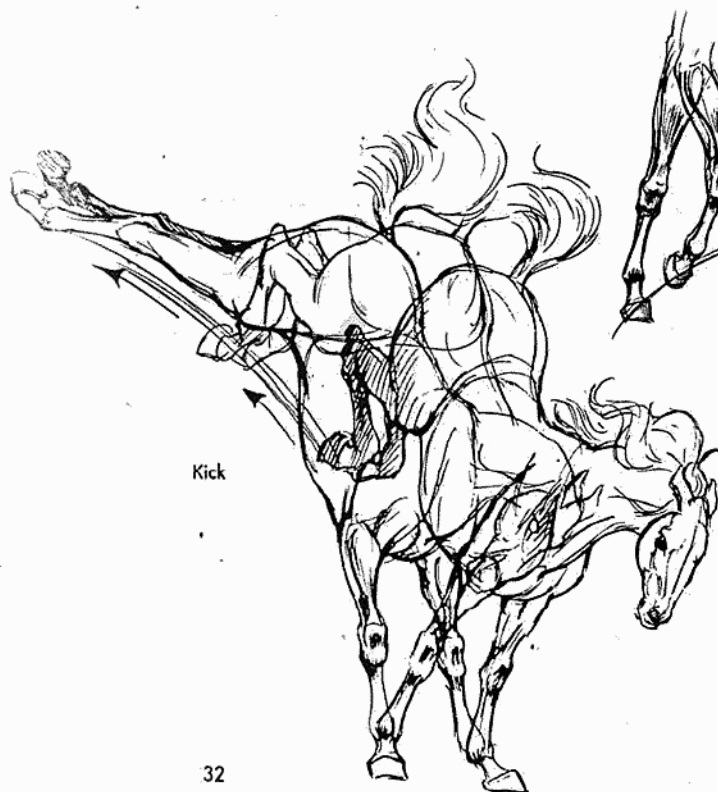
Arcs in perspective, as shown below, are worth putting in once you've determined the perspective of your figure. Your eye is a pretty good judge.



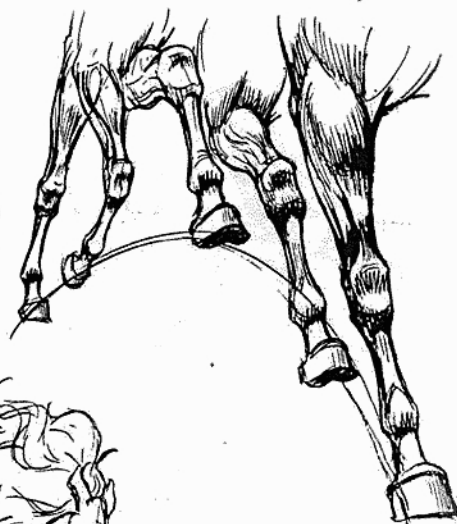
ANIMATION—JUMP



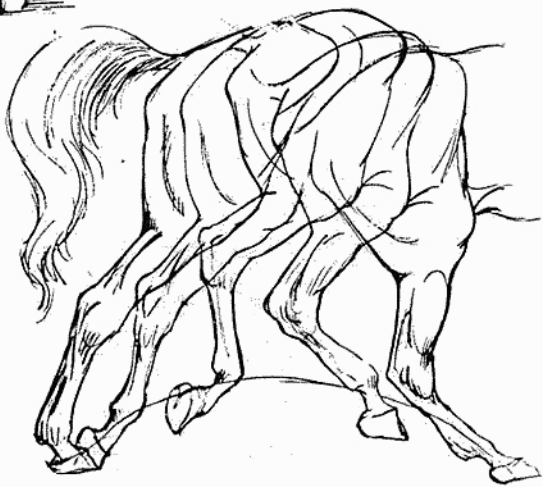
Note how head and body lean into push-off.



Kick



Animated step in perspective.



As a practice exercise, give yourself a problem such as a horse pulling a heavy load forward. Get as much drive in the pose as possible. Then reverse your pose by having the horse pull against the load, backwards.

TROT

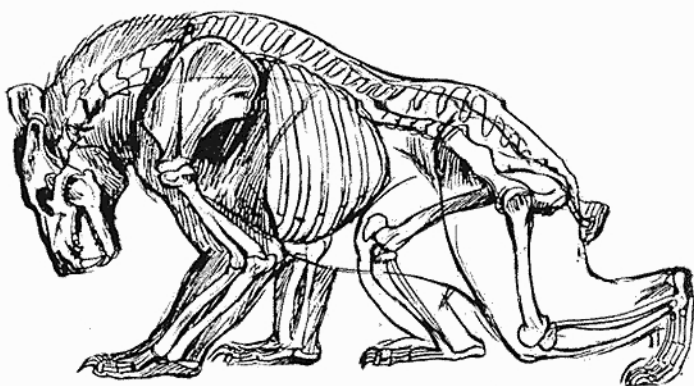


A high-stepping, stately action
Note that opposite legs work closely
together (left foreleg, right hind leg)

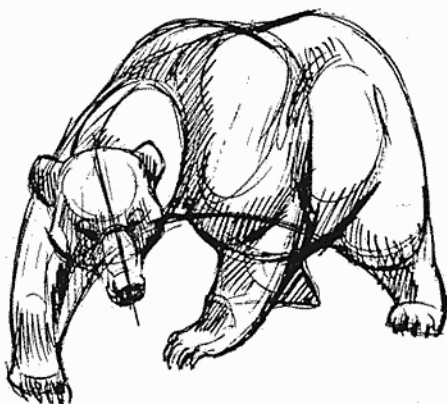
THE BEAR FAMILY

Bears are fun to draw, since their forms are so simple and compact. Work with as many straight lines as possible when drawing them—the tendency is to use too many curves.

Remember the three body breaks; note bear below.



Build on your outer forms when you start, and follow through on the line of action as below, from the rear leg to front leg.



On these quick sketches, note how forms follow through.

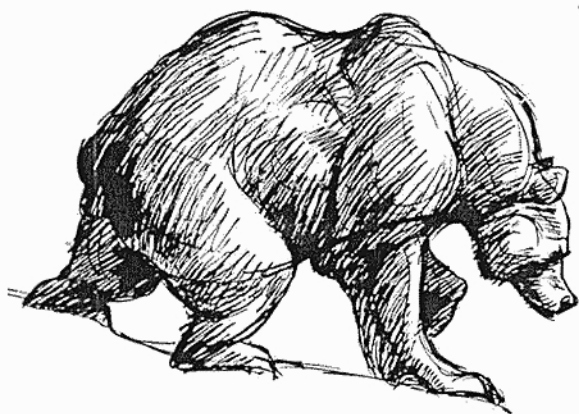
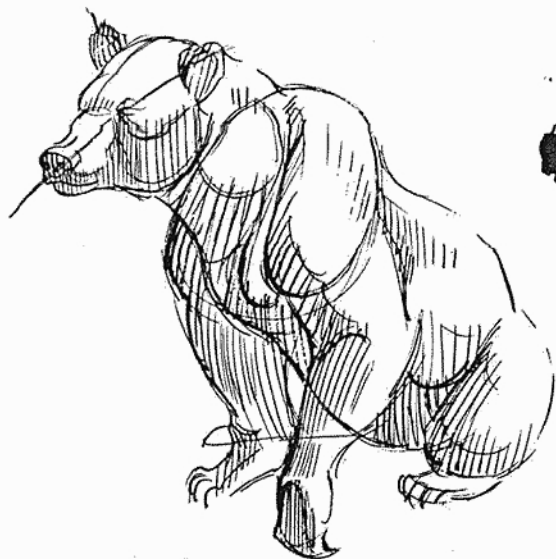


For standing positions, think of the three units which I have indicated below. The high point of the withers breaks the flow of form between the neck and the back.



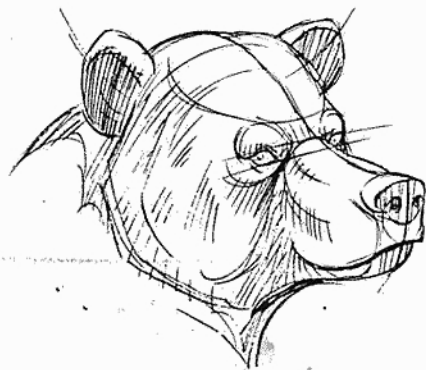
Observe the use of diagonal and curved lines in this sketch.

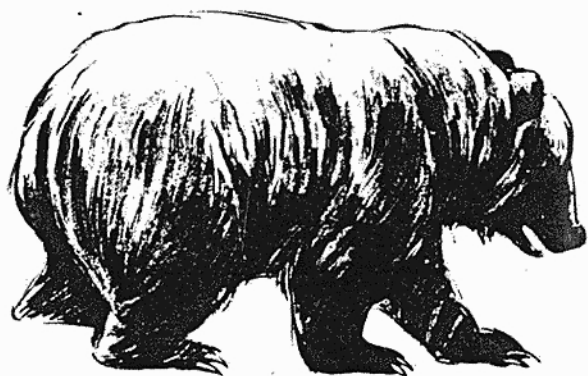




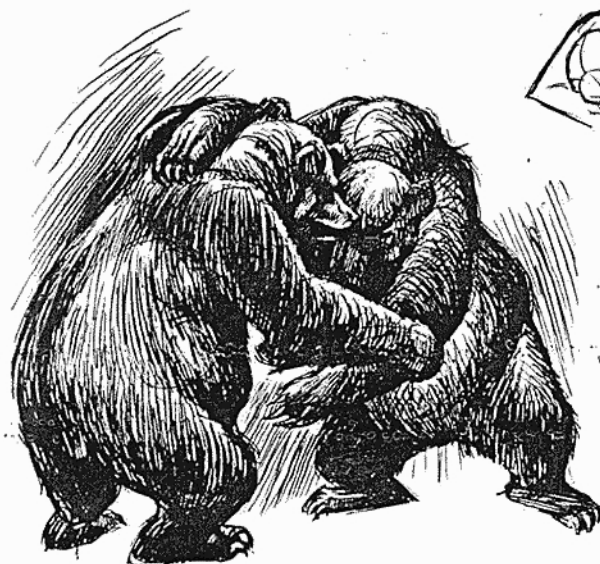


The brown bear is broad and massive.



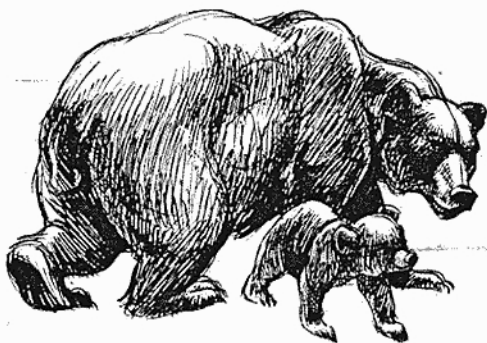
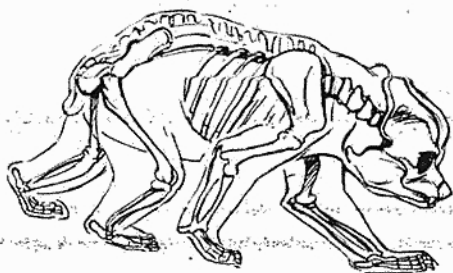


Japanese bear.



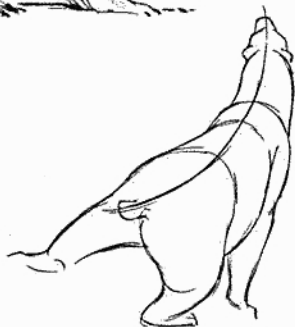
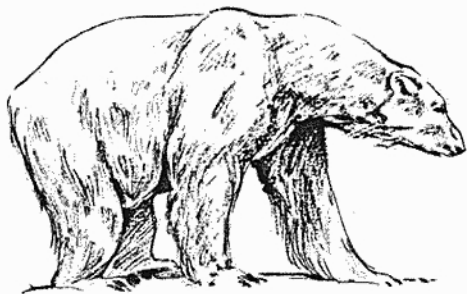
CUBS

Cubs are small in muzzle and high in crown, which gives them a high forehead. Their bodies are short, and they are slightly pigeon-toed like their parents. Keeping the eyes low in their heads adds to the effect of cuteness.



POLAR BEARS

Polar bears differ from others in that their necks are longer and their noses more pointed. They carry quite a bit of loose hair on the underside, running from the jaw back along the neck, chest, and stomach.



BEARS—CARICATURE

On the adult, exaggerate the large torso and massive "arms." By keeping legs short, you accentuate size of body.

The use of heavy jowls works nicely on bears. For a silly effect, leave out the chin on your character.

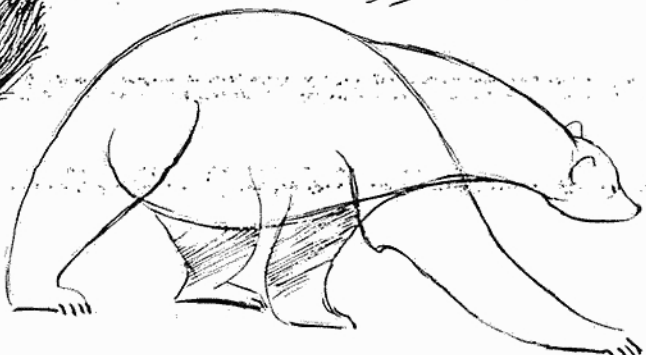


For cuteness in small bears keep the body short and dumpy, the forehead high, eyes low, cheek and stomach full, and the mouth short and small.



For the comic types, I have used two extremes. In one sketch, the main mass is carried in the lower area, while in the other, it is carried in the chest area. In the upper sketch, the thin neck contrasts absurdly with the bulk of the body.

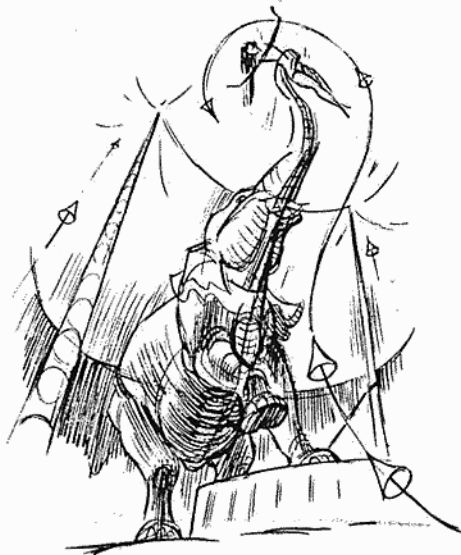
The polar bear seems to lend itself to a stylized drawing. Here, I exaggerated the long neck, pointed nose, and heavy, long forelegs.



COMPOSITION IN ANIMAL GROUPING

Composition may be an old story to many readers, but for the benefit of those to whom it is new, I should like to summarize some fundamental points. A good picture should be an effective combination of vertical, horizontal, and diagonal lines. There should be opposition, such as a vertical opposing a horizontal line, and repetition, where a line moving in a

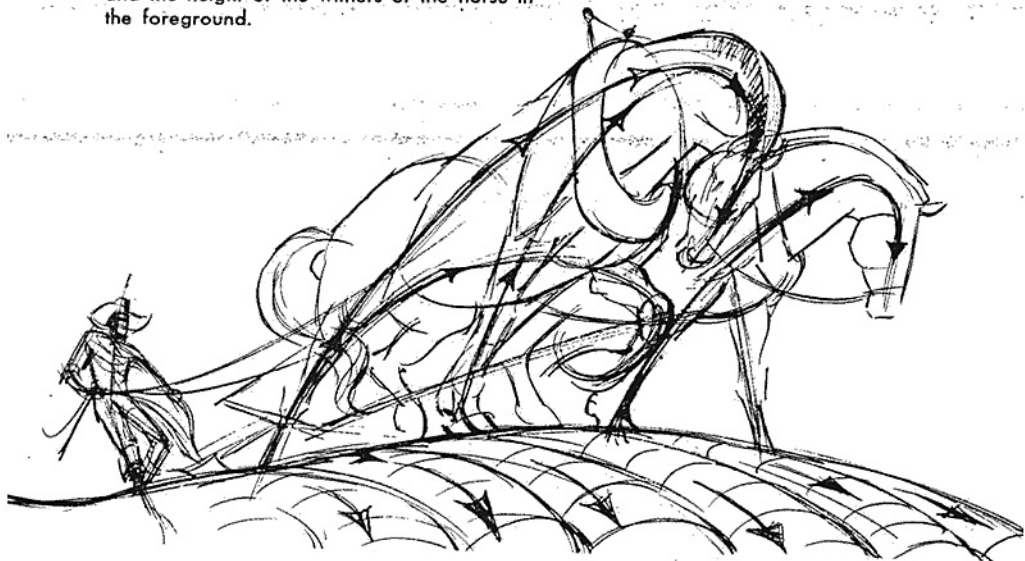
certain direction is repeated in another part of the picture. Except in abstract compositions, the use of curved lines is natural throughout the picture. It is advisable too, to have a definite line of action in your picture so that the viewer can follow the movement. An accent is always important, since it tends to break the monotony of a line of action.



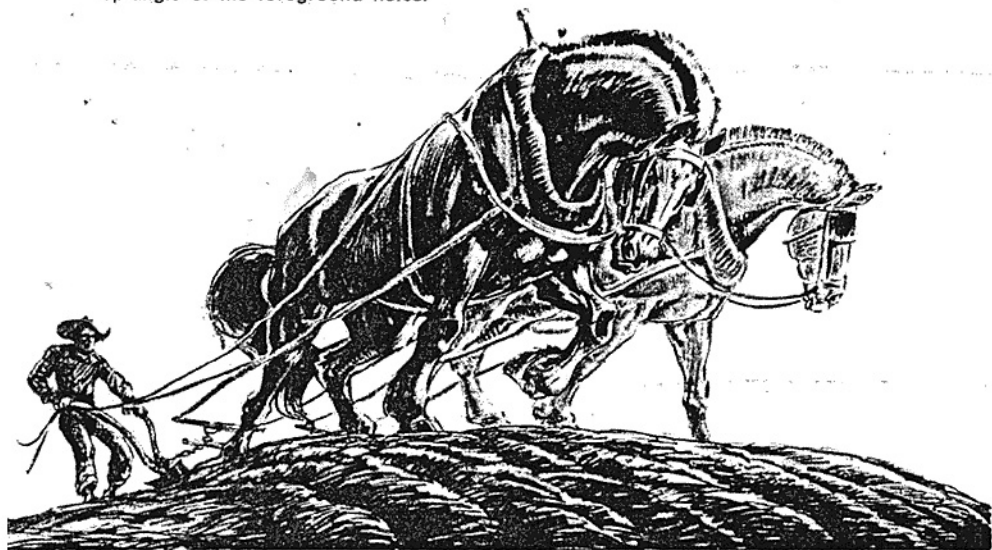
The problem in this elephant picture was how to stage it most effectively. Believing that an underneath shot would give the desired dramatic effect, I first concerned myself with a satisfactory pose, in which the observer would be looking up. Then I worked out the rest of the picture so as to intensify that effect. Note the lines of composition. The girl's hair is used as an accent.

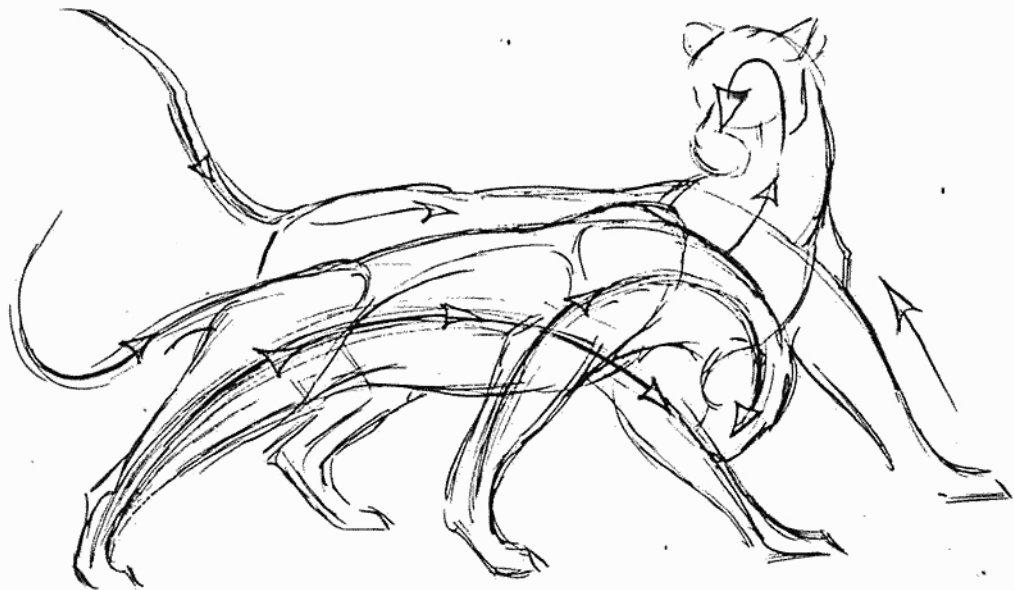


To show the powerful bulk of these draft horses, I used a three-quarter front perspective. For dramatic effect, the camera angle is low, thus accentuating the size of the forequarters and the height of the withers of the horse in the foreground.



The grooves in the earth give movement to the picture. The grooves, running downhill in the foreground create contrast with the up-angle of the foreground horse.

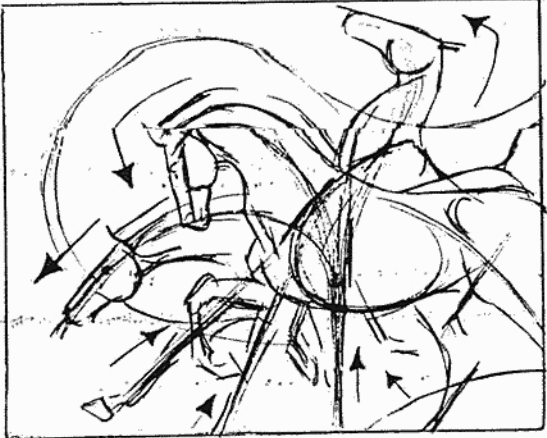




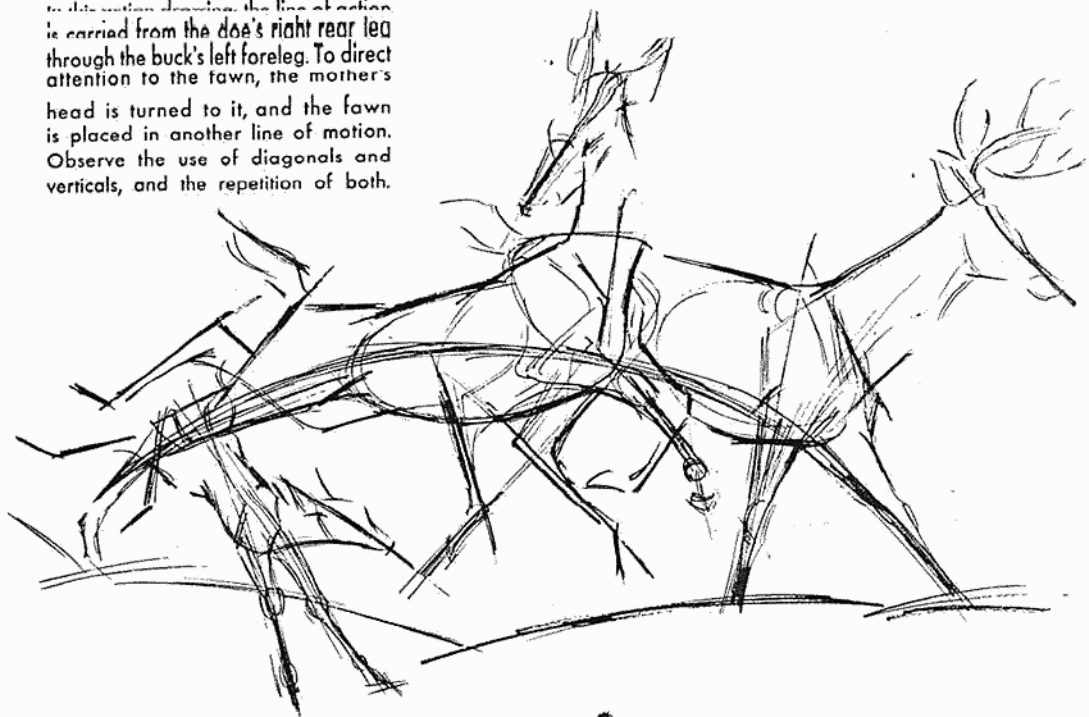
The arrows indicate the paths of action.
The panther's head in the background
is used as the accent.



In this layout, the use of diagonal, vertical, and horizontal lines is emphasized. A strong vertical, such as the left foreleg of the horse in the foreground, tends to hold the picture together. Note how it leads into the three heads. The rear horse's head is the accent. Observe the right foreleg of the horse in the lead: It furnishes a good diagonal to the picture, as well as extending in the direction of the rear horse's head. (See arrows in sketch.)



In this action drawing, the line of action is carried from the doe's right rear leg through the buck's left foreleg. To direct attention to the fawn, the mother's head is turned to it, and the fawn is placed in another line of motion. Observe the use of diagonals and verticals, and the repetition of both.





Again in this drawing, the various paths of action are indicated by arrows. A strong line of action from the right hind leg of the rear horse follows through to the left foreleg of the front horse. Here, the rear horse's head works as an accent. The angle of the front horse's head is in opposition to the line of his left foreleg. The left foreleg of the rear horse gives a vertical line to the picture.

