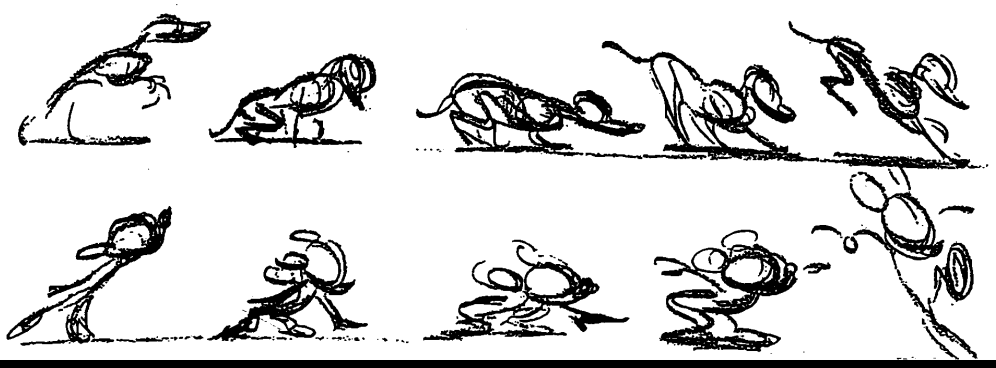


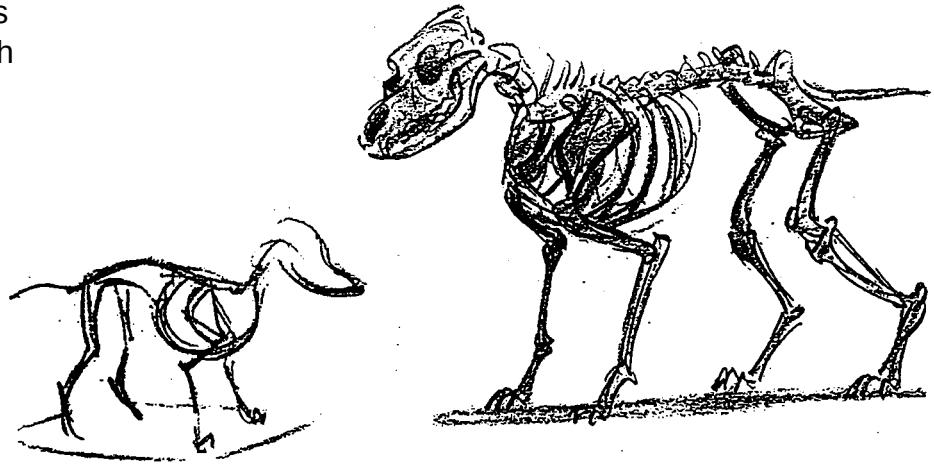
Animating and Drawing 4-Legged Animals

PDF created February 19, 2000

Author Unknown: Maybe Glen Keane

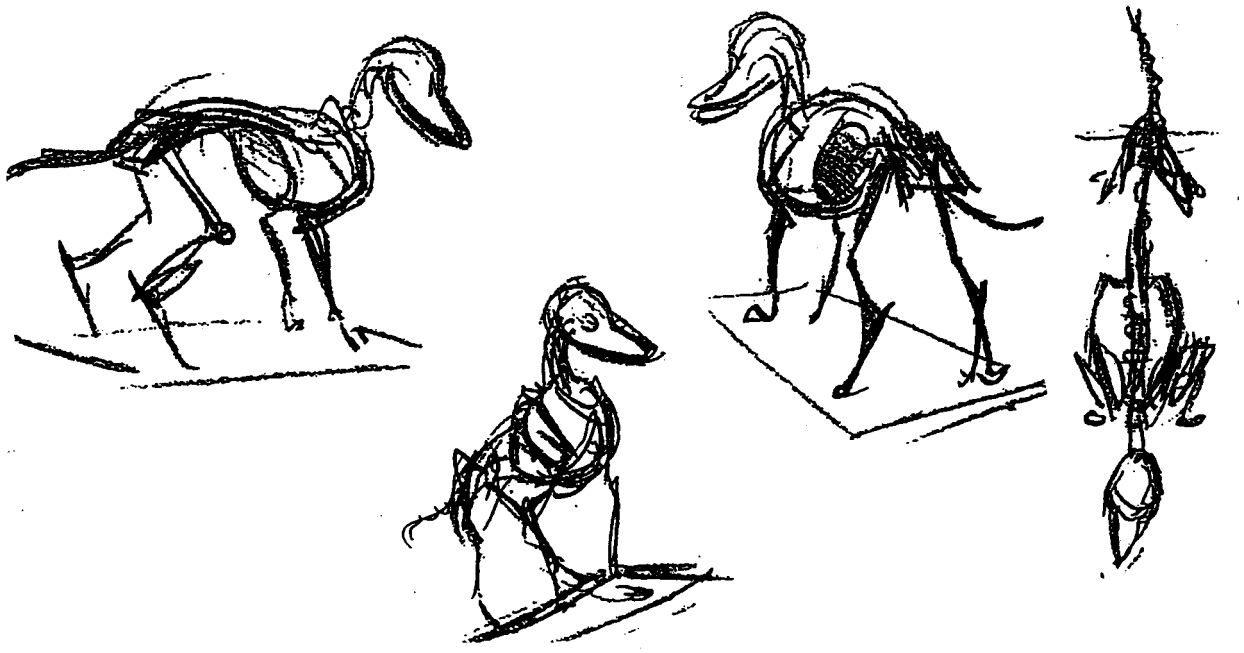
Animating Four Legged Creatures

The purpose of these notes is to give a simple approach to animating a four-footed creature.



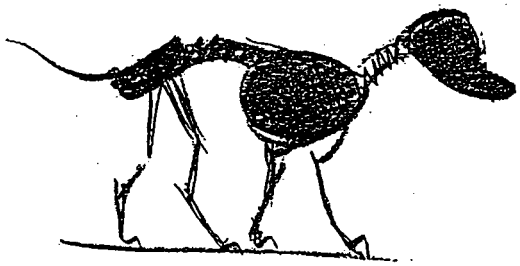
An animator should feel confident in the character he is animating. If not, his work will lack strength and conviction.

He needs to feel "free" to animate and not get bogged down in complex anatomy.

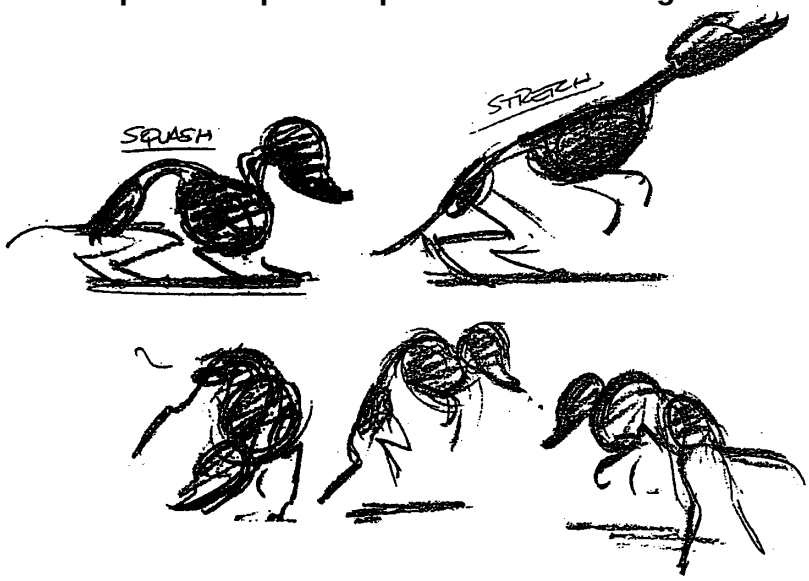


Animation Approach

3 basic solid masses connected by a flexible spine.

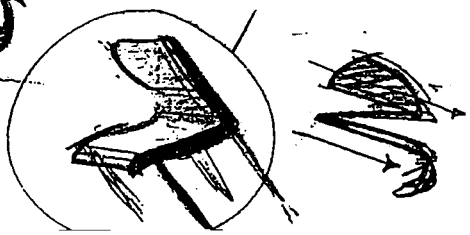


Keep the shapes simple when animating



Overlap shapes for Dimension

Note: Leg bones parallel each other like a folding chair.

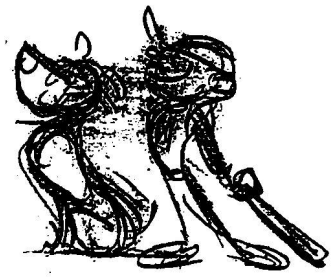


Wrong

Attitude

Attitude is first, then put it on model

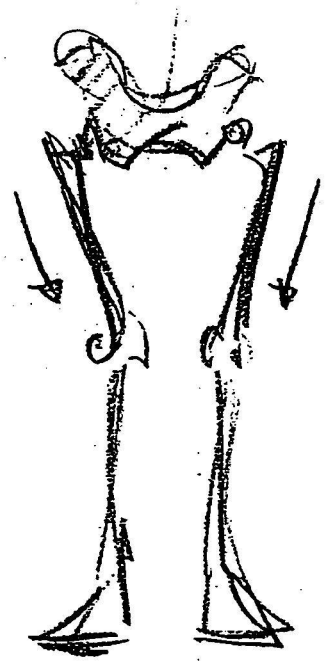
If you aren't sure how to draw an attitude - draw it using a simpler 2-legged character first.



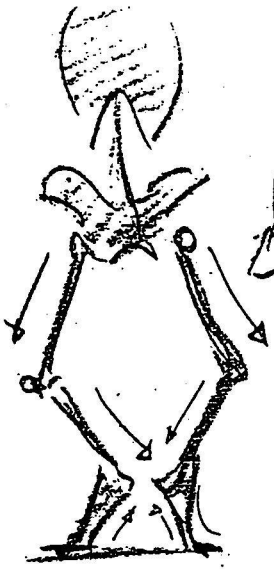
Let the Entire body reflect the attitude.

Follow rhythm from head to tail

Comparative Anatomy

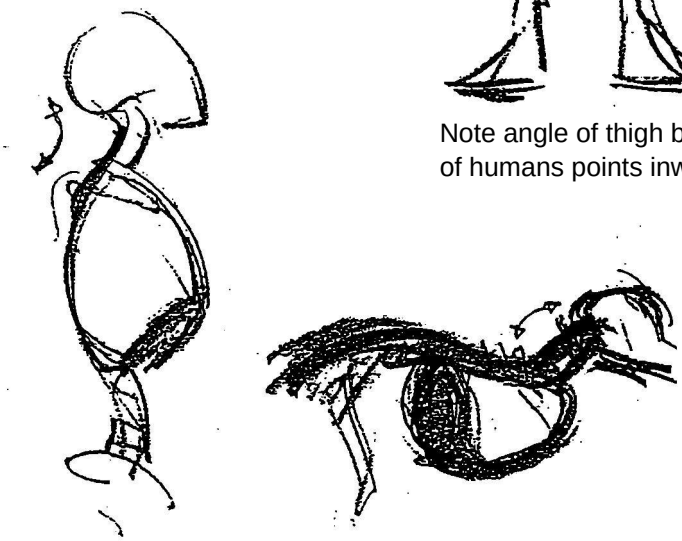


Note angle of thigh bones of humans points inward...

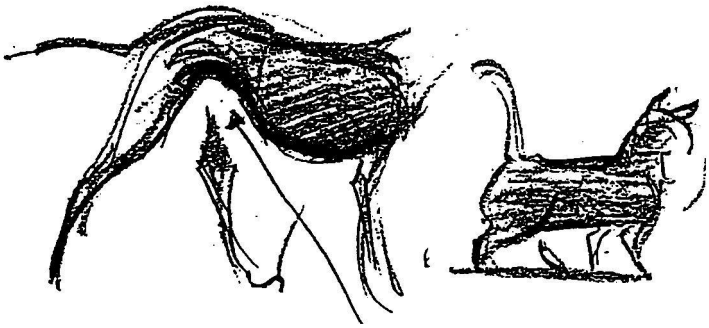


But when we stand on our toes the angle points outward as the heels point inward...

...Just as a dogs



Ribcage same shape/ Necks curve in the opposite direction due to dog having to hold head out.

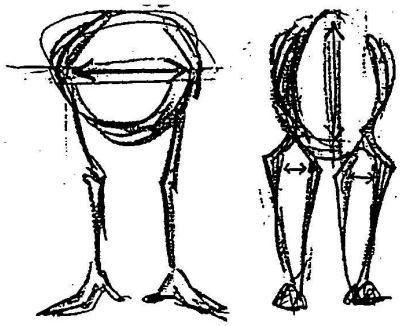


Note tuck after ribcage.
(Cats tend not to have this "tuck")

Comparative Anatomy

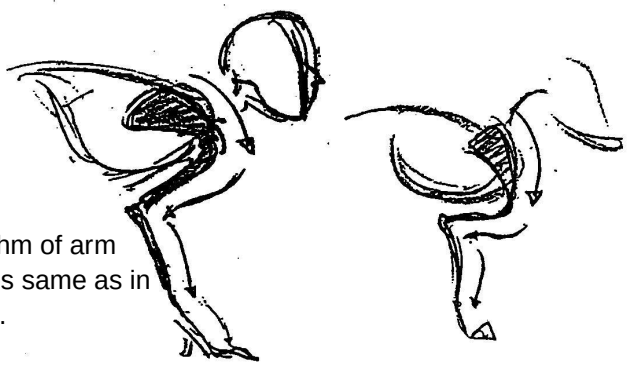
Horizontal human ribcage

Vertical animal ribcage.

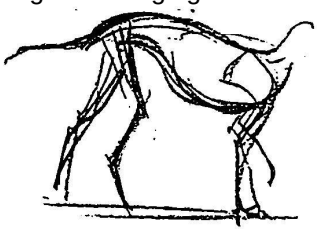


Lateral movement on dogs elbows.

Rhythm of arm bones same as in dogs.



Longer rear legs give hind end a lift.

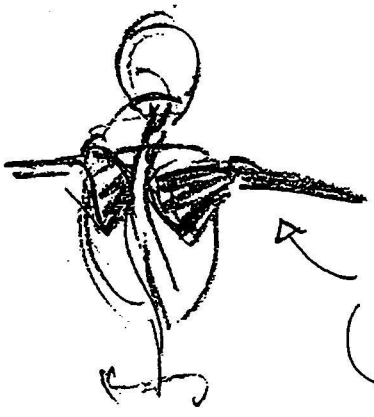


Rhythm of human legs reflected in rear legs of animals.

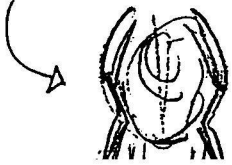
Dogs rear legs are longer than front as are humans legs longer than the arms.

Human scapula is located on the back of the ribcage.

A dogs scapula is located on the side of the ribcage

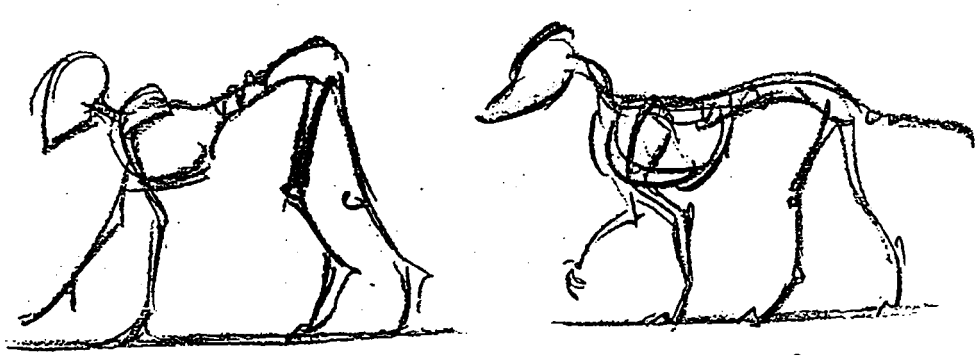


This placement of the scapula is why a dog has very limited lateral movement with its front legs, as compared to the degree of freedomwe have with our arms.

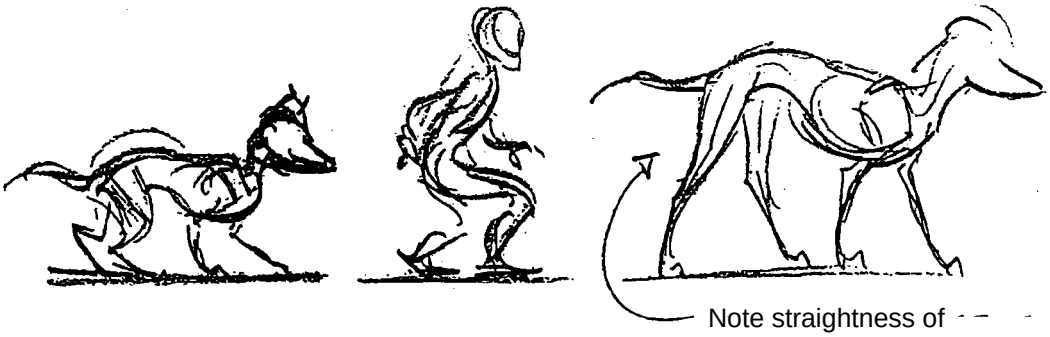


Comparative Anatomy

An animal walks on his toes and "fingers". This gives his walk a springy, light feel.



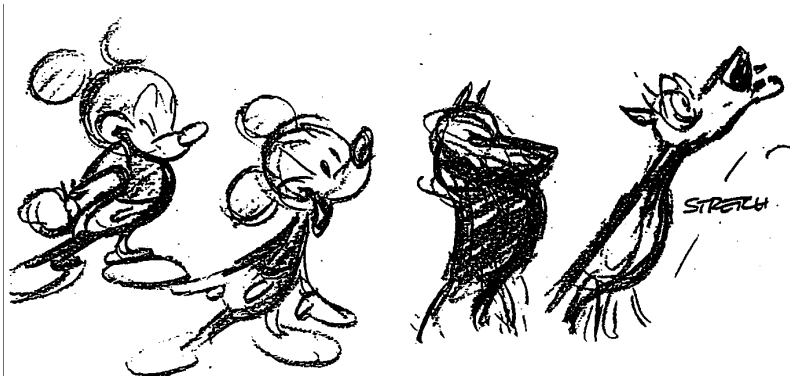
An animal walks in basically the same pattern as a human crawls.



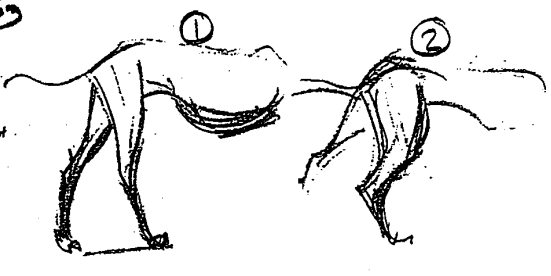
In a relaxed attitude a dogs legs are not bent in a crouching position, just as a mans are not.

Note straightness of backlegs particularly. If they are animated already bent in a walk it will be difficult to show any subtle squash and stretch.

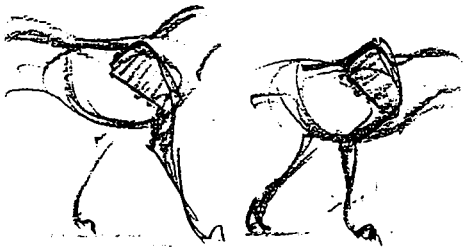
Squash & Stretch



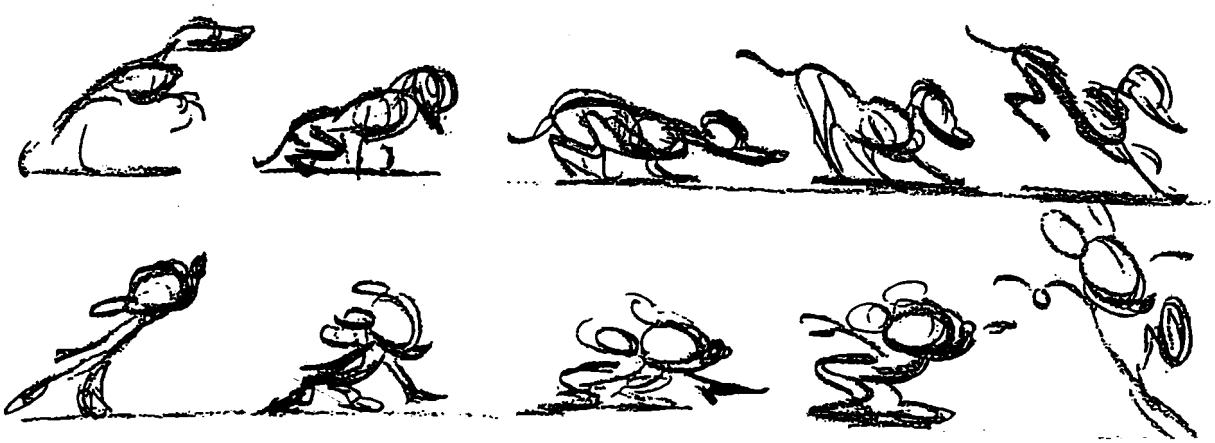
Build up chest mass in anticipation.



A straight leg will give a better chance for a subtle squash in following action.

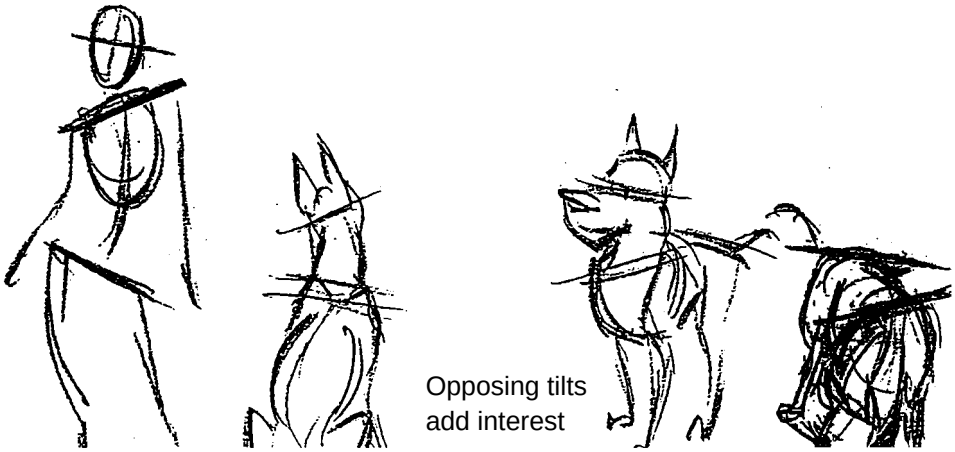


As weight comes down on the foreleg, the scapula rises above backline.



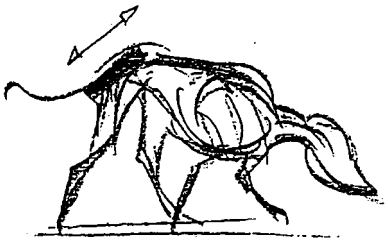
Animation Drawing Points

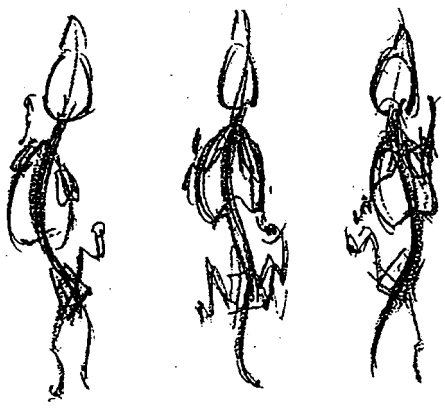
As animal shifts weight from one leg to the next in a walk, the hip will drop to the side that has no support.



Opposing tilts add interest

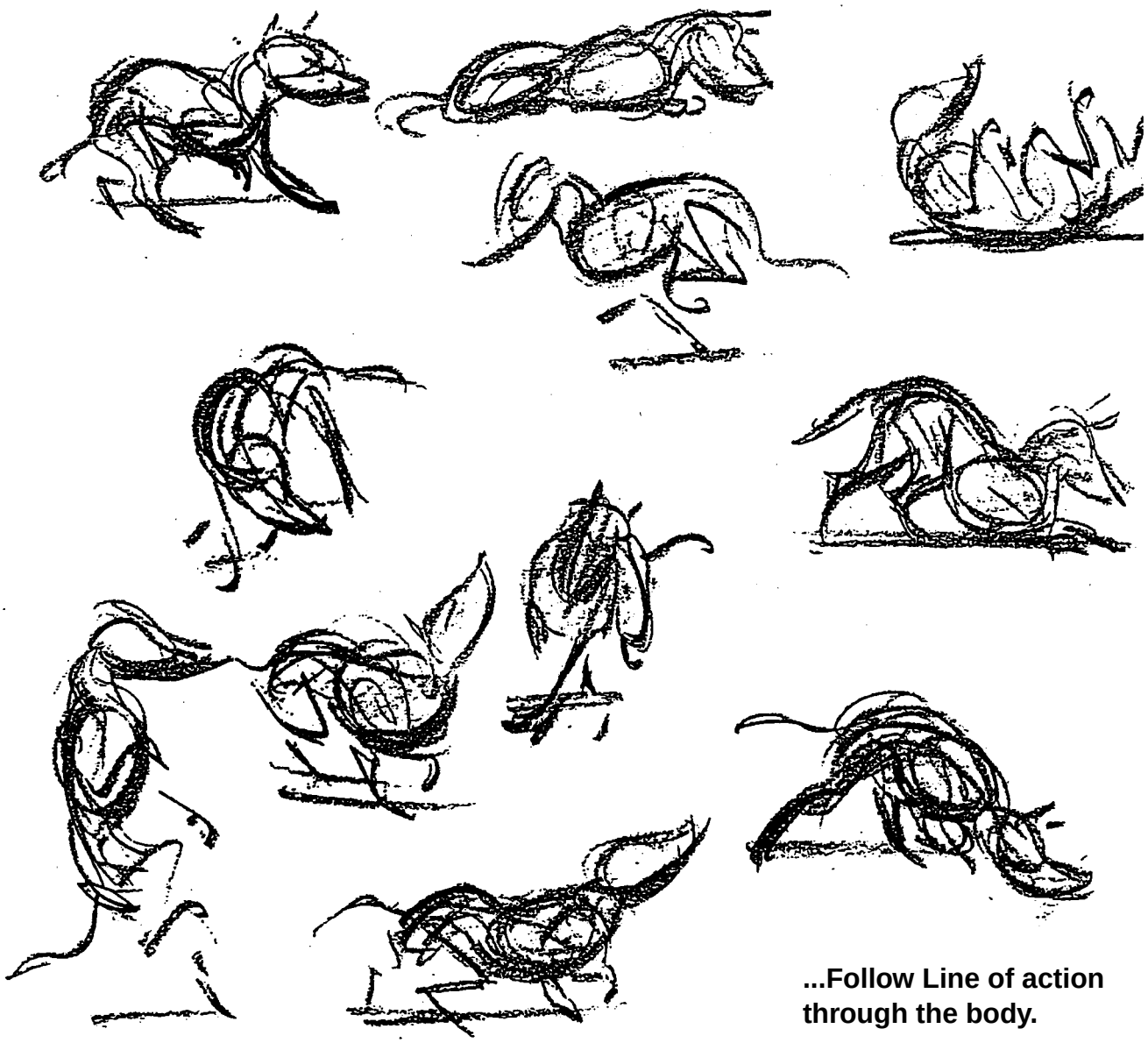
Note: Angle of hip.





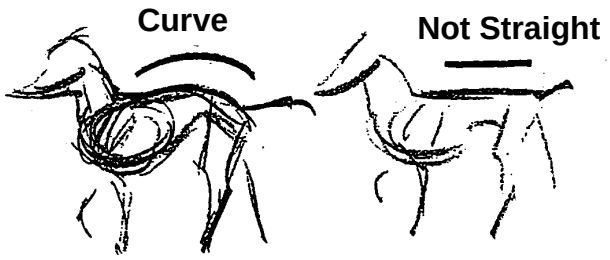
Line of action reverses in animal walks

Line of Action



...Follow Line of action through the body.

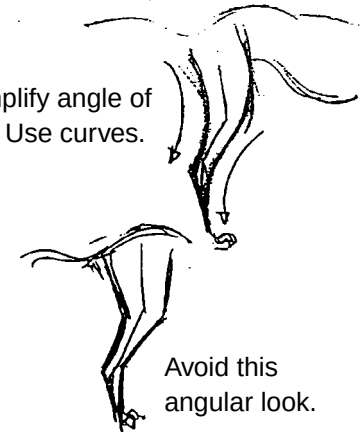
Animal Drawing Points



Watch for static leg placement.

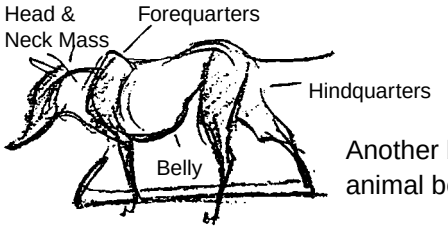
Avoid "tube" neck.

Neck tapers show Muscular necks on bigger dogs.

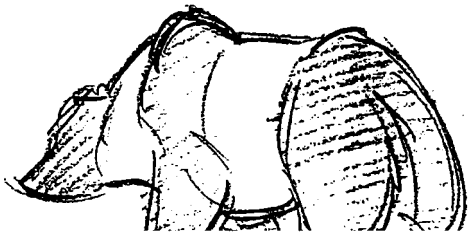


Simplify angle of leg. Use curves.

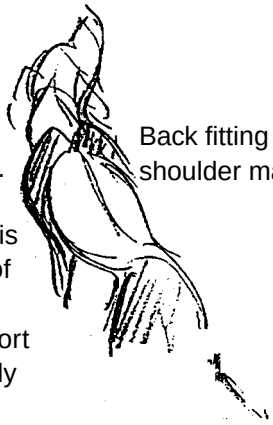
Avoid this angular look.



Another breakdown of animal body is into parts.



Shoulder mass is large because of the muscle needed to support head - Especially noticable in the Grizzly Bear.



Back fitting into shoulder mass.