Life Sized Portraiture Armature Making Process
For
Yenni Tawahade Workshop

Constructing a head armature can sometimes feel cold and less artistic. When you are in the middle of modeling and developing your sculpture the last thing you want is to be struggling with your armature. A stable and flexible armature can only enhance your artistic and creative process. In the following pages we will take you through the process of making your own good armature step by step by starting with the material list to all the way to putting your armature together.
Materials You Need To Purchase:

A. 13” X 13” X 3/4” White Bullnose Shelf (with a Formica top for water protection) $3.00 (Home Depot Redi-Shelf ¾” X 15 ¼” X 97” $20.93)

B. Two 2” X 2” X 12” pieces of wood (Home Depot 8’ long $2.07) optional

C. 10” X ½” black pipe (Home Depot $3.84)

D. 1/2” floor flange (Home Depot $ 6.84)

E. 4 wood screws #14 X 3/4” (Home Depot Sku # 997919 $1.18 for 8 pieces)
I recommend that you buy all your armature making materials from Home Depot as a one stop shop (the prices listed are as of 09/09/2013).

Next we will show you the step by step process of building a head armature.

F. 4 screws for the legs (2” 5.08 cm) (if you are going to add the legs)

G. 5 feet of # 4 Solid bare copper wire (Home Depot $1.38 per ft. $6.90 for 5 ft.) If you prefer aluminum wire, you can get it from Sculpture Depot (http://www.sculpturedepot.net/index.asp) (1/4” 10ft $15.00)

H. A zip tie (cable tie) or flexible thin steel wire $2.00

I. 2 hose clamps (1 ¾”) (Home Depot $1.15 each)

J. A roll Electrical Tape (Home Depot)
In order to sculpt a life-size head in clay, you will need to construct a stable and flexible single post armature.
Starting with the base of the armature

A. Screw the two 2”X 2” pieces of wood to the bottom of the 13” X 13” board. This way you are creating a leg that will making it easier to lift and store your tools. (Optional)

B. On the 13” X 13” board, use a T-square to find the center of the board (make an X to locate the center of the board)

C. Align floor flange using the center of the flange to line up with the center of the board. Mark one screw hole and drill it.

D. Pre-drill the remaining holes for the screws

E. Screw down the floor flange with the 4 wood screws tightly

F. Screw the pipe onto the flange tightly
The wire section of the armature

A. Cut the 5’ long copper wire in half (2’6” long each)

B. Bend each copper wire into bulb shape. The bulb should be 5 ½” diameter to corner to corner.

C. Use either a zip tie (cable tie) or thin wire to hold the 2 bulb shape copper wires at right angles to each other at the top and cover it with electrical tape for safety reasons.

D. Make sure the ends of the bulb shape copper wires are spread equal distance around the pipe (there should be a 3” minimum distance from the top of the pipe to the bottom of the bulb shaped wire)

E. Hose clamp the bulb shaped copper wires onto at the top of the pipe and the other one close to the edge of the wire (make sure you tighten the hose clamps as much as you can tighten them)

G. After you tighten up the hose clamp, you need to tape the hose clamp tightly to the pipe with electrical tape
H. You can construct a butterfly using a flexible wire and Popsicle sticks. It can be easily made at home.

I. If you are using water base clay I recommend at least 3 wire suspended butterflies from inside the copper wire bulb to support the weight of the clay and the water.

The total height of the armature should be 17”

On the next few pages we will go over types of clay and sculpting and modeling tools.
Clay Supply:

Minimum amount of clay for head study is 25lbs., maximum is 50lbs.

A. Water based clay (25lbs $15.00 at Art Student League of Denver)

B. Oil based modeling clay (Permoplast -2 different colors (purchase only one color) $2.39 per lb.) at Reynolds Advance Materials

www.reynoldsam.com
Sculpting and Modeling Tools:

Put your initials on all your tools and your full name on the board!!!

A. Wire loop – To work on Detail area - Reynolds Advanced Materials www.reynoldsam.com (Kemper Tool # D9-X $2.99)

B. Wood modeling tools – bring what you have and we will help you select and we will give you suggestions where to purchase

C. Clay Measuring Caliper – Pittsburg 6” Locking Wing Divider (Harbor Freight #96439 $4.99.) Pittsburg 12” (Harbor Freight #96440 $7.99 (optional))

D. Model Measuring Caliper – Sculptor's Aluminum Caliper - 12” C12 $14.00 www.sculpturehouse.com

E. 3” C-Clamp – To clamp the armature to the sculpture stand to keep it stable (Harbor Freight $4.00)
F. **Level** – To level your armature on the sculpture stand (have some shims for leveling purposes) (Harbor Freight $1.00)

G. **Mallet** – To flatten out and organize your clay surface (Harbor Freight # 69050 $2.00)

H. **Flexible measuring tape** – For measuring proportion (Used for sewing, can be purchased at Hobby Lobby)

I. **Apron** – To protect your clothing and to carry tools

J. **Tool Box** – For protecting your tools and to keep them organized

K. **Plumb Line** – To find the center of gravity and to align 2 points vertically
L. A sharp knife like a Steak Knife – can get at a thrift store

M. Metal Scraper Minimum 3” wide

N. Wood block – To compress the clay to the armature to establish big planes of the head- 1”x 2” board 13” long (find one at home or you can use the left over wood from the 2X2 wood piece that was used for constructing the leg)

O. Small T-square or ruler- to make a straight line

In conclusion, by using this instruction you avoid being frustrated in the creative process of making a sculpture. I encourage you to use this information to construct a good head armature.

Good Luck!!!