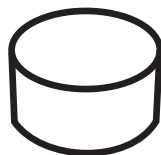
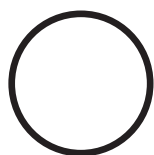


# D Y N A M I C    B I B L E



P e t e r   H a n

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Illustrations and writings by Richard Peter Han

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Published July 2016

## Introduction

I still remember the day walking into the classroom at the beginning of the term with new faces all over, and an instructor I had never met. It was an early morning class when in an instant, everyone’s emotions turned from excitement into sudden anxiety and fear as we were all individually called up to the chalkboard and requested to sketch a given theme on the spot. As I was called to introduce myself then go to draw on the board, he tells me to sketch out a Dragon. So as best I could I sketched out a Asian Dragon from memory, one that I had drawn countless times as a kid. I turn around and the instructor tells me, “I should have given you something harder...”

This was Dynamic Sketching, and the instructor was Norm Schureman. From that moment on I followed his instruction and took in all his advice till the day I finished school. I became close to his family and looked up to him not for just what he did as a teacher, but how he lived his life as a person. So fast forward 10 years later, and now I carry on his sketching class and try to pass on the foundation he gave me with the perspective of my own that I infused into his lessons.

This book represents the notes and lectures I give in my classes in preparation for the students to go out on location to then try to apply in observational drawing. It is unaltered from its original state, and contains all my written thoughts and observations. These notes are from my perspective and should never be taken as right or wrong. It is just another way of looking at subject matter we all engage in at some point as artists or designers. This information is in no way exclusive or secret. Many designers from all creative industries have applied it into their way of communicating and problem solving visually. However, I will always mention and want to honor where these lessons came from, and that to really take advantage of this information that I am now sharing is not just reading and looking at it, and not also applying it to drawing from observation, but in learning to what Norm would say,

“Run with it”

Peter Han

Content

Foundation

Plants

Entomology

Bone structure

Land animals

The Aviary

Marine Life

Locomotives

Automobiles

Military

Aviation

Weapons

Cloth



C

D

R

E

# THE FOUNDATION



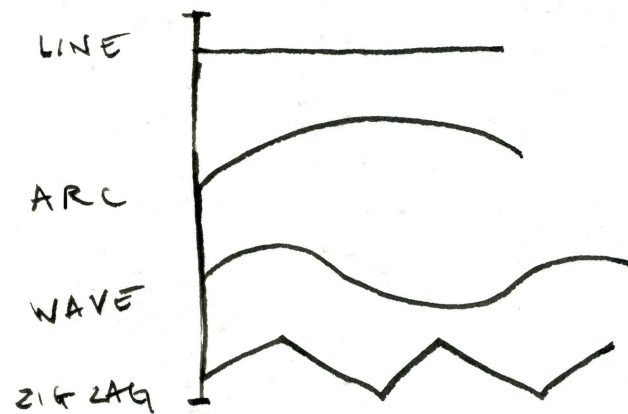
THE 5 CORE SHAPES.

WITH THESE FORMS, YOU SHOULD BE ABLE TO FORMULATE THE STRUCTURE OF ANY OBJECT OBSERVATIONALLY OR THROUGH IMAGINATION.

THIS IS A LANGUAGE SPOKEN THROUGH FORM.

-DISCIPLINE AND CONTROL-

THE BASIC WARMUPS TO CONTROL THE PEN CAN BE TEDIOUS BUT A VERY IMPORTANT PART OF BUILDING THE CONFIDENCE.

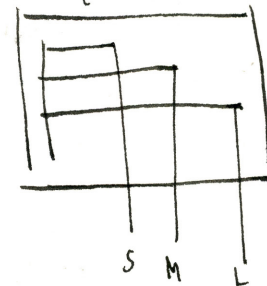


IN THIS EXERCISE, THE POINT IS TO BUILD MUSCLE MEMORY IN CONTROL. MUSCLE MEMORY IS A LARGE FACTOR IN QUICK SKETCHING.

EACH LINE INCREASES IN DIFFICULTY OF MAINTAINING CONTROL.

ON A PIECE OF PAPER THERE SHOULD BE A SHORT, MEDIUM, LONG LINE STUDY OF EACH TYPE OF LINE.

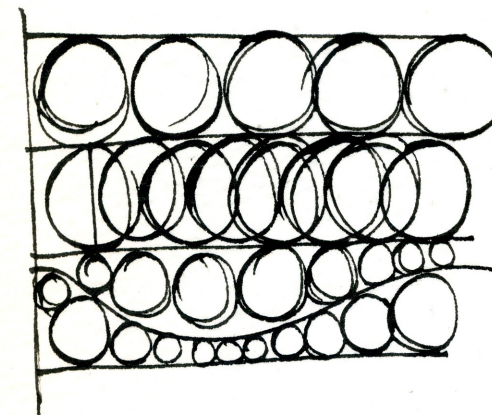
EX.



\* EACH LINE NEEDS TO BE DRAWN ON TOP OF 8 TIMES IN SUCCESSION.

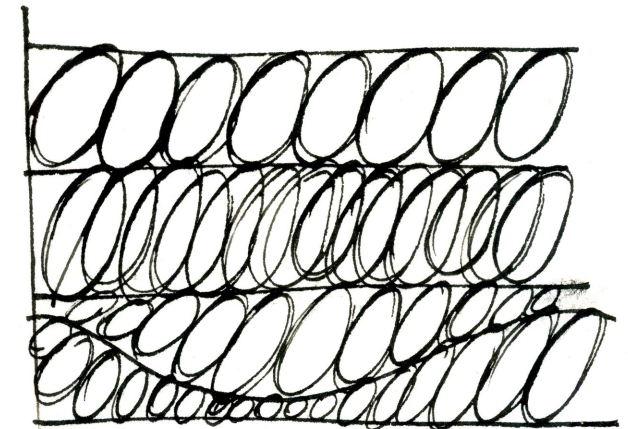
KEEP IT CLEAN, PACE IS EVERYTHING. TRY MOVING FAST OR SLOW.

## CIRCLE



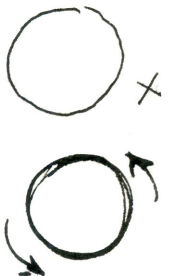
TRY NOT TO DRAW A PERFECT CIRCLE WITH A SINGLE LINE. IT WILL BE IMPOSSIBLE TO CAPTURE. IT IS MORE IMPORTANT TO BUILD MUSCLE MEMORY THROUGH ROTATION AND REPETITION.

## ELIPSE



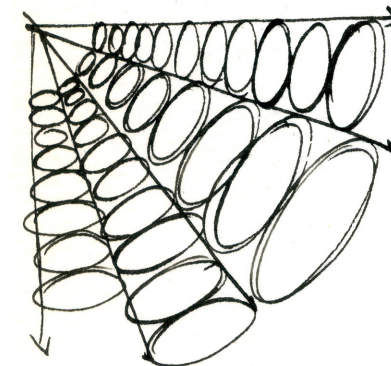
-TRUE UP-

GHOST IN THE SHAPE WITH A LIGHT LINE, THEN DEFINE THE SHAPE WITH A DARKER LINE, USING SEVERAL LINES.

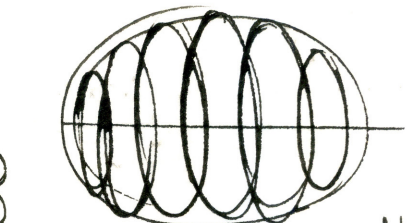
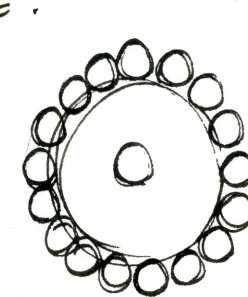
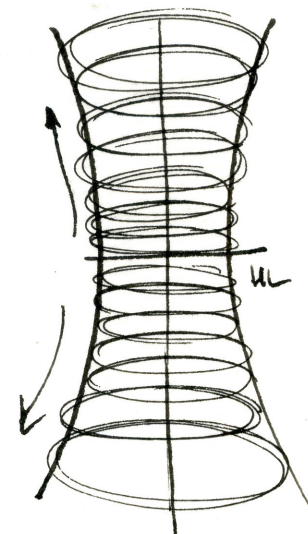


ACCURACY IS MORE IMPORTANT THEN A CLEAN LINE WITH THIS EXERCISE.

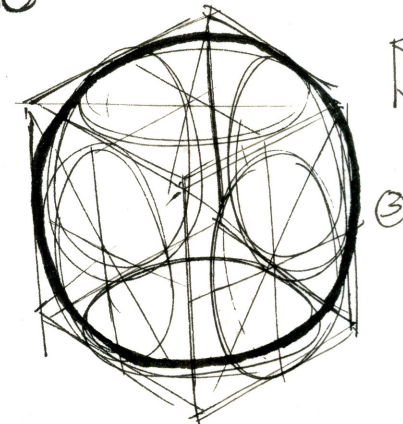
OTHER EXERCISES...



SCALE CHANGE.



ELLIPSES WITHIN ELLIPSES.

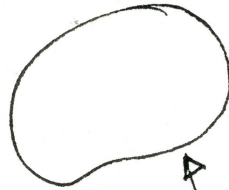


# FORM LANGUAGE

## THE ORGANIC SHAPE.



TAKING THE FIRST CORE FORM.  
WE WILL MANIPULATE THE  
SHAPE BY PINCHING, PULLING,  
PUSHING, AND TWISTING.



THE CORE FORMS ARE NOT  
SOLID SHAPES, BUT MORE  
LIKE BLOCKS OF CLAY TO BE  
PLAYED WITH.

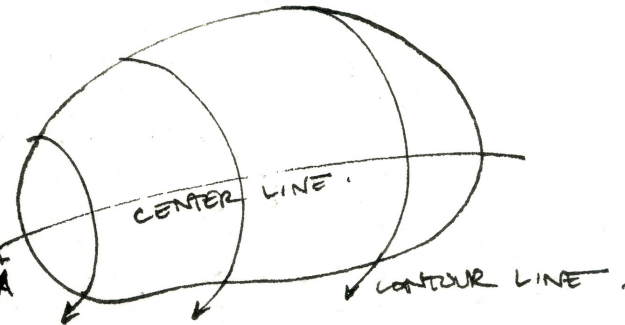
## THE BEAN SHAPE.

BY STRETCHING THE SPHERE  
WE GET A AUGMENTED FORM.  
BUT IT COMMUNICATES NO VOLUME  
AND DEPTH. IT IS A FLAT  
2-DIMENSIONAL IMAGE.

## THE CONTOUR.

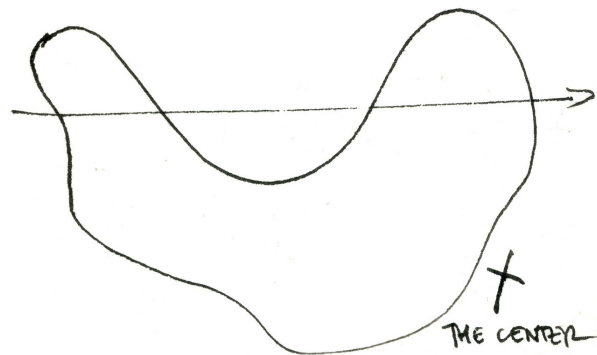
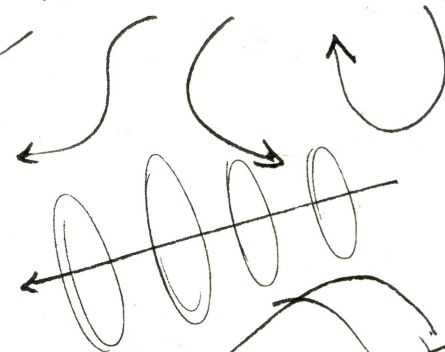
THE CONTOUR LINE BEHAVES  
SIMILARLY AS THE WIREFRAME  
OF A 3-D MODEL. IT DESCRIBES  
THE VOLUME, AND THE SURFACE.

BEFORE YOU CONTOUR THE FORM,  
MAKE SURE TO FIND THE  
CENTER LINE, WHICH GOES THROUGH  
THE SHAPE.

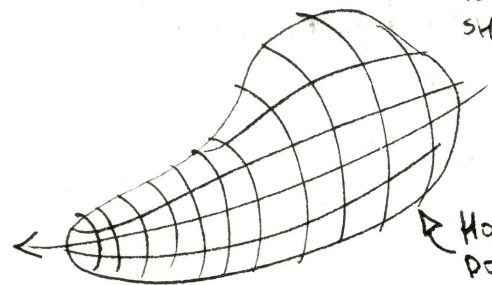


THE CONTOUR LINE WRAPS AROUND  
THE CENTER LINE LIKE THE  
RIBS OF A SPINE.  
THE CENTER LINE CAN CURVE.

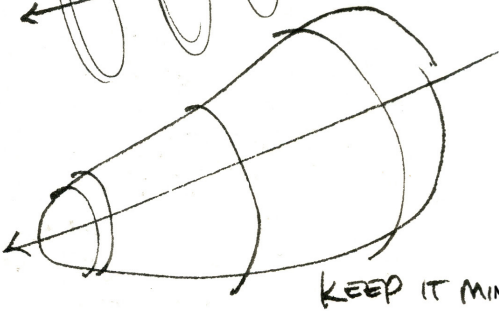
EX.



THE CENTER LINE  
GOES THROUGH THE  
SHAPE.



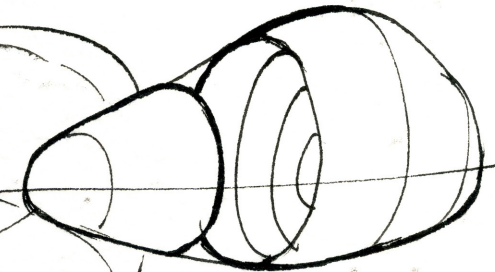
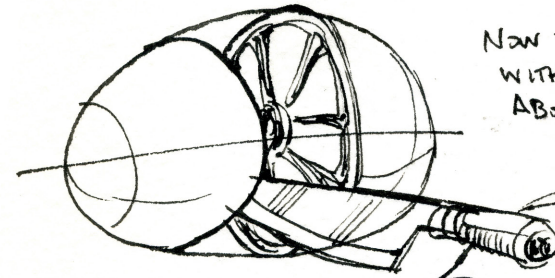
HOW MANY CONTOURS  
DO YOU NEED?



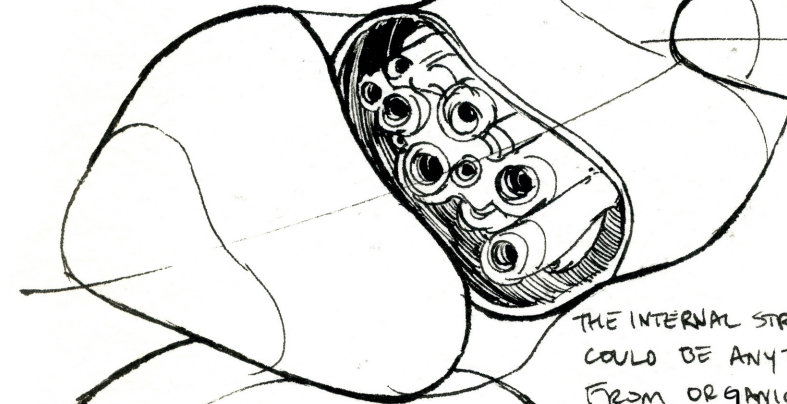
KEEP IT MINIMAL.

## DISSECTING THE FORM.

NOW THAT THE OUTER VOLUME IS INDICATED  
WITH CONTOURS. ITS GOOD TO THINK  
ABOUT THE INNER VOLUME.



CHOOSE A CONTOUR LINE AS A  
SECTION TO SEPARATE THE  
FORM. USE A LINE WEIGHT  
TO INDIVIDUALIZE THE TWO  
FORMS.



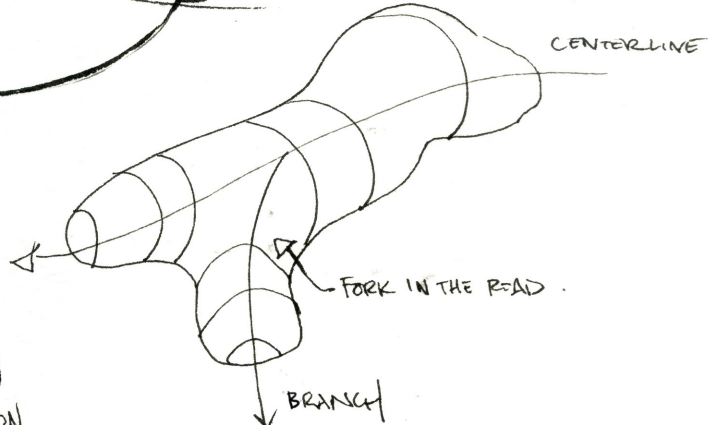
THE INTERNAL STRUCTURE  
COULD BE ANYTHING  
FROM ORGANIC FORMS,  
TO MECHANICAL GEARS.



## BRANCHING FORMS.

PRIMARY  
CENTERLINE.

THE CENTERLINE CAN  
BRANCH DEPENDING ON  
THE EXTRA FORMS  
EXTENDING FROM THE  
PRIMARY SHAPE.



FORK IN THE ROAD.

BRANCH

## PERSPECTIVE / SHAPE COMBINATION

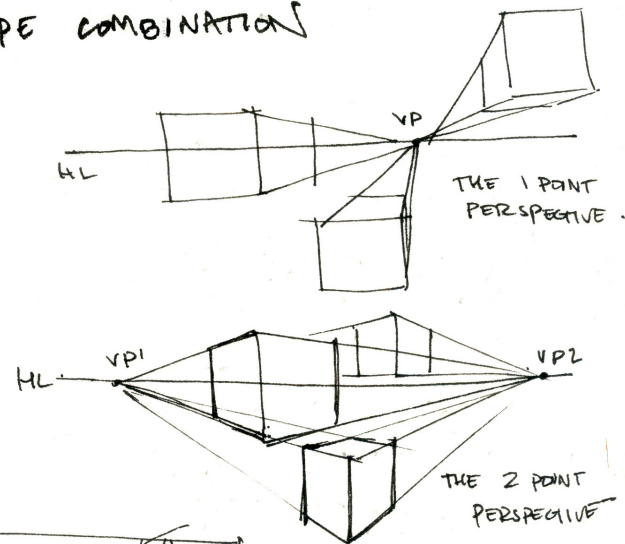
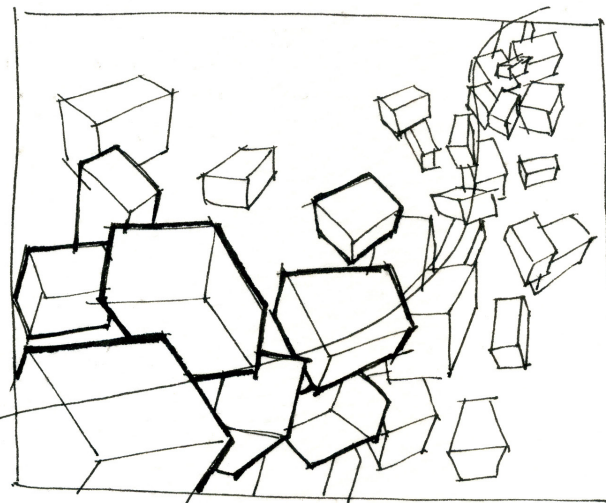
USING THE BASICS IN PERSPECTIVE, THE SENSE OF SPACE AND DEPTH SHOULD BE CREATED OPTICALLY.

### BOX EXERCISE

IN A EMPTY SPACE, CREATE A SENSE OF FLOW AND DEPTH BY VISUALLY CREATING BOXES IN PERSPECTIVE.

- OVERLAP YOUR SHAPES.
- PUSH SCALE
- TURN/ROTATE YOUR BOXES.

LINE OF ACTION.



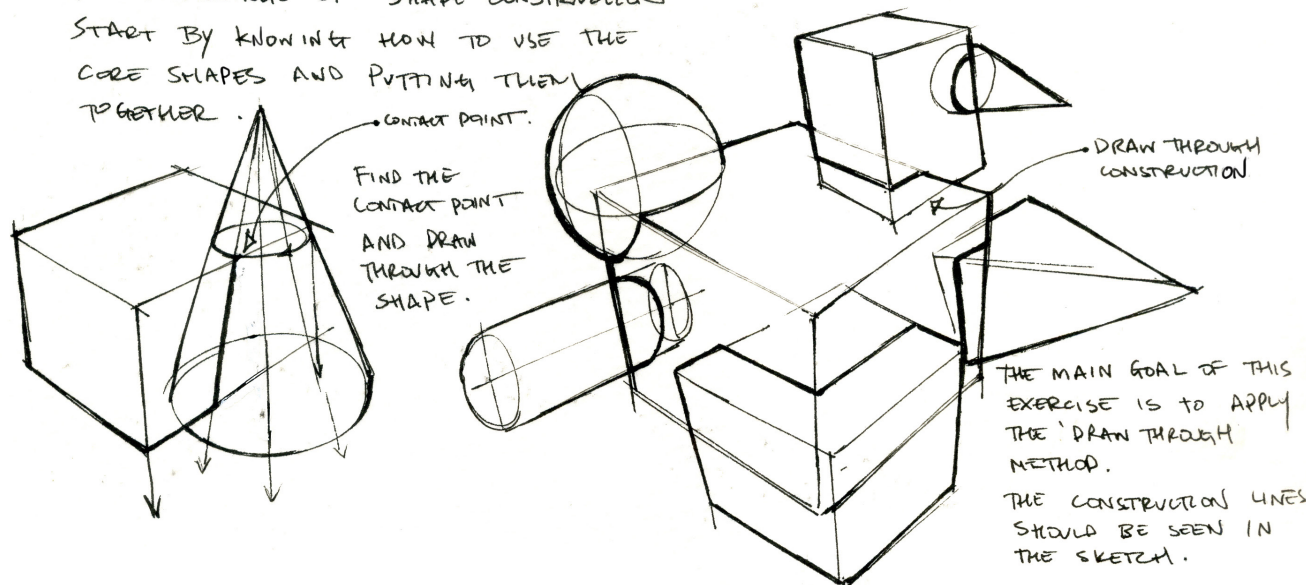
PUSH LINE WEIGHT TO THE THE FOREGROUND SHAPES.

THE LINE WEIGHT CAN CREATE A SENSE OF FOCUS, AND SEPERATE THE SHAPES FOR CLARITY.

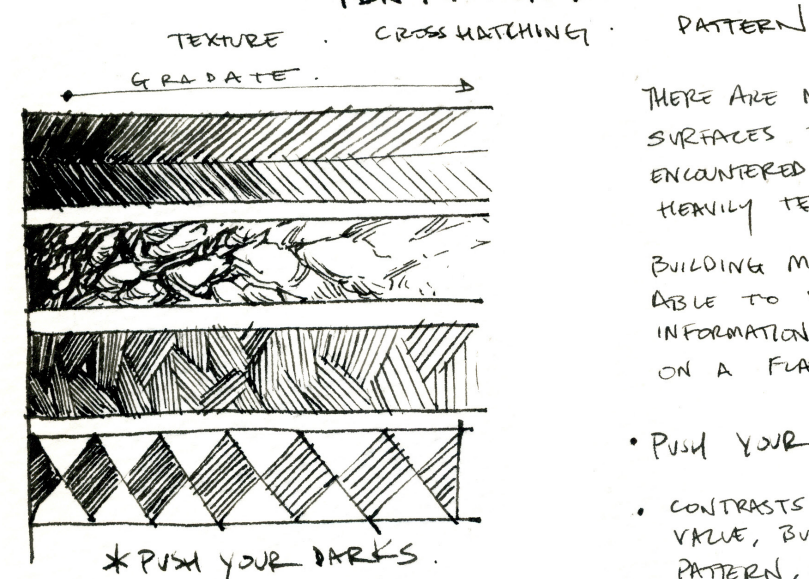
## FORM RELATIONSHIPS

OVERLAP, INTERLOCK, SEPERATION, ADDITION, AND SUBTRACTION

THE BEGINNINGS OF SHAPE CONSTRUCTION START BY KNOWING HOW TO USE THE CORE SHAPES AND PUTTING THEM TOGETHER.



## PEN MAN SHIP

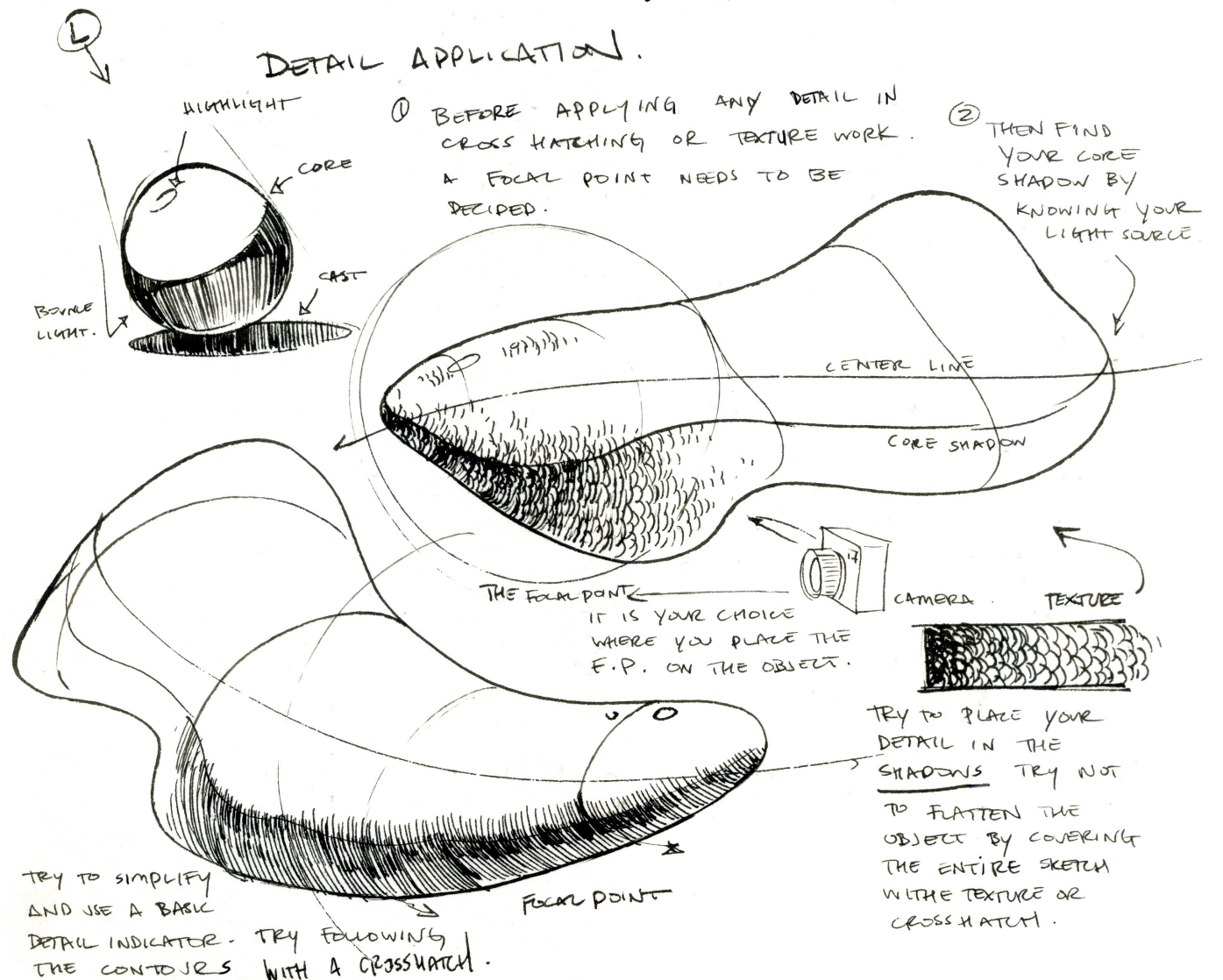


THERE ARE MANY DIFFERENT SURFACES THAT WILL BE ENCOUNTERED. WHETHER SMOOTH OR HEAVILY TEXTURED.

BUILDING MILEAGE IN BEING ABLE TO DETAIL AND INDICATE INFORMATION IS EASILY PRACTICED ON A FLAT 2-DIMENSIONAL STRIP.

- PUSH YOUR GRADATION OF VALUE.
- CONTRASTS NOT ONLY JUST IN VALUE, BUT ALSO SCALE, PATTERN, AND COMPLEXITY SHOULD BE EXPLORED.

## DETAIL APPLICATION.



P L A N T S

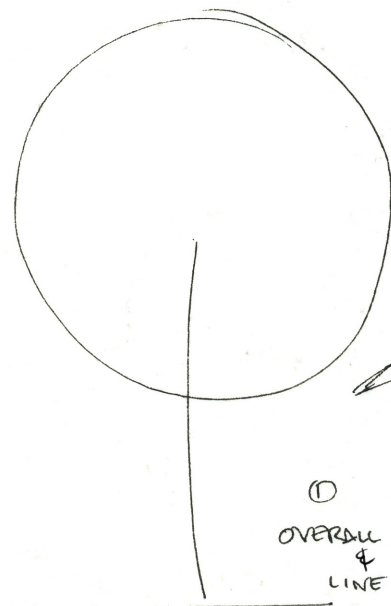


# BOTANY

## THE PLANT STRUCTURE

PLANT STRUCTURES CAN BE SLIGHTLY FORGIVING IN THE SENSE THAT THE RULES OF PROPORTION CAN BE TESTED.

DRAWING PLANTS IS MORE OF A TEST ON BEING ABLE TO SEE THE SIMPLE FORMS THROUGH ALL THE NOISE OF INFORMATION.



TASMANIAN FERN TREE



FORM AND VOLUME.

NEVER FEEL RESTRICTED BY YOUR INITIAL SHAPES. YOU CAN ADJUST BY PUSHING IN OR EXTENDING OUT.



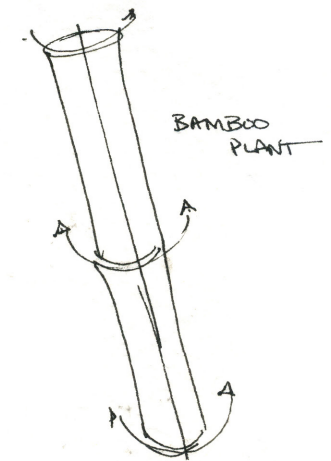
\* YOU ARE NOT A CAMERA.

PALM LEAF



## THE NATURAL CONTOUR

THE VOLUME OF THE FORM IS EVIDENT THROUGH THE NATURAL CONTOUR IN MANY PLANTS.



BAMBOO PLANT

STILL STARTING GRAPHICALLY CAN HELP CREATE ACCURATE SHAPES.

BAMBOO FOREST



③



③

FIND YOUR FOCAL POINT PUSH IN YOUR INFORMATION.

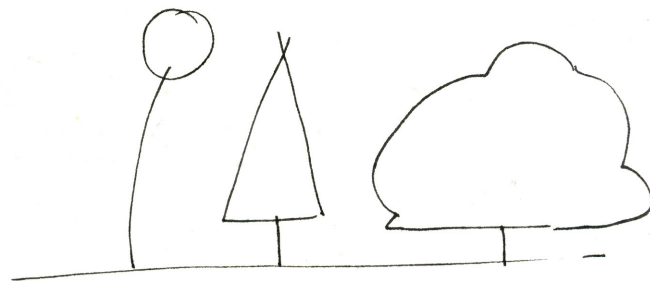
USE YOUR SHADOWS TO SEPERATE COMPLEX DETAIL.

CACTUS FLOWER

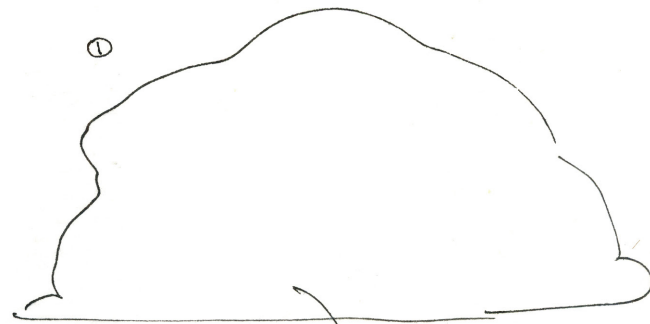


LARGE TREES CAN BE INTIMIDATING DUE TO THE LARGE SCALE AND IMMENSE AMOUNT OF DETAIL INFORMATION

WHEN I APPROACH THIS SUBJECT MATTER, I MAKE SURE TO LOOK FOR THE SIMPLEST ROUTE IN COMMUNICATING THE SKETCH. IN TREES, DRAWING THEM GRAPHICALLY IN SHAPE AND SHADOW INDICATION EASES THE AMOUNT OF THINGS TO BALANCE.



ICONIC TREE FORMS.



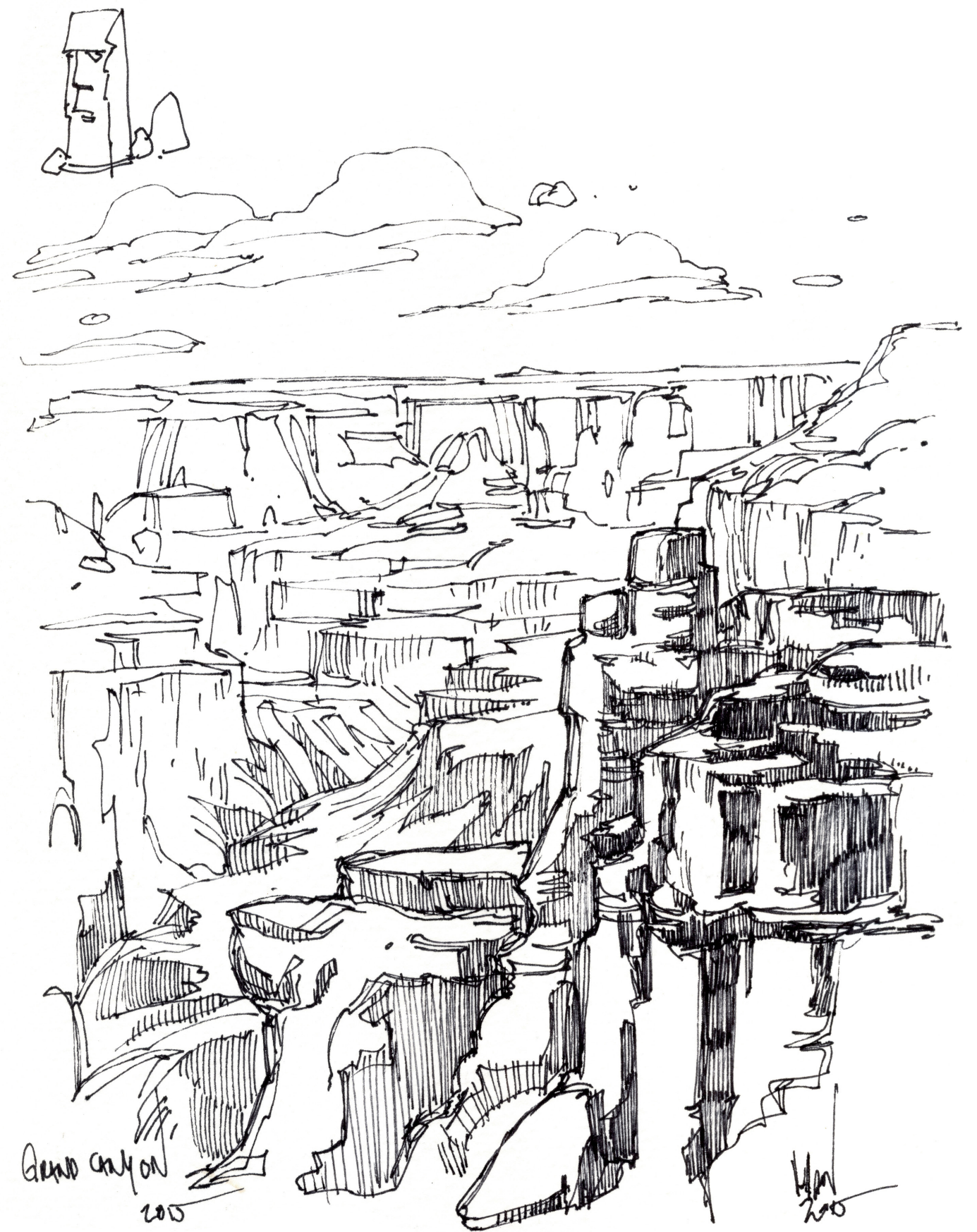
OAK TREE

SEPERATE LIGHT AND SHADOW

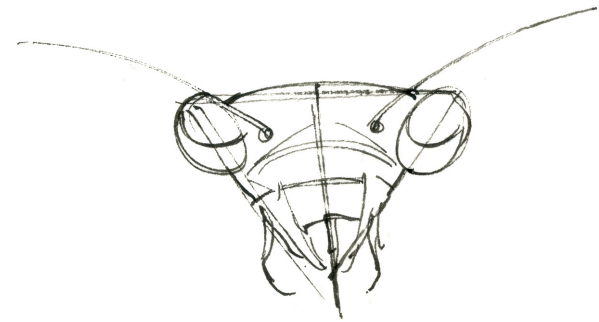


PUSH CROSSHATCHING INTO THE SHADOW SIDE. BLEND THE EDGE OF THE SHADOWS OF THE FORM WITH THE LEAF INDICATION.





E N T O M O L O G Y



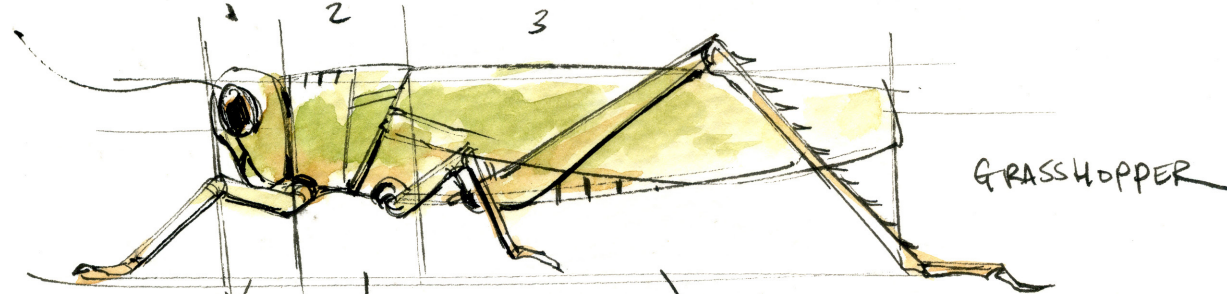
# ENTOMOLOGY

## STUDY OF BUGS

THE BASIC SHAPE COMPOSITION OF ALL INSECTS ARE THE SAME. ONCE YOU KNOW THE ARCHETYPE, IT IS EASY TO UNDERSTAND WHAT TO LOOK FOR.

INSECTS ARE COMPOSED OF A HEAD, THORAX, ABDOMEN. MOST INSECTS ARE 6 LEGGED, HOWEVER THERE ARE EXCEPTIONS BUTTERFLY'S AND MANTIS'S HAVE FOUR LIMBS.

### THE INSECT

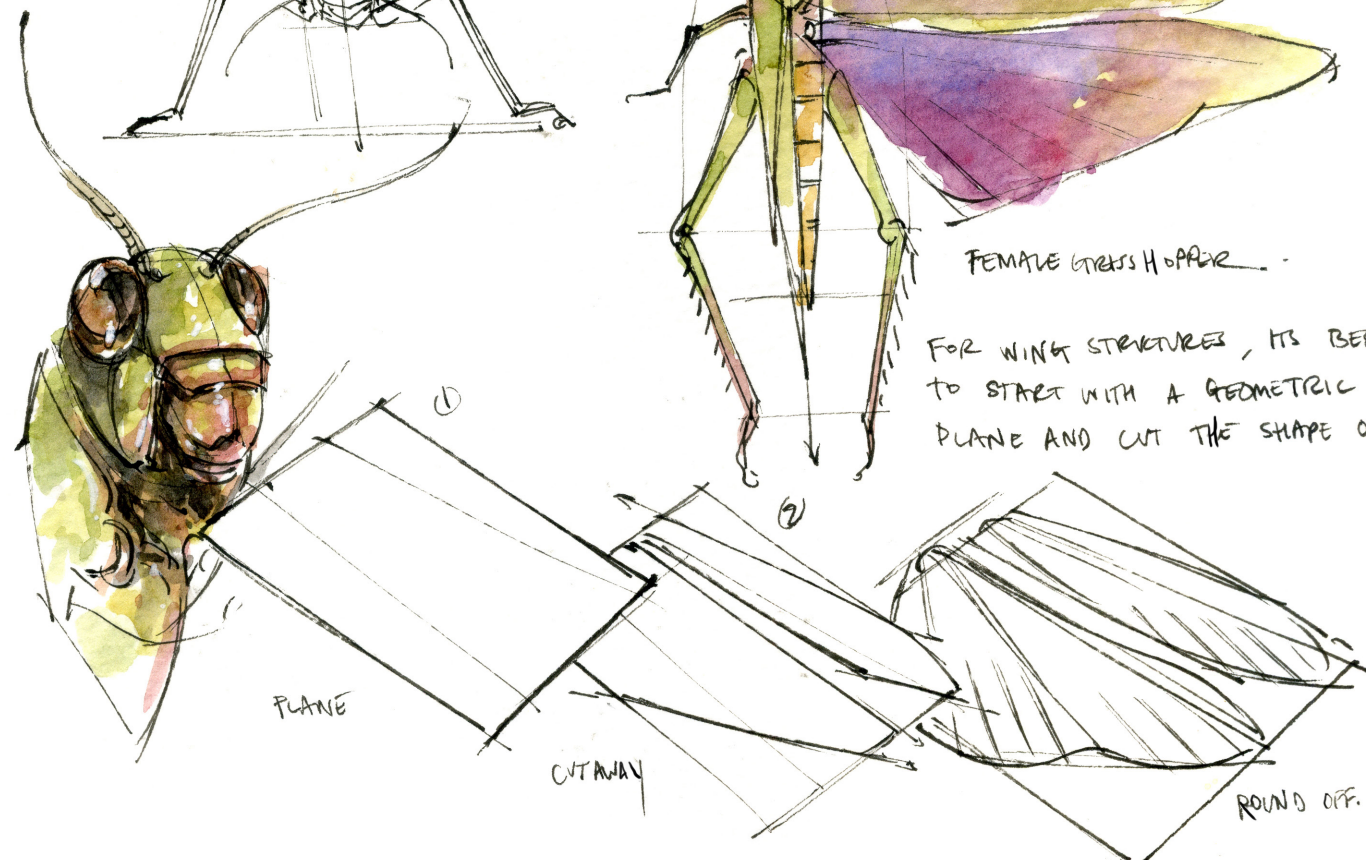


HEAD THORAX

ABDOMEN

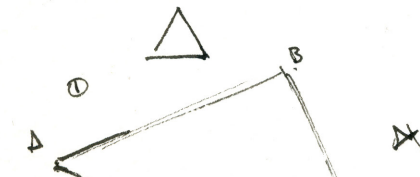
FEMALE GRASSHOPPER

FOR WING STRUCTURES, ITS BEST TO START WITH A GEOMETRIC PLANE AND CUT THE SHAPE OUT.



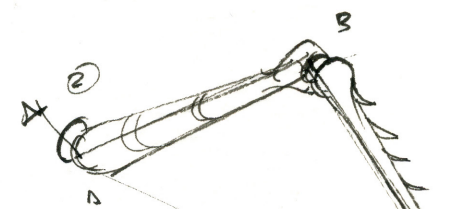
FOR VERTEBRATES IT IS BEST TO START WITH A CORE SHAPE.

### THE TRIANGLE

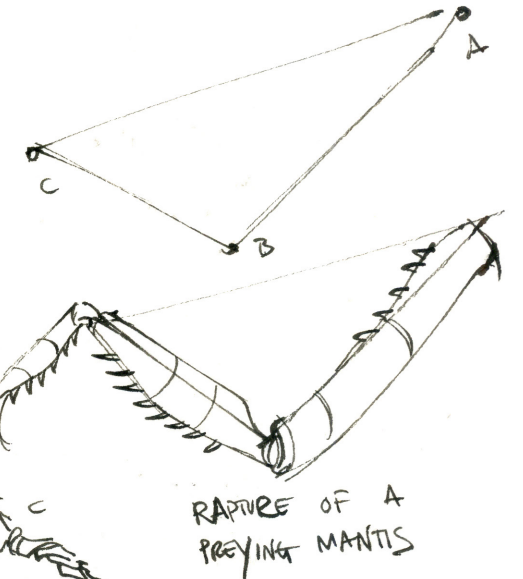


START WITH JUST A LINE TO GET THE PROPER PROPORTION.

LEG OF THE HOPPER



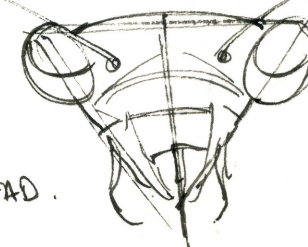
ADD THE VOLUME ON TO THE LINE.



THE TRIANGLE IS ALSO IN THE HEAD SHAPE.



MANTIS HEAD.



HERCULES BEETLE.

### SEGMENTATION

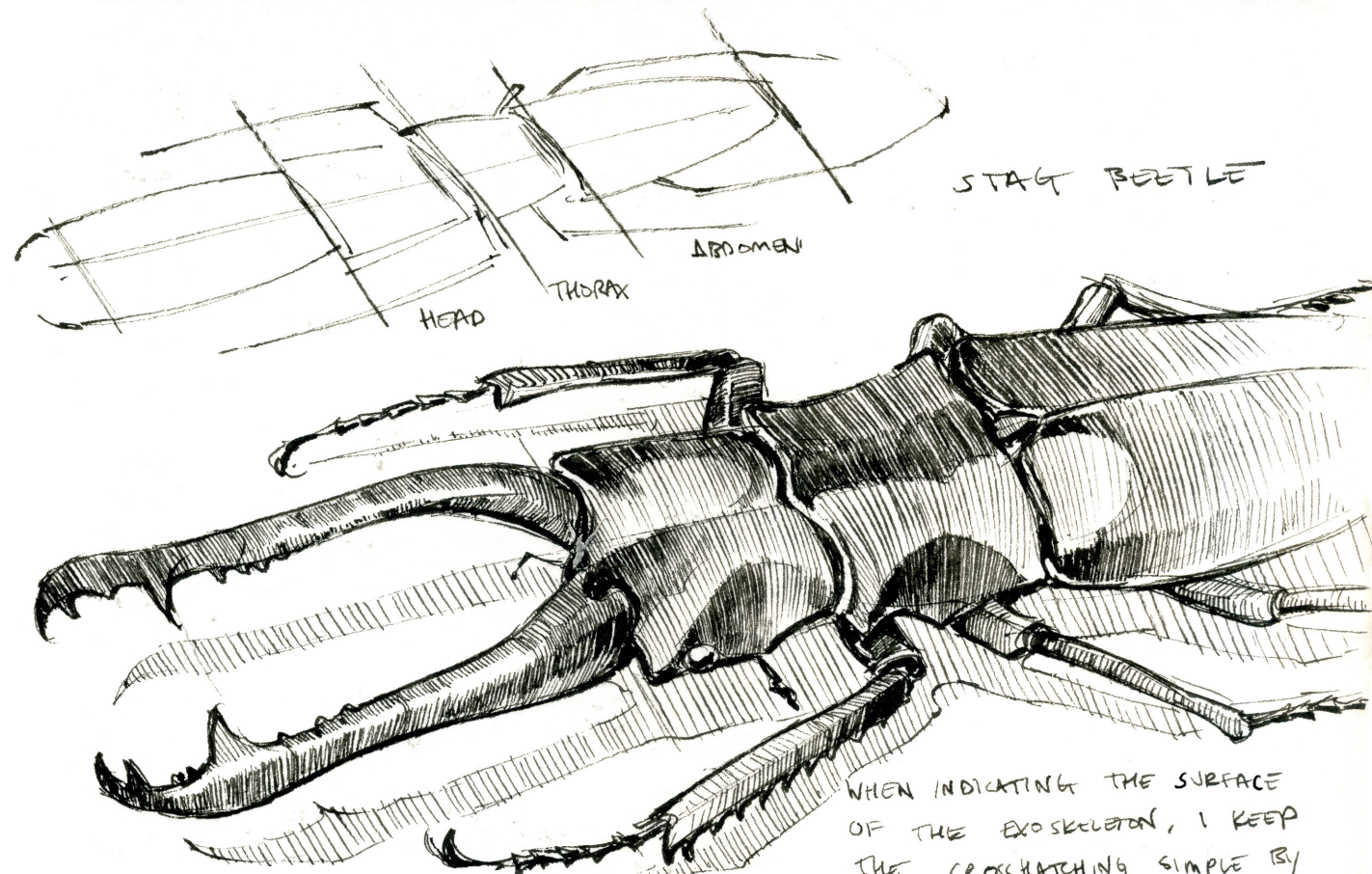
THE VOLUME OF THE FORM IS COMMUNICATED BY THE CONTOUR OF THE SHAPE. INDICATING THE SURFACE WHETHER ORGANIC OR GEOMETRIC.

NATURAL CONTOURS EXIST IN EVERY FORM IN SOME FASHION, IN BUGS THE SEGMENTATION SHOWS THE VOLUME.



GHOST MANTIS

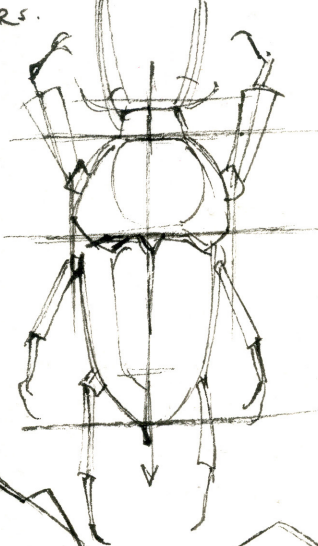
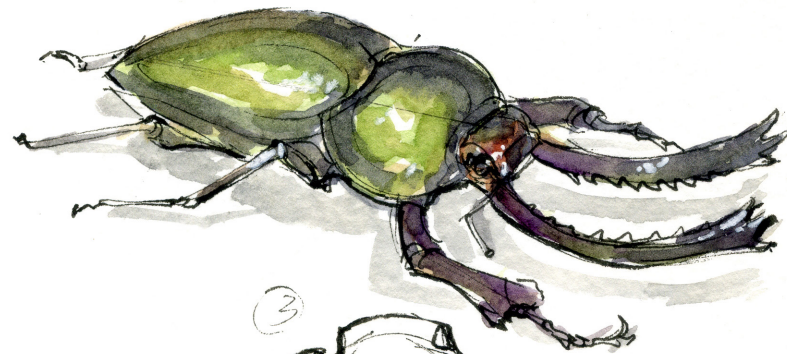
FEMALE HAS SHORTER ANTENNAS AND WINGS.



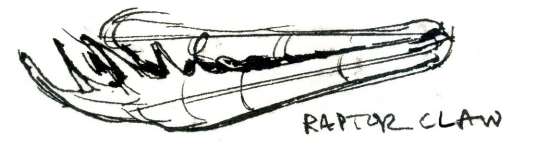
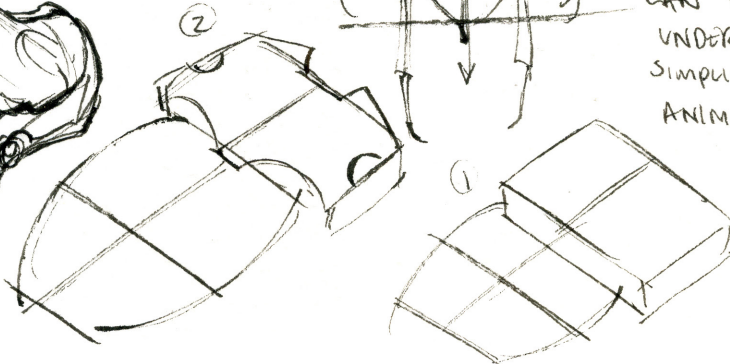
STAG BEETLE

WHEN INDICATING THE SURFACE OF THE EXOSKELETON, I KEEP THE CROSSHATCHING SIMPLE BY FOLLOWING THE FORM. SINCE THE SURFACE IS SMOOTH, THE CHOICE I HAVE IS THE CONTOURS.

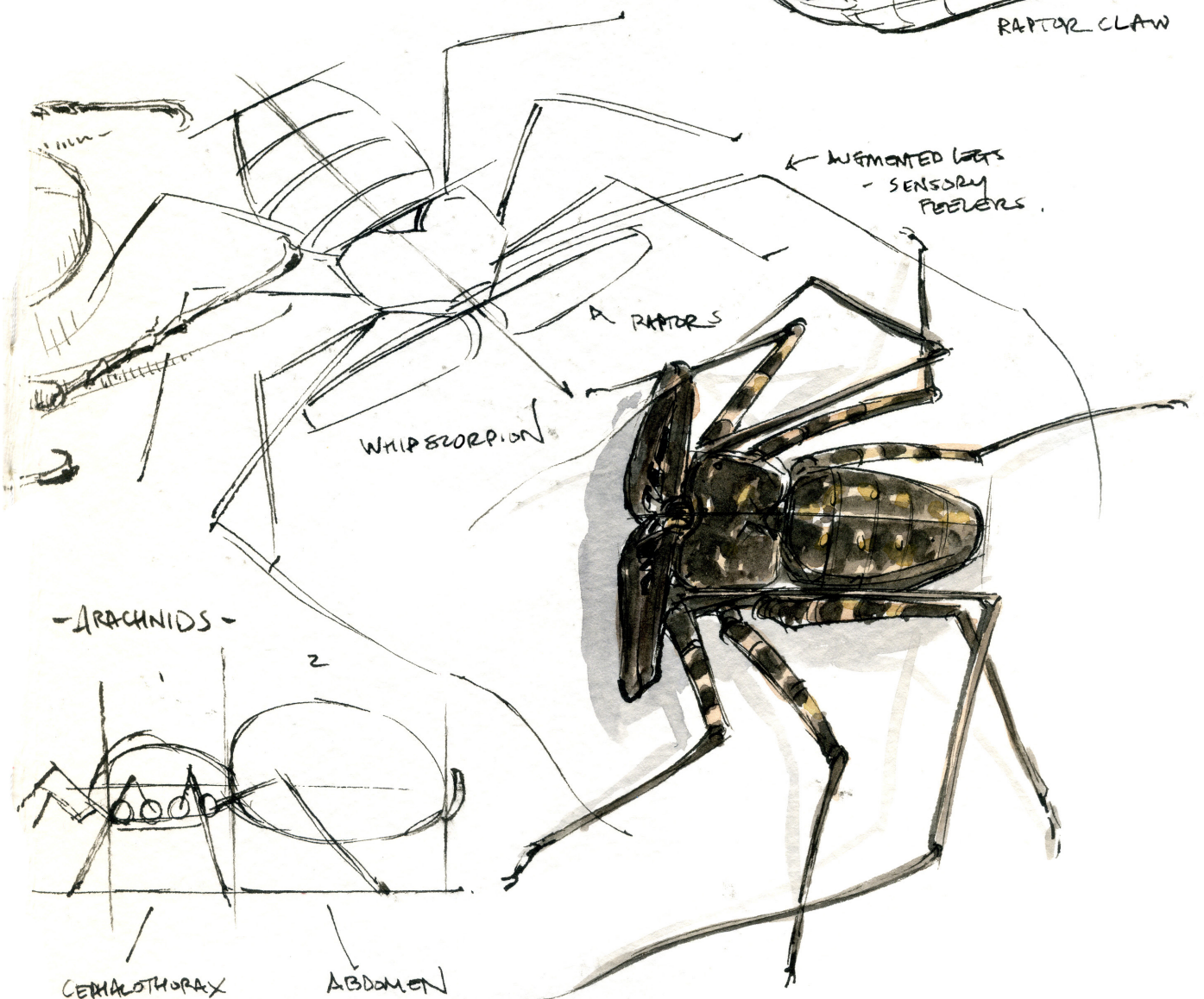
FOLLOWING THE CONTOURS.



GEOMETRIC FORMS CAN BE USEFUL IN UNDERSTANDING THE SIMPLICITY OF THE ANIMALS.



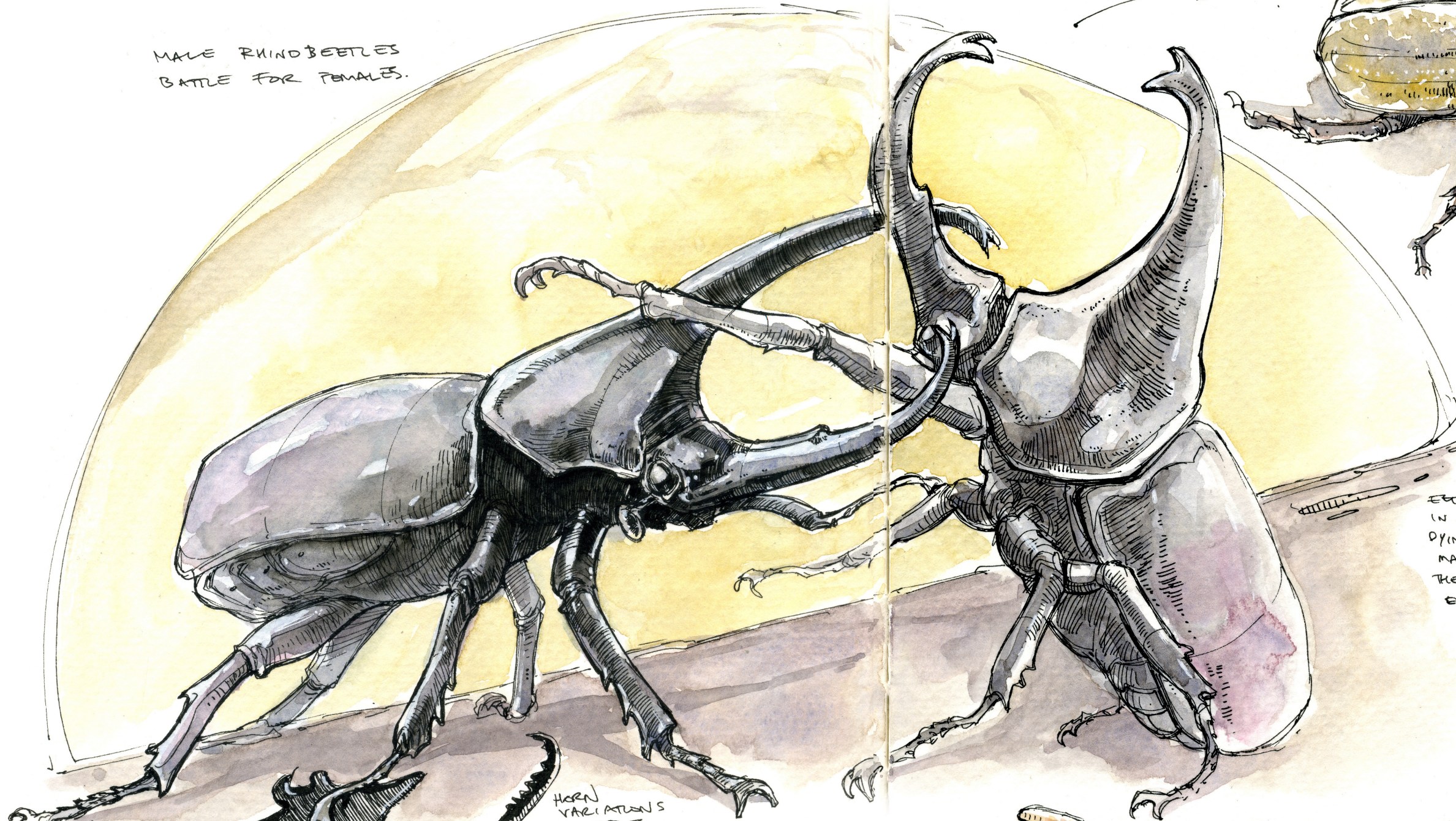
RAPTOR CLAW



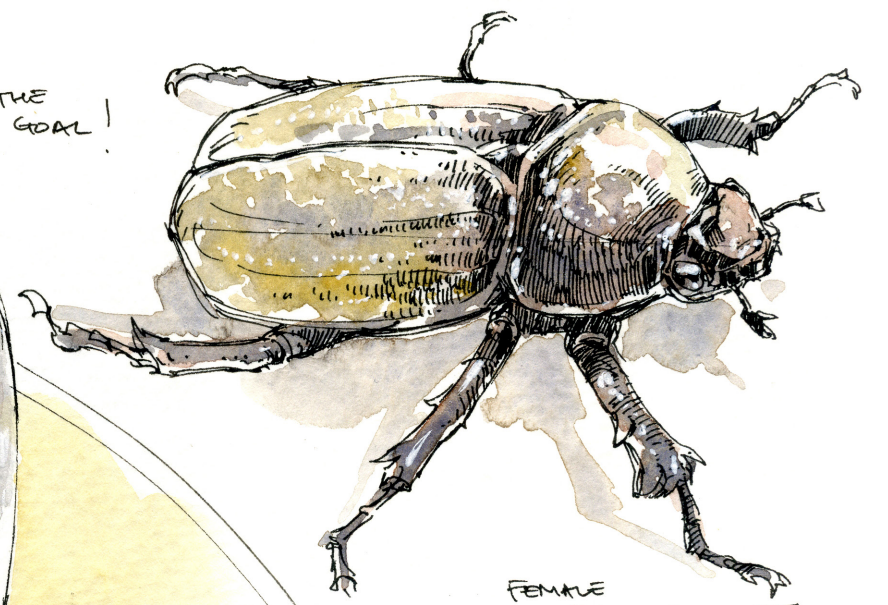
# - ARACHNIDS -

ARACHNIDS ARE COMPRISED OF TWO PARTS. THE HEAD AND THORAX SEEN IN INSECTS ARE FUSED TOGETHER AS A SINGLE SHAPE. A CEPHALOTHORAX IS SEEN NOT ONLY IN ARACHNIDS, BUT ALSO CERTAIN CRUSTACEANS.

MALE RHINO BEETLES  
BATTLE FOR FEMALES.



THE  
GOAL!



FEMALE  
RHINO BEETLE  
SANS HORN

LIFECYCLE

EGGS  
\* 12 DAYS  
080

EGGS ARE LAYED  
IN ROTTING WOOD,  
DYING TREES OR  
MANURE. WHICH  
THEN THE GRUB  
EATS.



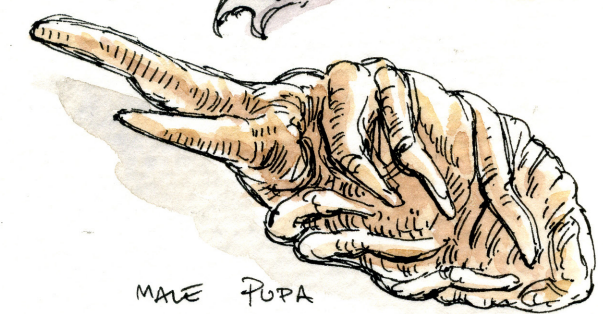
1ST INSTAR  
GRUB  
\* 19 DAYS



2ND INSTAR  
GRUB  
\* 21 DAYS



3RD INSTAR  
GRUB  
\* 32 DAYS

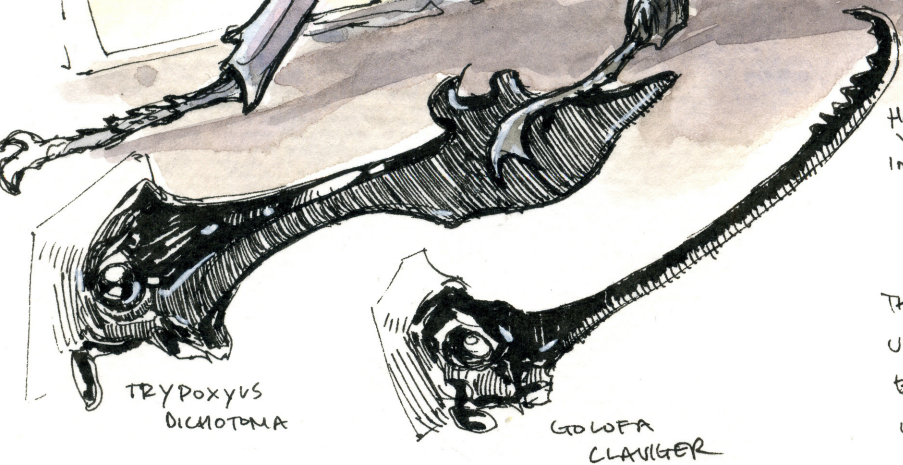


MALE PUPA  
\* 20 DAYS

HORN  
VARIATIONS  
IN BEETLES.

ADULT MALES  
\* 95 DAYS

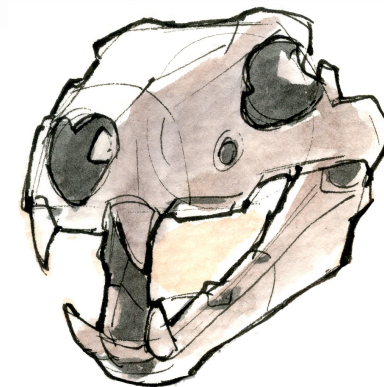
THEY ARE ABLE TO CARRY  
UP TO 850 TIMES THEIR OWN  
BODY WEIGHT. STRONGEST  
LAND ANIMAL IN RELATION TO  
SIZE.



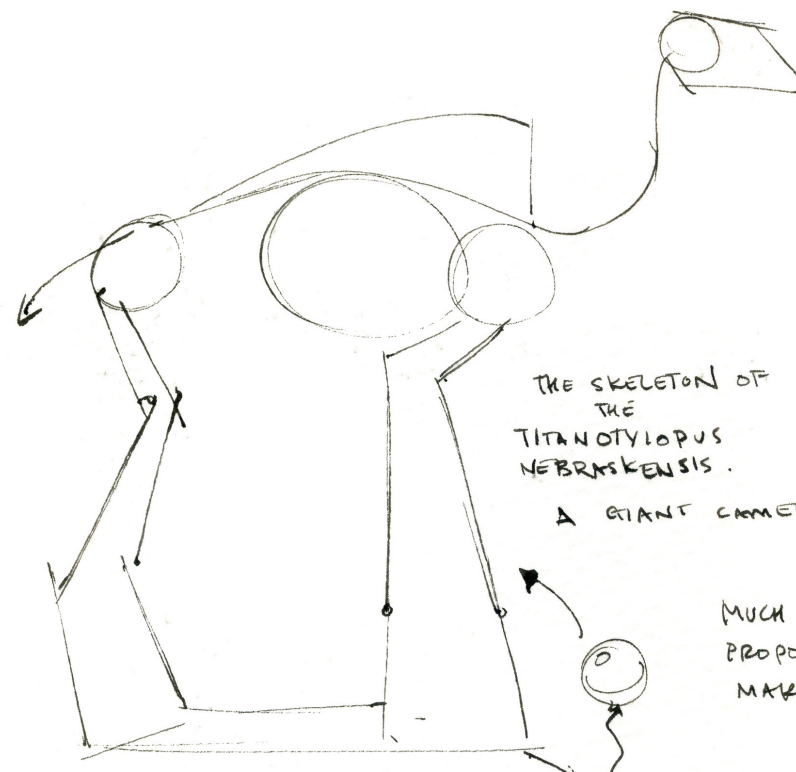
TRYPOXYUS  
DICHOTOMA

GOLFA  
CLAVIGER

# BONE STRUCTURE



# SKELETAL STRUCTURE



THE SKELETON OF THE  
TITANOTYLIDUS  
NEBRASKENSIS.  
A GIANT CAMEL.

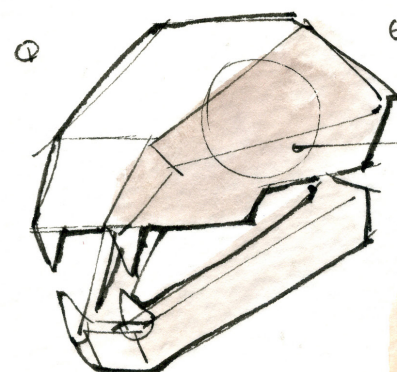
SKELETAL FORMS CAN BE  
HIGHLY INTIMIDATING DUE TO  
THE COMPLEX AMOUNT OF  
INFORMATION.

THE GOAL SHOULD BE ABOUT  
HOW TO INTERPRET THAT  
COMPLEXITY INTO SOMETHING  
THAT MAKES SENSE, BUT IS  
ALSO EASY TO APPROACH.

MUCH LIKE LIVE ANIMALS, THE  
PROPORTION IS CRUCIAL TO  
MAKING A SUCCESSFUL SKETCH.

NOTE THAT THE BALLOON AND  
STRING ARE APPLIED EVEN INTO  
SKELETONS.

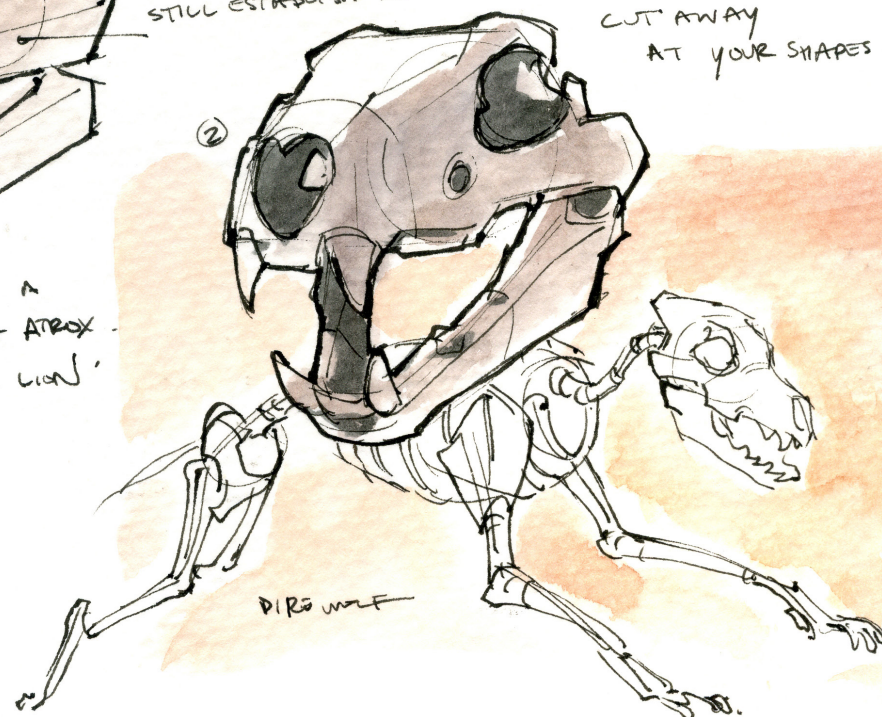
## THE APPROACH.



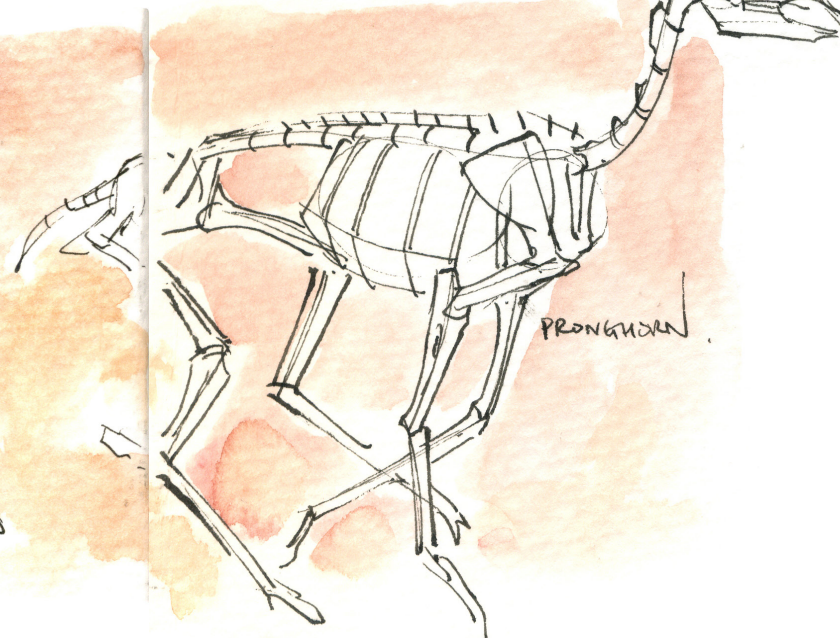
GEOMETRIC SHAPES ARE  
YOUR BEST FRIEND.  
STILL ESTABLISH THE CRANIUM

CUT AWAY  
AT YOUR SHAPES.

SKULL OF A  
PANTHERA ATROX -  
'AMERICAN LION'.



DIRE WOLF



PRONGHORN

③



CROSS HATCHING ON BONE WILL  
TAKE MILEAGE TO UNDERSTAND  
THE BEST APPROACH.

ESSENTIALLY I AM CROSS  
HATCHING AROUND THE FEATURES  
OF THIS SKULL.  
I STILL TRY TO COLLECT  
THE HATCHING INTO THE  
SHADOWS.

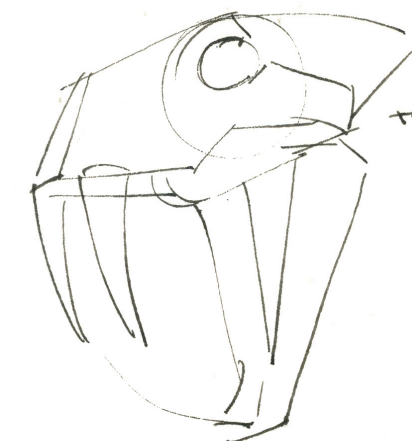
MOVE THE  
CROSS HATCH.

ESTABLISH DARKS.  
- IT DOESN'T MATTER  
WHICH WAY YOU  
HATCH TO FILL.



MOVING  
WITH THE  
CONTOUR.

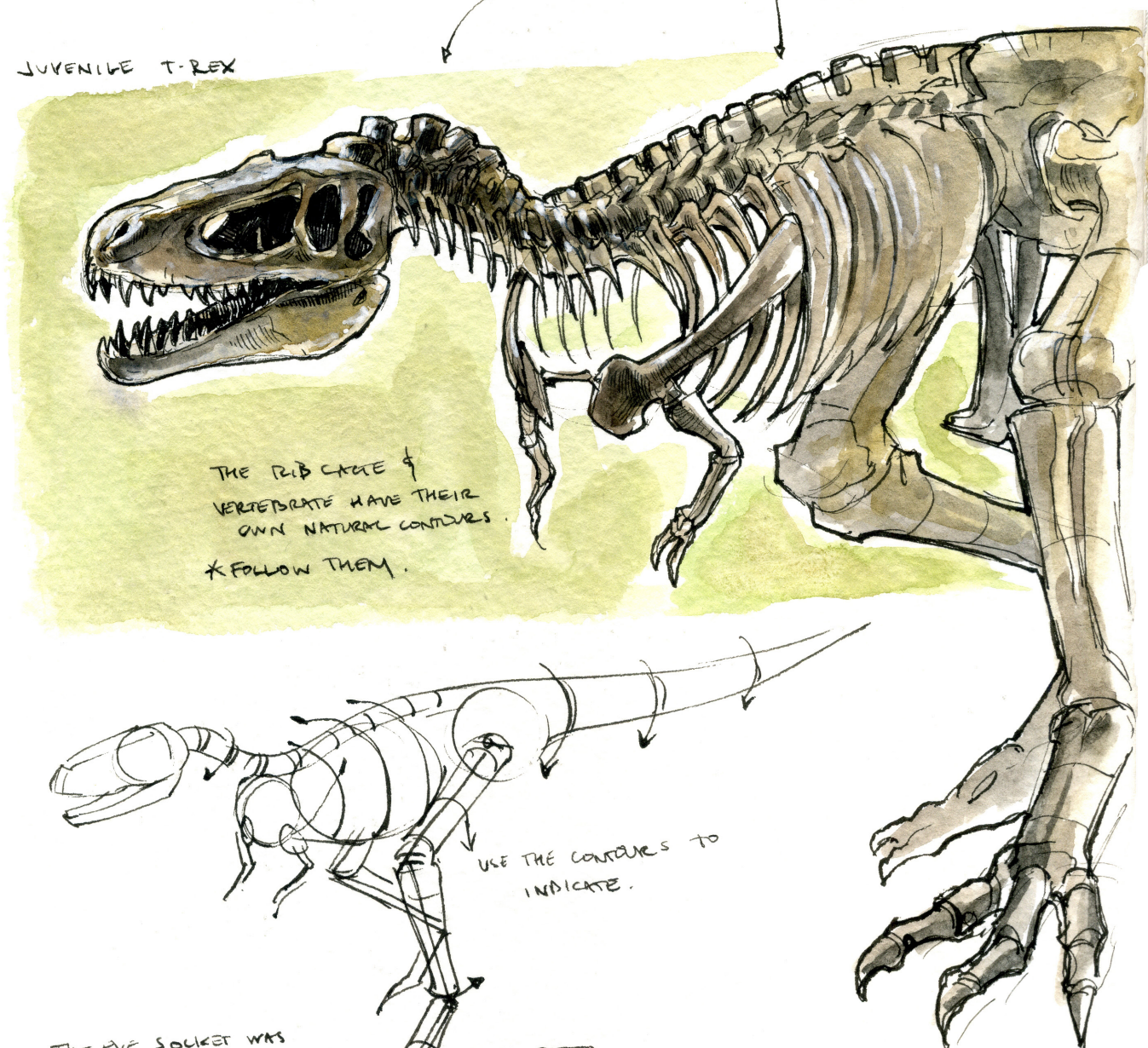
SMILODON



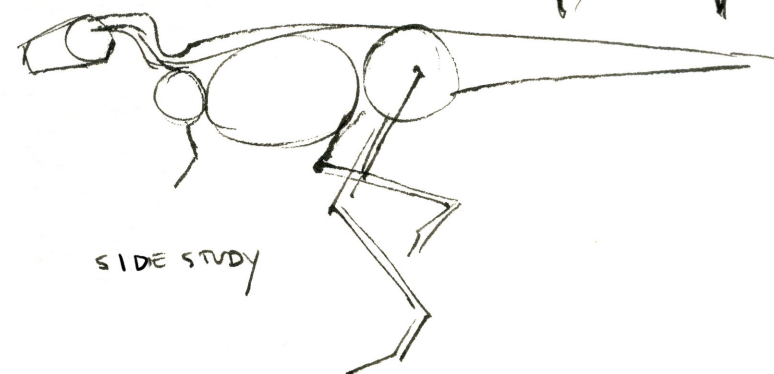
THE BASIC GEOMETRIC  
SHAPES.

WHEN YOU MOVE TO THE BODY  
STRUCTURE OF THE SKELETON,  
YOUR CONTOUR LINES WILL  
HELP THE MOST IN COMMUNICATING  
THE DETAIL.

JUVENILE T-REX



THE EYE SOCKET WAS ROUND AS A YOUNGLING, AND CHANGES INTO A KEY HOLE SHAPE AS IT AGES.



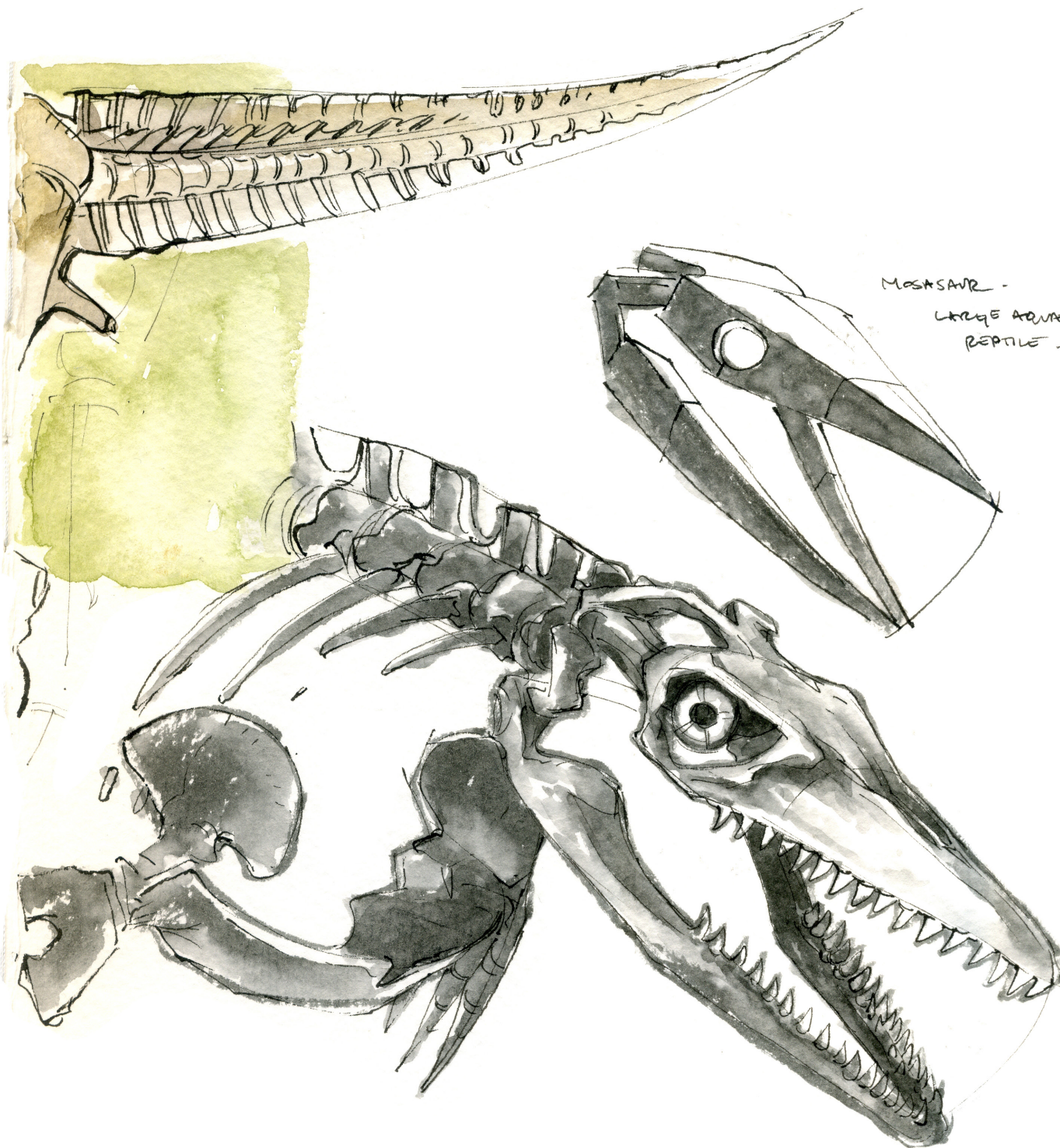
SIDE STUDY

NOTE HOW THE RIBS ARE INDIVIDUALLY DETAILED BUT GROUP TOGETHER AS IT RECESSES BACK IN DEPTH.

FOCAL POINT

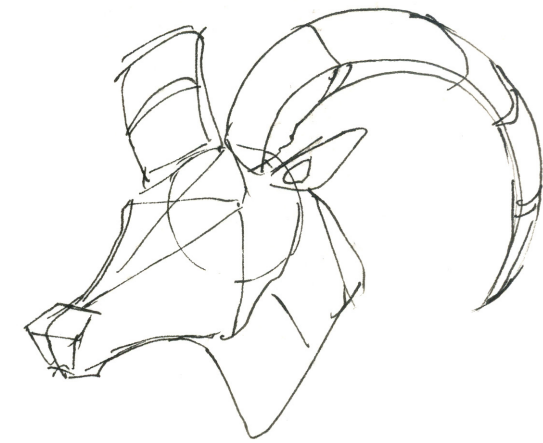
THE RIB CAGE & VERTEBRATE HAVE THEIR OWN NATURAL CONTOURS. \*FOLLOW THEM.

USE THE CONTOURS TO INDICATE.



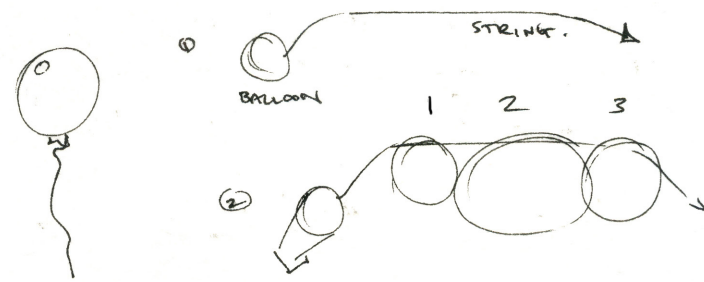
MOSASAUR - LARGE AQUATIC REPTILE.

L A N D A N I M A L S

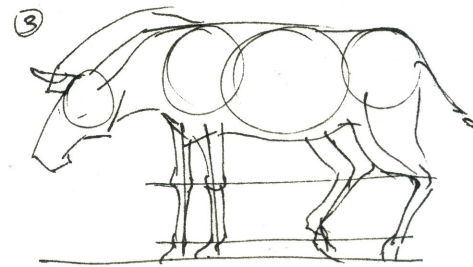


# L A N D A N I M A L S

MOVEMENT IS THE ISSUE,  
TO BE ABLE TO DRAW  
FROM OBSERVATION WHILE  
THE SUBJECT IS MOVING,  
IS IN SIMPLICITY.



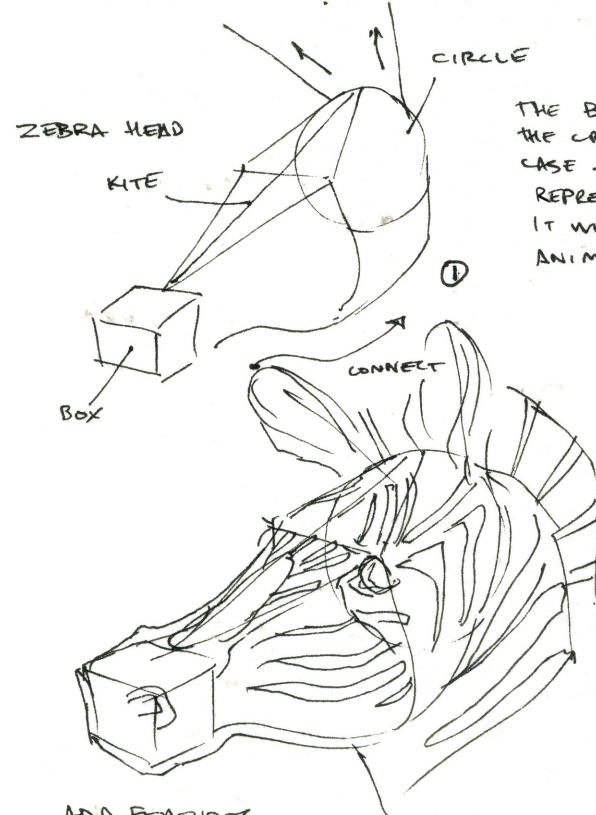
THE BALLOON ON THE  
STRING METHOD  
CAPTURES GESTURE  
AND PROPORTION  
QUICKLY.



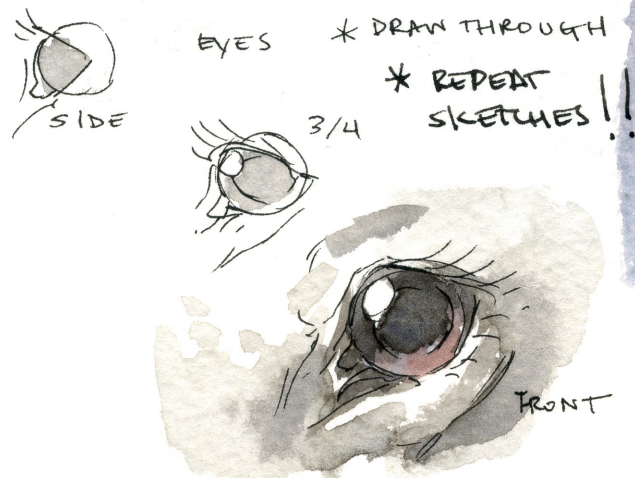
Z E B R A

THE BALLOON REPRESENTS  
THE CRANIUM, OR BRAIN  
CASE. THE STRING  
REPRESENTS THE SPINE.  
IT WORKS ON ALL  
ANIMALS.

HOW SIMPLE CAN YOU  
MAKE IT?



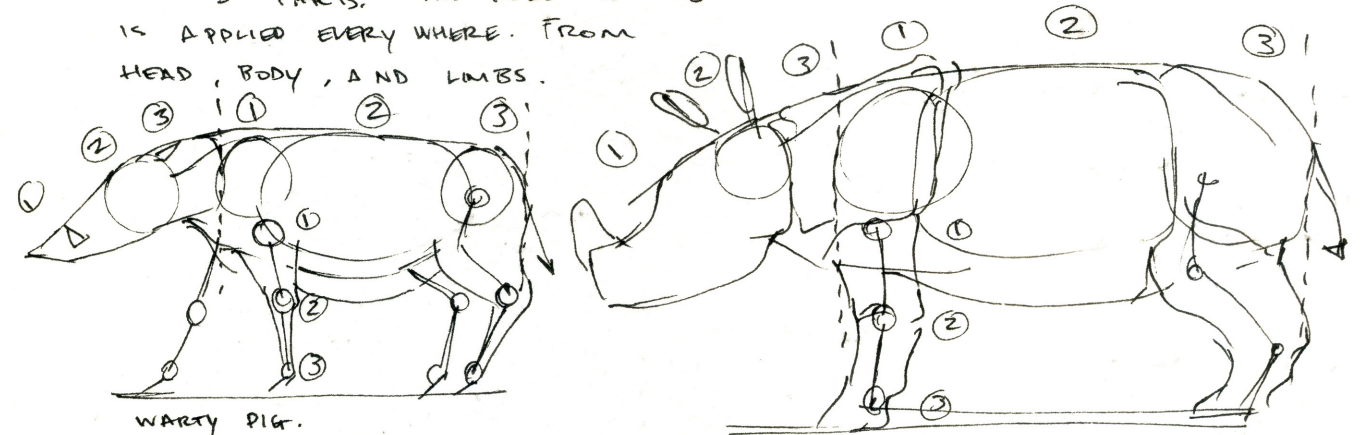
ADD FEATURES.



3

## THE RULES

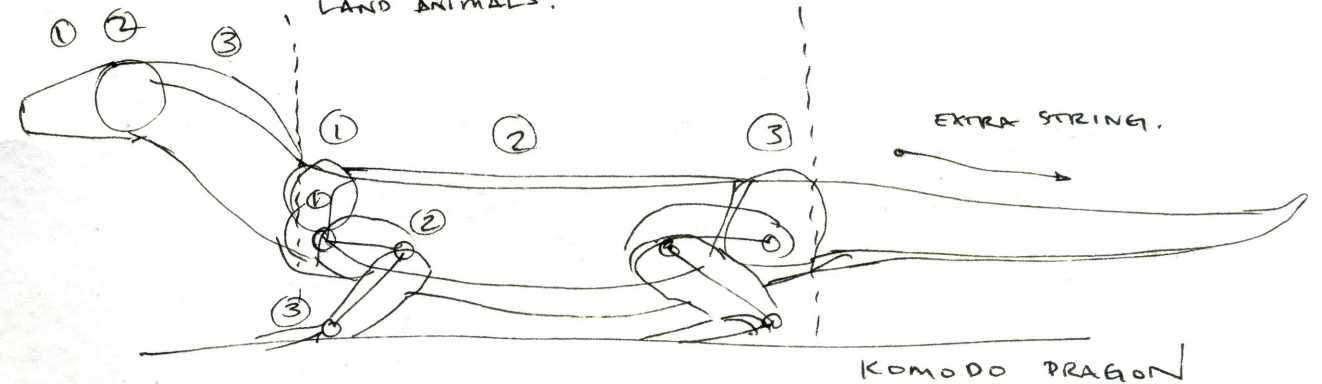
THE TORSO AND LIMBS ARE COMPRISED  
OF 3 PARTS. THE RULE OF 1/3  
IS APPLIED EVERY WHERE. FROM  
HEAD, BODY, AND LIMBS.



WARTY PIG.

RHINO 'INDIAN'

THIS APPLIES TO ALL  
LAND ANIMALS.

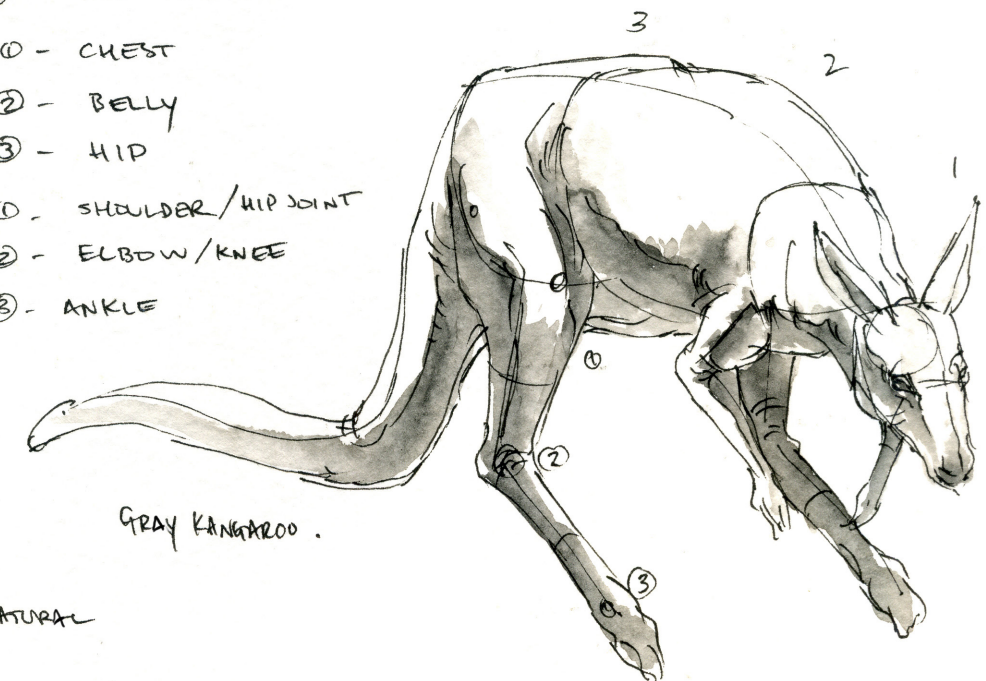


KOMODO DRAGON

HEAD. ① - REPRESENTS THE MUZZLE  
② - THE CRANIUM  
③ - THE NECK.

TORSO. ① - CHEST  
② - BELLY  
③ - HIP

LIMB. ① - SHOULDER/HIP JOINT  
② - ELBOW/KNEE  
③ - ANKLE



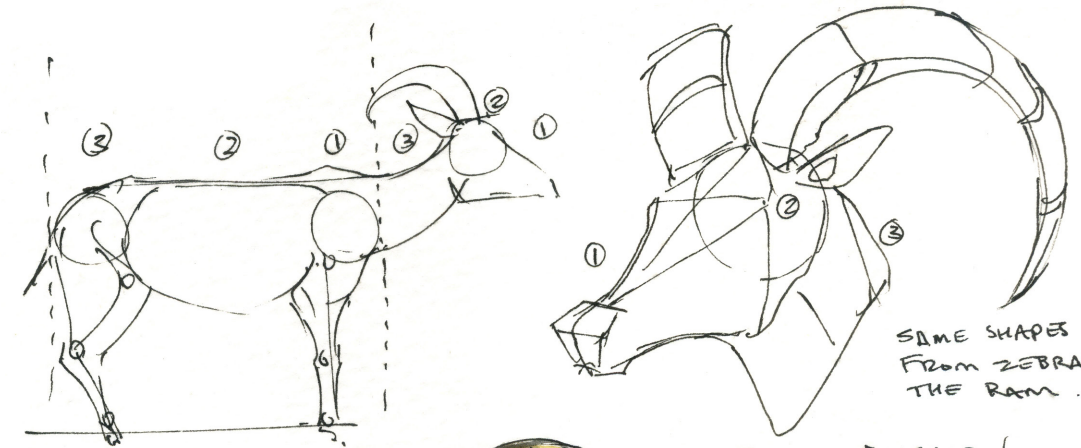
GRAY KANGAROO.

ZEBRA STRIPES  
BECOME THE NATURAL  
CONTOUR.

KOMODO DRAGON  
LARGEST LIZARD ON THE  
PLANET

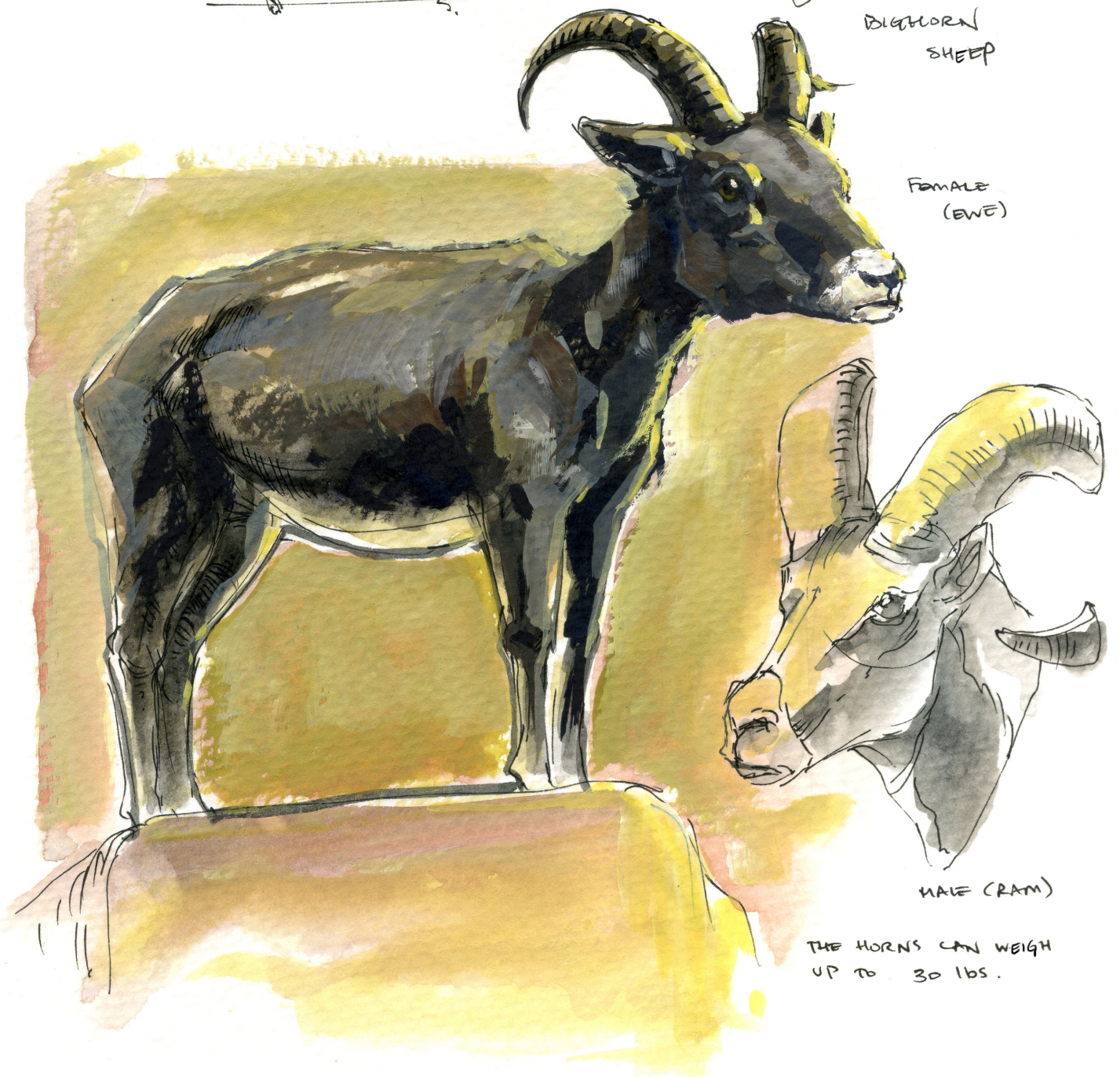


LOCATED ON  
SOUTH EAST  
INDONESIAN ISLANDS.



SAME SHAPES APPLIED  
FROM ZEBRA TO  
THE RAM.

BIGHORN  
SHEEP



FEMALE  
(EWE)

MALE (RAM)

THE HORNS CAN WEIGH  
UP TO 30 LBS.

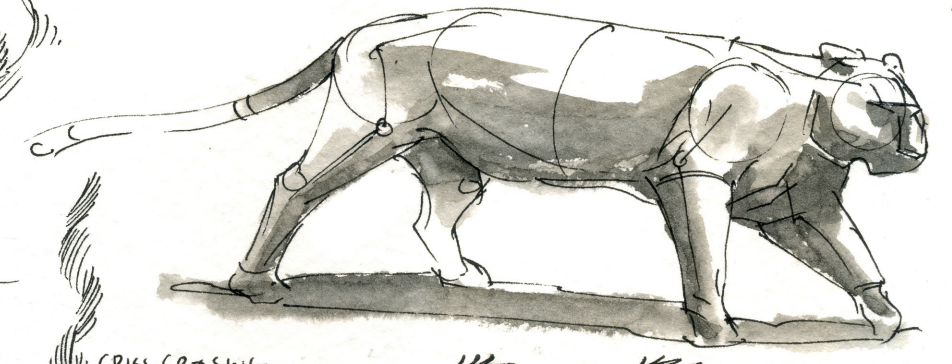
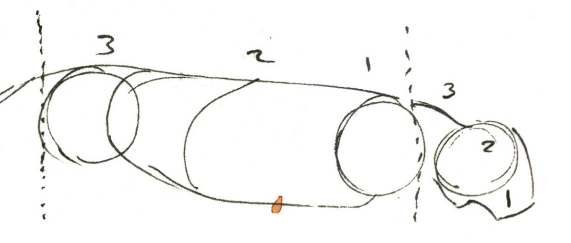


CHIMPANZEE ENCLOSURE



③

BLENDING FORMS .  
USING WRINKLES, FAT , MUSCLE  
AND FUR , YOU CAN MAKE  
THE SIMPLE SHAPES FEEL  
UNIFIED AND BLENDED .

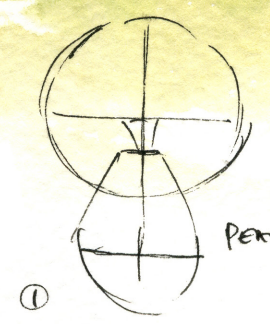


CRISS CROSSING  
MY HATCHING IN  
CURVES AND ARCHES

WAVE  
HAIR OR FUR IS INDICATED ON THE  
CREST OF THE WAVE PATTERN .



②



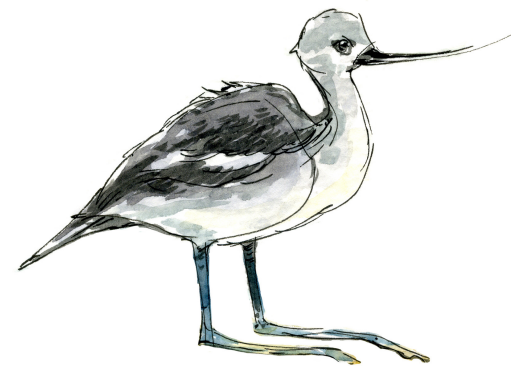
CIRCLE  
(CRANIUM)

PERR SHAPE

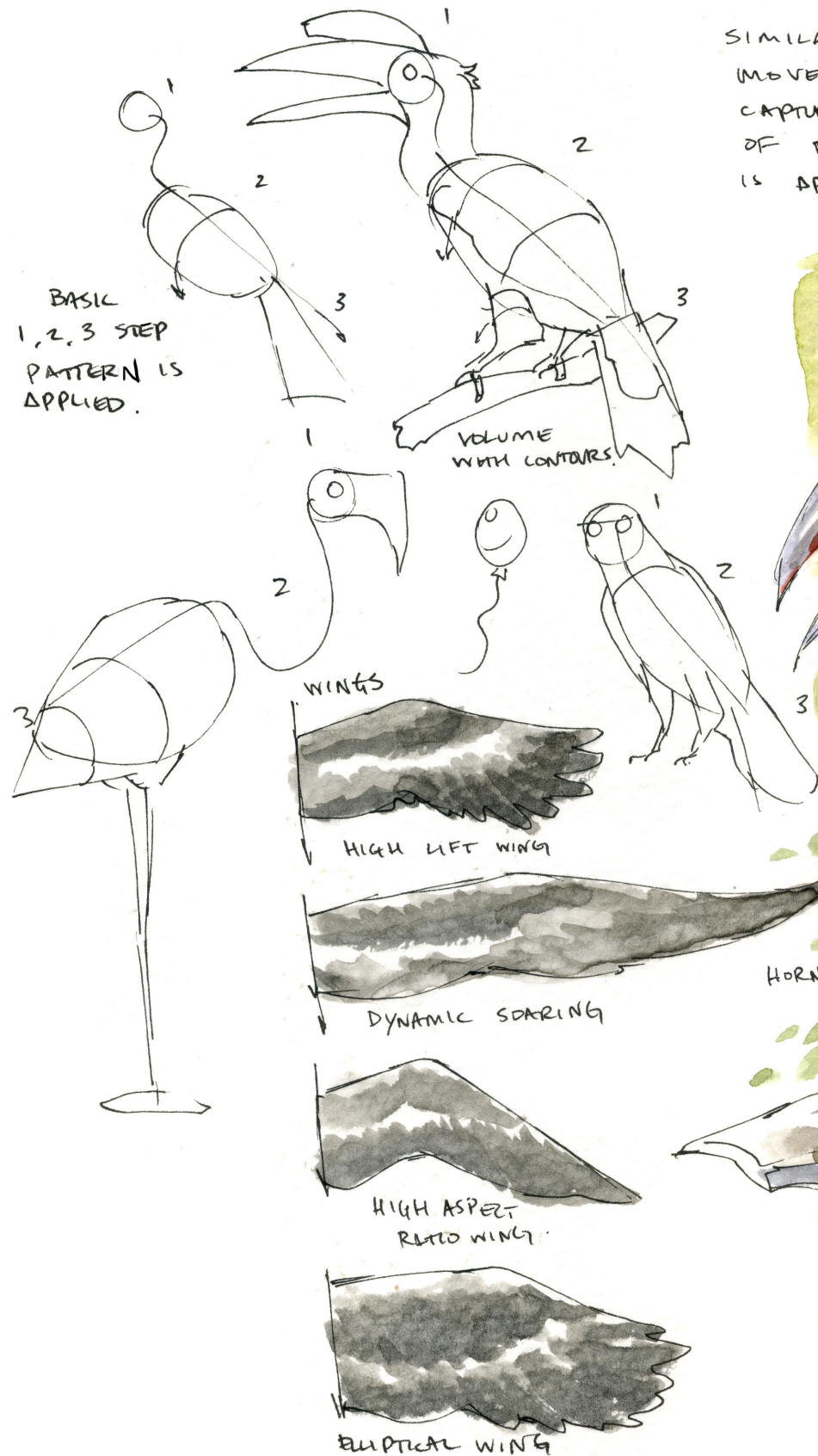
①

BENGAL TIGER

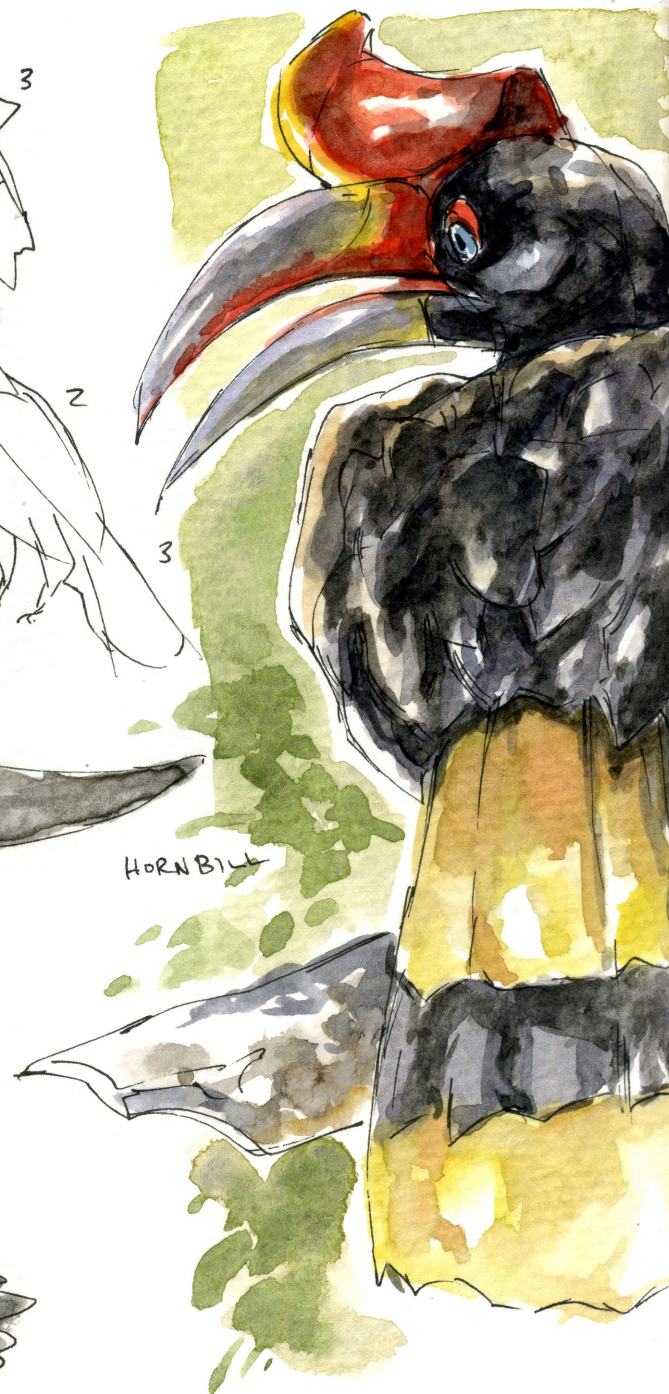
T H E     A V I A R Y



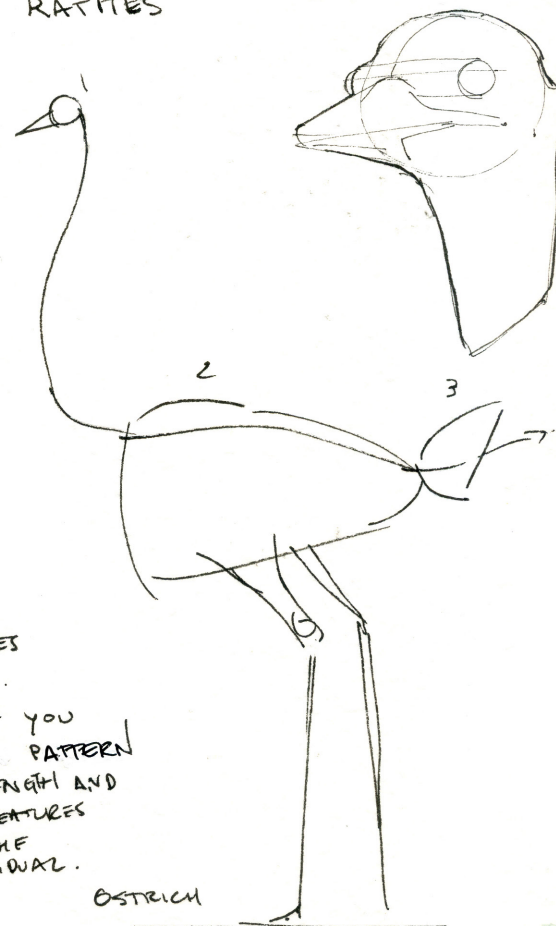
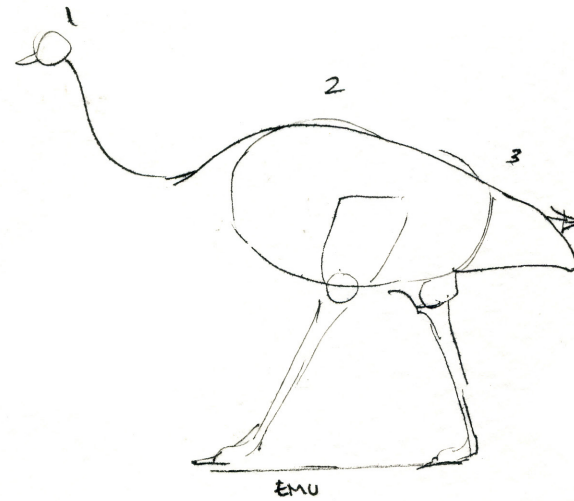
# THE AVIARY



SIMILAR TO LAND ANIMALS, MOVEMENT IS HARD TO CAPTURE. THE SIMPLE GESTURE OF BALLOON ON A STRING IS APPLIED.

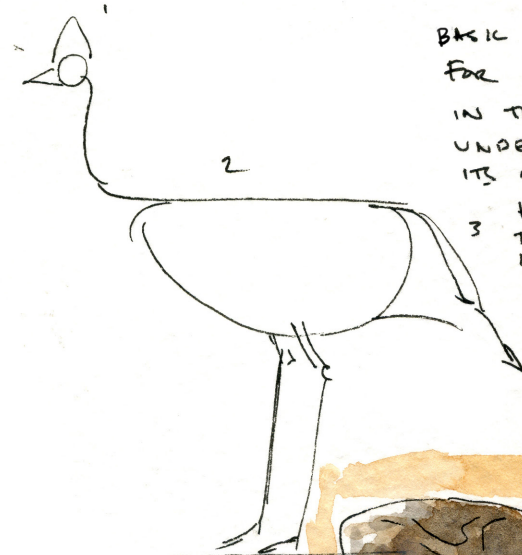


# GROUNDING BIRDS. RATITES



BASIC SIDE STUDIES FOR PROPORTION.

IN THE END, IF YOU UNDERSTAND THE PATTERN ITS ONLY THE LENGTH AND HEIGHT OF FEATURES THAT MAKE THE ANIMAL INDIVIDUAL.



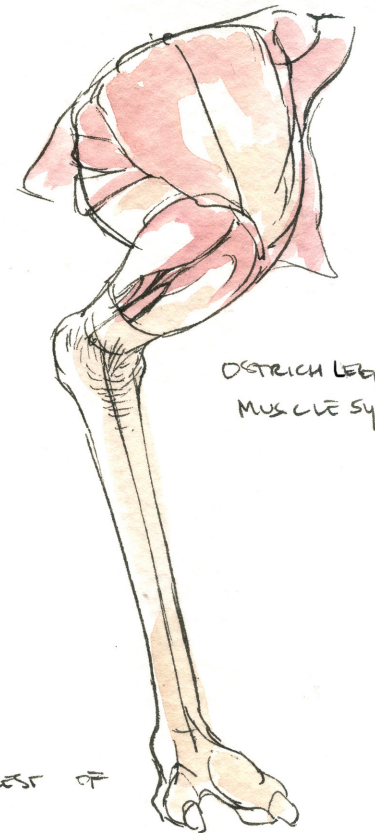
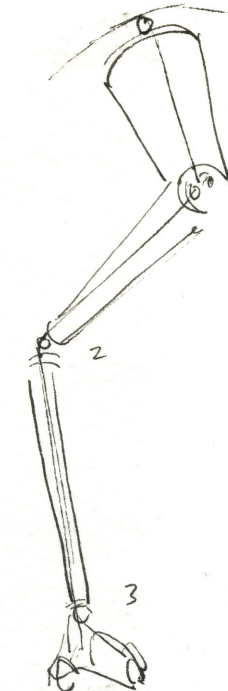
CASSOWARY



IF YOU CAN FIND A FORM, COLOR, OR ACTION UNIQUE TO THE ANIMAL, SLIGHT EXAGGERATION CAN HELP COMMUNICATING THE SKETCH TO THE VIEWER, OR MAKING A MORE ICONIC SKETCH.



KICKING ACTION.

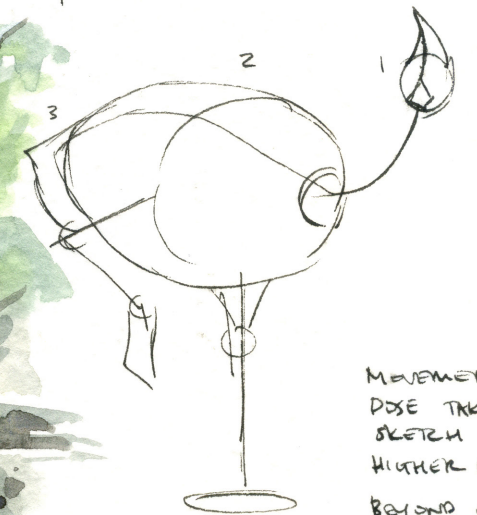


OSTRICH LEG MUSCLE SYSTEM.

THE DOUBLE WADDLED CASSOWARY.

A FLIGHTLESS BIRD FOUND IN TROPICAL FOREST OF NEW GUINEA AND AUSTRALIA.

3 EXTANT SPECIES, THE SOUTHERN CASSOWARY IS THE MOST COMMON.



MOVEMENT AND POSE TAKE THE SKETCH TO A HIGHER LEVEL.

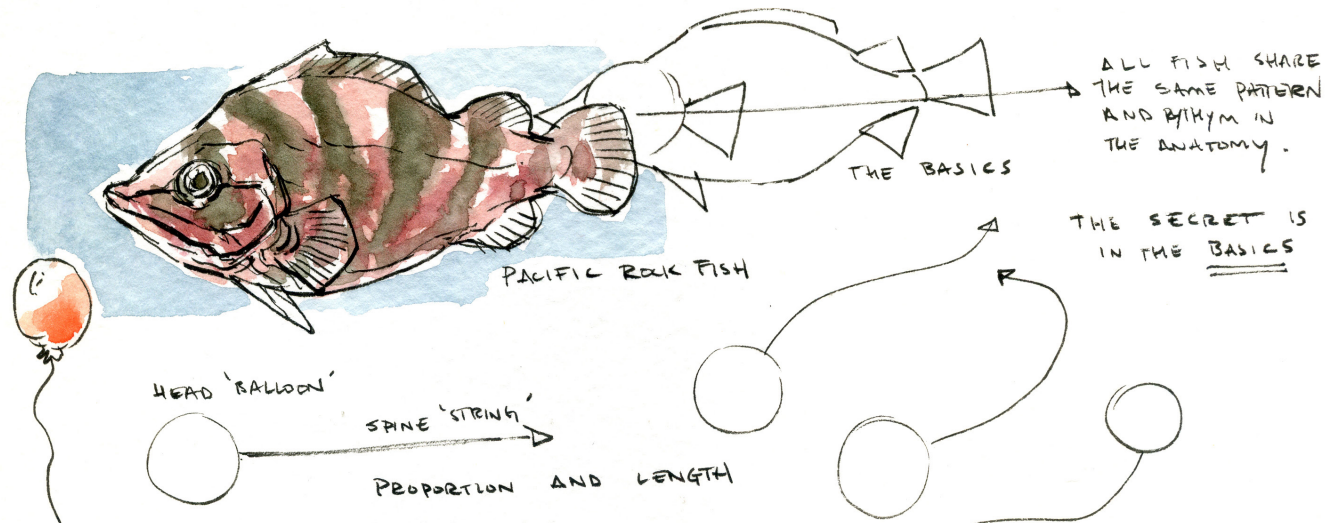
BEYOND COMMUNICATING PROPORTION AND SHAPE, THE FUNCTION AND ACTION GIVES LIFE TO A DRAWING.

FEEDING MAINLY ON FRUIT AND NUTS.

M A R I N E L I F E

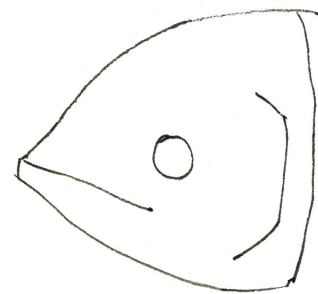


# M A R I N E L I F E



A SIDE STUDY IS IMPORTANT TO UNDERSTAND THE PROPORTION & FEATURES OF THE ANIMAL.

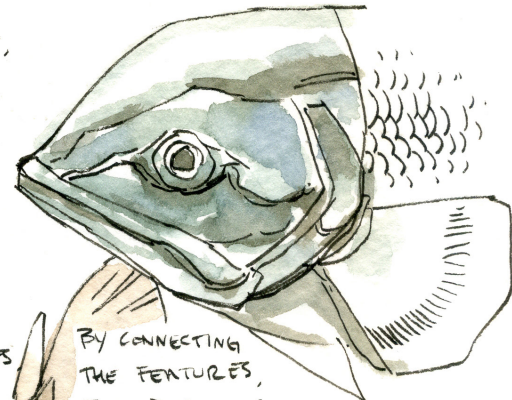
THE STRING GIVES THE GESTURE OF THE ANIMAL.



THE LIFELESS FACE, AVOID FLOATING ELEMENTS. SECURE THEM INTO THE FORM.

THE BASIC FEATURES OF THE HEAD.

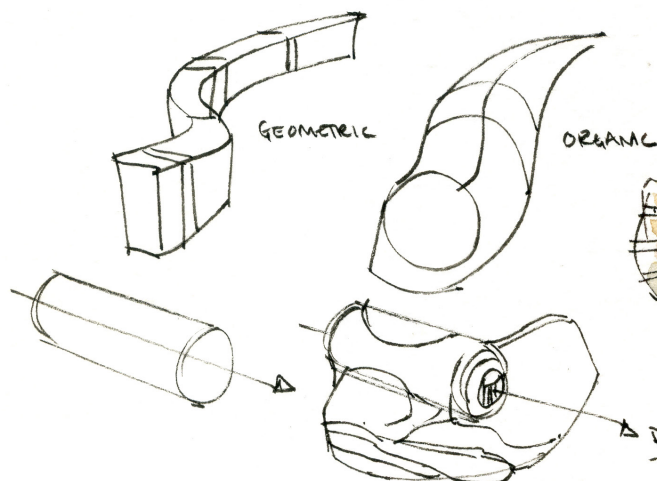
BY UNDERSTANDING THE BASIC SHAPES & FEATURES ALL THE INFORMATION CAN THEN BE APPLIED TO DIFFERENT VIEWS, AND DYNAMIC CAMERA ANGLES.



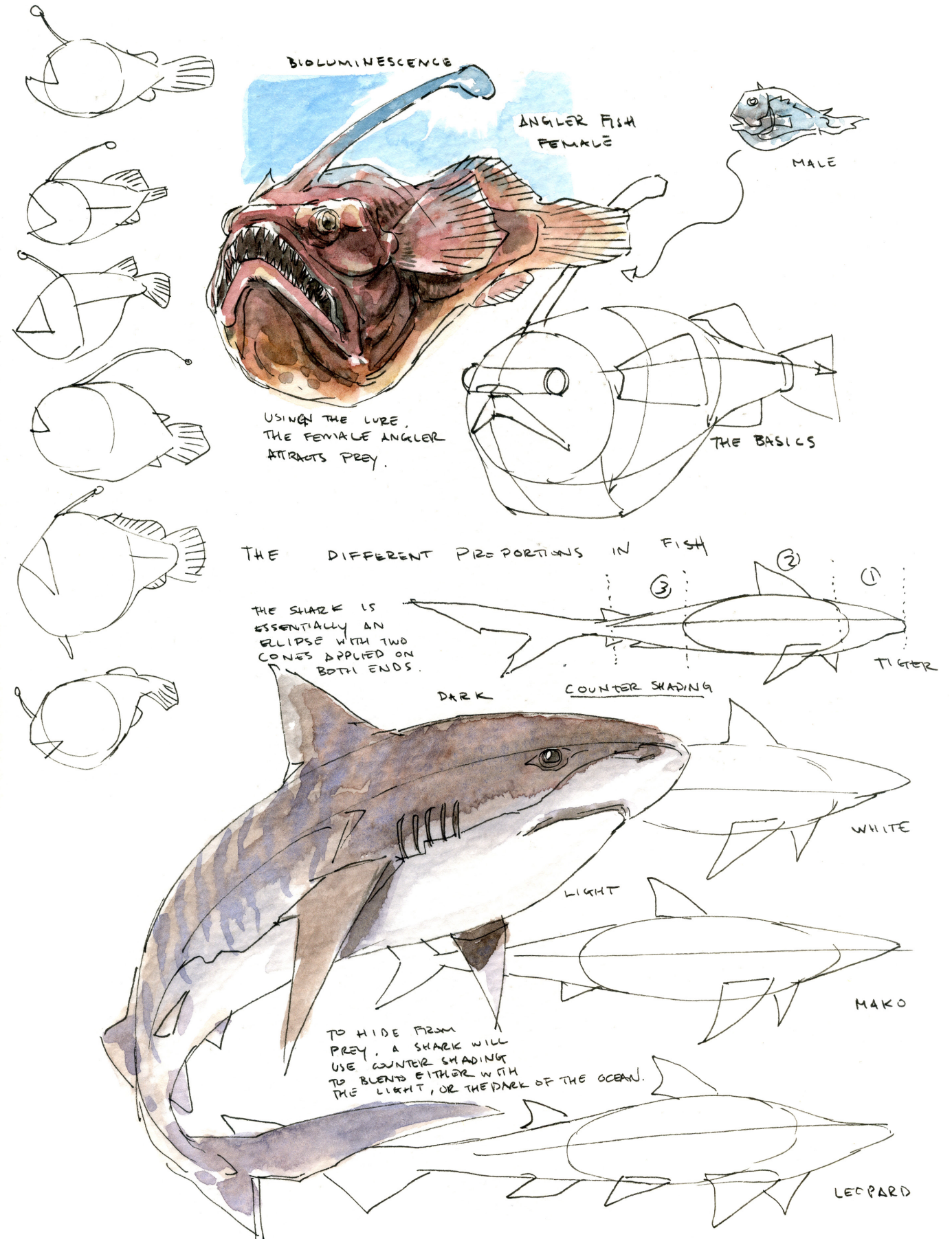
BY CONNECTING THE FEATURES, THE DETAIL IS BLENDED WITH THE FORM.

SCALES ONLY EXIST ON THE BODY OF THE FISH. THE HEAD IS PLATED.

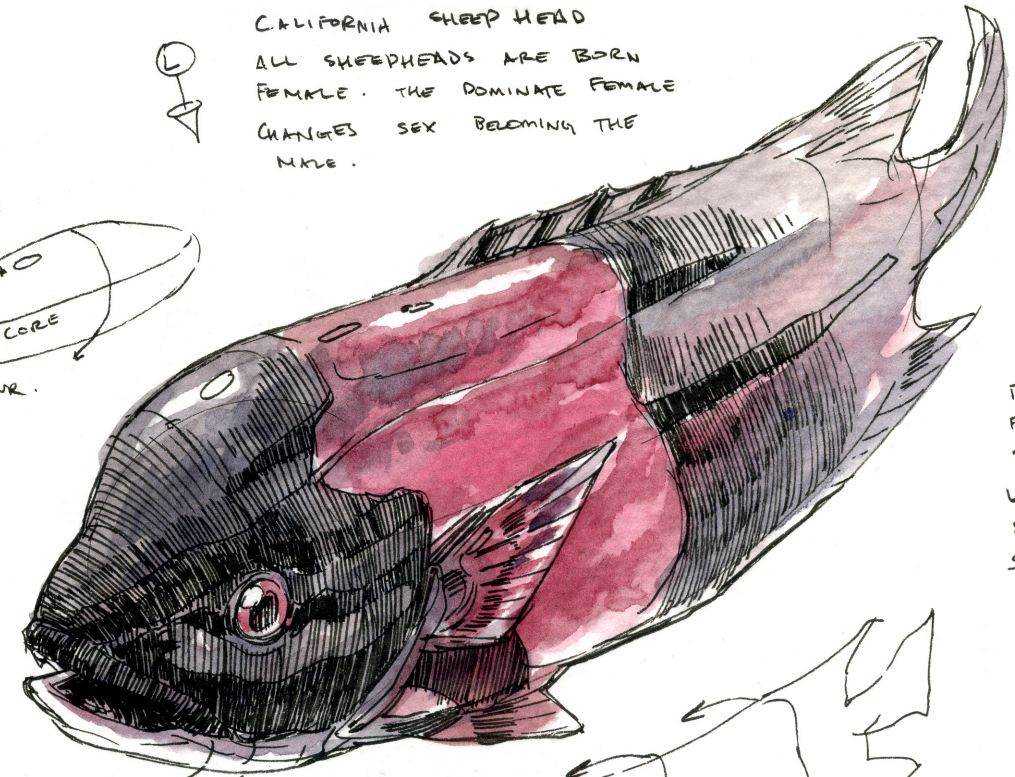
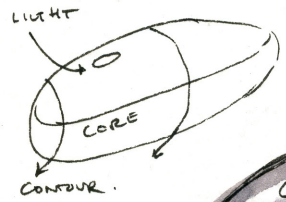
INTERPRETATION OF FORM



DRAW THROUGH WITH THE CYLINDER TO GET ACCURATE EYES.



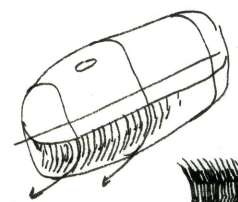
CALIFORNIA SHEEP HEAD  
ALL SHEEPHEADS ARE BORN  
FEMALE. THE DOMINATE FEMALE  
CHANGES SEX BECOMING THE  
MALE.



MALE.  
WITH RED COLOR

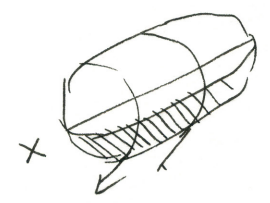
BEFORE CROSSHATCHING  
FIND YOUR LIGHT  
SOURCE.  
USE A LINE TO  
SEPERATE THE  
SHADOW.

USE A SIMPLE CROSSHATCH  
MOVING WITH THE CONTOUR  
TO FURTHER PUSH VOLUME.



THE CONTOURS GIVE YOU THE  
VOLUME OF THE FORM.  
THE NATURAL PATTERN OF  
AN ANIMAL CAN BE  
VOLUME CONTOUR.

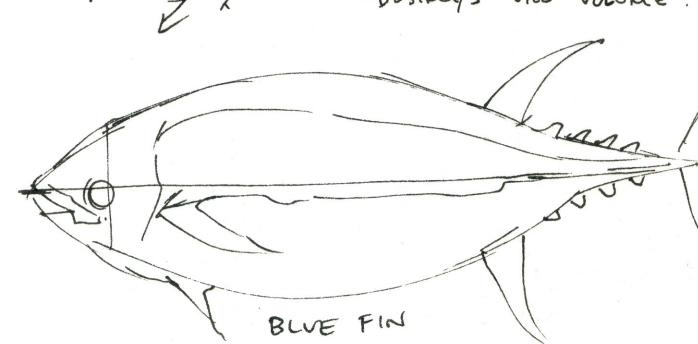
SHORT STROKES WITH THE  
CROSSHATCH. STACKING YOUR  
LINES.



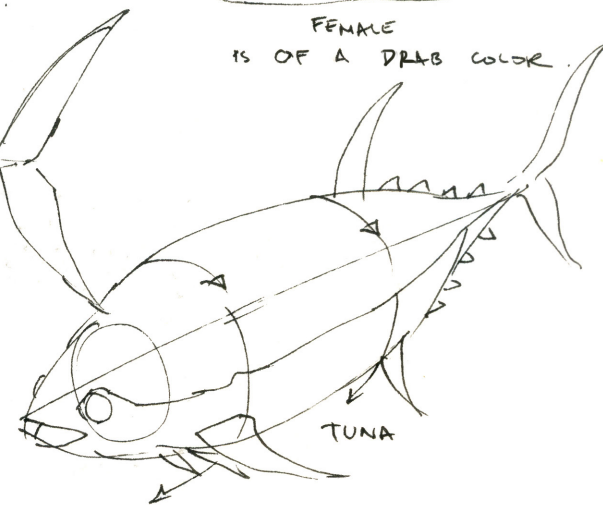
GOING IN THE OPPOSITE  
DIRECTION TO YOUR CONTOURS  
DESTROYS THE VOLUME.



FEMALE  
IS OF A DRAB COLOR.



BLUE FIN  
TUNA.



TUNA

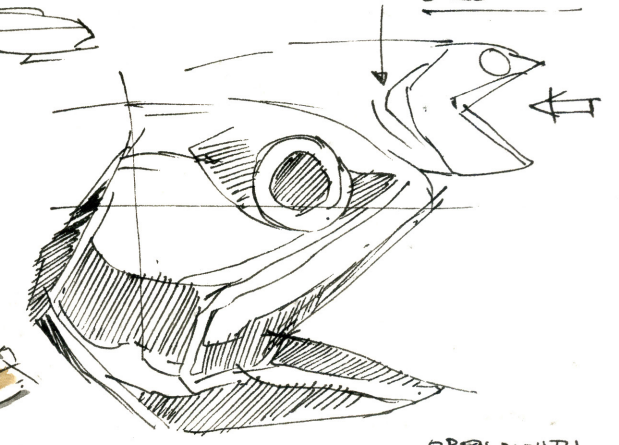
OBSERVATION AT MONTEREY BAY



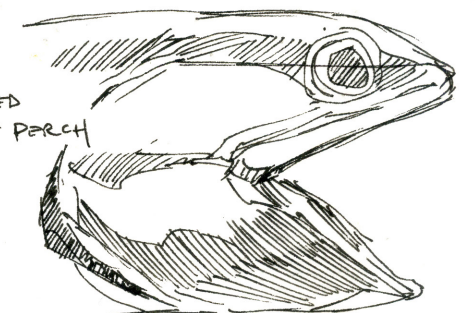
KELP FOREST



SARDINE



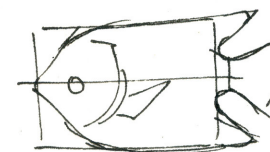
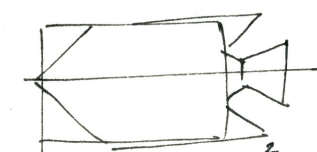
OPEN MOUTH



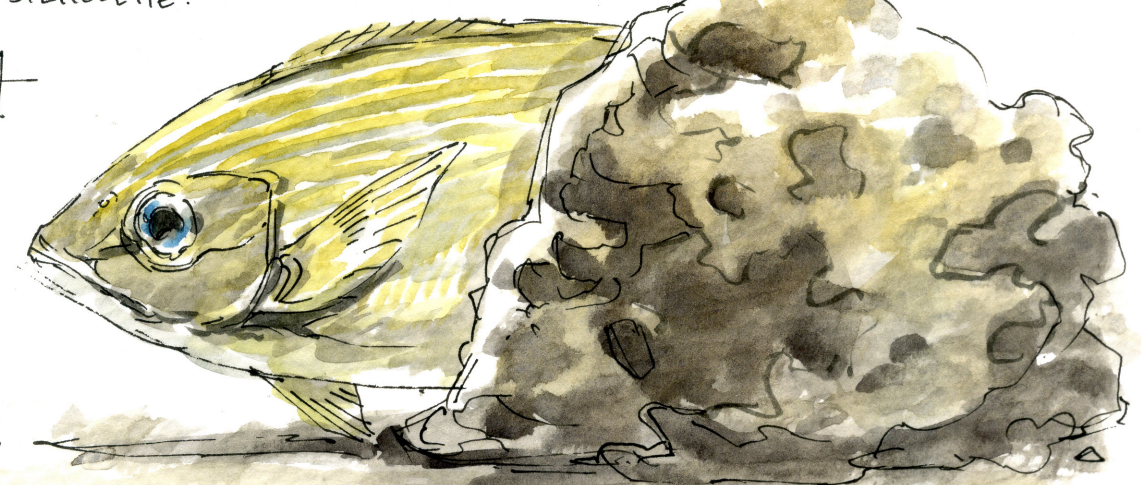
STRIPED  
SURF PERCH



START WITH GEOMETRIC SHAPES  
AND CUT AWAY TO GET THE  
SILHOUETTE.



ROUND OFF THE  
SQUARE FORMS

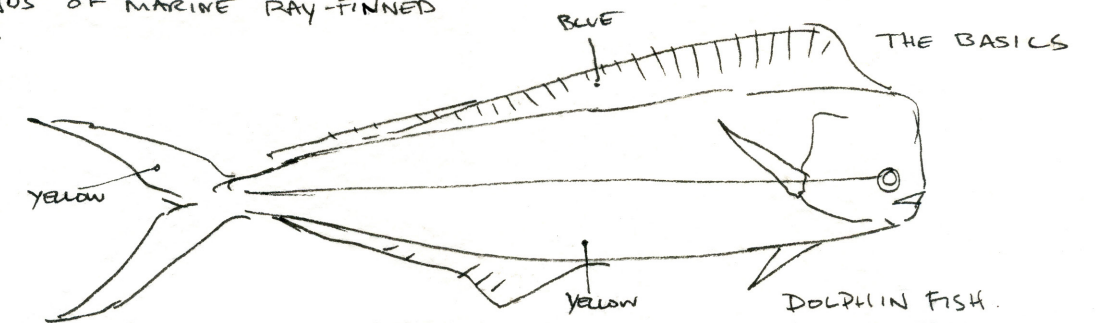


THEY MAKE SOUNDS BY  
GRINDING THEIR BETH.  
USING THEIR SWIM  
BLADDERS, THEY AMPIFY  
THIS SOUND.

FRENCH GRUNT  
'RONCO CONDENADO'

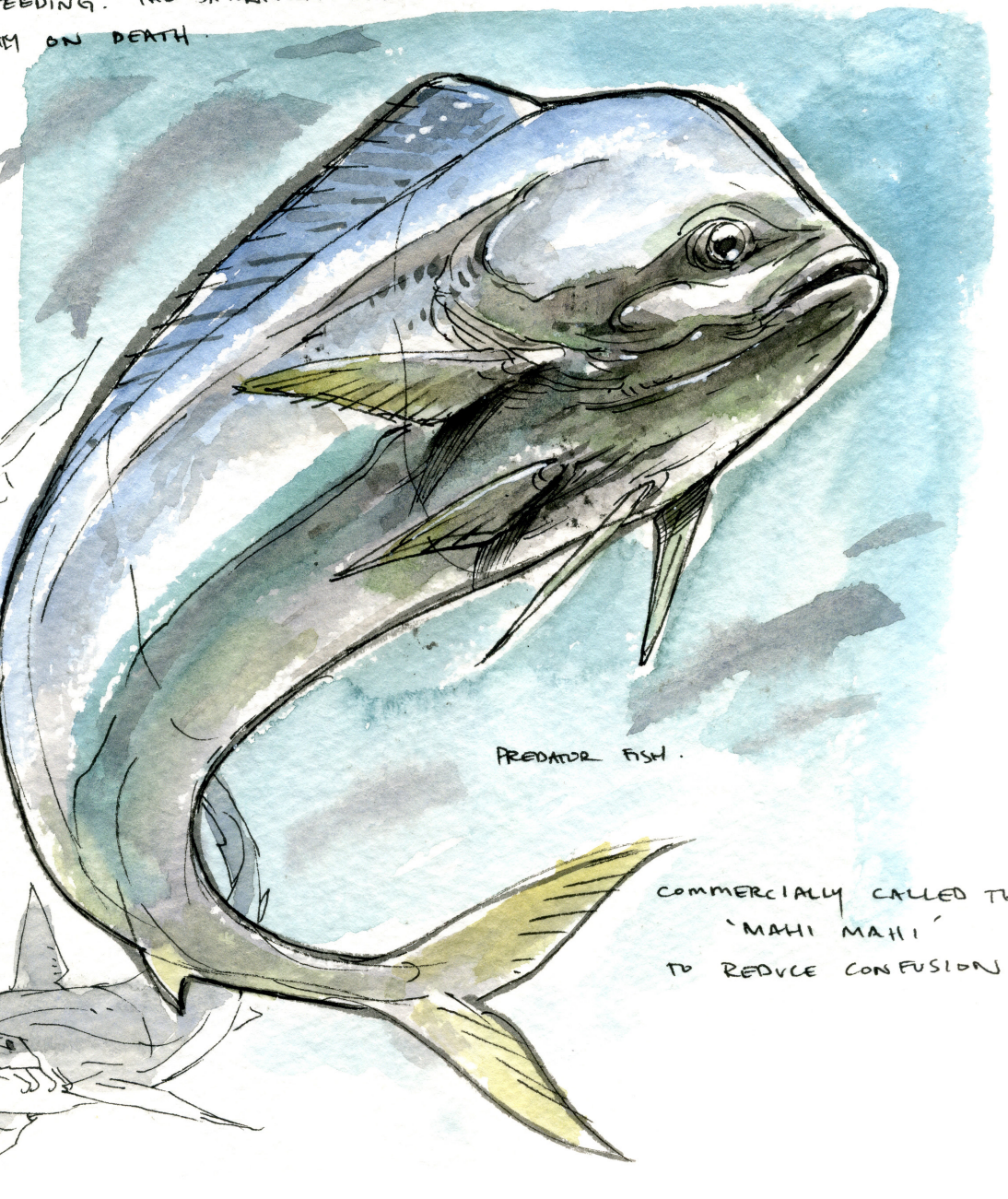
OBSERVATION AT MONTEREY BAY

A GENUS OF MARINE RAY-FINNED FISHES.



SHIFTING OF COLORS WHEN EXCITED OR FEEDING. THE SATURATION FADES INSTANTLY ON DEATH.

CORYPHAENA



COMMERCIALY CALLED THE 'MAHI MAHI' TO REDUCE CONFUSION.

OBSERVATION AT MONTEREY BAY

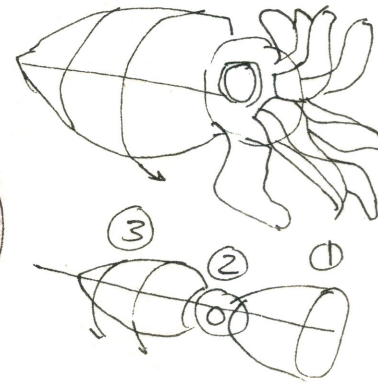
FLAMBOYANT CUTTLE FISH

METASEPIA PFEFFERI  
CEPHALOPODA

FOUND IN NORTHERN AUSTRALIA, SOUTHERN NEW GUINEA AND NUMEROUS ISLANDS OF SOUTH EAST ASIA.

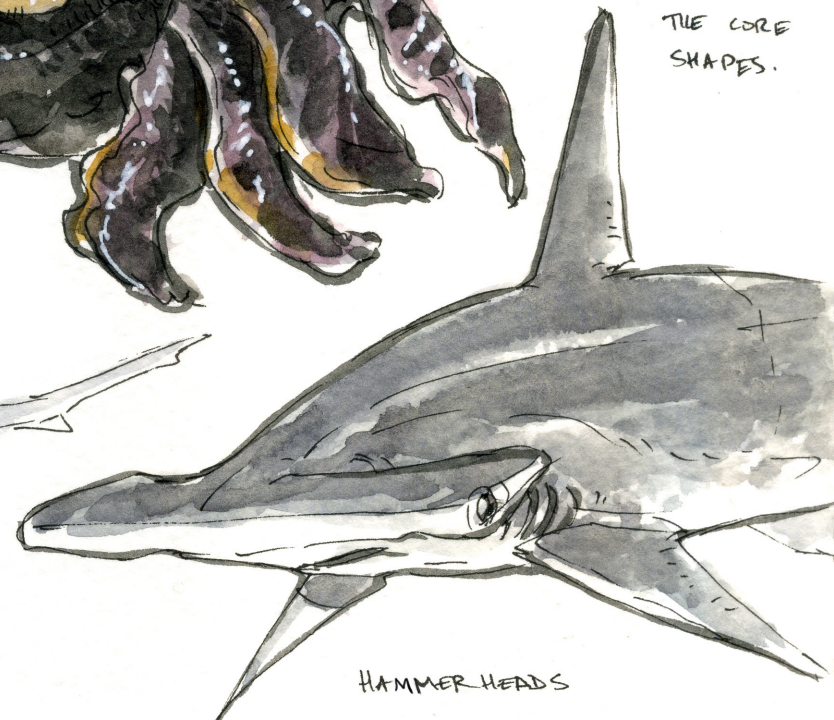
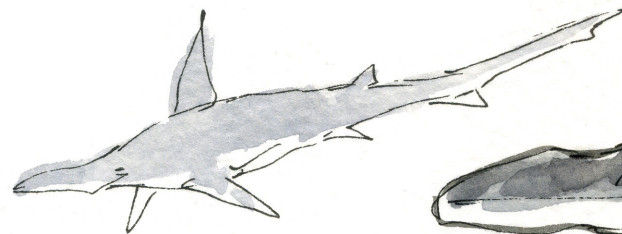


ONLY KNOWN CUTTLE FISH TO WALK ON THE SEA FLOOR.

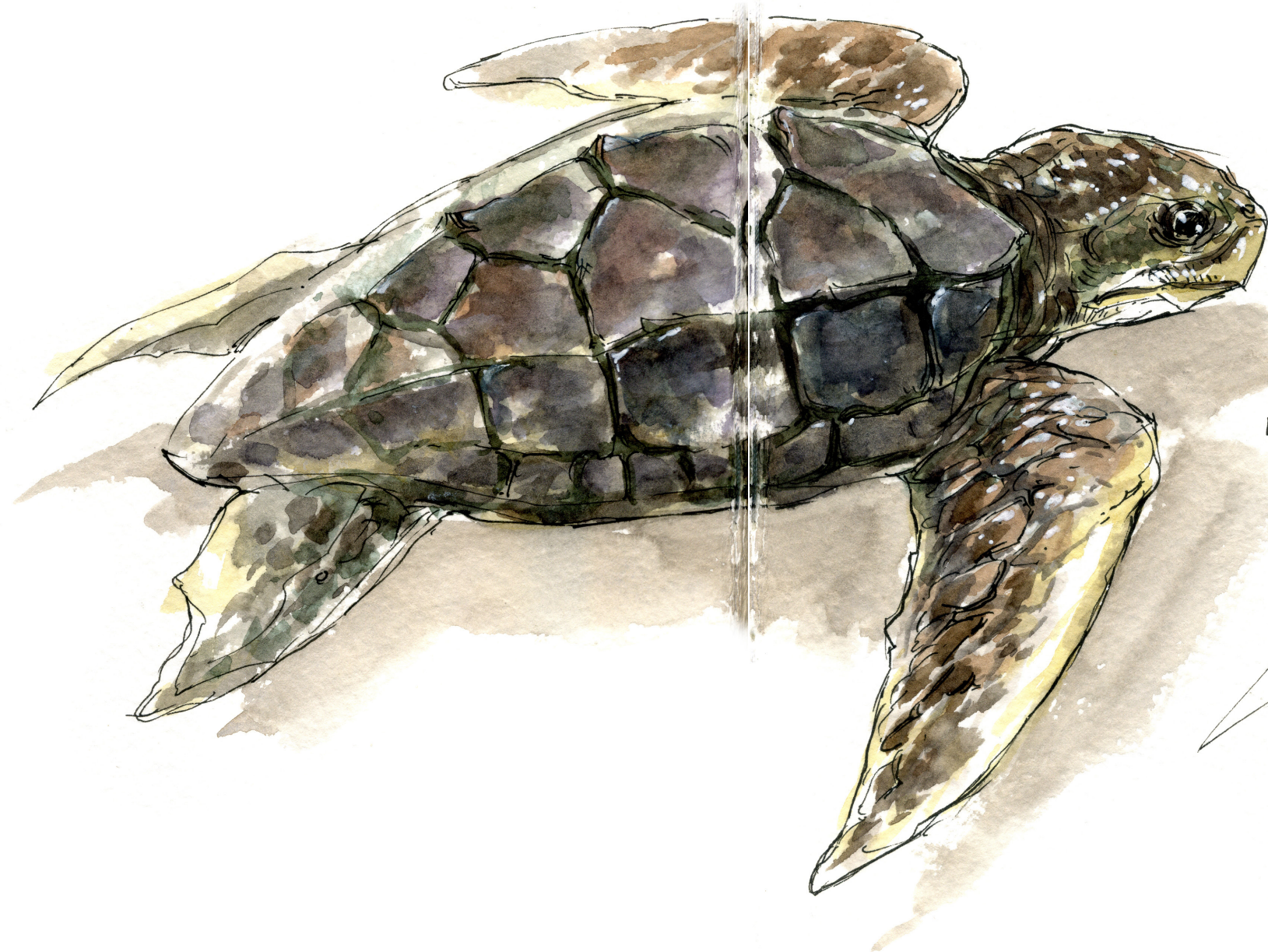


THE CORE SHAPES.

THE MUSCLE TISSUE IS HIGHLY TOXIC.  
THE THIRD ONLY CEPHALOPOD FOUND TO BE POISONOUS.



HAMMER HEADS

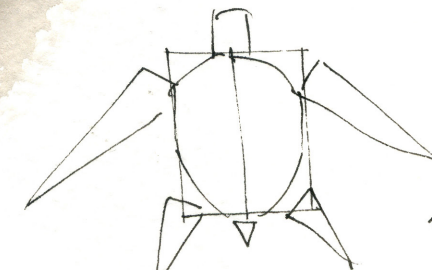


# LOGGERHEAD TURTLE

TORTUGA CAGLAIRAK

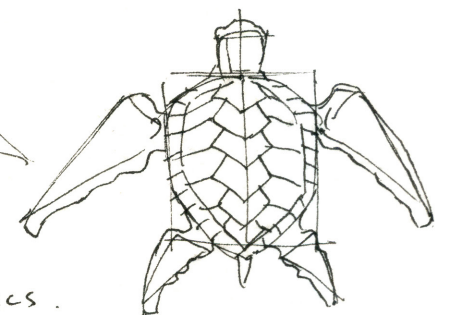
AN ADULT WEIGHS IN AT  
300 lbs.

A LIFESPAN OF 47-67 yrs.

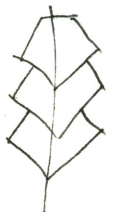


THE CORE BASICS.

- TRIANGLES.
- BOXES.



THE SHELL FORM.






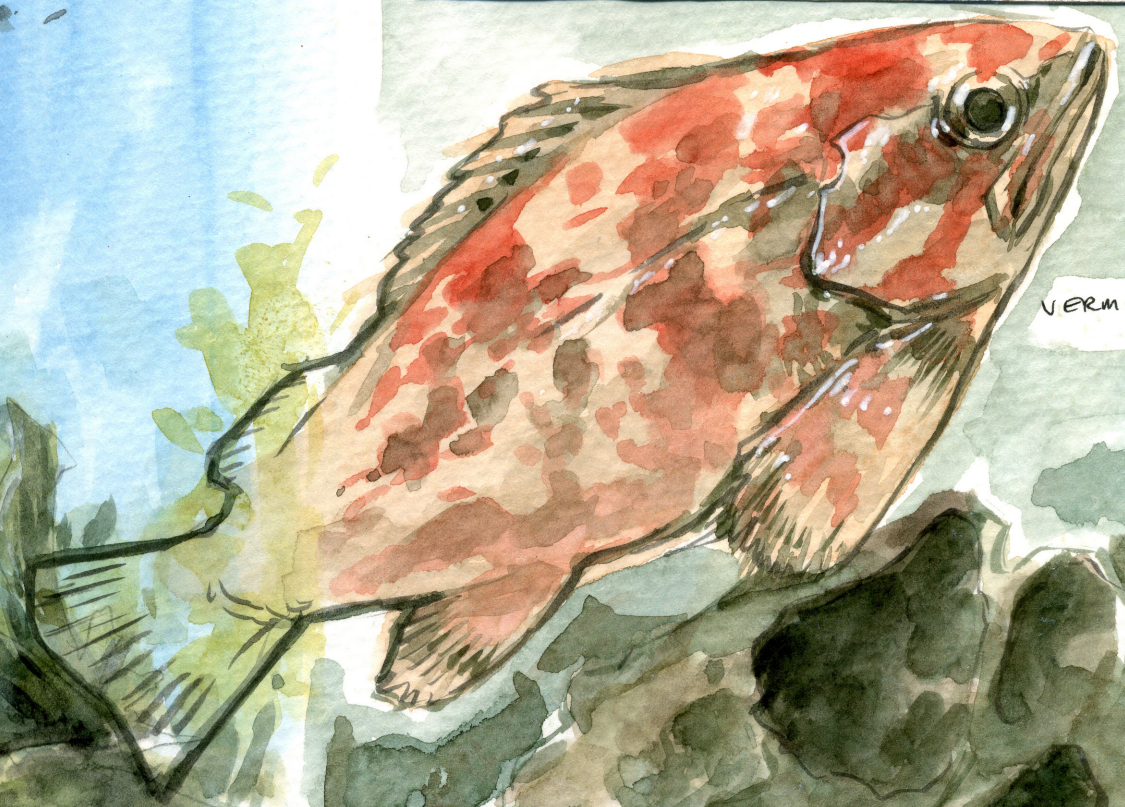
KELP FOREST

Valid Through July 31, 2016  
Valid For One Day Only

7/20/15	112:132229	Brady
No Refunds	Not for Resale	Order No: 536629



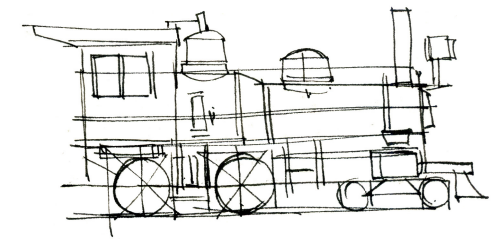
\* 1 2 0 0 7 2 0 1 5 1 9 5 5 8 \*



VERMILION  
ROCK FISH



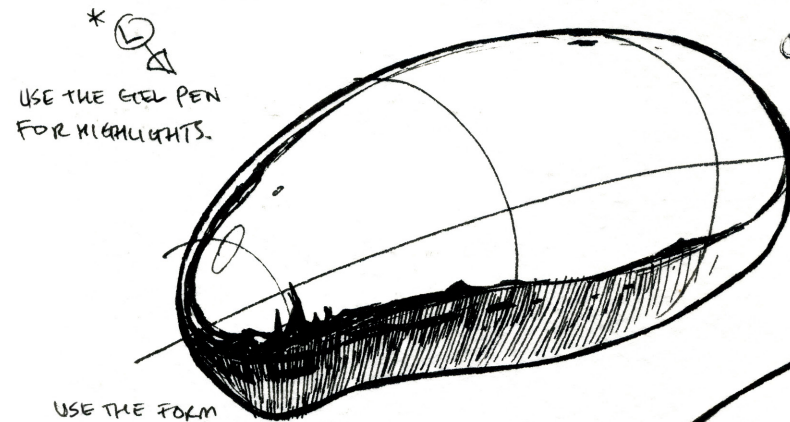
L O C O M O T I V E



# SURFACE DETAIL

WHETHER DEALING WITH ORGANIC OR MECHANICAL FORMS. THE SURFACE INFORMATION HAS TO BE CORRECTLY INDICATED, FOR IT TO READ AS A GLOSSY, ROUGH OR DULL SURFACE. THE TEXTURE WORK CAN BE CONSIDERED WITH THIS SECTION.

PRACTICE ON SIMPLE FORMS, APPLY ALL THE SAME LAYERS. CENTER LINE, CONTOUR, FORM SHADOW. AFTER, GET YOUR FOCAL POINT.



① SHINY / GLOSSY - SMOOTH SURFACE

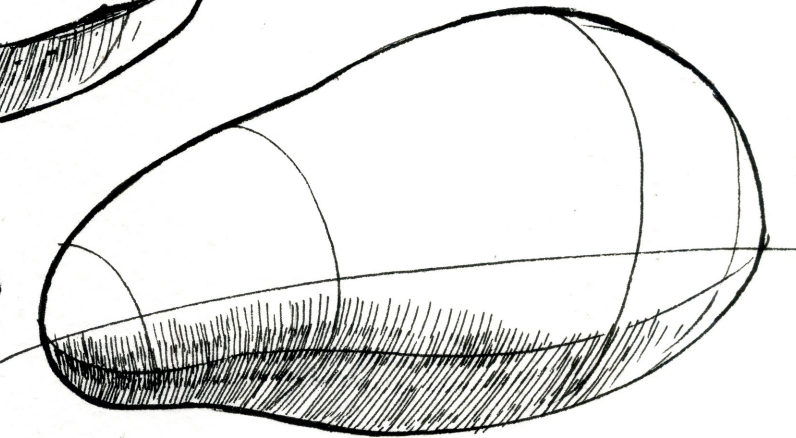
- HIGH CONTRAST
- SIMPLE CROSSHATCH GOING WITH THE FORM.

USE THE FORM SHADOW LINE AS THE HORIZON LINE REFLECTION.

SMOOTH SURFACE MATTE / DULL ②

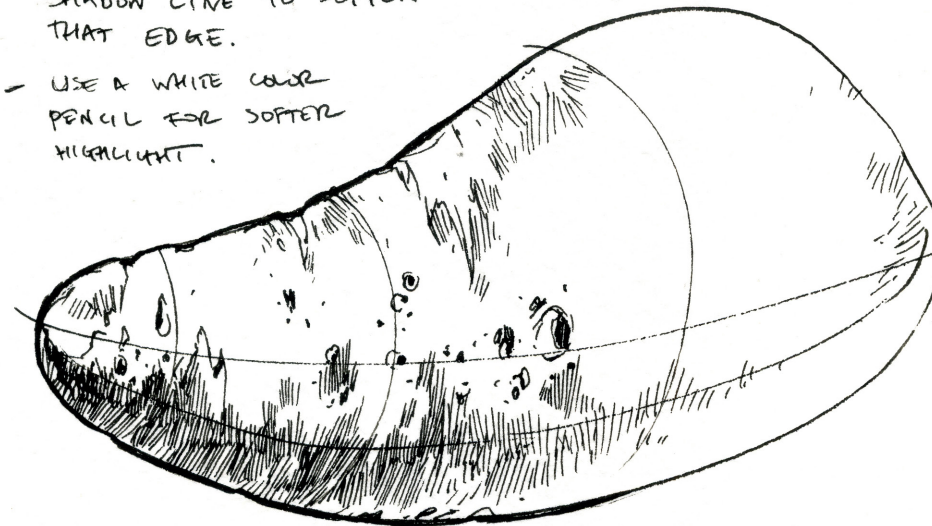
- LOWER CONTRAST
- STILL USING A SIMPLE CROSS HATCH.
- BLEND UP PAST THE FORM SHADOW LINE TO SOFTEN THAT EDGE.

- USE A WHITE COLOR PENCIL FOR SOFTER HIGHLIGHT.



③ WEATHERED / DULL

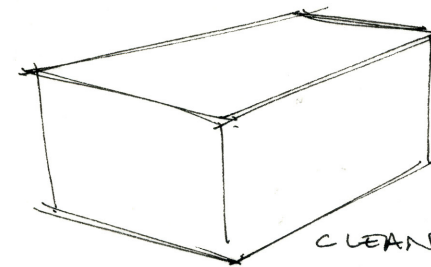
- USE AN ASSORTMENT OF CROSS HATCH INDICATION FOR A ROUGHER SURFACE.
- BUSTING, DENTS, SCRATCHES HOLES, PAINT WEAR ....
- USE A COMBINATION OF WHITE GEL PEN & COLOR PENCIL FOR VARIED EFFECTS.



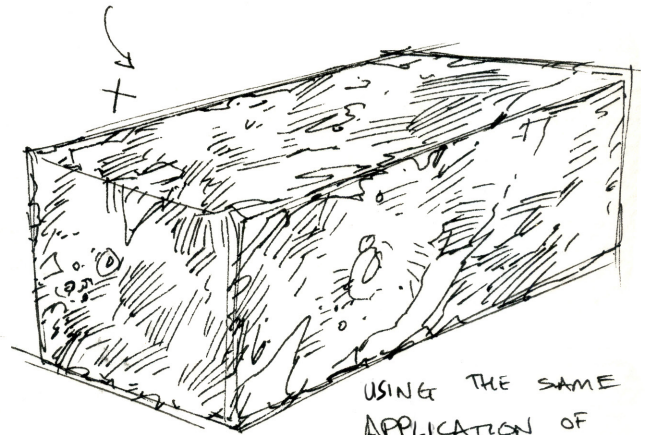
\* ④ LIGHT

# WEATHERING / DAMAGE

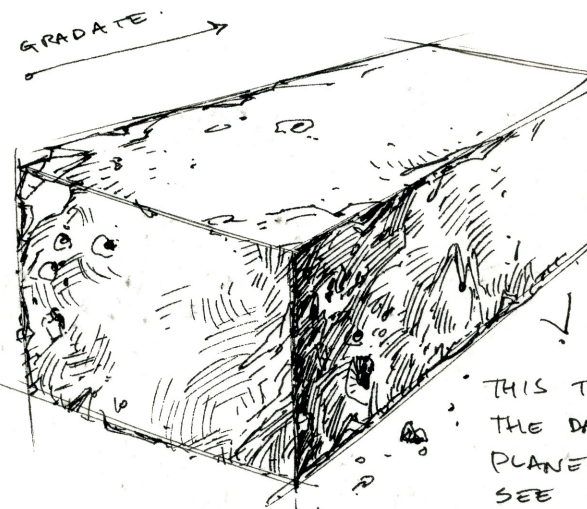
\* REFERENCE THE SURFACE DETAILS PAGE.



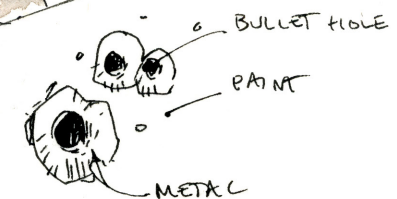
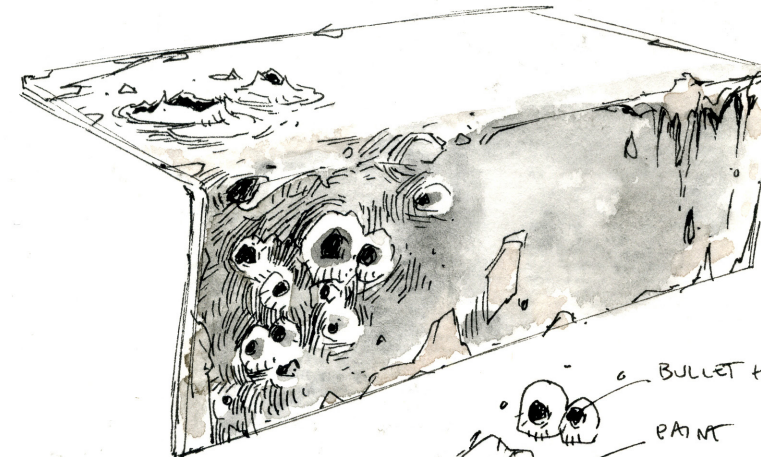
\* AN EXAMPLE OF A FLAT APPLICATION OF SURFACE WEATHERING.



USING THE SAME APPLICATION OF WEATHERING AND DAMAGE. HOWEVER FROM TOP / SIDE / FRONT IT IS TOO EVEN AND SIMILAR.



THIS TIME I CONTROLLED THE DAMAGE ON EACH PLANE TO BE ABLE TO SEE WITH MORE CLARITY. I ALSO TRY TO KEEP THE WEATHERING CLOSE TO THE EDGES OF SHAPE.

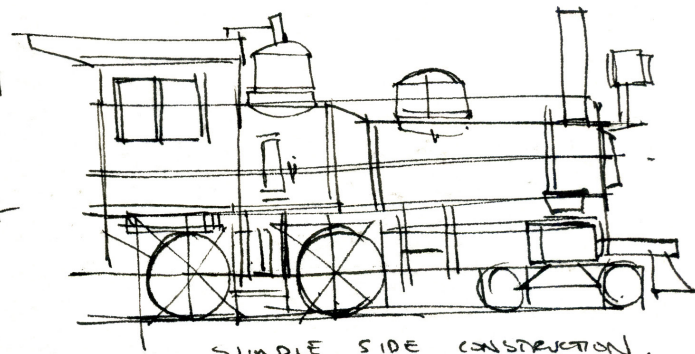


BULLET HOLES CAN BE EASILY INDICATED THROUGH THE USE OF SHAPE / CROSS HATCH / VALUE. START WITH AN INNER ELLIPSE, THEN A ROUNDED OR GEOMETRIC SHAPE ON TOP. THIS REPRESENTS THE BARE MATERIAL. CROSS HATCH A DARKER VALUE IN THE PAINT AREA.

# LOCOMOTIVES

MECHANICAL OR VEHICLE FORMS CAN BE AN INTIMIDATING STRUCTURE DUE TO ITS PERSPECTIVE AND HIGH LEVEL OF INFORMATION. HOWEVER, ONE MUST UNDERSTAND THAT THIS METHOD IS TO HELP YOU IN KNOWING HOW TO SEE SOMETHING AS ITS CORE BASIC SHAPES, AND NOT IN THE DETAILS. DRAWING AN ANIMAL OR A TRAIN IS NO DIFFERENT IF YOU UNDERSTAND THE SHAPES AND PATTERN OF FORM.

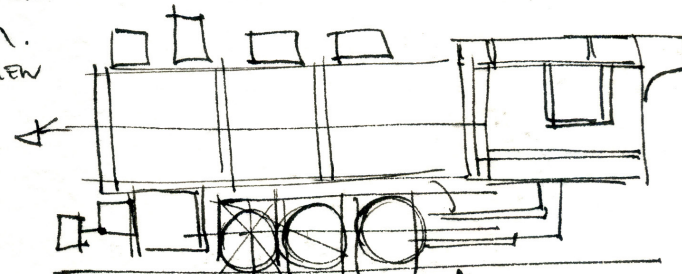
ALWAYS START WITH THE SIDE VIEW TO UNDERSTAND THE PROPORTION AND SHAPE LANGUAGE.



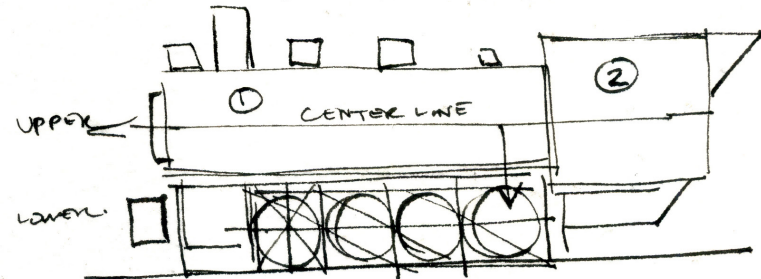
SIMPLE SIDE CONSTRUCTION.

"RENO" CIRCA 1910

VIRGINIA & TRUCKEE RAILROAD NO. 11  
BUILT IN 1872. PENNSYLVANIA.



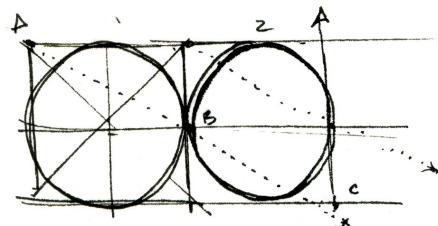
SIDE CONSTRUCTION



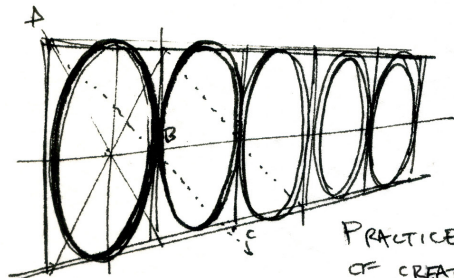
① PLACE DOWN THE CENTER LINE. CREATE THE FORM OF THE BOILER AS YOUR FIRST SHAPE. WORK LARGE TO SMALL.

② THE CAB IS YOUR SECOND SHAPE TO COMPLETE THE UPPER PART OF THE VEHICLE. MOVE DOWN TO THE WHEELS AFTER.

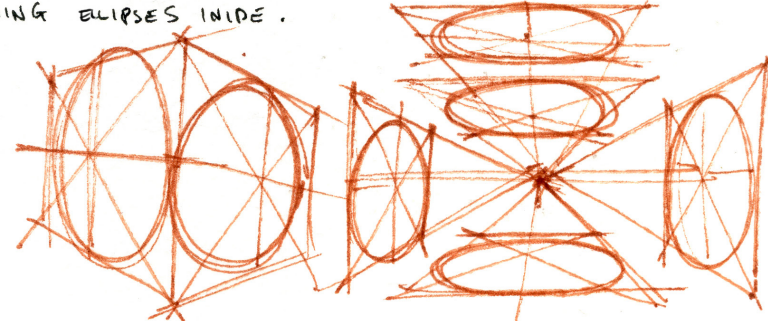
## THE WHEEL.



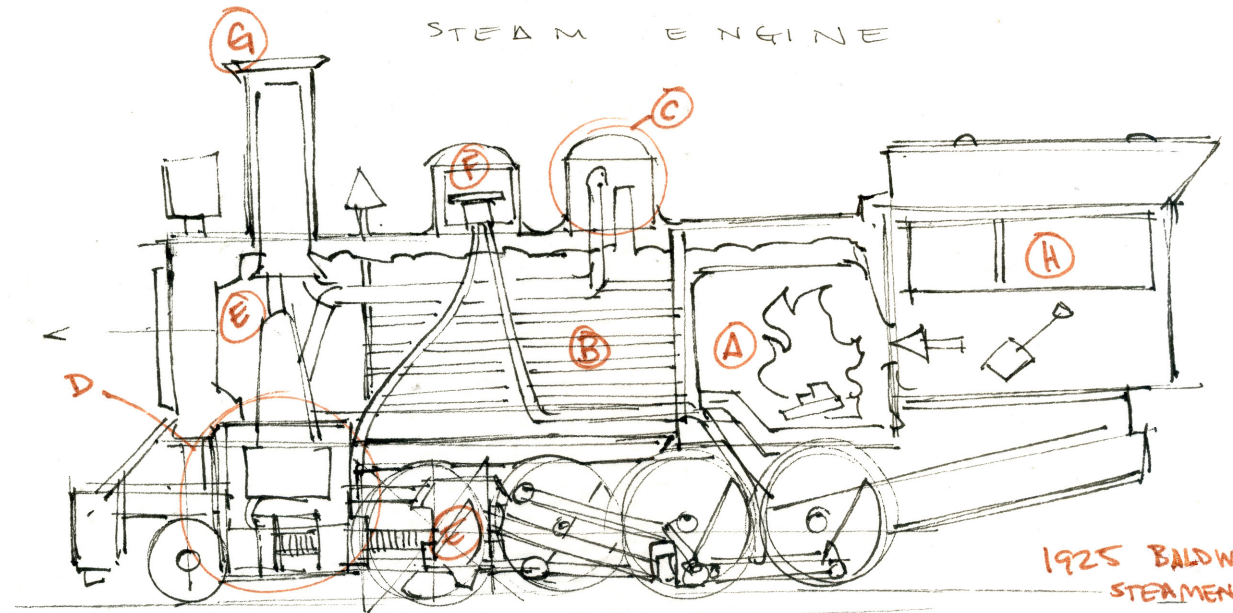
CREATE A BOX TO GET YOUR WHEEL AND SEQUENCE OF ELLIPSES.



PRACTICE THIS EXERCISE OF CREATING PLANES AND DRAWING ELLIPSES INSIDE.



## DISSECTION OF A STEAM ENGINE



1925 BALDWIN STEAMENGINE

① FIREBOX. WHERE THE FUEL IS BURNED TO GENERATE HEAT.

② BOILER. HOT GASES ARE PULLED THROUGH A RACK OF TUBES IN THE BOILER. THE TUBES HEAT THE WATER THAT SURROUND THEM TO PRODUCE STEAM. IT COLLECTS IN THE STEAM DOME.

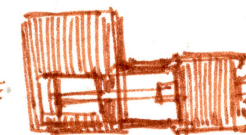
③ STEAM DOME. INSIDE THE DOME ARE REGULATOR VALVE, SAFETY VALVE, AND WHISTLE. THE REGULATOR IS ATTACHED TO THE THROTTLE. THE ENGINEER CONTROLS HOW MUCH STEAM GOES INTO THE CYLINDER. THE SAFETY VALVE RELEASES STEAM WHEN THE PRESSURE IS TOO HIGH.

④ VALVES, CYLINDER AND PISTON.

STEAM IS CONVERTED INTO MECHANICAL ENERGY IN THE CYLINDER. MOST LOCOMOTIVES USE A DOUBLE ACTION CYLINDER, CREATING TWICE THE POWER, BY INTRODUCING STEAM ALTERNATELY ON EITHER SIDE OF THE PISTON. THIS CREATES A PUSH AND PULL GENERATING POWER ON BOTH STROKES.

⑤ RODS.

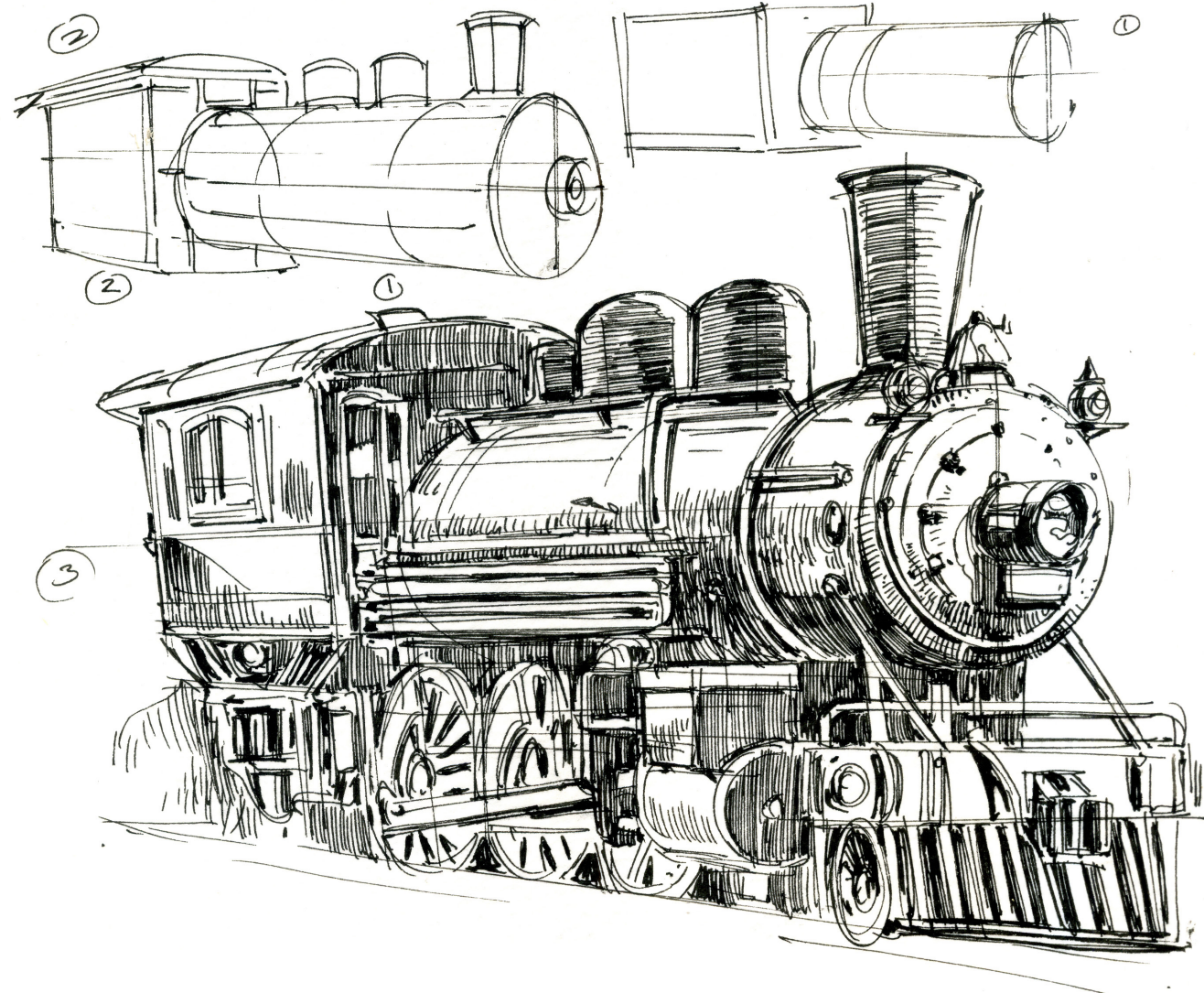
THE PISTON IS ALIGNED IN THE CYLINDER BY A CROSSHEAD RUNNING ON A GUIDE. MOST LOCOMOTIVES HAVE MORE THAN ONE SET OF DRIVING WHEELS TO SHARE POWER.



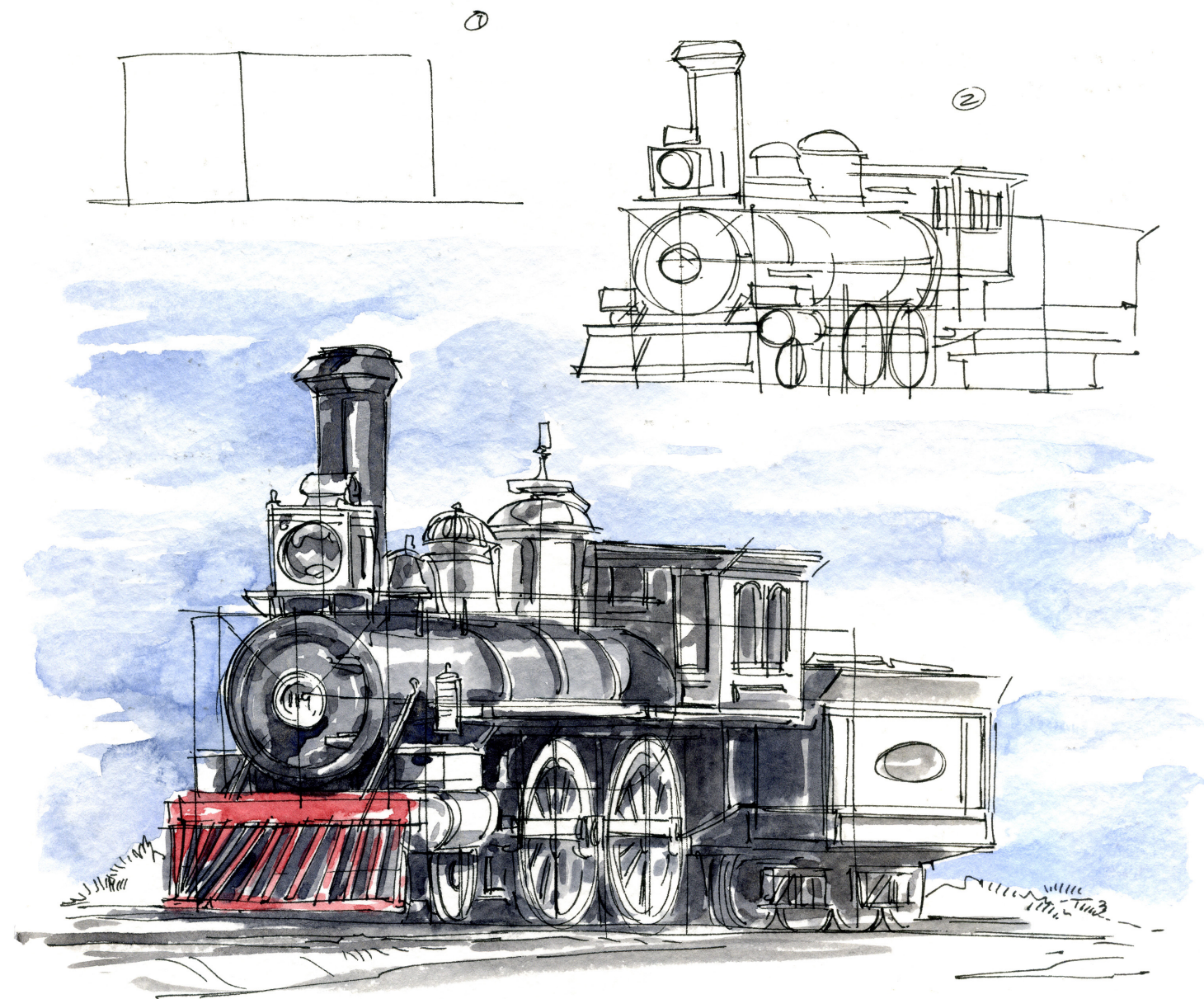
⑥ SMOKE BOX . SPENT STEAM IS RELEASED FROM THE CYLINDERS THROUGH THE BLAST PIPE BELOW THE STACK .  
PRODUCES A REDUCTION IN PRESSURE IN THE SMOKE BOX , WHICH DRAWS THE FIREBOX GASES THROUGH THE BOILER TUBES .

⑦ STACK . THE SPENT STEAM FROM THE BLAST PIPE MIXES WITH THE GASES FROM THE BOILER TUBES AND EXITS THROUGH THE STACK .

⑧ CAB . THE TRAIN CREW OPERATES THE ENGINE FROM THE CAB . THE FIREMAN'S JOB IS TO MAKE THE STEAM BY CONTROLLING THE FIRE , AND THE WATER SUPPLY TO THE BOILER .  
THE ENGINEER CONTROLS THE THROTTLE AND PRESSURE .

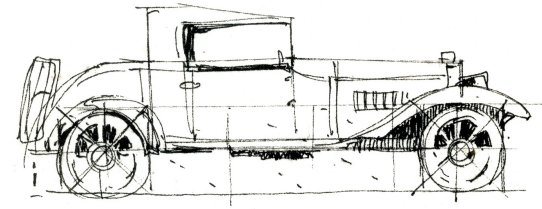


## A P P L I C A T I O N



THE ANGLE AND DEGREE OF THE WHEELS GIVE IT THE SENSE OF PERSPECTIVE AND DEPTH.

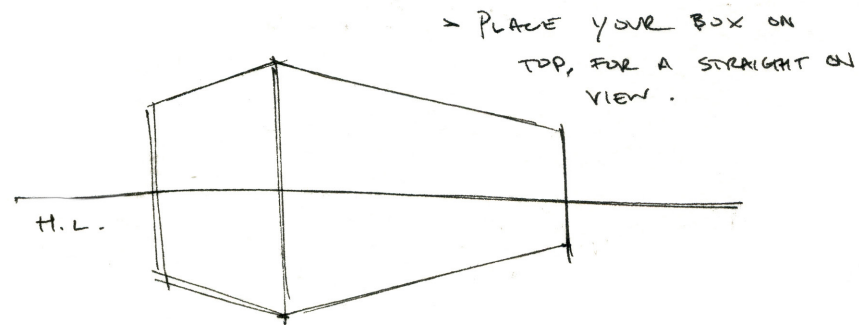
A U T O M O B I L E S



# PERSPECTIVE VIEW

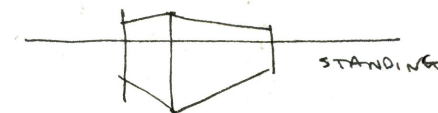
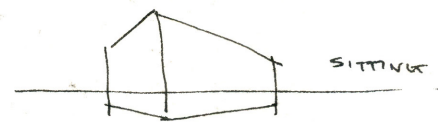
DRAWING VEHICLES IN PERSPECTIVE CAN ALWAYS BE A CHALLENGE FOR PEOPLE JUST BEGINNING. STARTING FROM THE BASICS OF DRAWING BOXES CAN ALWAYS HELP. HOWEVER THE APPLICATION IS HARD TO SEE. YOU MUST BE CAREFUL IN THE ANGLE OF VIEW AND WHICH PLANES OF THE BOX YOU CAN SEE.

→ TO START. ALWAYS LOOK FOR THE HORIZON LINE FIRST.



→ PLACE YOUR BOX ON TOP, FOR A STRAIGHT ON VIEW.

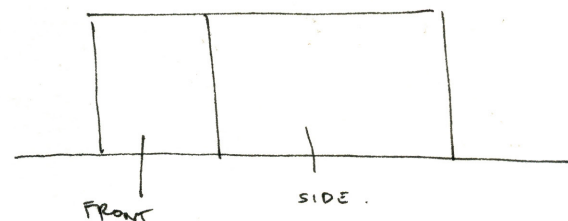
DEPENDENT ON HOW HIGH OR LOW YOUR BOX IS FROM THE HORIZON LINE. IS DICTATED BY WHETHER YOU ARE STANDING OR SITTING.



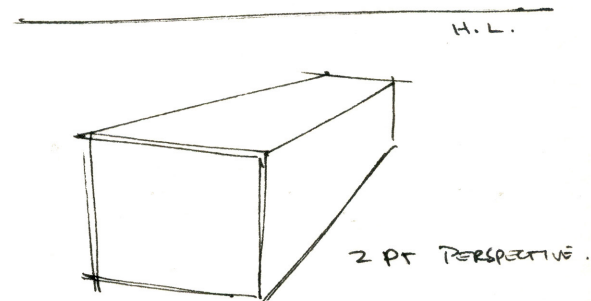
IF YOU STILL HAVE DIFFICULTY CAPTURING AN ACCURATE PERSPECTIVE, TRY THE METHOD OF FLATTENING YOUR VIEW.

## TIP UP VIEW

TRY TO FOCUS ON STILL GETTING AN PROPER PROPORTION, AND UNDERSTANDING THE DETAILS. USING THIS VIEW WILL TAKE AWAY THE FRUSTRATION OF PERSPECTIVE.

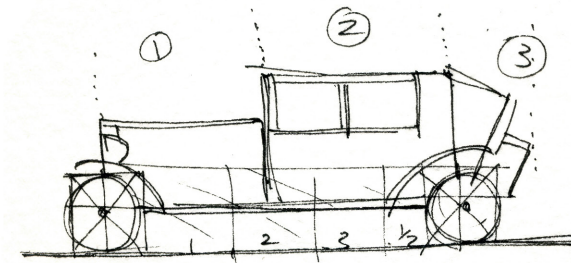


THE IDEA IS IN THIS VIEW, YOU ARE SITTING VERY FAR AWAY FROM THE OBJECT, CREATING A FAR DISTANCE OF THE 2 VANISHING POINTS, MAKING IT FEEL VERY FLAT.



- IF YOU ARE DRAWING FROM OBSERVATION YOU SHOULD NOT BE ABLE TO SEE THE TOP OF THIS BOX, UNLESS YOU ARE STANDING ABOVE THE VEHICLE.

# AUTOMOBILES

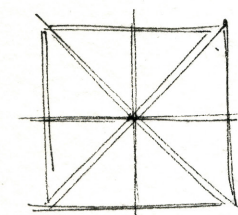


ALWAYS START WITH THE SIDE VIEW TO LOCK IN THE PROPORTIONS.

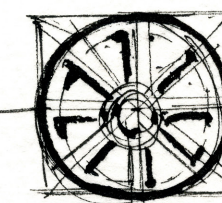
THERE ARE 3 MAJOR PARTS TO CONSIDER IN THE SIDE VIEW.

① THE HOOD ② THE MAIN CAB ③ TRUNK

HOWEVER, TO GET THE PROPORTIONS OF THE BODY, WE MUST START WITH THE WHEEL BASE.



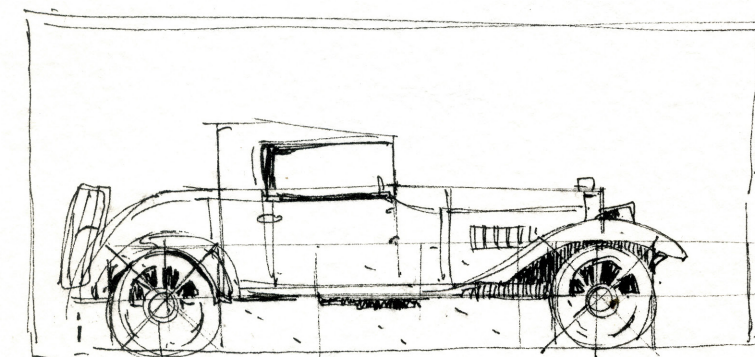
- START WITH A BOX TO GET THE WHEEL.



TO GET THE LENGTH OF THE CAR, USE THE WHEELS TO COUNT AND MEASURE.

SOME CARS WILL HAVE MORE OR LESS WHEELS DEPENDING ON THE MODEL.

\* REFER TO THE SURFACE DETAIL PAGE TO KNOW HOW TO INDICATE THESE VEHICLES.



MUCH LIKE THE LOCOMOTIVES FROM BEFORE. AUTOMOBILES CAN ALWAYS BE A STRUGGLE, ALSO DUE TO SEEING CARS EVERY DAY WE CAN NOTICE SMALL MISTAKES MADE IN THE SKETCHES.

- BEGIN WITH CLASSIC CARS TO UNDERSTAND THE BASICS OF SHAPE. THE CLASSIC FORMS ARE EASIER TO DECONSTRUCT.

- THEN MOVE TO MODERN DAY AUTOMOBILES.

1 2 3... ETC.

\* HOW MANY WHEELS ARE IN BETWEEN THE FIRST AND LAST WHEEL? \*

• ROCKER PANEL LINE

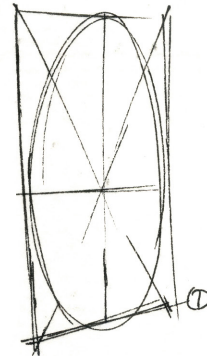
THIS LINE WILL GIVE YOU THE HEIGHT OF THE BOTTOM OF THE CAR FROM THE GROUND.

THIS PANEL LINE GOES THROUGH THE CENTER OF BOTH WHEELS. IT IS SHARED WITH ALL CLASSIC CARS WITH SIMILAR BODY STYLING.

1929 BLACK BENTLEY  
4.12 LTR. DROPHEAD

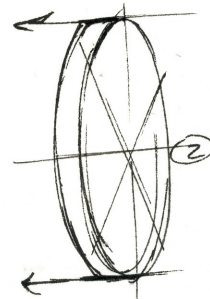
# T I R E S

ELLIPTICAL FORMS WILL ALWAYS BE DIFFICULT TO CAPTURE ACCURATELY FREEHAND. BUT CONFIDENCE CAN BE BUILT WITH TIME.

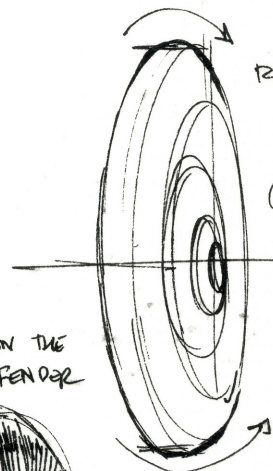


START WITH YOUR BOX AND CREATE YOUR ELLIPSE INSIDE.

AS YOU ADD VOLUME, YOU WILL GET A SHAPE THAT I CALL THE 'COOKIE WHEEL'



ADD VOLUME INWARD.

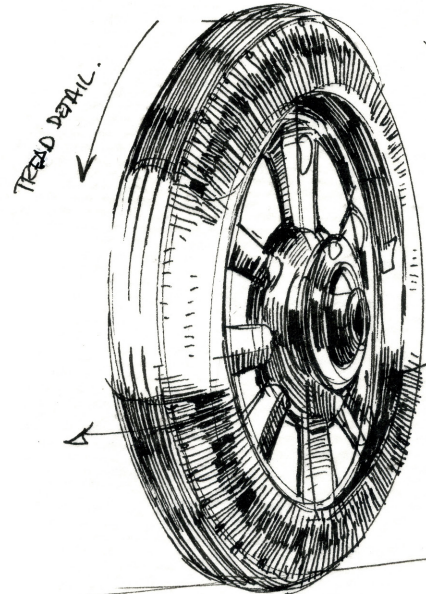


ROUND OF THE HARD EDGE TOP AND BOTTOM

③

CREATE YOUR INNER ELLIPSES.

CAST SHADOW ON THE TIRE FROM THE FENDER

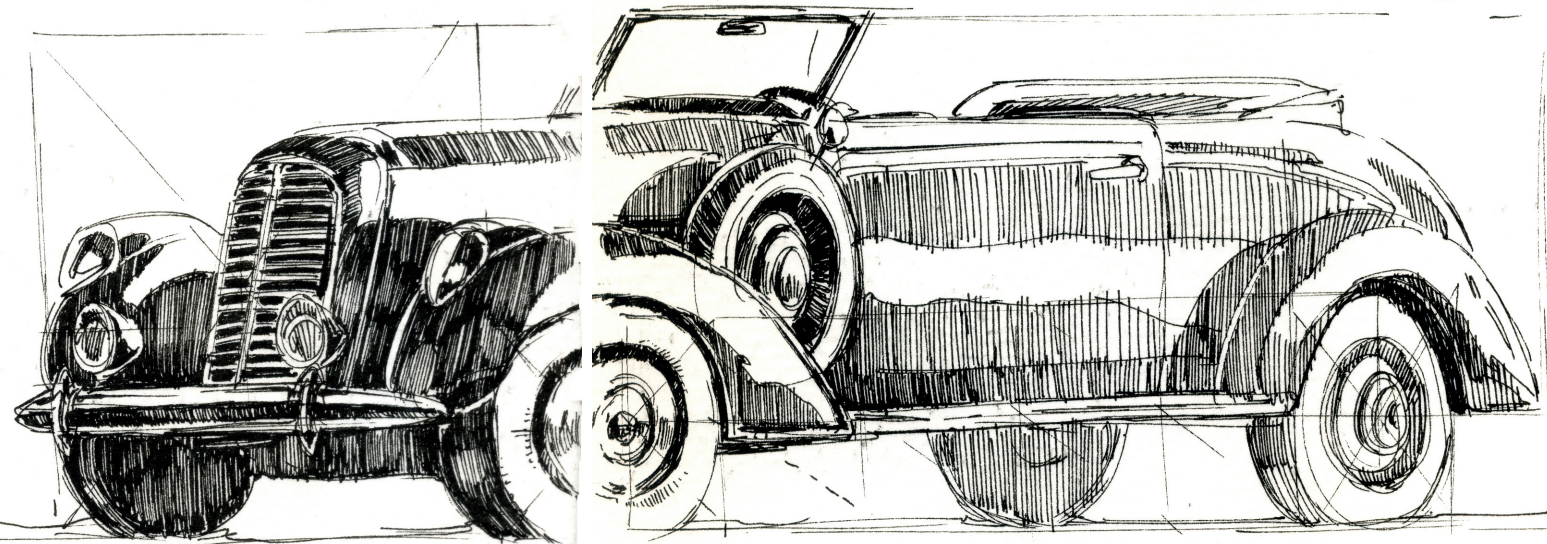


\* ④

WHEN CROSS HATCHING, FOLLOW THE TIRE TREAD LIKE A NATURAL CONTRAST...

ON THE FACE OF THE TIRE, HATCH ROTATING AROUND THE TIRE.

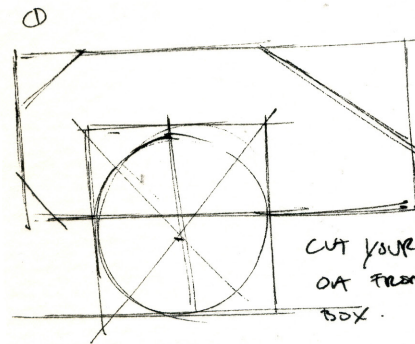
FORM SHADOW



\* ALWAYS CONSIDER YOUR FOCAL POINT.

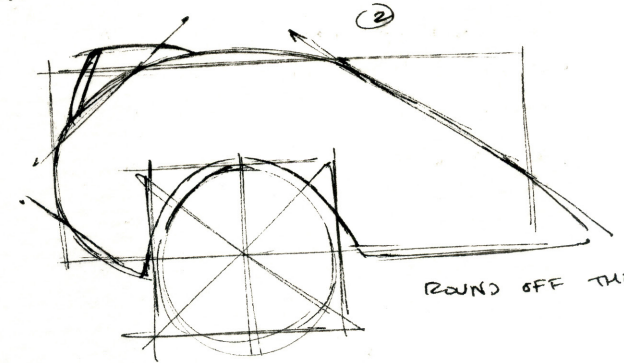
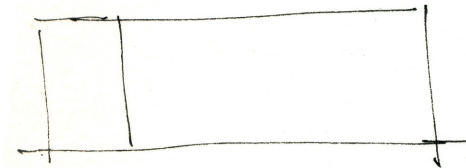
GRADATE FRONT TO BACK

A DIFFICULT ASPECT OF DRAWING CLASSIC CARS, ARE THE SMOOTH CURVES ON A BODY OR FENDER. THE BEST APPROACH IN THE BEGINNING IS TO START WITH A SIMPLE GEOMETRIC FORM THEN ADD THE CURVES AFTER.



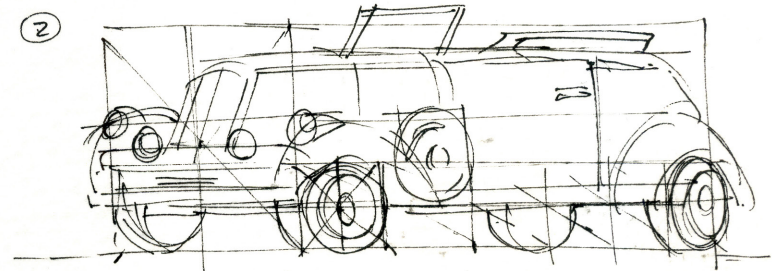
CUT YOUR SHAPE OUT FROM THE BOX.

①



ROUND OFF THE EDGES.

②



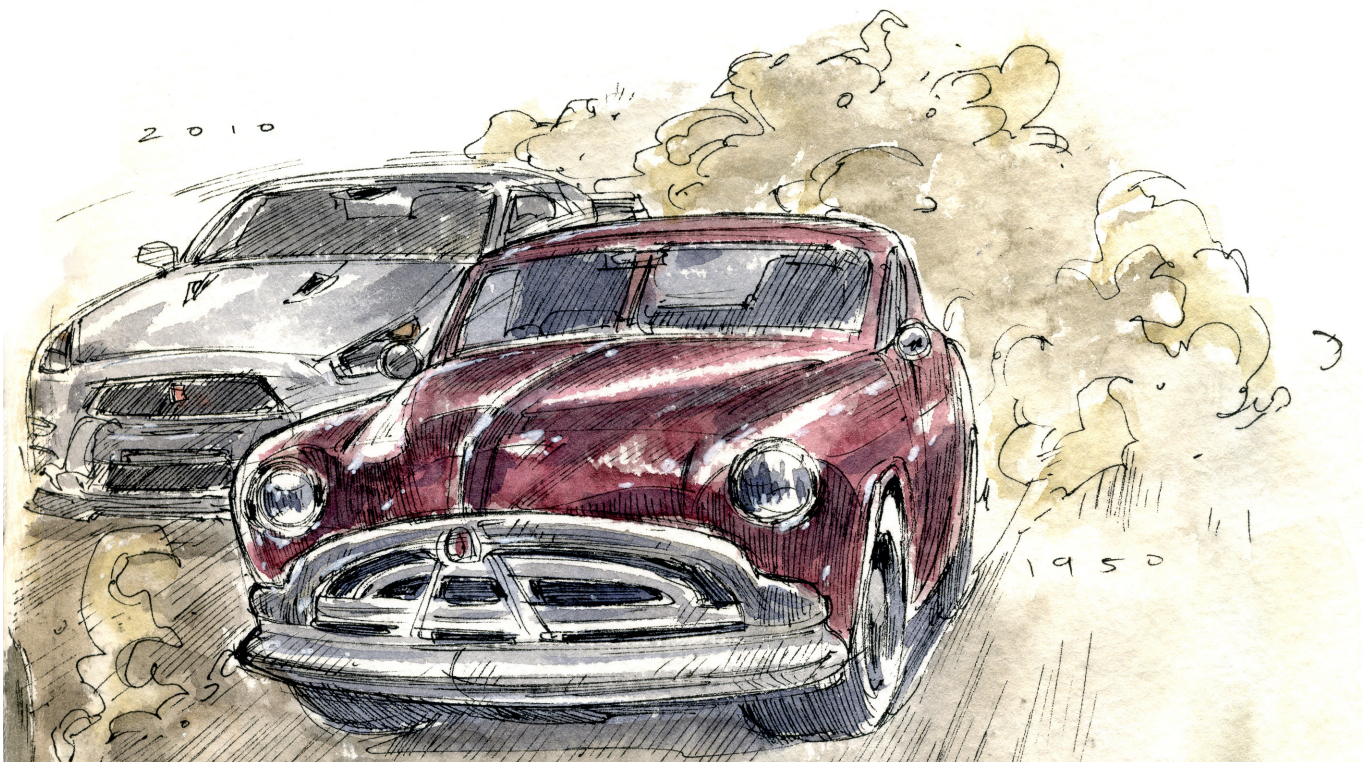
③

- FROM YOUR SIDE STUDY, MOVE INTO THE TIP UP ANGLE VIEW. FLATTEN YOUR PERSPECTIVE AND FOCUS ON THE PROPORTION.

④



HAN 2015



1950

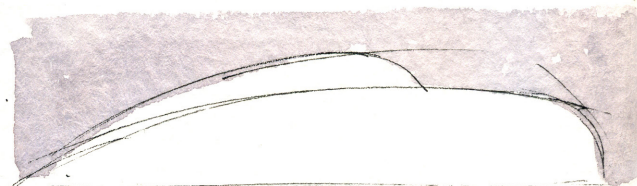
- HISTORY OF RACING -

# MODERN AUTOMOBILE

MODERN DAY CARS CAN MUCH MORE DIFFICULT TO APPROACH WHEN FIRST APPROACHING VEHICLE FORMS. WE BEGIN WITH CLASSIC CARS TO GET INTRODUCED TO THE PROPORTIONS AND THE UNDERSTANDING OF THE PERSPECTIVE FOUNDATIONS.

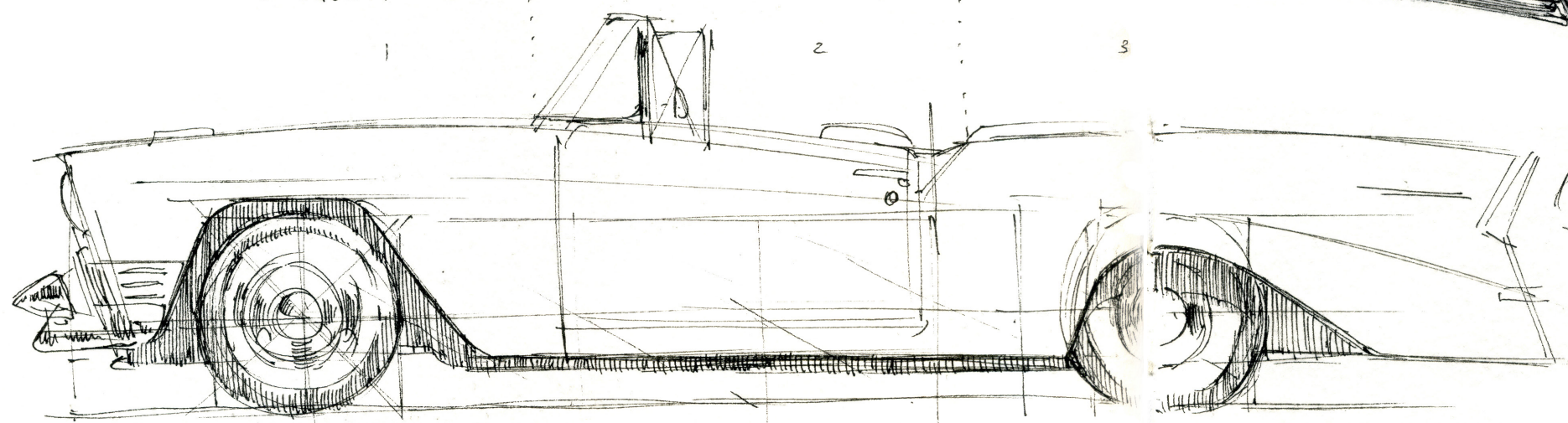
HOWEVER WITH CURRENT MODEL CARS, THE SHAPES ARE BLENDED TOGETHER AND HARDER TO VISUALLY BREAK APART.

## THE LINE

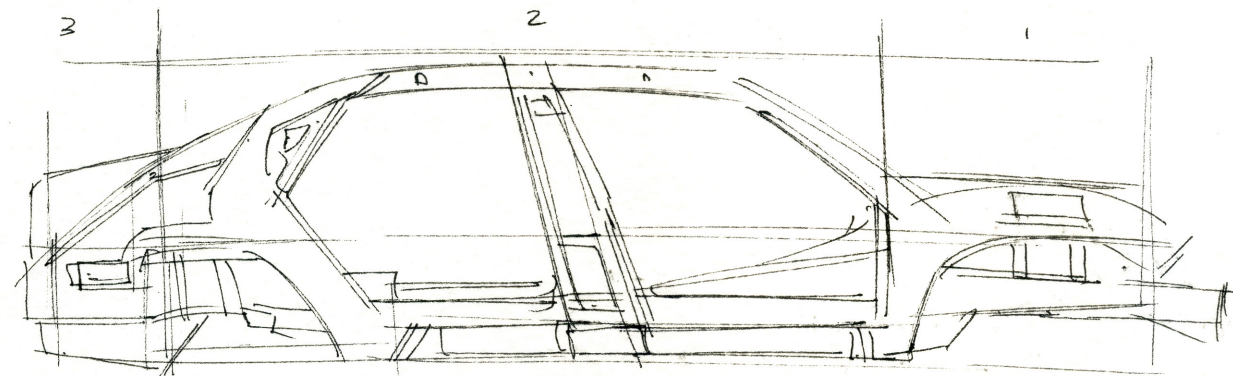


BY THE EARLY 1900'S THE AUTOMOBILE SHED THEIR HORSELESS CARRIAGE STYLE INTO CUSTOM CAR BODIES THANKS TO PROFESSIONAL COACH BUILDERS.

1956 CHEVROLET  
BEL AIR  
CONVERTIBLE



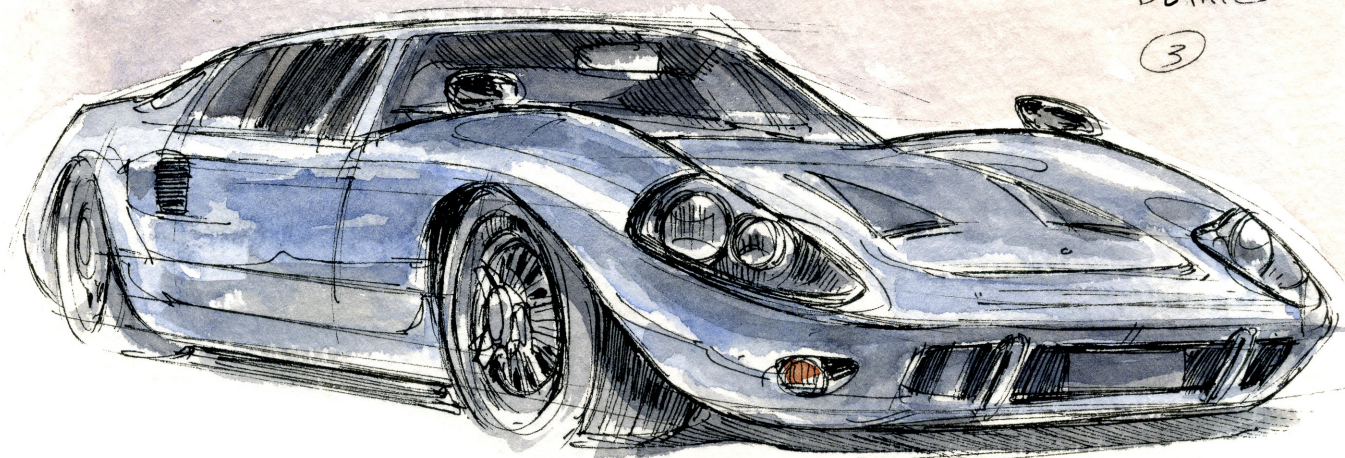
STYLE AND COMFORT



THE BODY SHELL.

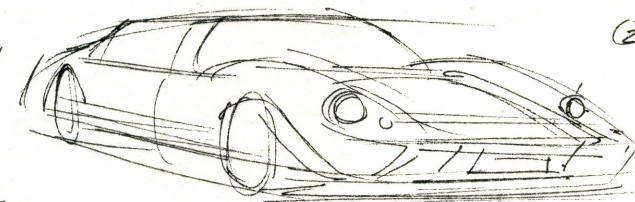
2016 MASERATI  
QUATTROPORTE

1967 GT40 FORD MARK III

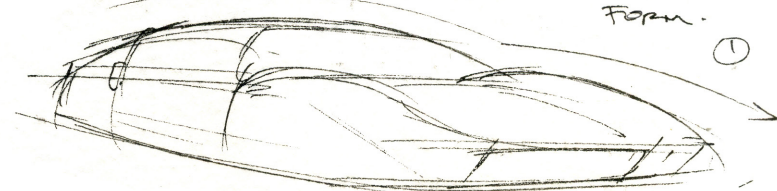


DETAIL.

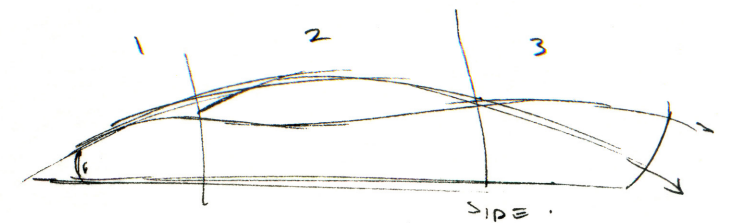
3



2 CUT

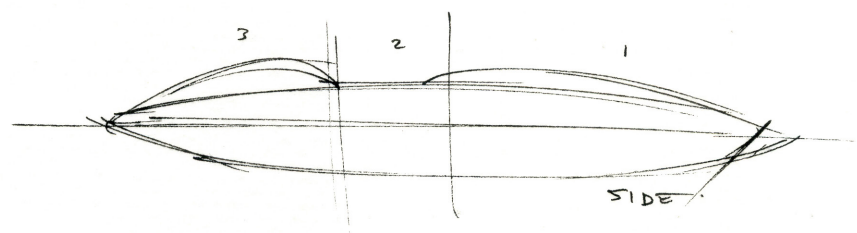
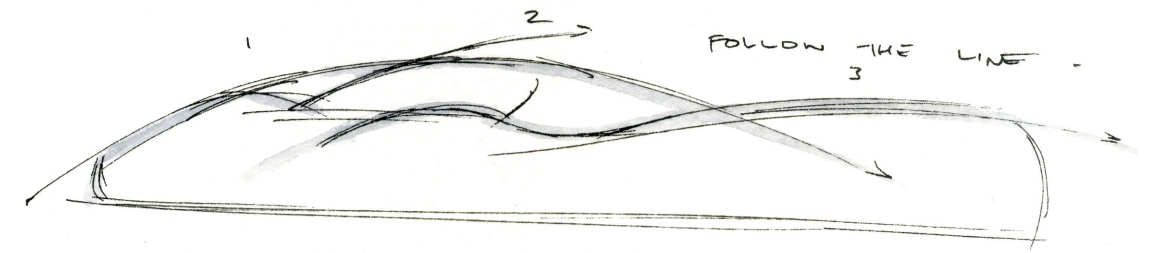
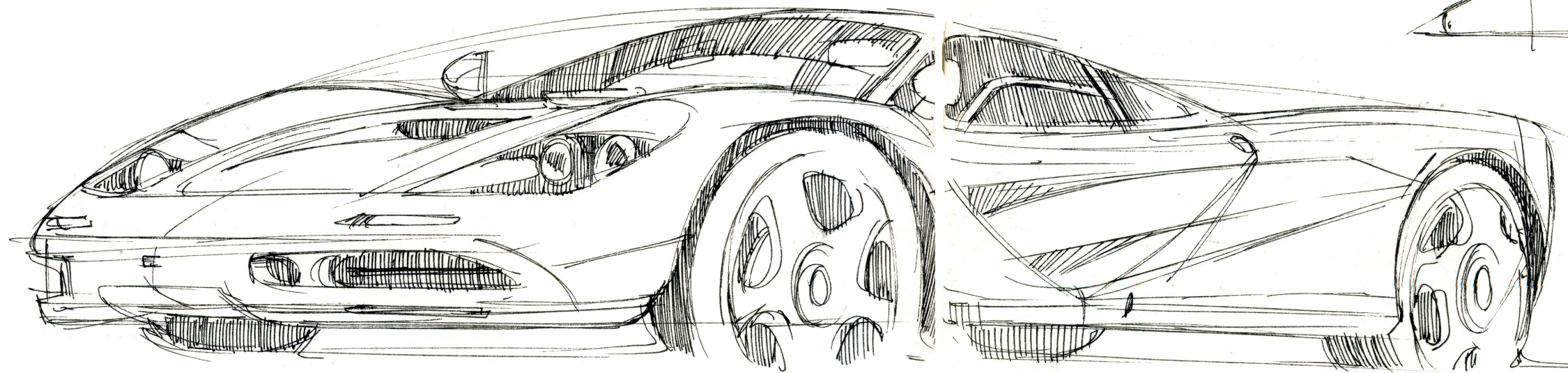


Form. 1



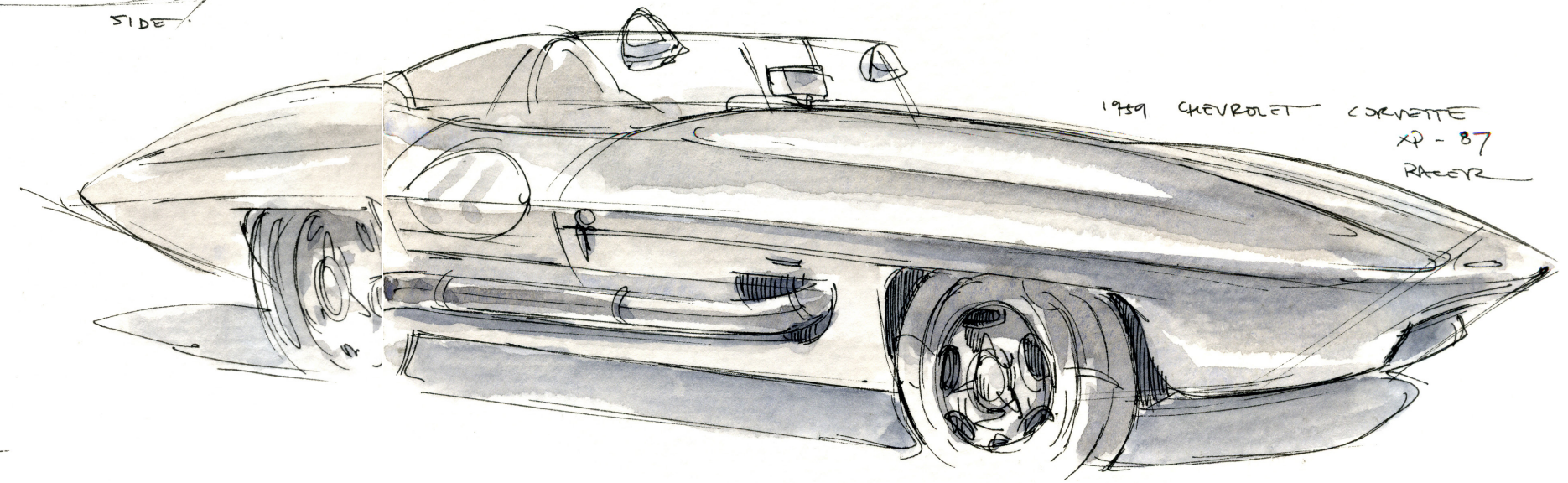
EVEN THOUGH THE SHAPES ARE MORE STREAM LINED AND BLENDED TOGETHER. I STILL FOLLOW THE GUIDELINES SET IN CLASSIC CARS, AS TO WHERE THE FIRST, SECOND, AND THIRD SHAPES SIT.

1995 MCLAREN F1

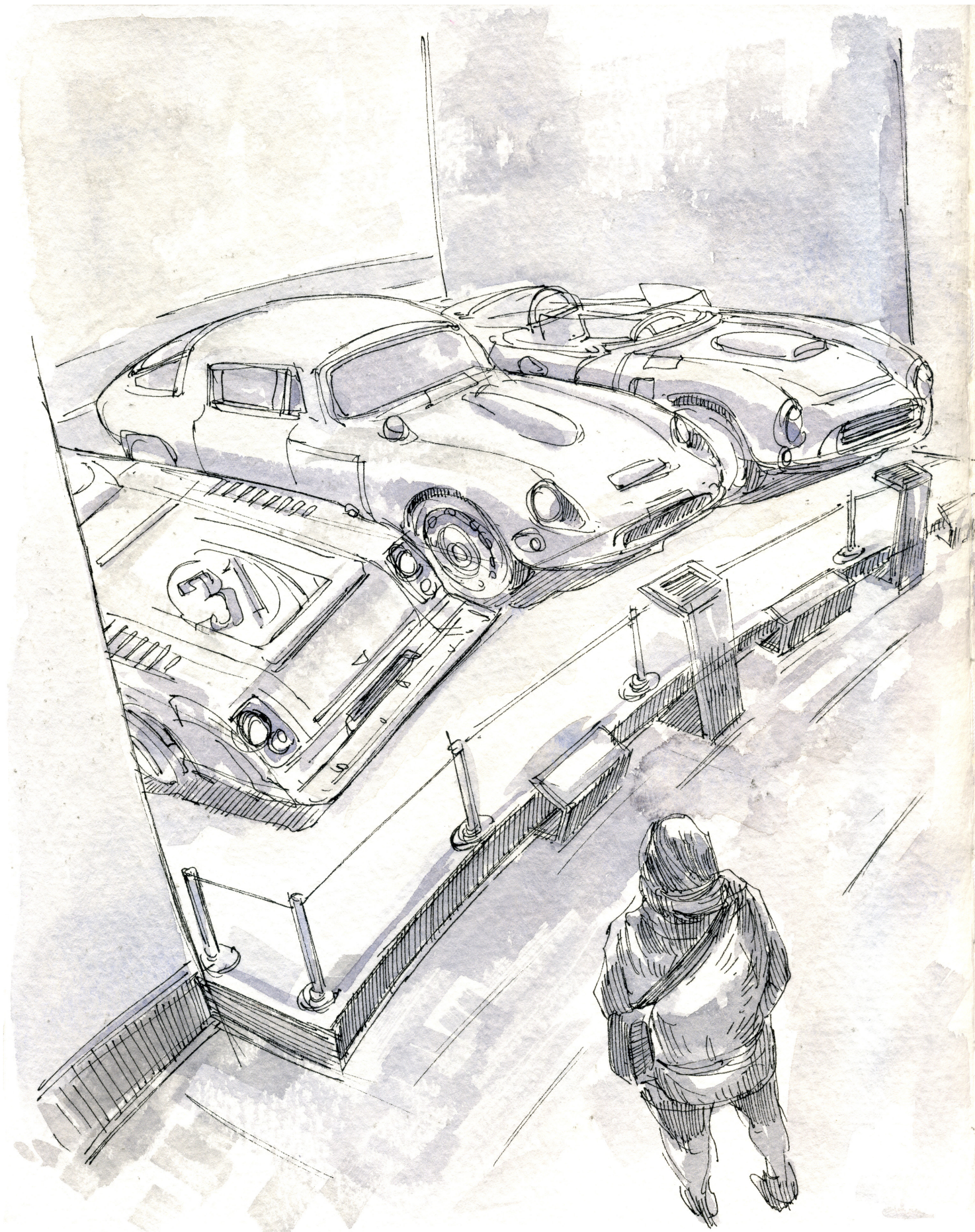


### THE STREAMLINE SHAPE

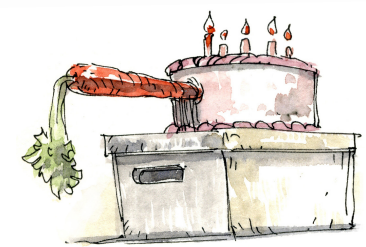
USE OVERARCHING LINES CONNECTING THE FRONT OF THE CAR TO THE REAR. CUT INTO THAT SHAPE WITH MORE ARMS APPROPRIATE TO THE DESIGN OF THE FORM. THE SMALLER DETAILS AND INDICATIONS SHOULD ALWAYS COME AFTER YOU HAVE THE BODY FORM.



1959 CHEVROLET CORVETTE XP-87 RACER



M I L I T A R Y



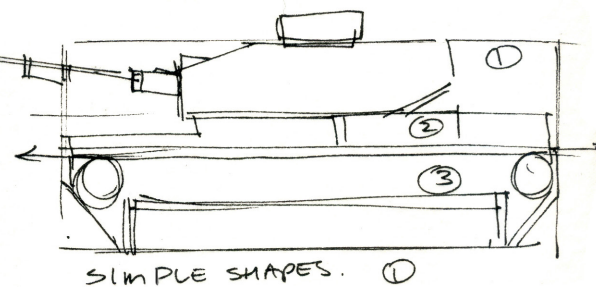
# MILITARY

FUNCTION OVER FORM. ADAPTABLE AND ADVANCED IN TECHNOLOGY AND MATERIALS. MILITARY GROUND VEHICLES HAVE MANY APPLICATIONS ON THE FIELD. TRANSPORTATION, CONSTRUCTION, COMMUNICATIONS, OFFENSE AND DEFENSE.

- THE TANK -

WE WILL FOCUS ON THE OFFENSIVE VEHICLE TO BEGIN. I FIND THESE SORTS OF VEHICLES A LITTLE EASIER TO CONSTRUCT BECAUSE THEIR SHAPES ARE SO SIMPLE AND GEOMETRIC.

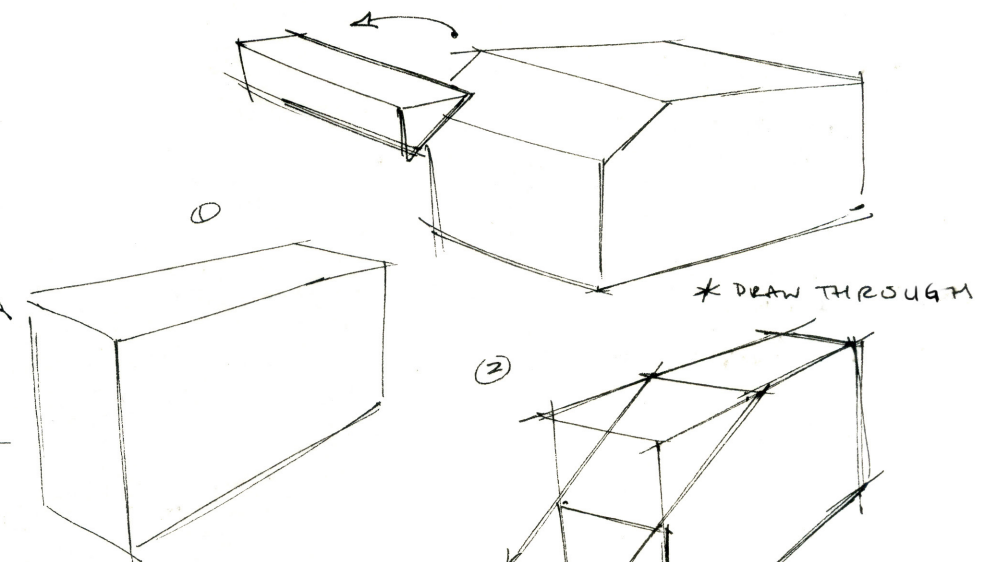
ALWAYS STARTING WITH THE SIDE STUDY.



SIMPLE SHAPES. ①

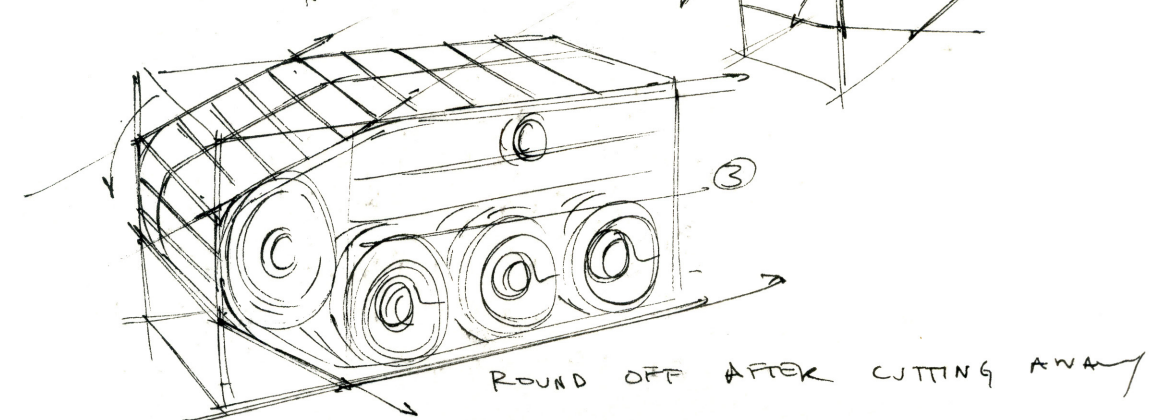
CUT AWAY AT THE FORM

AN IMPORTANT METHOD THAT HELPS MAINTAIN ACCURACY, AND KEEPS THE SIMPLICITY OF THE SKETCH, IS CUTTING AWAY AT A LARGER GEOMETRIC FORM.

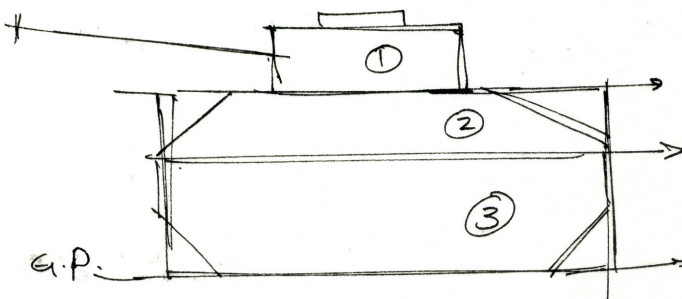


\* DRAW THROUGH

② CONSTRUCT MINOR DETAILS.



ROUND OFF AFTER CUTTING AWAY



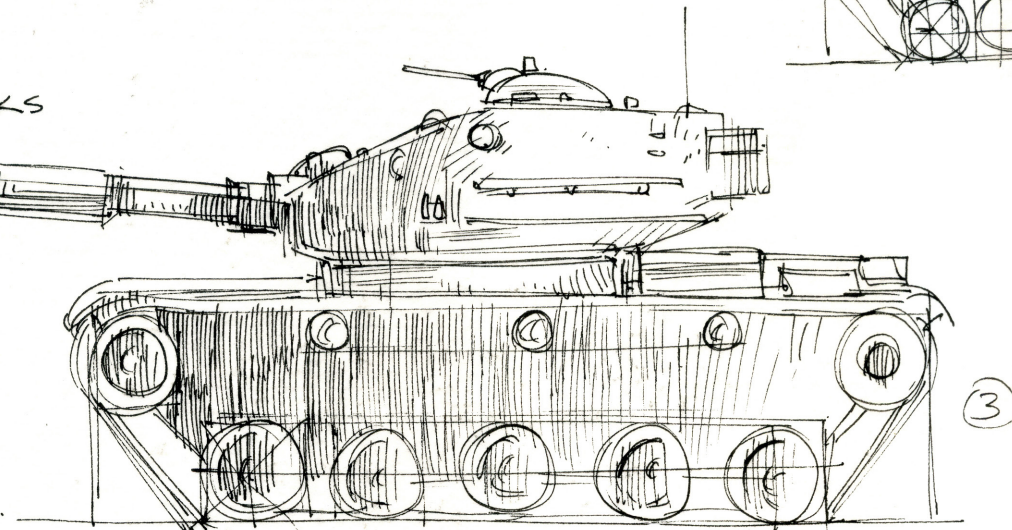
G.P.

1. THE TURRET.

2. THE BODY

3. THE TRACKS

M60 A3

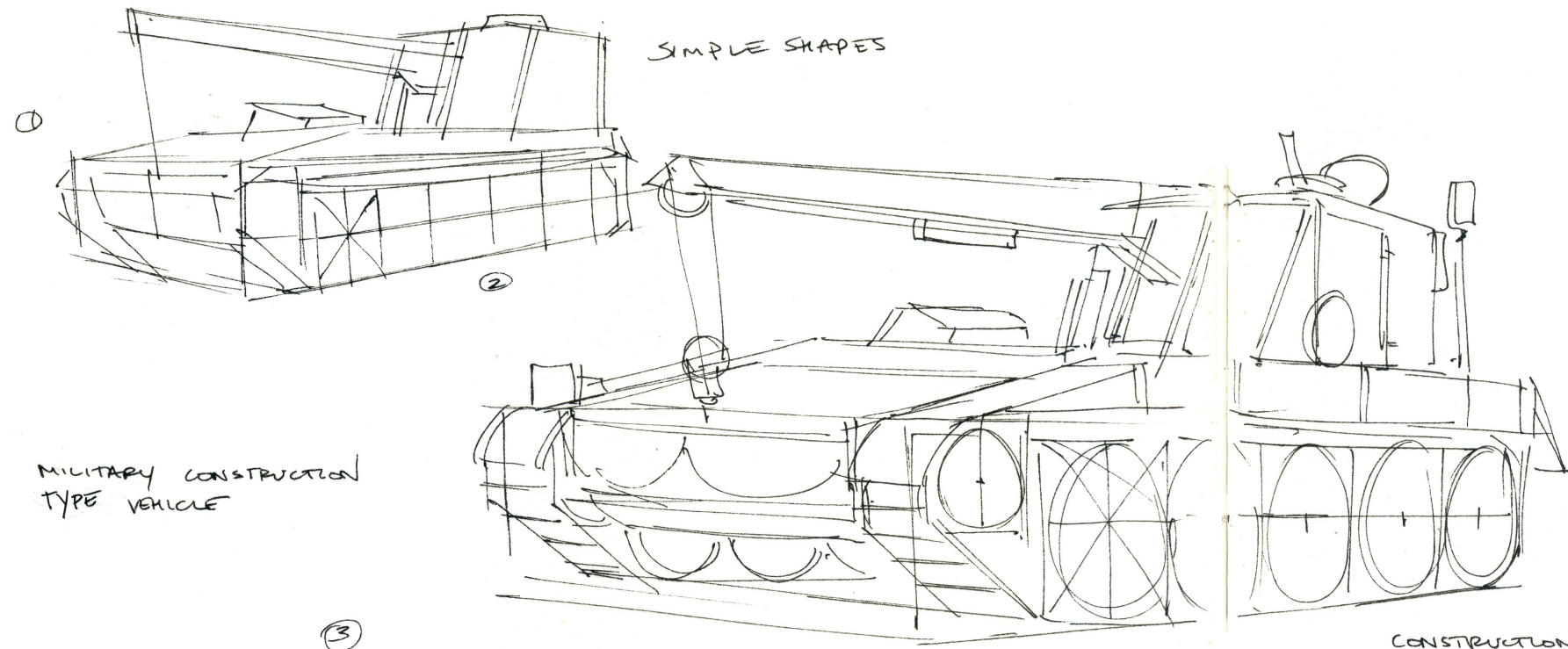


③

# P A N Z E R I V

PANZERKAMPFWAGEN IV  
GERMAN MEDIUM TANK  
DESIGNED BY KRUPP IN 1936  
MAIN GUN - 7.5 CM KWK 40 L/48





MILITARY CONSTRUCTION  
TYPE VEHICLE

SIMPLE SHAPES

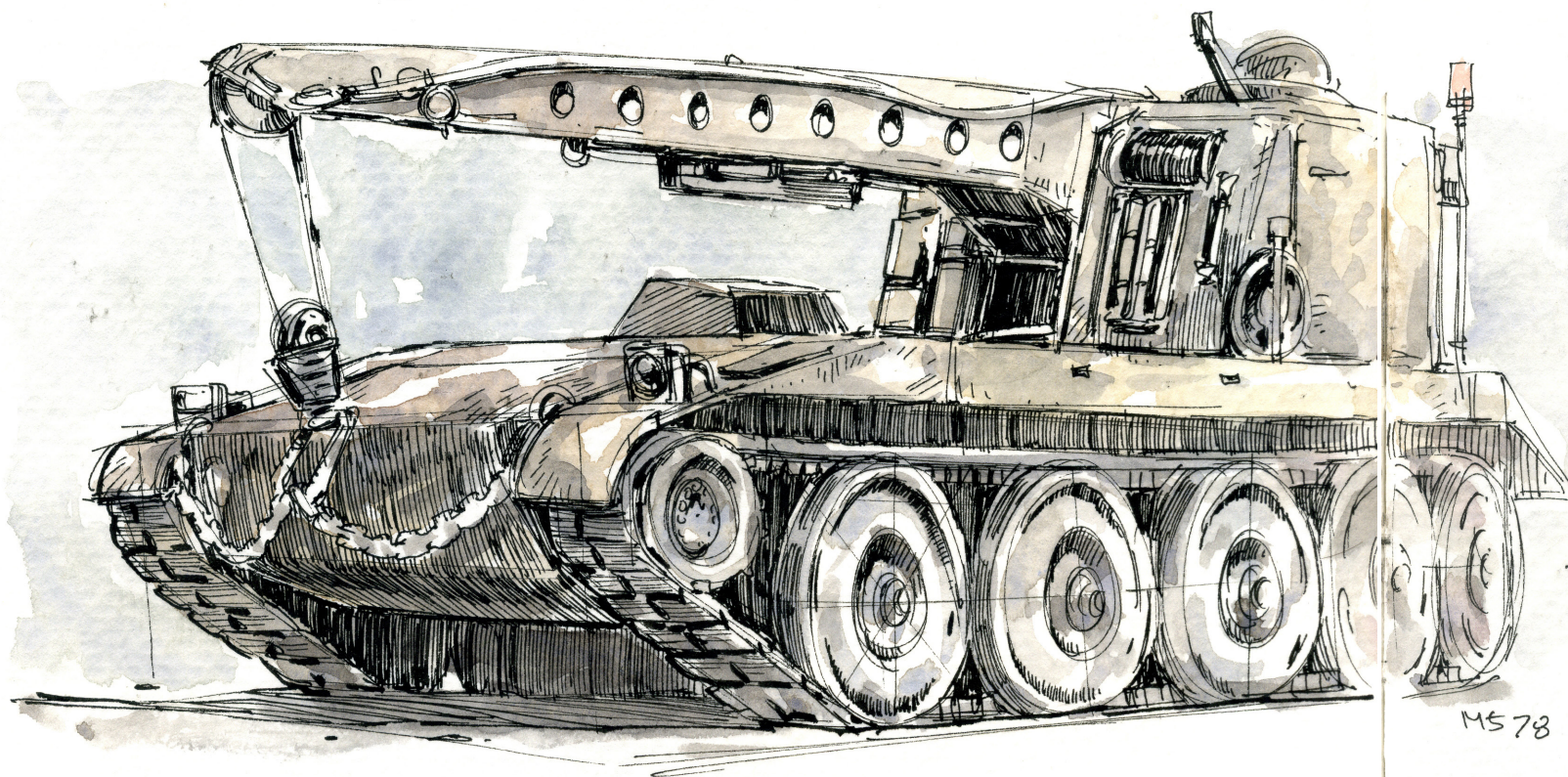
CONSTRUCTION

## GRAPHIC SHAPES/SHADOWS

PUSHING DARKS IN THE  
SHADOWS TO HAVE A STRONGER  
READ IN THE SKETCH.

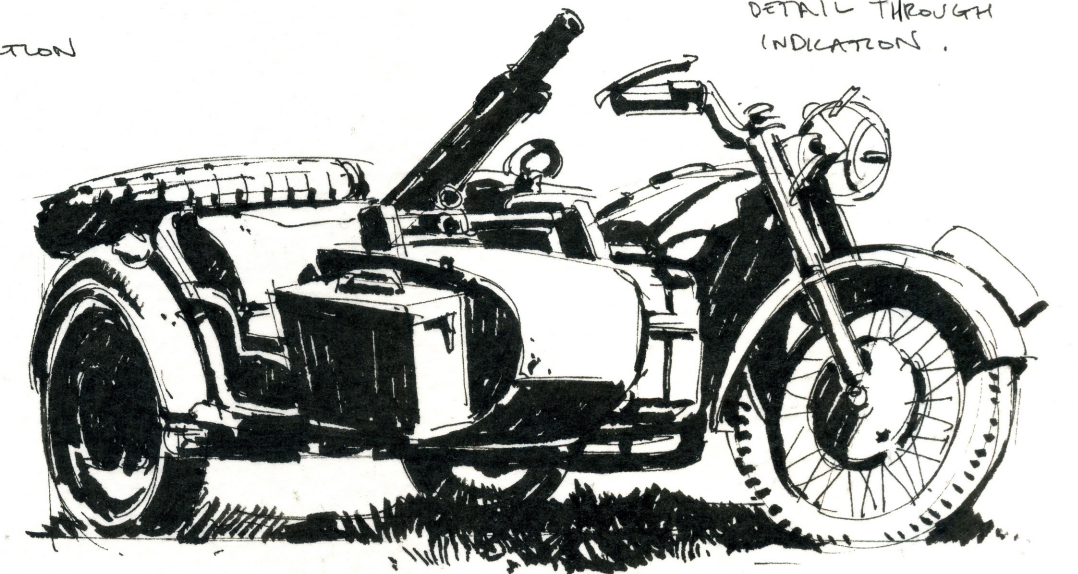
\* TO HELP YOU VISUALIZE, STUNT  
AT THE OBJECT TO HELP SEPERATE  
THE LIGHT AND SHADOW.

• BY GROUPING SHADOWS  
AND BLOCKING THEM  
IN, YOU GET A FASTER  
READ. BUT ALSO GIVE  
AN IMPRESSION OF  
DETAIL THROUGH  
INDICATION.



PUSH TO DETAILS.

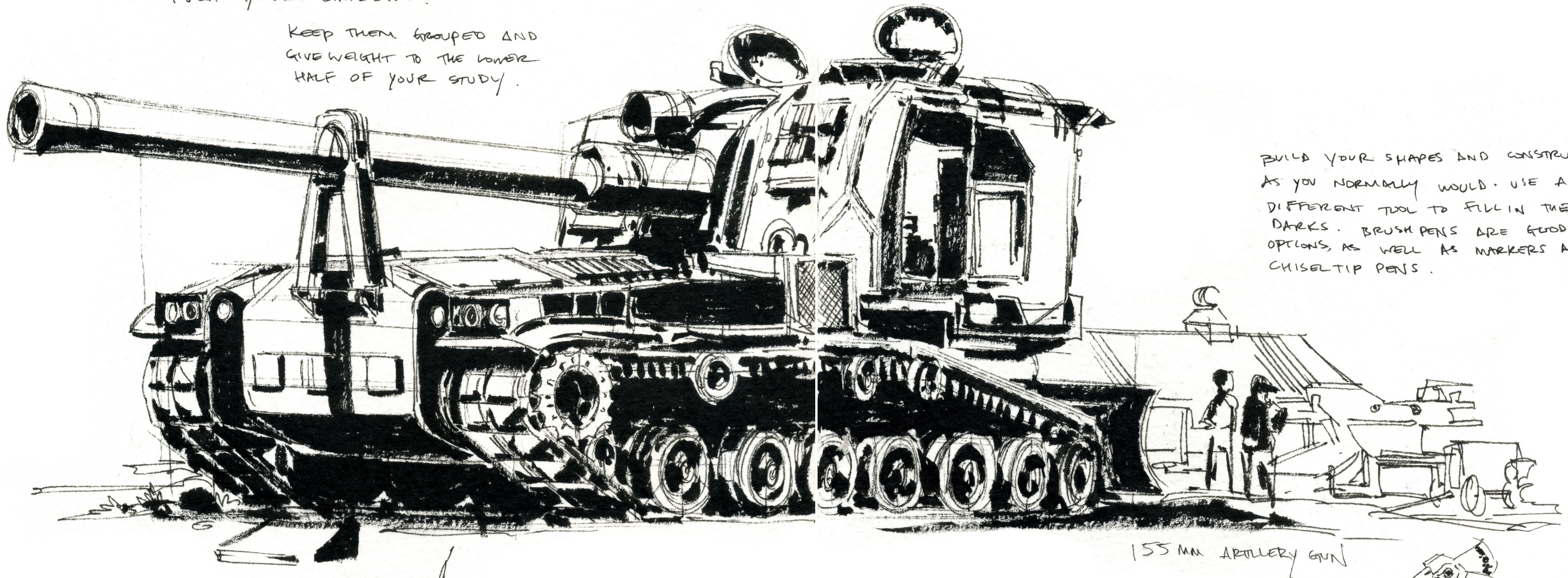
MS78 LIGHT ARMORED  
RECOVERY VEHICLE



BMW R75  
SIDE CAR  
COMBINATION

PUSH YOUR SHADOWS!

KEEP THEM GROUPED AND  
GIVE WEIGHT TO THE LOWER  
HALF OF YOUR STUDY.

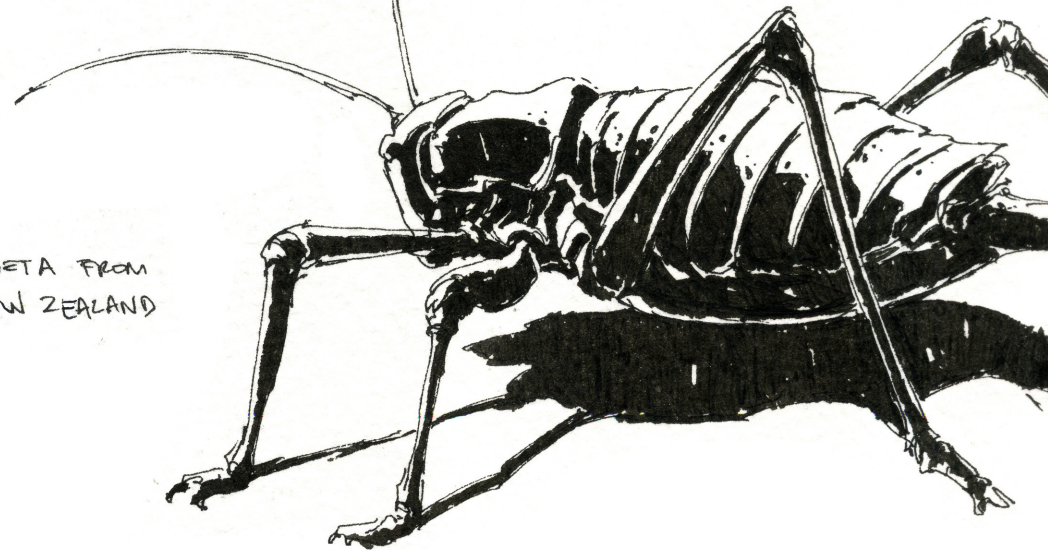


BUILD YOUR SHAPES AND CONSTRUCTION  
AS YOU NORMALLY WOULD. USE A  
DIFFERENT TOOL TO FILL IN THE  
DARKS. BRUSH PENS ARE GOOD  
OPTIONS, AS WELL AS MARKERS AND  
CHISELTIP PENS.

155 MM ARTILLERY GUN

USING HIGH CONTRAST SHADOWS IN OTHER SUBJECTS...

WETA FROM  
NEW ZEALAND

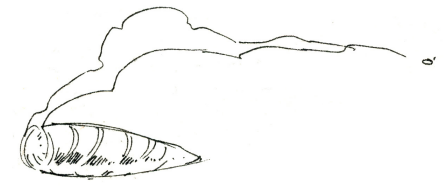


PEACOCK

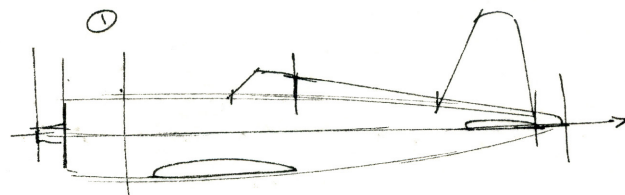
BALANCE OF  
DARK AND LIGHT



A V I A T I O N



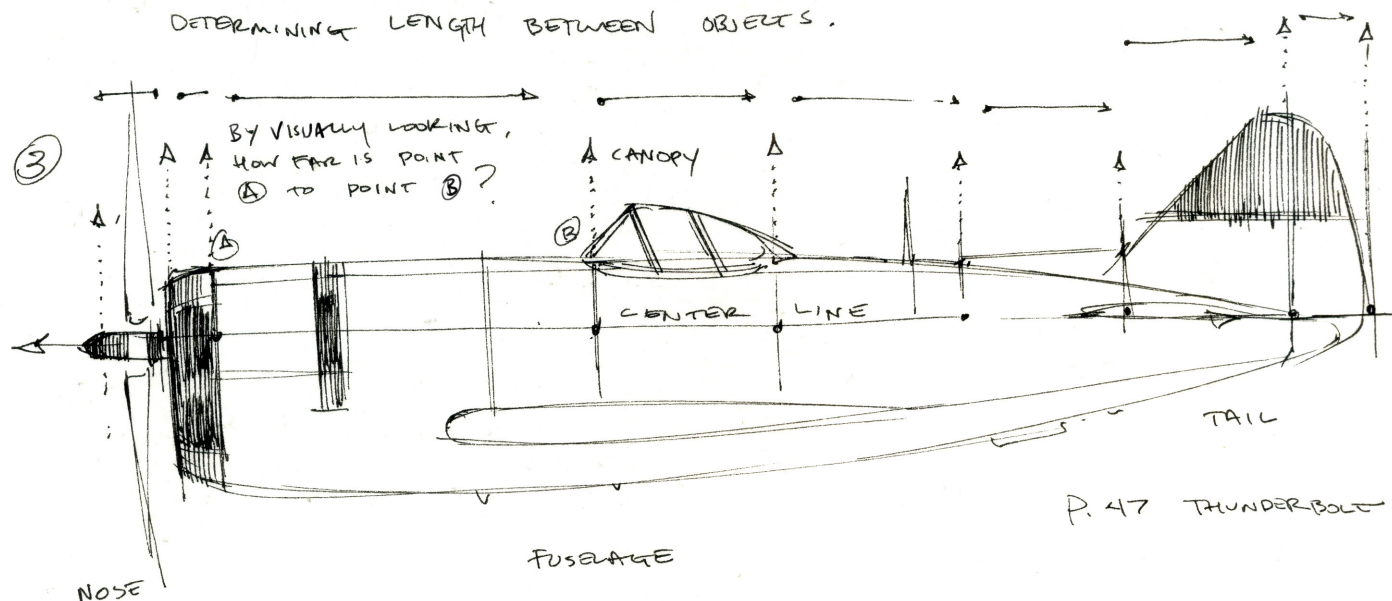
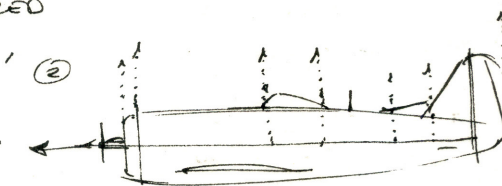
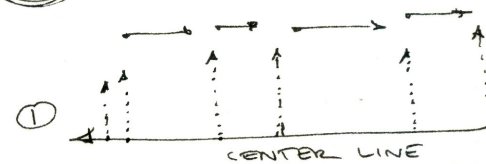
# AVIATION



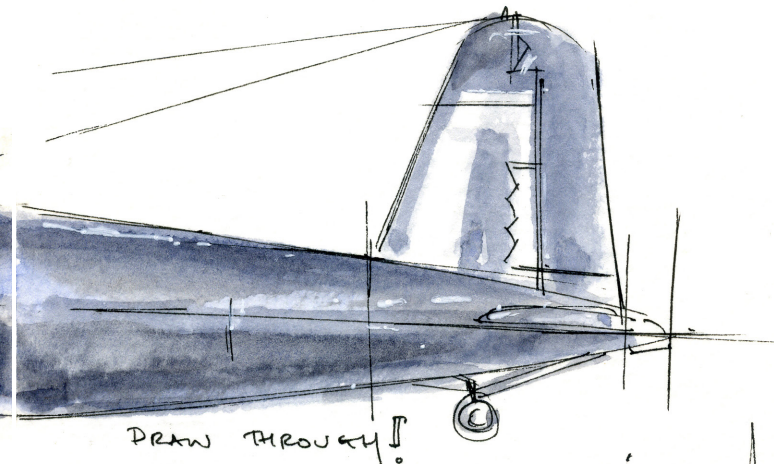
IN THIS SECTION WE WILL COVER VEHICLES THAT TAKE TO THE AIR. MUCH LIKE THE PREVIOUS SECTIONS, CLASSIC FORMS WILL BE BEST PLACE TO BEGIN EXPLAINING MY APPROACH.

## HOW TO BEGIN ...

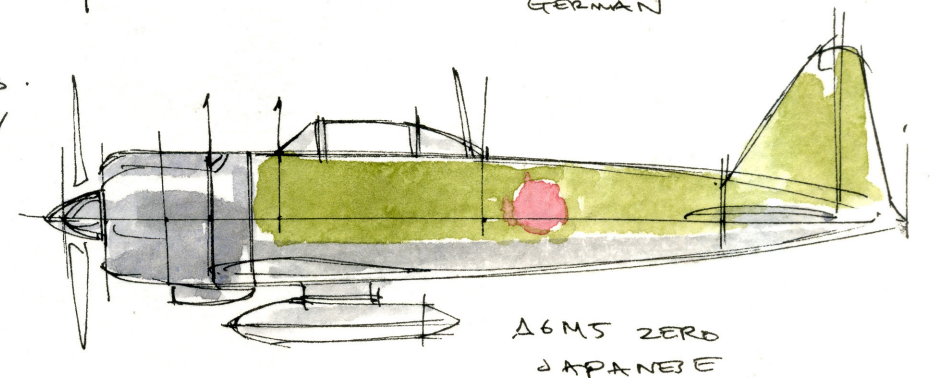
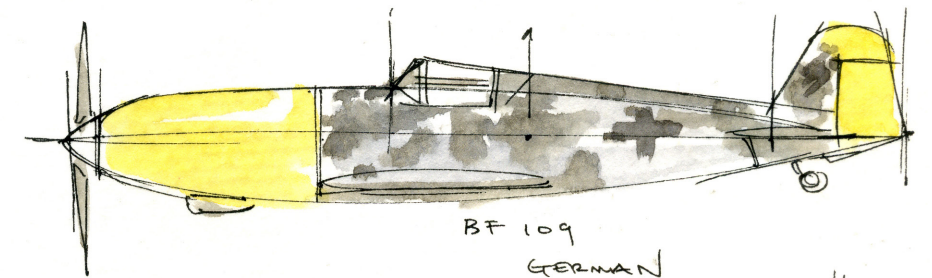
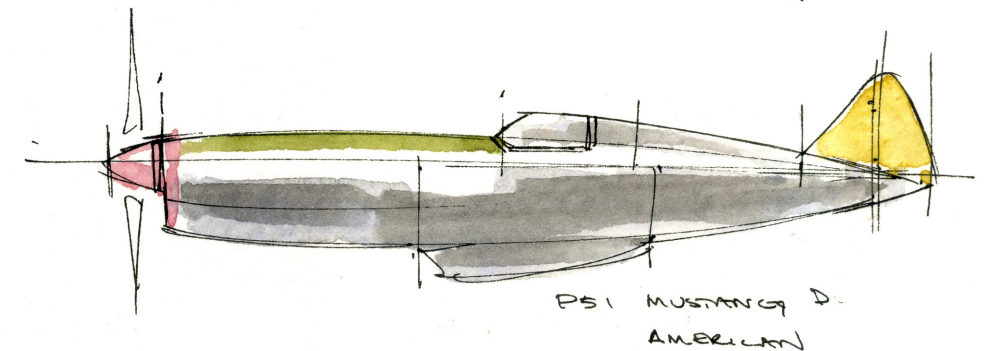
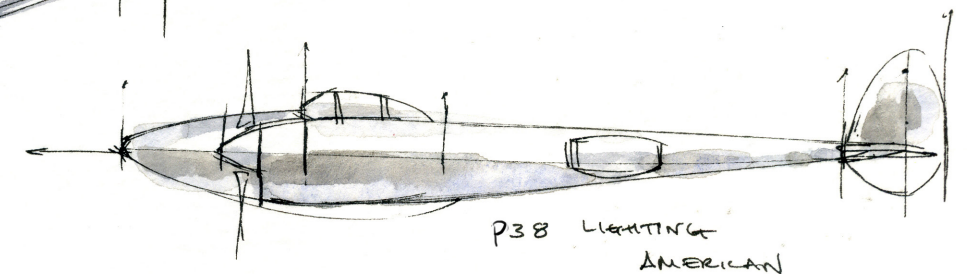
THE SIDE VIEW AGAIN WILL BE EXPLORED FIRST. HOWEVER UNLIKE GROUND VEHICLES, WE DON'T HAVE WHEELS TO USE TO HELP US FIGURE OUT PROPORTION OF LENGTH. SO ANOTHER SYSTEM I LIKE TO USE TO HELP CAPTURE ACCURACY IS REFERENCE POINTS ALONG THE CENTER LINE DETERMINING LENGTH BETWEEN OBJECTS.



P. 47 THUNDERBOLT



THE MANY SHAPES OF AIRPLANES FROM DIFFERENT COUNTRIES.

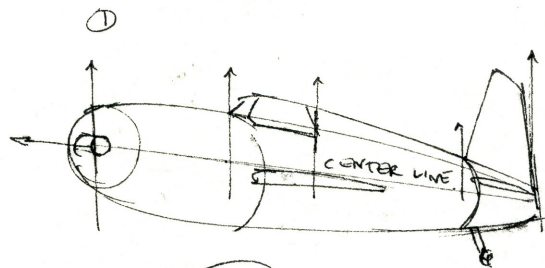


START WITH YOUR CENTER LINE. DETERMINE POINTS ON THE 'CL' AND DRAW VERTICAL LINES.

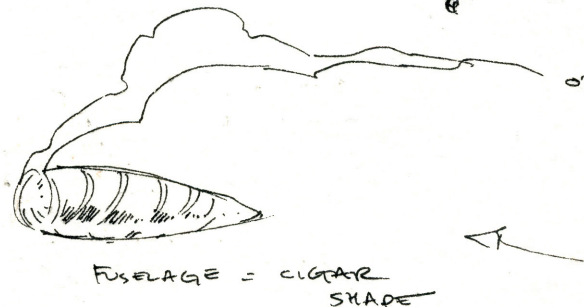
THE QUESTION IS, HOW FAR APART IS ONE POINT TO ANOTHER. START AT THE NOSE OF THE AIRPLANE AND WORK BACK.

THIS IS ALSO DEPENDENT ON YOUR OBSERVATIONAL SKILLS TO CORRECTLY JUDGE THE DISTANCES.

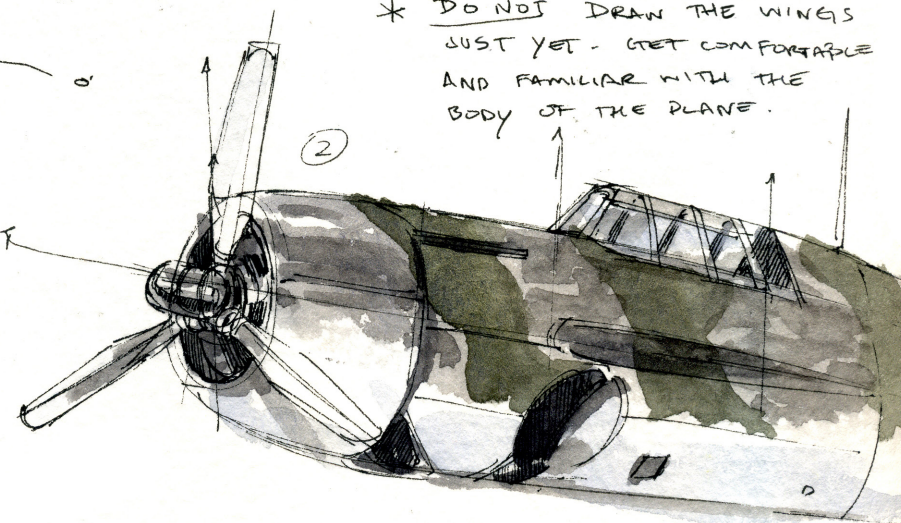
\* IN THESE FIRST STUDIES DO NOT DRAW THE WINGS. CONCENTRATE ON THE BODY ONLY INDICATE WHERE THE WINGS ATTACH.



AS WE UNDERSTAND THE PROPORTIONS OF CLASSIC PLANES FROM DOING THE SIDE STUDIES, WE WILL MOVE INTO DRAWING THESE FORMS IN DIFFERENT ANGLES.

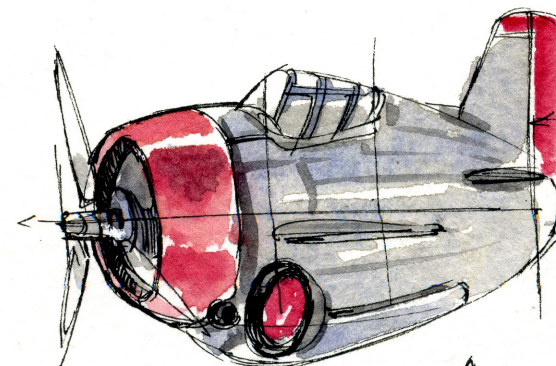


## THE BODY

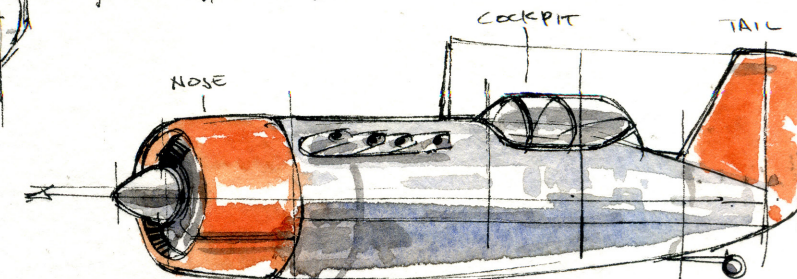
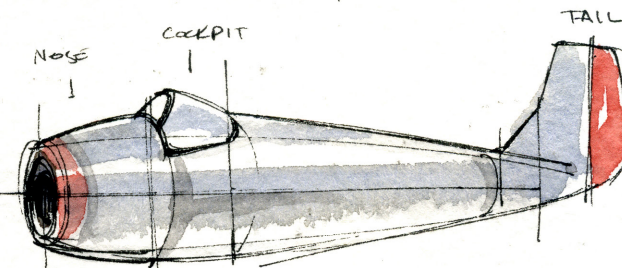


\* DO NOT DRAW THE WINGS JUST YET - GET COMFORTABLE AND FAMILIAR WITH THE BODY OF THE PLANE.

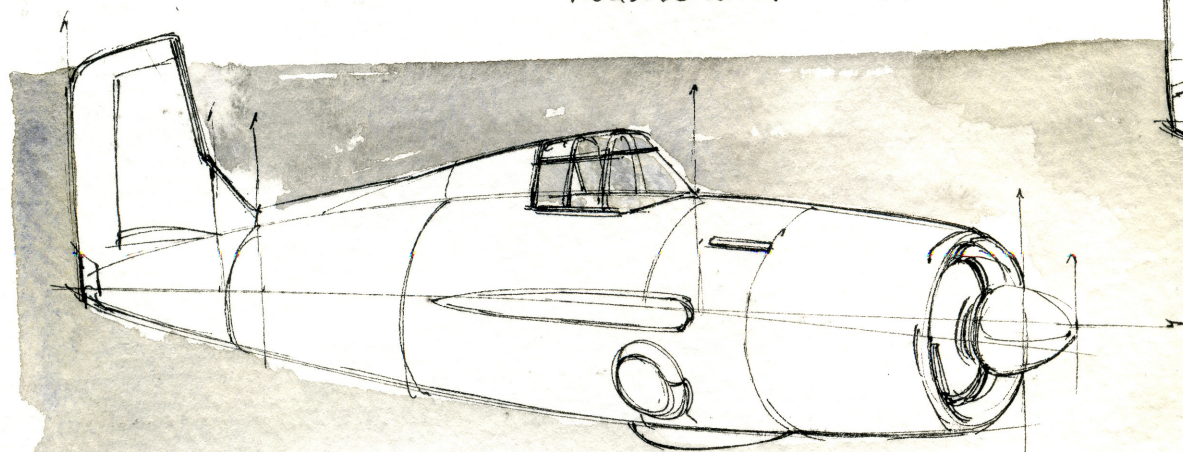
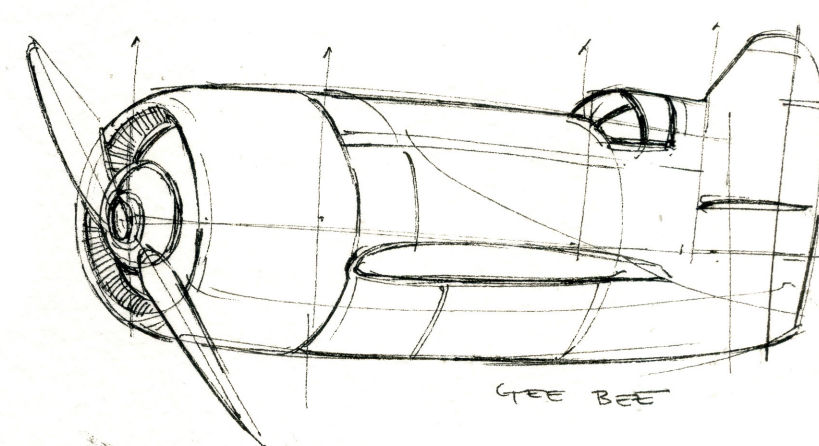
EVEN AT THIS STAGE, WE NEED TO MAINTAIN ACCURACY AND SIMPLICITY. THE INFORMATION LEARNED FROM THE SIDE VIEWS NEED TO BE BROUGHT OVER INTO 3/4 VIEWS. USING THE SAME SYSTEM OF PROPORTIONAL MEASUREMENT, IS USED



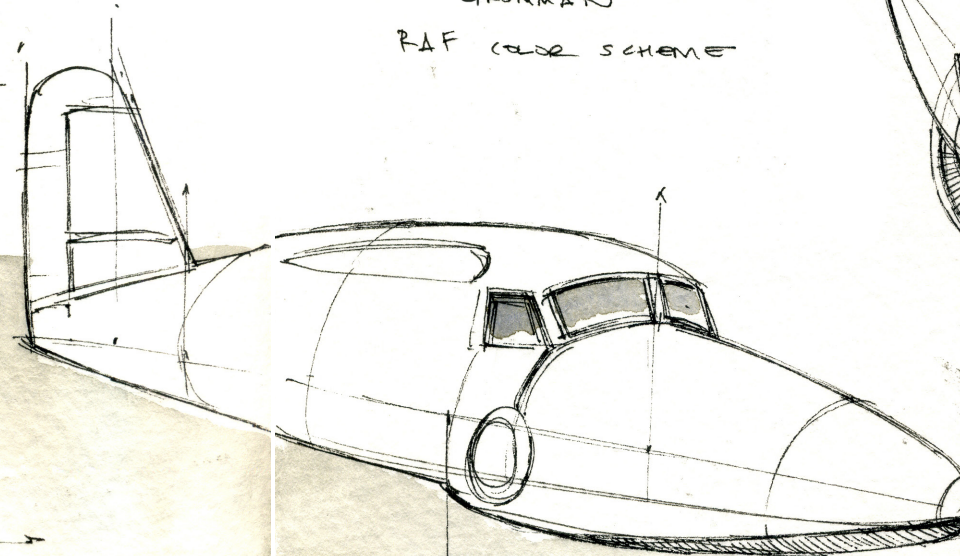
G-36 A  
GRUMMAN  
RAF color scheme



AFTER STUDYING THE REAL PLANES, IT WILL BE EASIER TO PUSH AND PLAY WITH THE FORMS INTO YOUR DESIGNS.



F4F-3  
'SERVICE TEST' AIRCRAFT

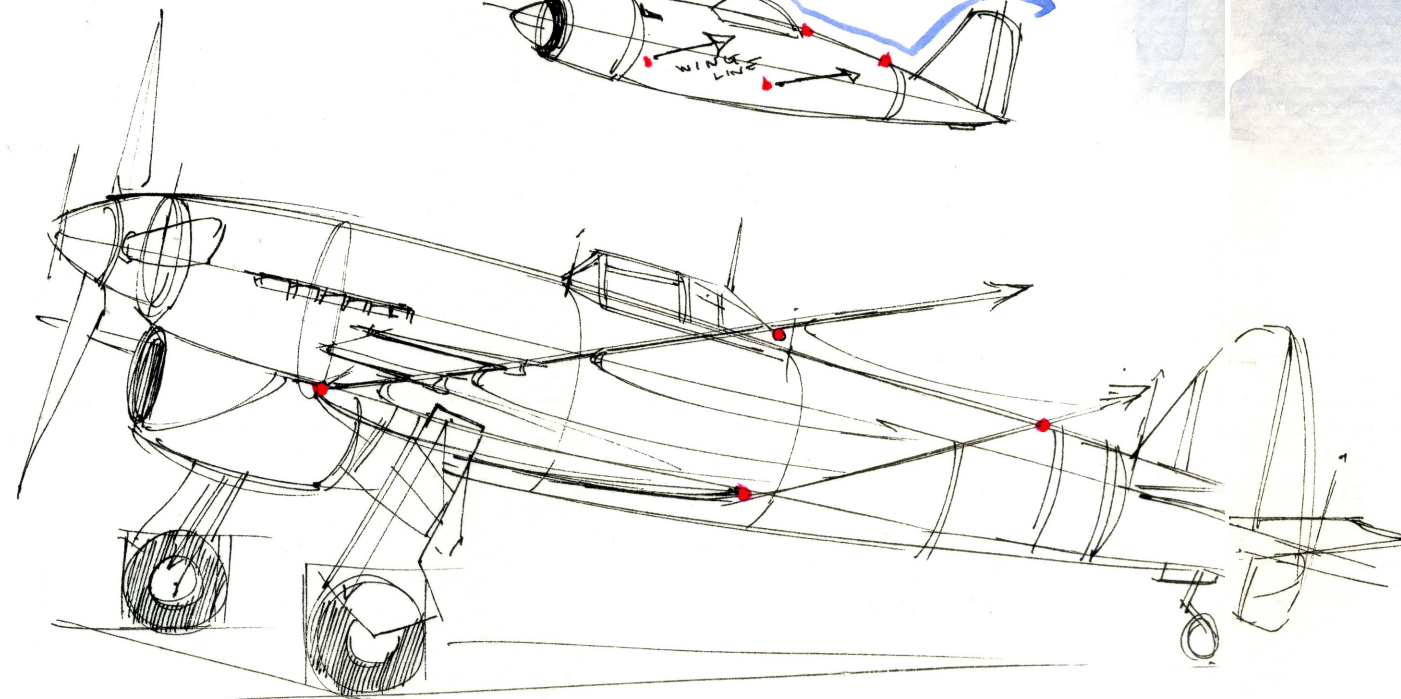


J4F-1 WIDGEDON

WORK YOUR WAY FROM FRONT TO BACK LIKE THE SIDE VIEWS. IT DOESN'T MATTER IF YOU DON'T KNOW THE LENGTH OF THE PLANE VISUALLY. YOU CAN ALWAYS ADD MORE VOLUME PUSHING BACKWARDS.

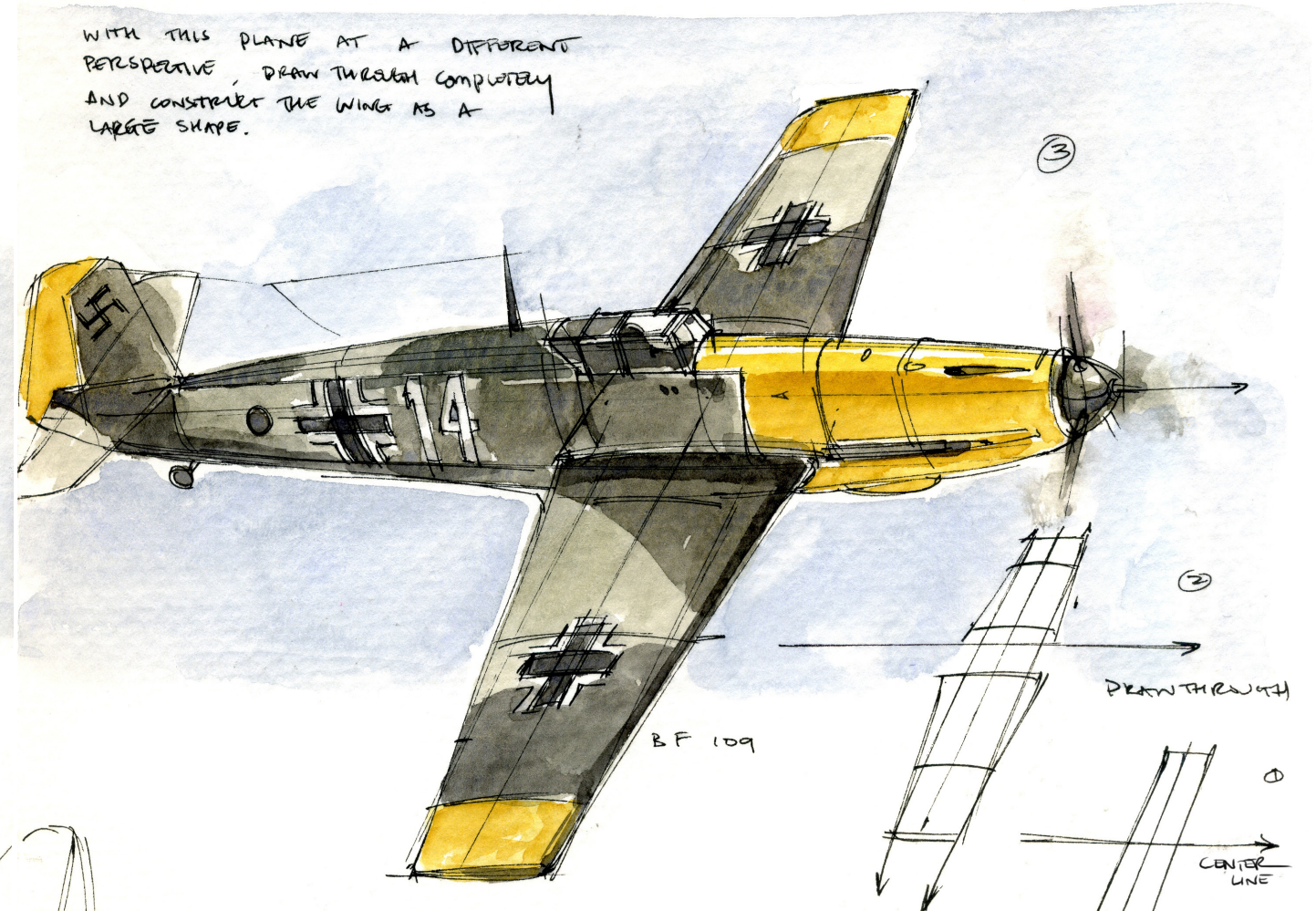
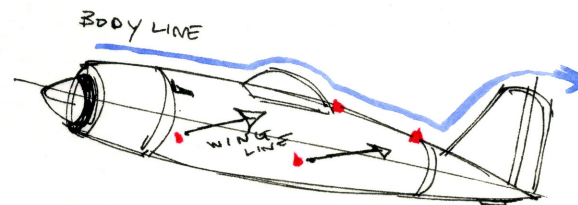
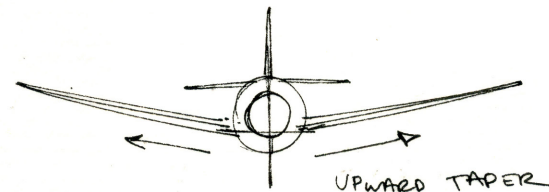
## THE WINGS

WHEN THE PLANE IS GROUNDED, WE SEE THE WINGS ANGLED UPWARD. DRAWING THESE VEHICLES FROM THIS PERSPECTIVE CAN BE QUITE DIFFICULT DUE TO THE PERSPECTIVE OF THE WINGS.



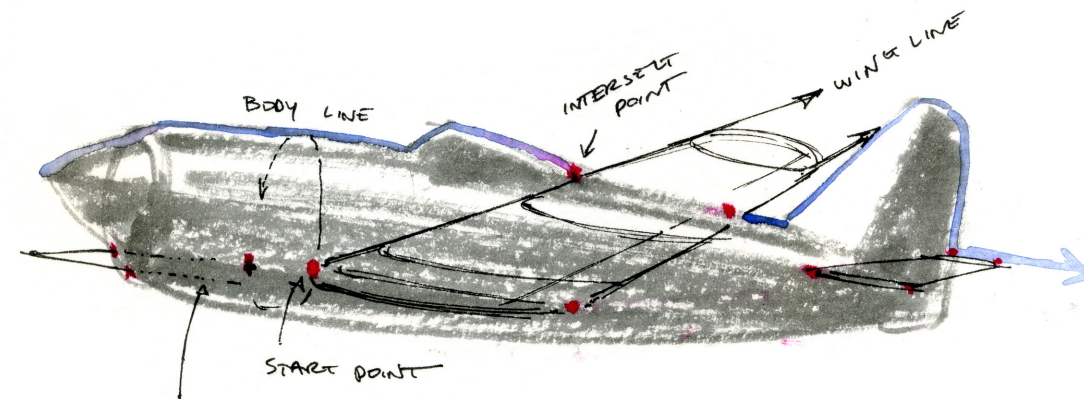
• THE INTERSECTING POINT

AS WE DRAW JUST THE BODY OF THE PLANE, WE ARE STUDYING THE PROPORTION. THE STARTING POINT OF THE WING CAN ALSO BE INDICATED. IF WE KNOW WHERE IT STARTS, THEN WE NEED TO FIND THE ANGLE OF THE WING ITSELF.



WITH THIS PLANE AT A DIFFERENT PERSPECTIVE, DRAW THROUGH COMPLETELY AND CONSTRUCT THE WING AS A LARGE SHAPE.

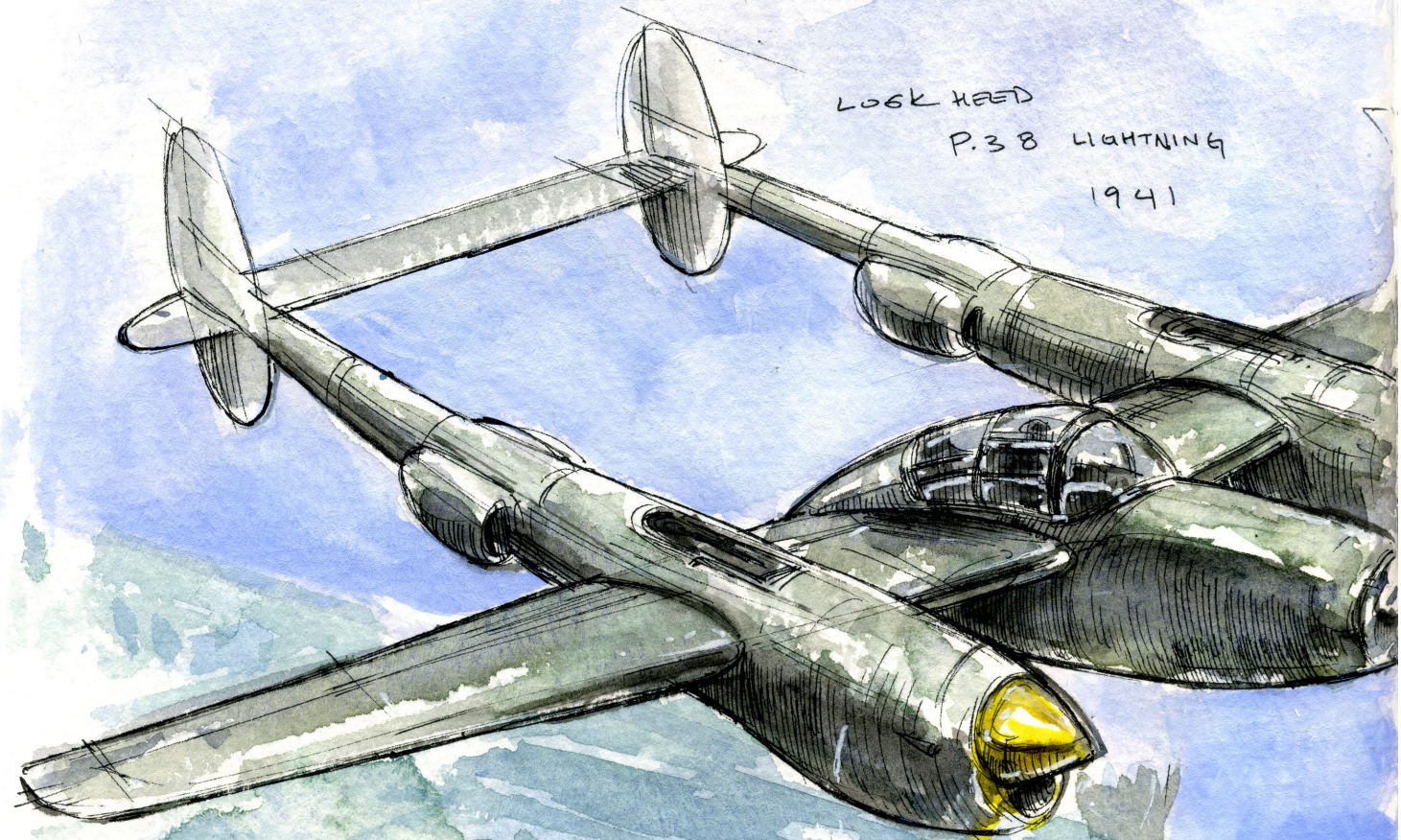
WHAT WE NEED TO TRY TO DO IS FIND INTERSECTING POINTS OF WHERE THE WING LINE OVER LAPS THE BODY LINE. I FIND THIS THE QUICKEST WAY TO APPLY THE PROPER LINE WITHOUT OVER THINKING THE PROCESS.



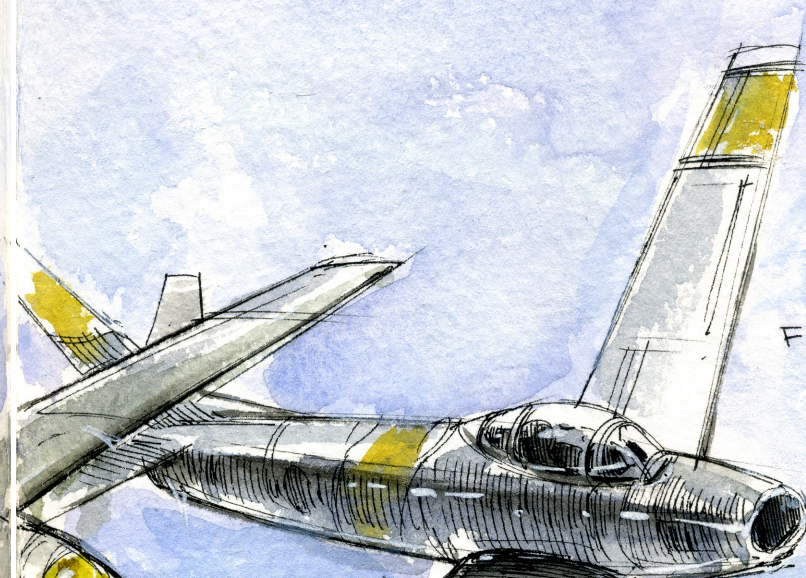
TO FIND THE START POINT BEHIND THE BODY. DRAW THROUGH TO THE OTHER SIDE.

WARBIRDS THROUGH HISTORY

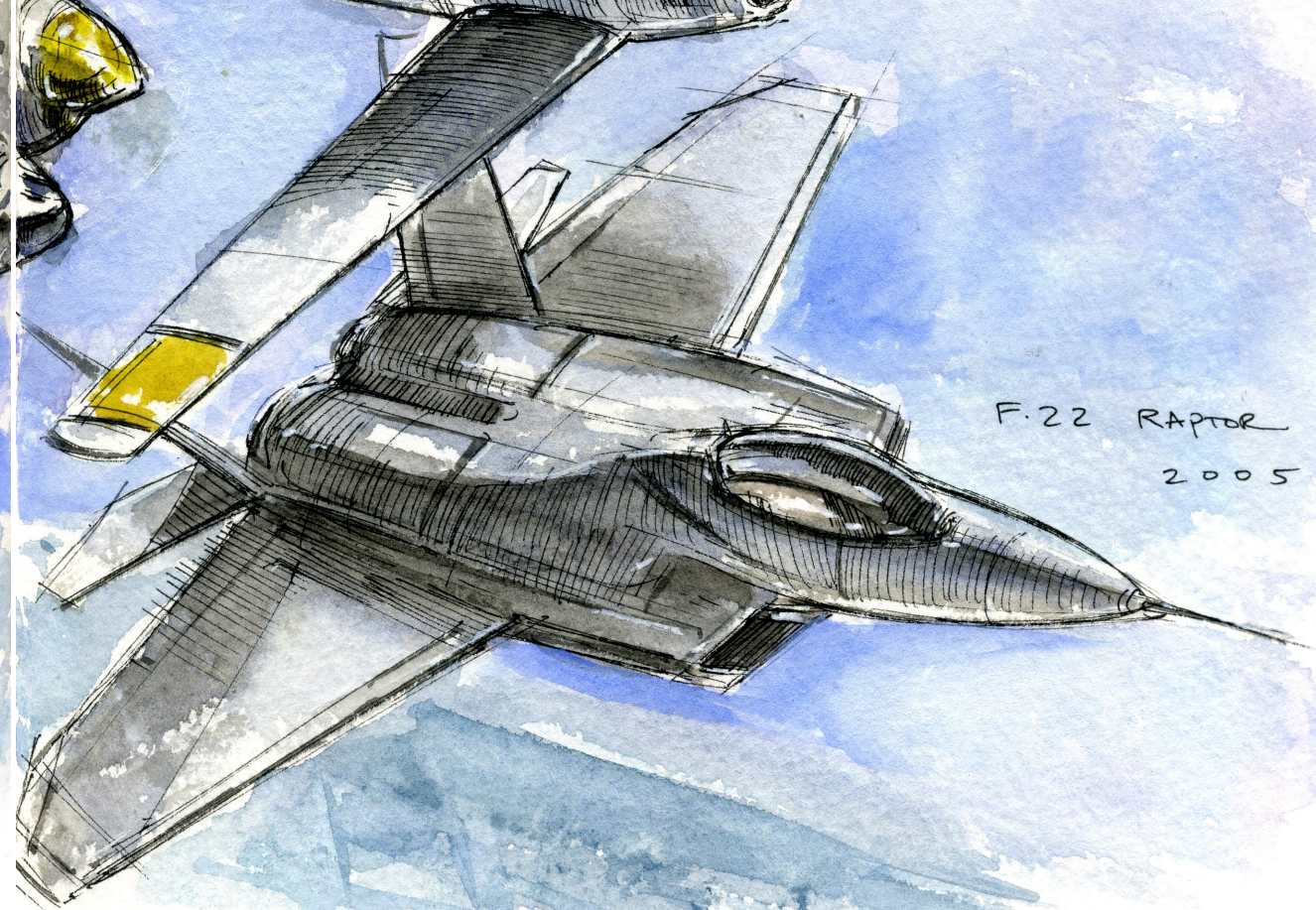
LOCKHEED  
P-38 LIGHTNING  
1941



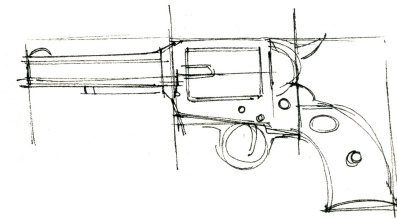
F-86 SABRE  
1949



F-22 RAPTOR  
2005



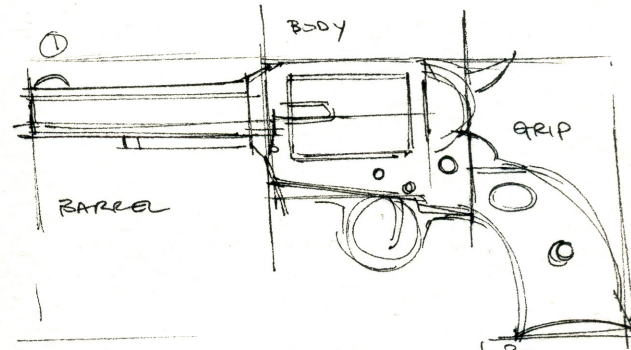
W E A P O N S



# WEAPONS

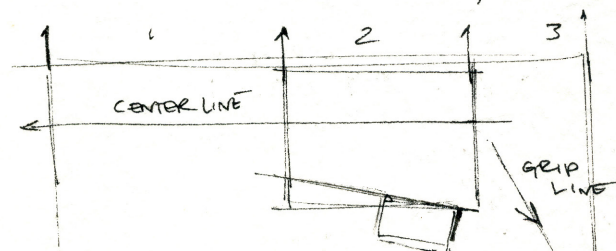
IN THIS SECTION LET'S EXPLORE A VARIETY OF WEAPONRY FROM GUNS, TO EDGED WEAPONS. I'LL INTRODUCE THE APPROACH AND THE TYPE OF SHAPES USED WHEN SKETCHING THOSE STUDIES.

## THE REVOLVER

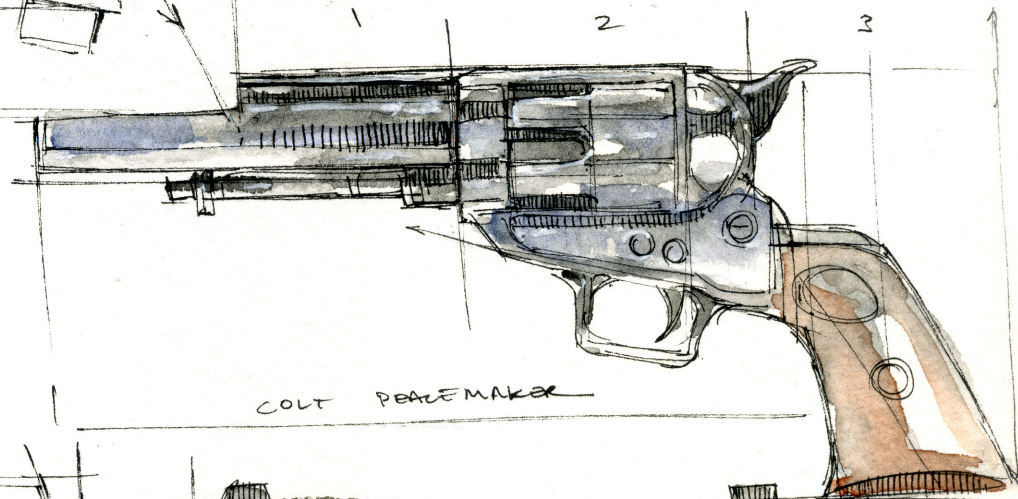


EARLY MODEL FIREARMS CAN BE BROKEN INTO THREE ELEMENTS. THE BARREL, BODY AND THE GRIP.

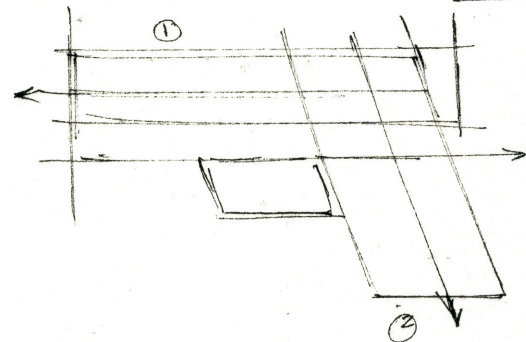
## SIDE STUDY



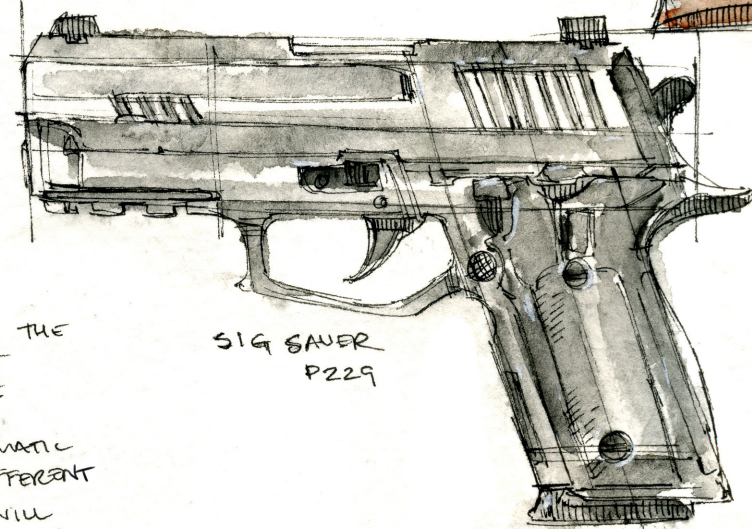
GET THE CENTERLINE FOR THE FIRST AND SECOND ELEMENTS. THEN GET THE ANGLE FOR THE GRIP LINE.



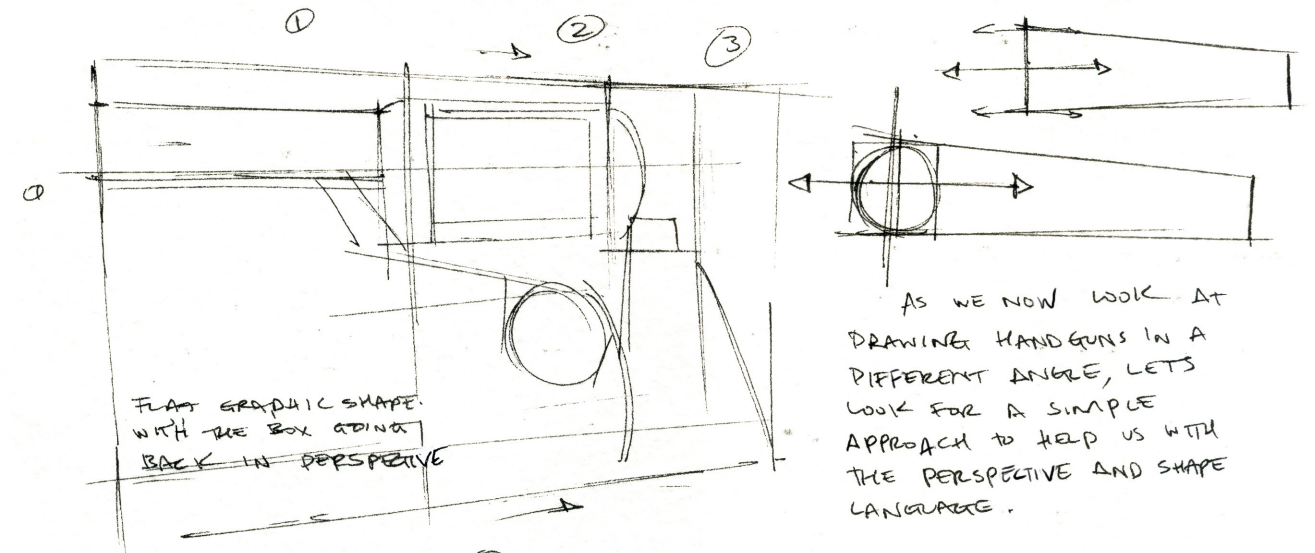
COLT PEACEMAKER



ON MODERN FIREARMS THE BARREL AND BODY ELEMENT CAN BE INDICATED AS ONE COMPLETE SHAPE. SINCE REVOLVERS AND SEMI AUTOMATIC PISTOLS OPERATE IN DIFFERENT WAYS, THE ELEMENTS WILL DIFFER. BUT THE APPROACH CAN GO HAND IN HAND.

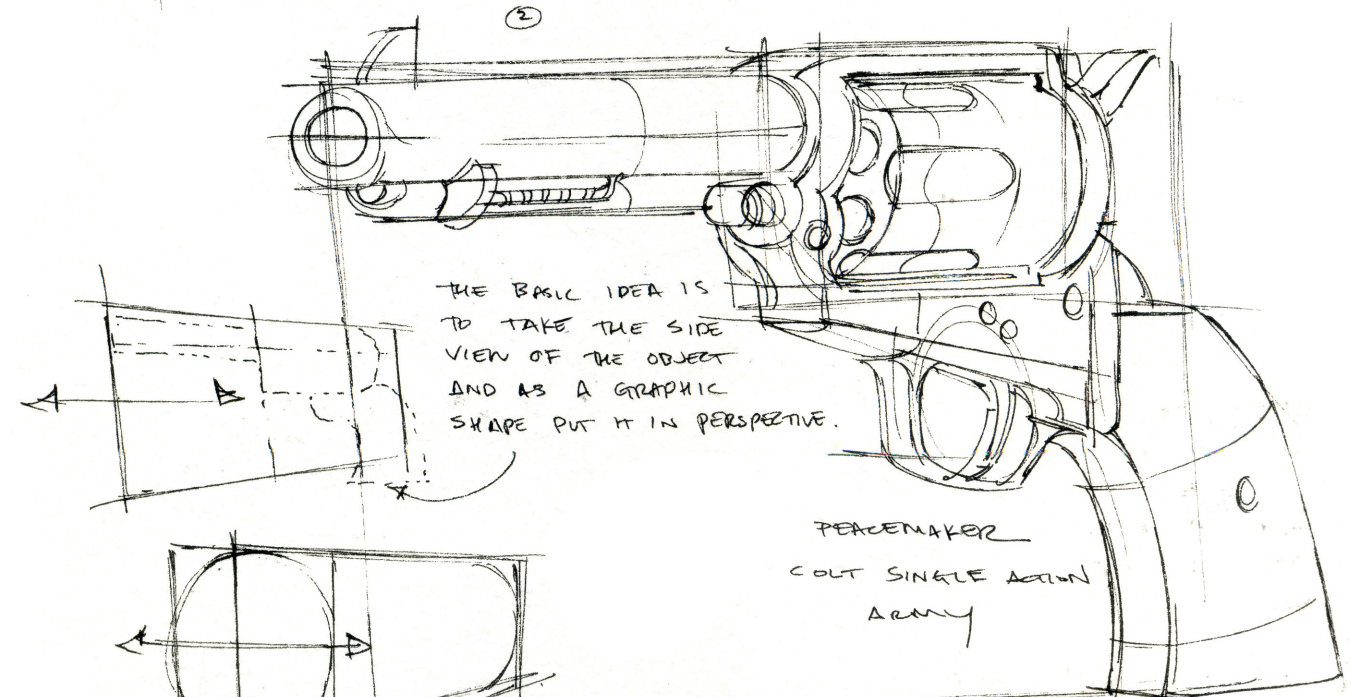


SIG SAUER P229



FLAT GRAPHIC SHAPE. WITH THE BOX GOING BACK IN PERSPECTIVE

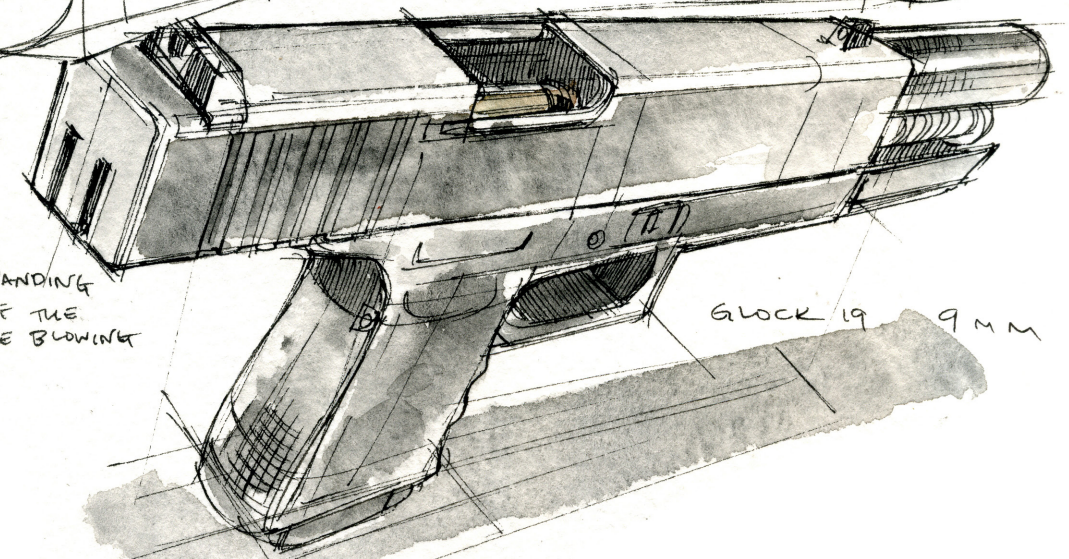
AS WE NOW LOOK AT DRAWING HANDGUNS IN A DIFFERENT ANGLE, LET'S LOOK FOR A SIMPLE APPROACH TO HELP US WITH THE PERSPECTIVE AND SHAPE LANGUAGE.



THE BASIC IDEA IS TO TAKE THE SIDE VIEW OF THE OBJECT AND AS A GRAPHIC SHAPE PUT IT IN PERSPECTIVE.

PEACEMAKER  
COLT SINGLE ACTION  
ARMY

THEN WE ADD VOLUME BY EXPANDING OUT THE SIDES OF THE SHAPE. MUCH LIKE BLOWING UP A BALLOON.



GLOCK 19 9MM

# ASSAULT RIFLES

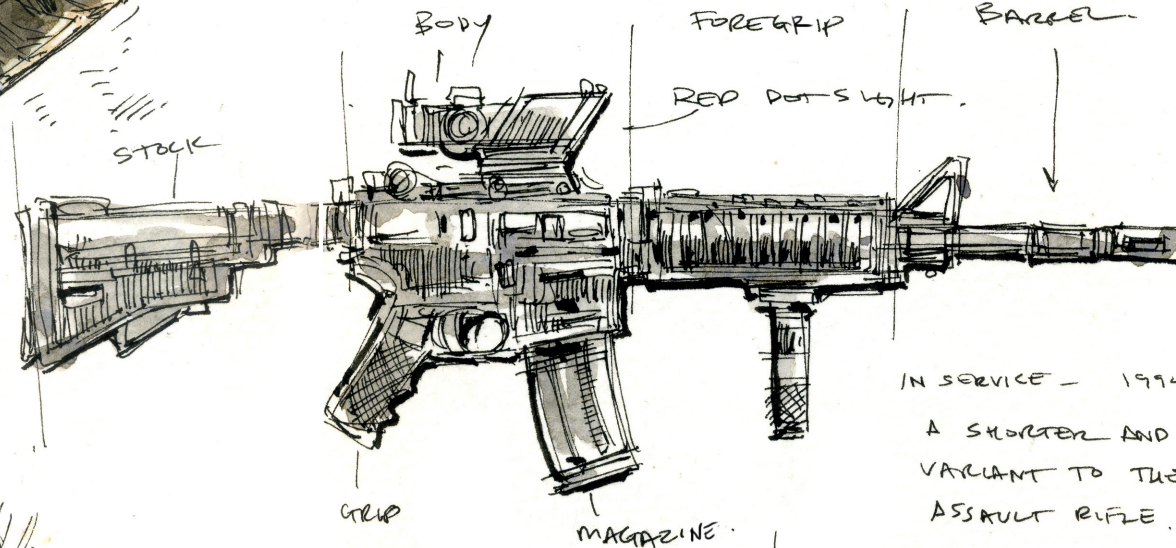
MOVING INTO RIFLES  
DOESN'T MEAN IT'S A  
DIFFERENT APPROACH TO  
BREAK DOWN THE SUBJECT.  
MANY OF THE SAME  
TECHNIQUES APPLY.

FIND YOUR CENTER  
LINE AND BREAK  
DOWN THE PROPORTIONS.  
APPLY YOUR BASIC  
SHAPES.



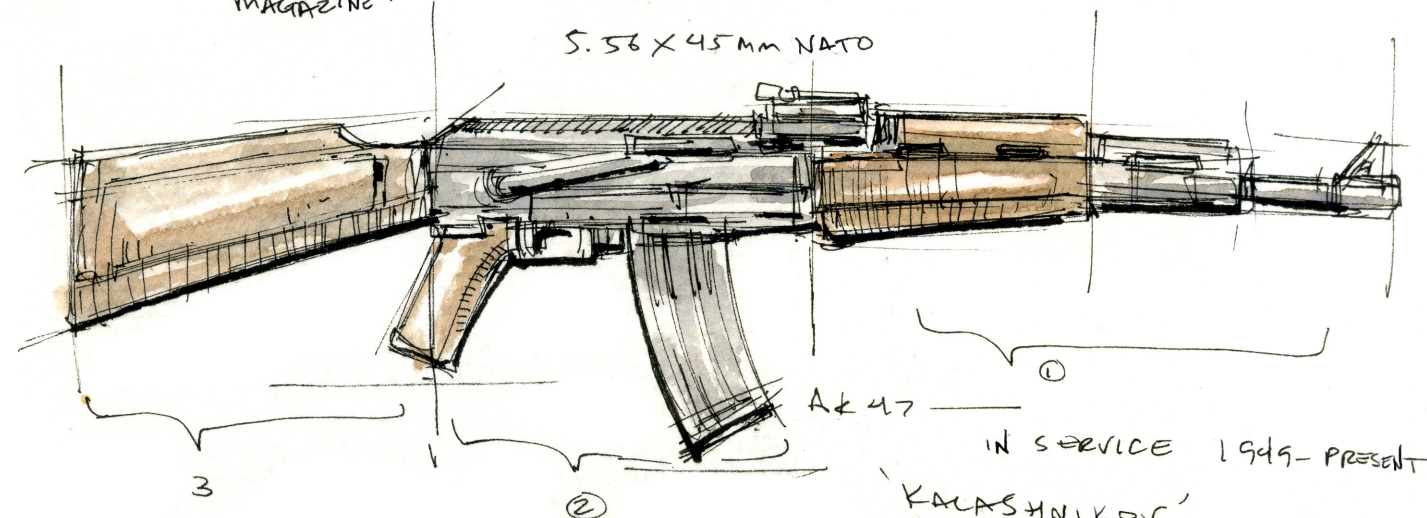
USMC SOLDIER  
M4 CARBINE

SIDE VIEW STUDY



IN SERVICE - 1994 - PRESENT  
A SHORTER AND LIGHTER  
VARIANT TO THE M16 A2  
ASSAULT RIFLE.

5.56 X 45 mm NATO

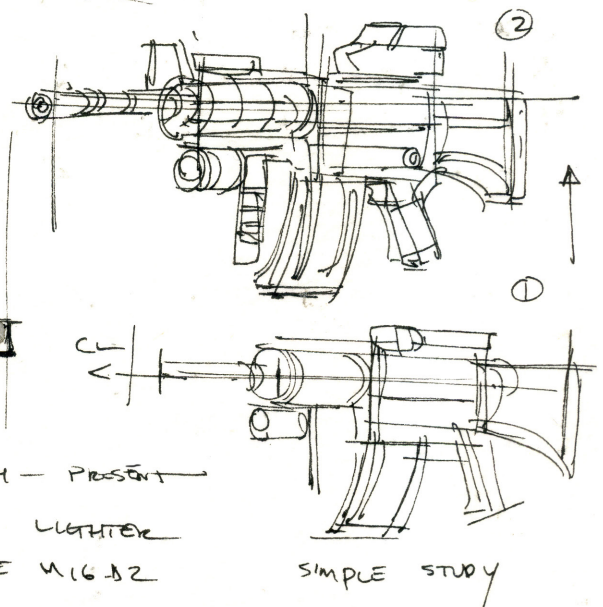
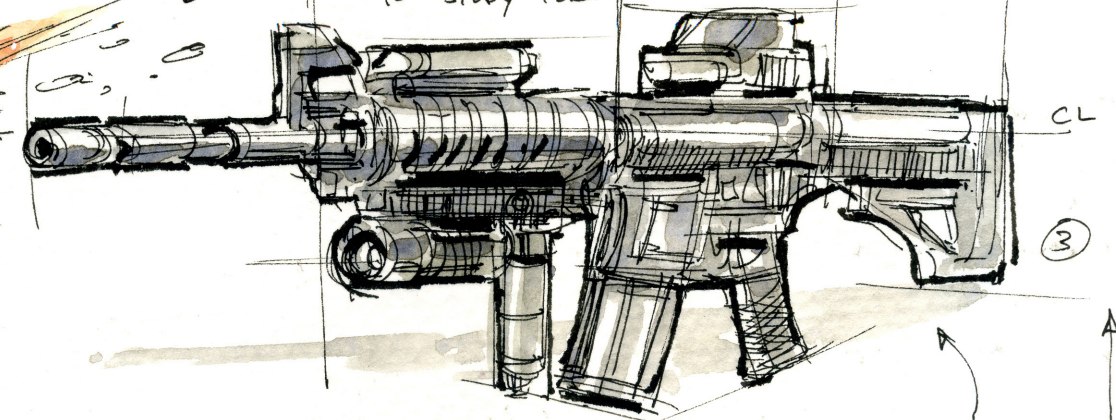


AK 47

IN SERVICE 1949 - PRESENT

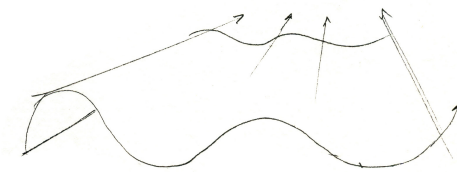
'KALASHNIKOV'  
7.62 X 39 mm -

- AS A QUICK SKETCH, STRIVE TO LEARN  
HOW TO INDICATE COMPLEX INFORMATION.  
DON'T SPEND AN EXTENDED AMOUNT OF  
TIME DRAWING AN OBJECT WHEN YOUR GOAL IS  
TO STUDY FORM.

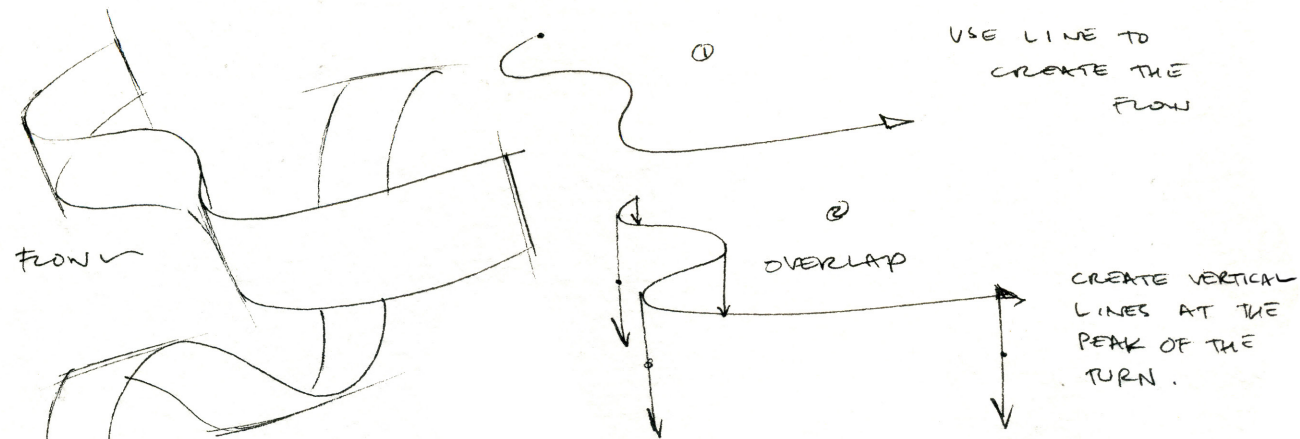


SIMPLE STUDY

C L O T H

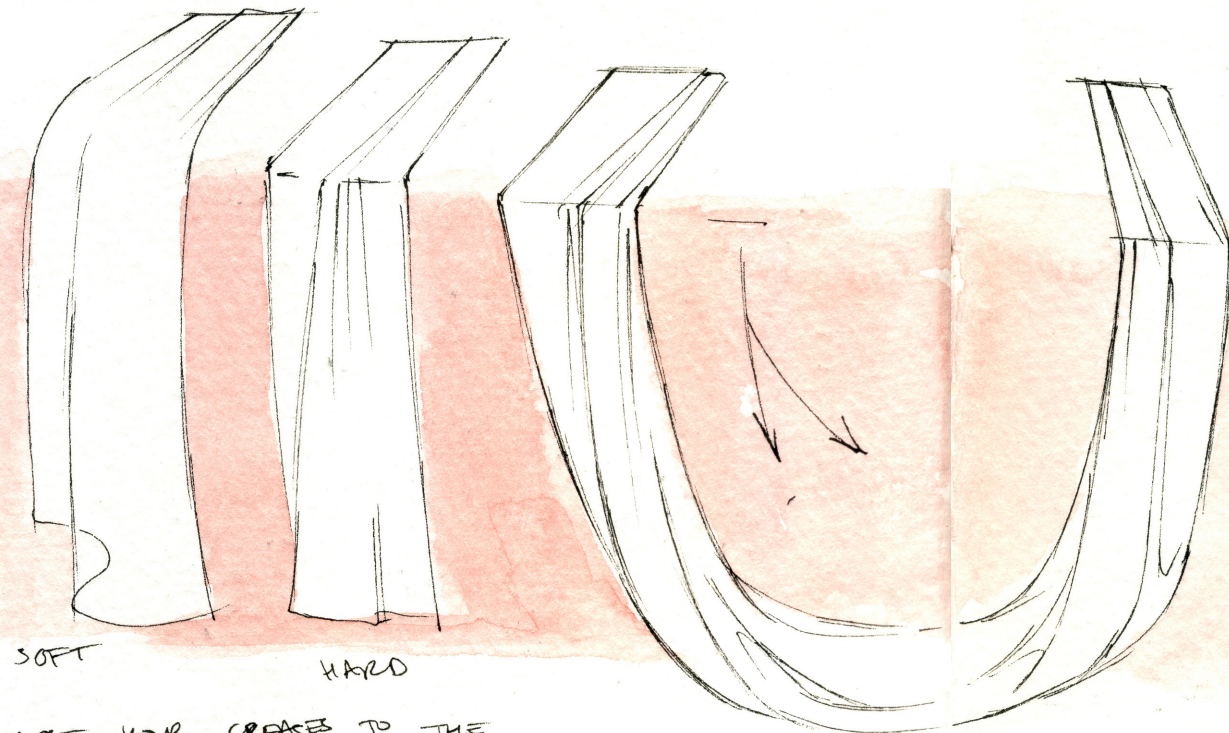
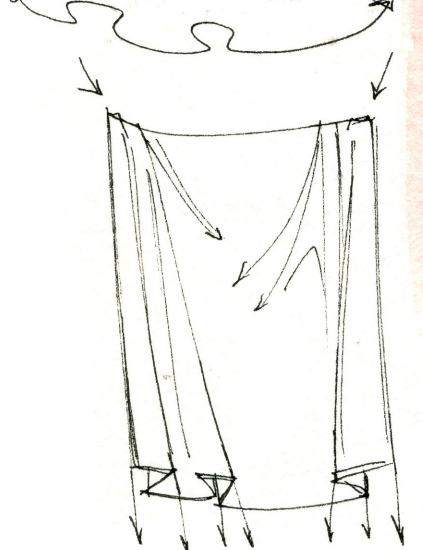
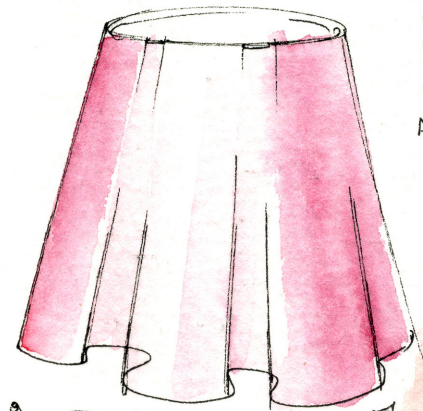
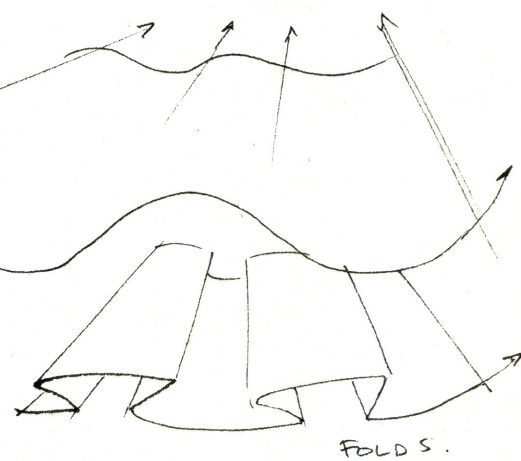


# CLOTH

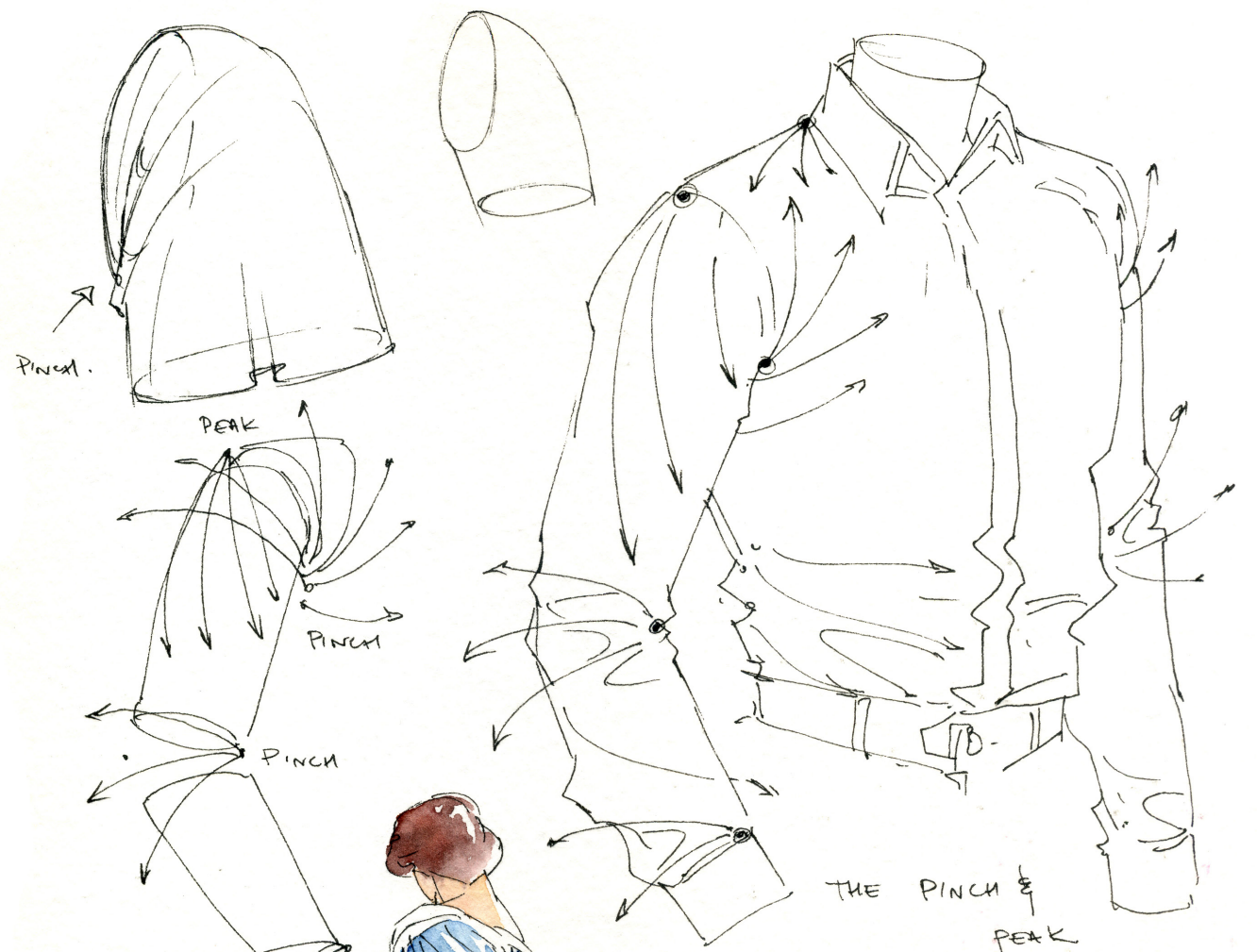


-THE RIBBON-  
THE BEST PLACE TO BEGIN WITH CLOTH WORK IS TO START WITH GETTING THE FLOW OF A RIBBON.

BE AWARE OF THE OVERLAPPING FORM WHICH REPEATS CREATING, BENDS, FOLDS AND CURVES.



START YOUR CREASES TO THE EDGE, LEAVE THE CENTER OPEN.

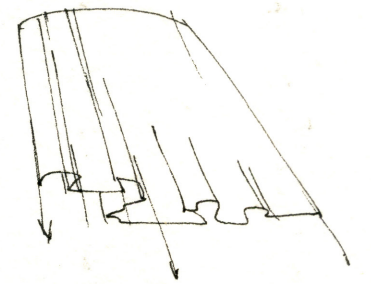


TO CREATE FOLDS WITHIN CLOTHING I LOOK FOR AREAS WHERE THE HUMAN FORM CREATES AREAS OF PINCH, USUALLY ON THE UNDERSIDE OF THE BODY, AND PEAKS SUCH AS SHOULDERS AND ELBOWS. USING ARROWS I CAN SEE THE PATH OF THE FOLDS.

CONDENSE TO THE EDGES.



OPEN CLOTH.

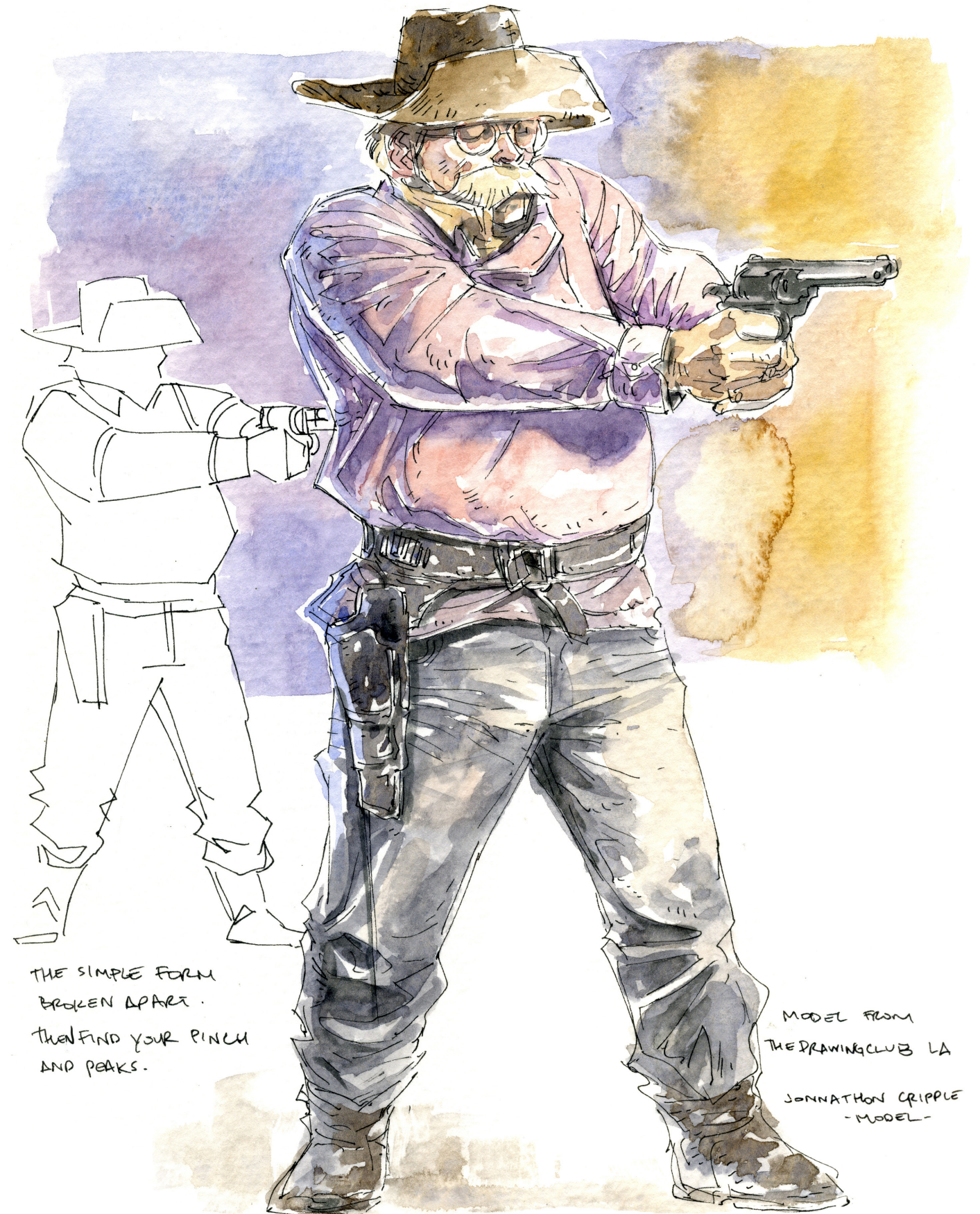
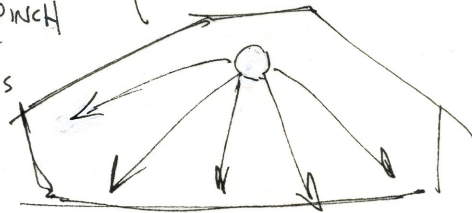




SIMPLE GEOMETRIC  
SHAPES TO REPRESENT  
SECTIONS AND PARTS  
OF THE CLOTHING.

YOUNG 'OMAN  
IN TRADITIONAL  
MONGOLIAN  
DRESS.

USING ARROWS AND PINCH  
POINTS TO SHOW THE  
DIRECTIONS OF FOLDS  
AND WRINKLES.



THE SIMPLE FORM  
BROKEN APART.  
THEN FIND YOUR PINCH  
AND PEAKS.

MODEL FROM  
THE DRAWING CLUB LA  
JONNATHAN CRIPPLE  
-MODEL-

Thank you for the support by obtaining a copy of this book. I hope that the information that is in this collection of my personal notes will help in some way of furthering your understanding and taking the next step into getting where you want to be. When I took the class personally it took me a solid year to become remotely confident in this process, so please do not give up so easily and time investment is very important. Mileage will be the key in seeing the gains of your skill set.

As you become more proficient in whatever direction you go, I hope that one day you will make your own Dynamic Bible and pass on that information to others. Everyone sees things in different ways, and that is what will make this foundation timeless.

Seeing, Visualizing, Expressing.....

[www.peterhanstyle.com](http://www.peterhanstyle.com)

Instagram @Peterhanstyle

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