

# A LITTLE ADVICE ON MAKING FIGURES LOOK 3<sup>D</sup>

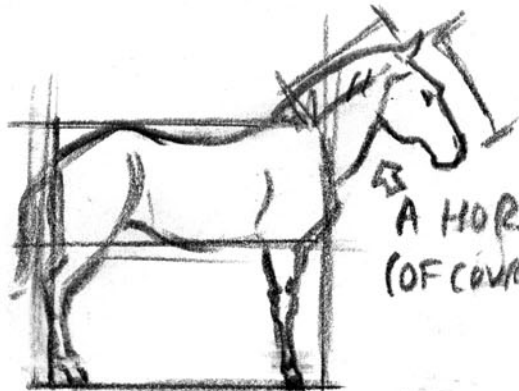
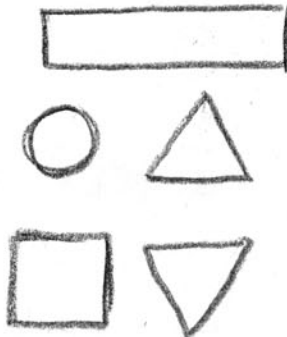
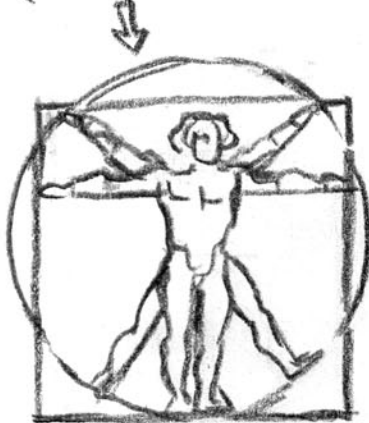
THREE-DIMENSIONAL

WE SPEND A LOT OF TIME STUDYING THE PROPORTIONS OF THE HUMAN BODY. AND SURE, IT'S USEFUL TO LEARN THAT INFORMATION!



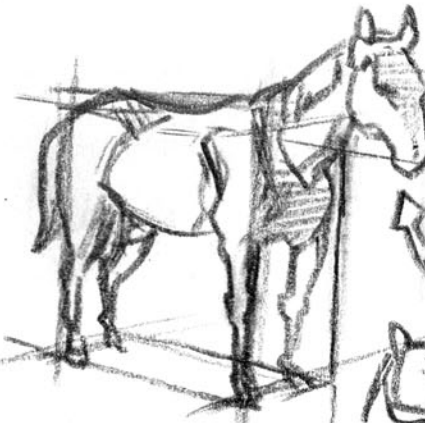
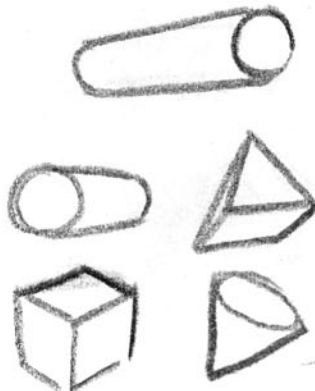
BUT WE CAN'T ALWAYS APPLY THESE DIRECTLY TO OUR DRAWING. THE APPARENT SIZES OF BODY PARTS - AND OTHER OBJECTS - ARE ALSO AFFECTED BY PERSPECTIVE AND POINT OF VIEW.

AFTER DA VINCI (OF COURSE)



A HORSE (OF COURSE)

AS OBJECTS TURN IN RELATION TO THE VIEWER, NEW SIDES COME INTO VIEW, AND THE "DIAGRAM" PROPORTIONS WE SEE IN A PURE FRONT OR SIDE VIEW CAN NO LONGER BE USED AS A PERFECT GUIDELINE.



EVEN THE SIZE OF HORSE HEAD CHANGES WITH VIEW

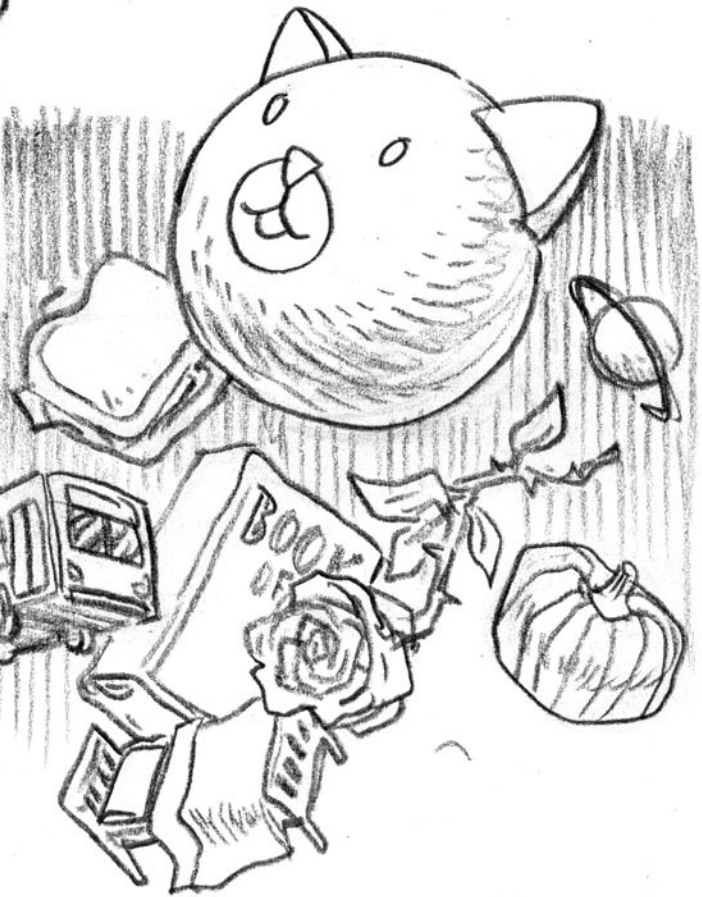


BECAUSE HUMANS - LIKE TREES - ARE FAIRLY SKINNY AND VERTICAL, IT'S EASIER TO IGNORE THESE EFFECTS THAN IF WE WERE DRAWING HORSES, CARS, BOXES, OR VIRTUALLY ANYTHING ELSE.

BUT IN REALITY, PEOPLE ARE NEVER JUST FLAT PAPER DOLLS, AND IF THEY SEEM THAT WAY THEN IT'S A FLAW IN OUR OBSERVATION.



IT'S A LOT LIKE PLATONIC PHILOSOPHY! THE WORLD AROUND US IS FILLED WITH 3-DIMENSIONAL FORMS--



OUR CHALLENGE IS TO REPRESENT THEM AS BEST WE CAN WITH SHAPES AND LINES... ON A 2-DIMENSIONAL PLANE.

IF THAT'S OUR GOAL, WHAT TOOLS AND TECHNIQUES CAN HELP US ACHIEVE IT?



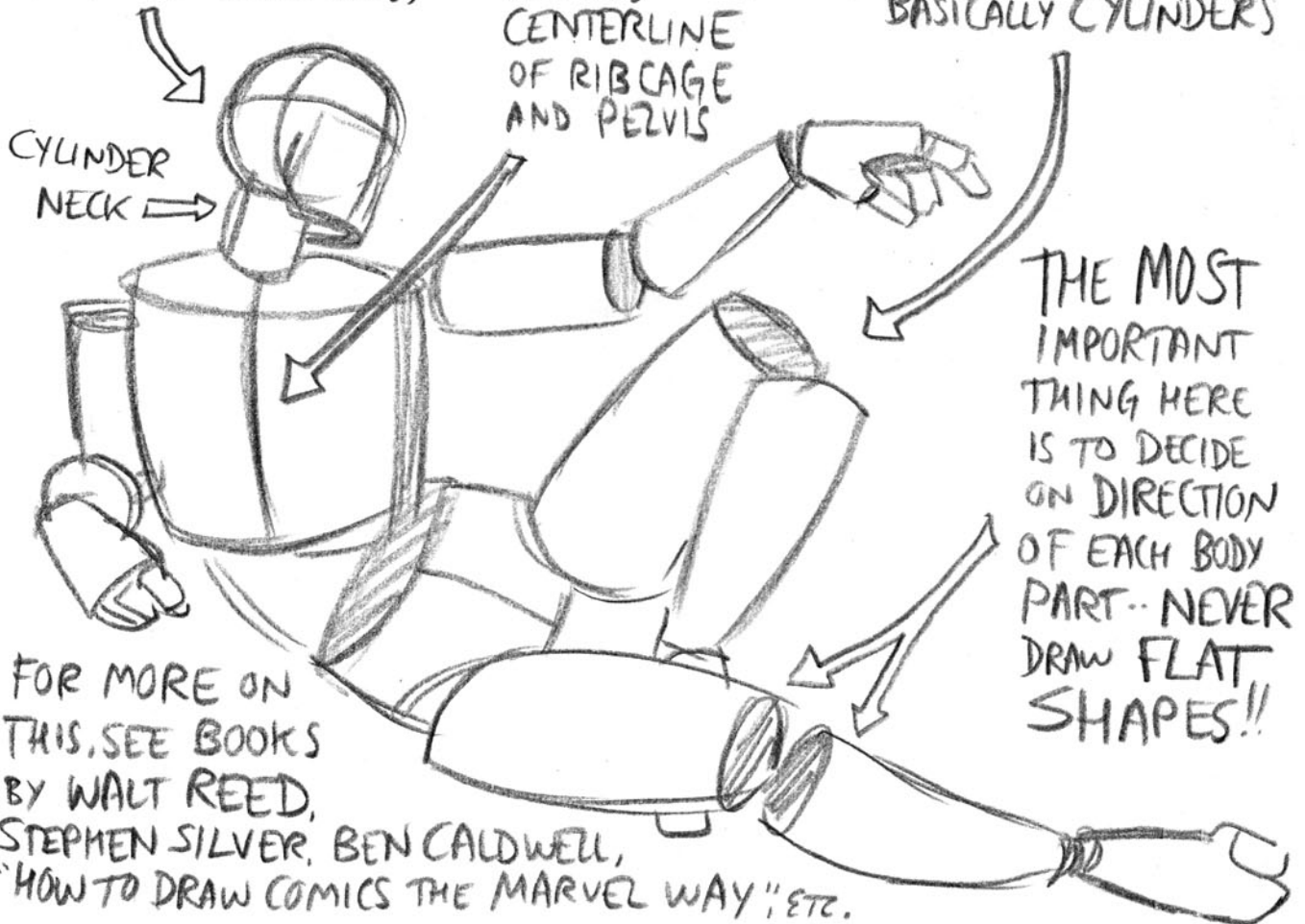
WORKING FROM PHOTOS MEANS WE DON'T NEED TO TRANSLATE 3D REALITY INTO 2D SHAPE. -- WE JUST NEED TO COPY THE SHAPES ACCURATELY, BUT THAT'S ACTUALLY NOT AS EASY AS IT SOUNDS...

FOR COMICS AND ANIMATION, IT'S USUALLY BEST TO CONSTRUCT (BUILD UP) FIGURE FROM SIMPLE 3D FORMS.

THE CLASSIC BALL FOR CRANIUM (BRAIN CASE)

ALWAYS NOTE CENTERLINE OF RIBCAGE AND PELVIS

ARMS AND LEGS ARE BASICALLY CYLINDERS



THE MOST IMPORTANT THING HERE IS TO DECIDE ON DIRECTION OF EACH BODY PART. NEVER DRAW FLAT SHAPES!!

FOR MORE ON THIS, SEE BOOKS BY WALT REED, STEPHEN SILVER, BEN CALDWELL, "HOW TO DRAW COMICS THE MARVEL WAY", ETC.



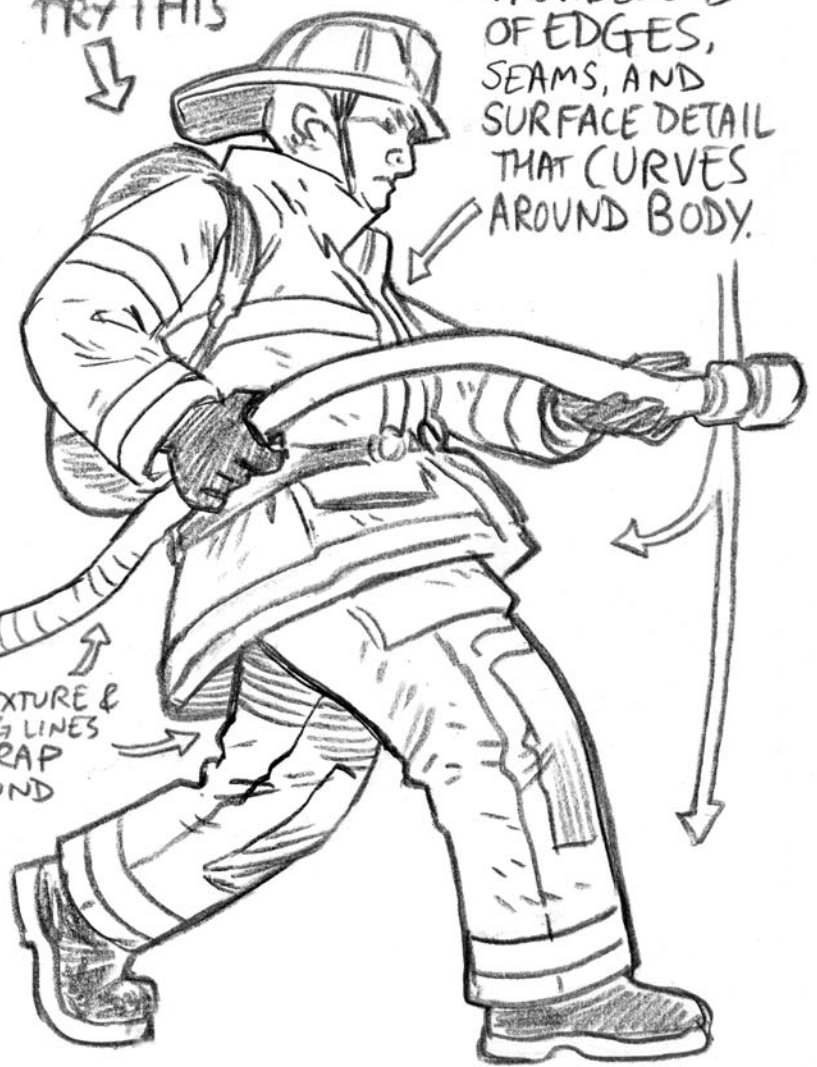
WHEN IT COMES TO THE FINAL LINE DRAWING, THERE ARE SOME SPECIFIC DETAILS WE CAN INCLUDE TO ENHANCE THE THREE-DIMENSIONAL EFFECT, SUCH AS...

# WRAPAROUND LINES

OR "VISUAL ANCHORS" AS PER GRIZ+NORM



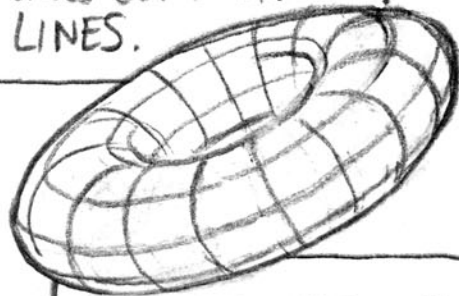
INSTEAD OF THIS  
← TRY THIS



CLOTHING PROVIDES LOTS OF EDGES, SEAMS, AND SURFACE DETAIL THAT CURVES AROUND BODY.

LINES THAT RUN ACROSS A SURFACE LIKE THIS ARE TECHNICALLY CALLED "CROSS-CONTOUR" LINES.

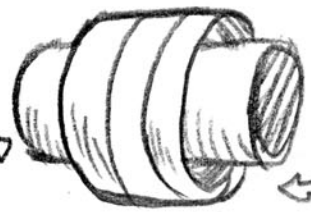
EVEN TEXTURE & SHADING LINES CAN WRAP AROUND



YOU'LL SOMETIMES SEE THESE ON 3D MODELS, BUT CLOTHES GIVE THEM TO US FOR FREE!

CURVED WRAPAROUND LINES ALWAYS MAKE THE FIGURE LOOK MORE 3D; STRAIGHT LINES WILL ALWAYS MAKE IT LOOK FLAT.

THINK OF LIMB AS CYLINDER



THEN WRAP CLOTHING LINES IN SAME DIRECTION!

A RELATED CONCEPT IS THE USE OF

# CENTERLINES OF THE TORSO

WE OFTEN  
TEND TO DRAW  
THE TORSO  
(CHEST AND PELVIS)  
AS IF IT WERE  
DIRECTLY  
FACING US.

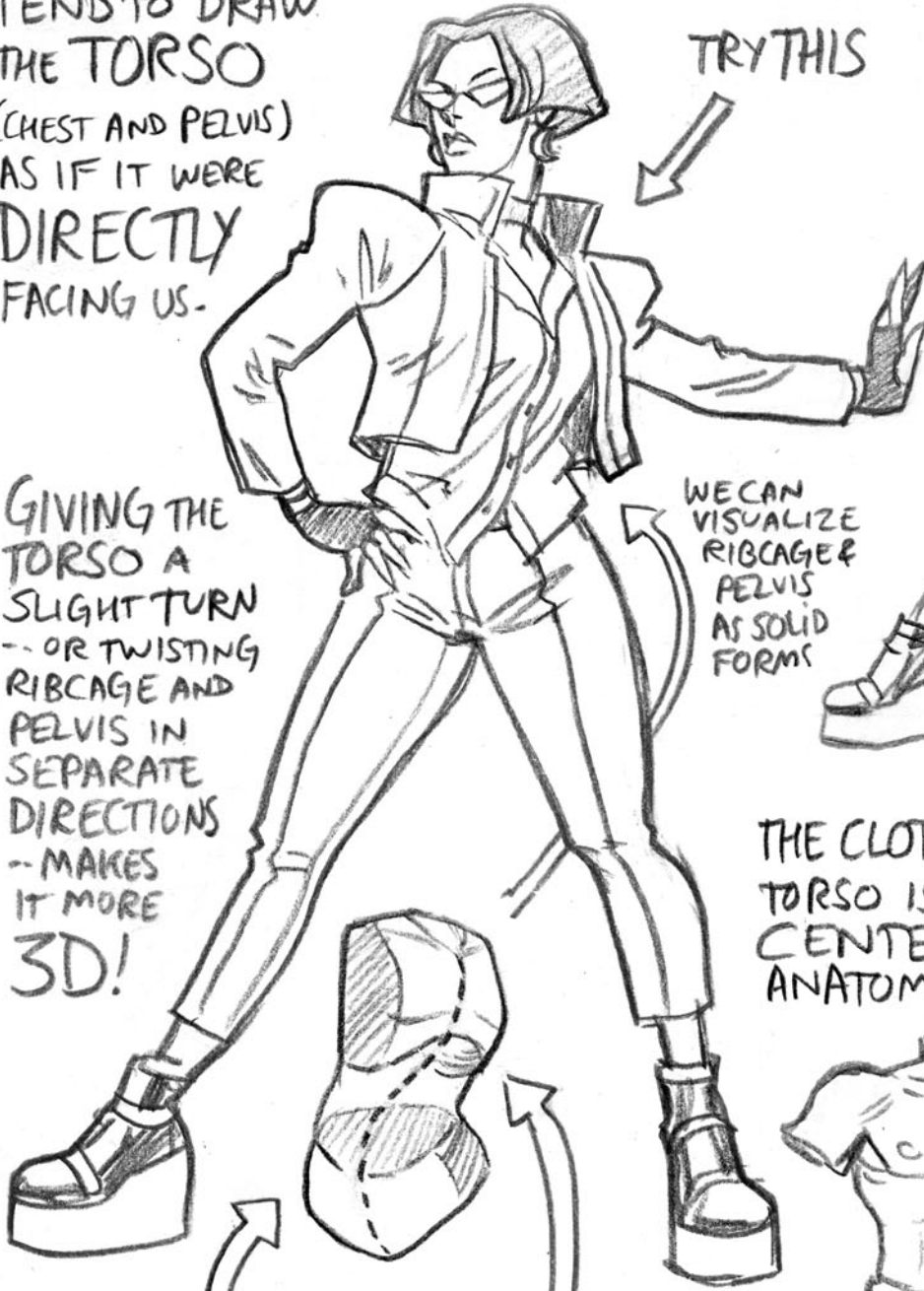
INSTEAD OF THIS

TRY THIS

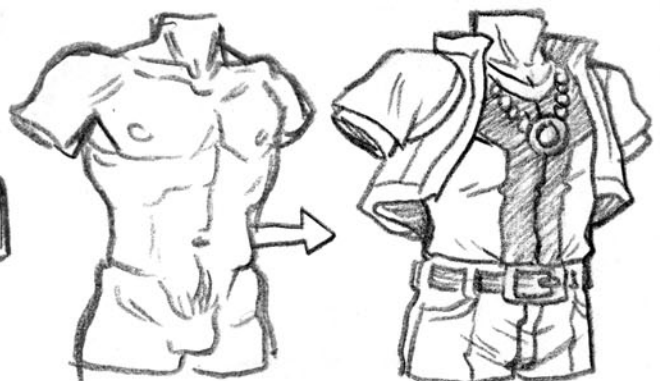


GIVING THE  
TORSO A  
SLIGHT TURN  
-- OR TWISTING  
RIBCAGE AND  
PELVIS IN  
SEPARATE  
DIRECTIONS  
-- MAKES  
IT MORE  
3D!

WE CAN  
VISUALIZE  
RIBCAGE &  
PELVIS  
AS SOLID  
FORMS



THE CLOTHING THAT COVERS THE  
TORSO IS ALIGNED TO THE SAME  
CENTER LINE(S) AS THE  
ANATOMICAL FEATURES BELOW.



IT'S IMPORTANT TO NOTE THAT  
WE'RE NOT TALKING ABOUT THE  
VERTEBRAL COLUMN, OR SOME  
ABSTRACT "LINE OF ACTION"  
BUT THE SURFACE LINES  
VISIBLE ON NUDE TORSO!

AS THE TORSO TURNS, ALL  
OF THESE WILL SHIFT OFF  
CENTER, INCLUDING ARMPITS  
AND SLEEVE SEAMS!

OTHER THAN HAIRLINES AND FACIAL FEATURES, UNCLOTHED BODIES DON'T PRESENT A LOT OF WRAPAROUND LINES. INSTEAD, THE MAIN THING TO LOOK FOR IN EXPOSED SKIN IS--

# OVERLAPPING FORMS



INSTEAD OF THIS  
↙ TRY THIS

THIS IS A SLIGHTLY SUBTLE ONE, BUT LOOK AT THE LITTLE OVERLAPS WHERE ONE BODY FORM PASSES IN FRONT OF ANOTHER.



(AFTER RODIN, I THINK...)

↘ LOOK FOR OVERLAPS WHERE JOINTS BEND!

ALTHOUGH THERE ARE SEVERAL BONE AND MUSCLE LANDMARKS WE CAN LOOK FOR, PLUS LITTLE FORMS LIKE FINGERNAILS, OUR SKIN AREAS OFTEN END UP LOOKING LIKE FLAT OUTLINES.

DECISIVELY INDICATING OVERLAPS NOT ONLY ADDS DEPTH BY PLACING ONE BODY PART IN FRONT OF ANOTHER, IT ALSO ADDS DETAIL TO UNCLOTHED AREAS OF OUR FIGURE.

IT'S OFTEN EASIER TO SEE THESE ON A LIVE MODEL THAN IN PHOTOGRAPHS.

ONE FINAL THING WE SHOULD PAY ATTENTION TO IS..

# GROUND PLACEMENT



THIS IS ANOTHER CASE WHERE WE CAN'T RELY TOO MUCH ON MEASURING PROPORTION.

INSTEAD OF THIS



TRY THIS

WHEN WE'RE SITTING, AND LOOKING AT SOMEONE ON A STAGE OR MODEL STAND, THEIR FEET MAY SEEM TO MEET THE GROUND ALONG AN ALMOST STRAIGHT LINE.

BUT IN ANY OTHER REAL-LIFE OR ARTISTIC SITUATION, THEY'LL SPREAD OUT QUITE DRAMATICALLY ON THE GROUND SURFACE!

WHEN OUR FIGURE IS SITTING OR LYING, THIS APPLIES TO THE ENTIRE BODY.

INSTEAD OF THIS



TRY THIS



THIS IS BASICALLY A PERSPECTIVE EFFECT. SIMPLY PUT, THE CLOSEST BODY PART WILL APPEAR LOWER IN YOUR VIEW, AND THE EFFECT INCREASES AT CLOSER DISTANCES.

ONCE AGAIN, THIS ALSO MAKES FOR BETTER DESIGN SINCE THE FIGURE DOESN'T END WITH A BORING STRAIGHT LINE.