

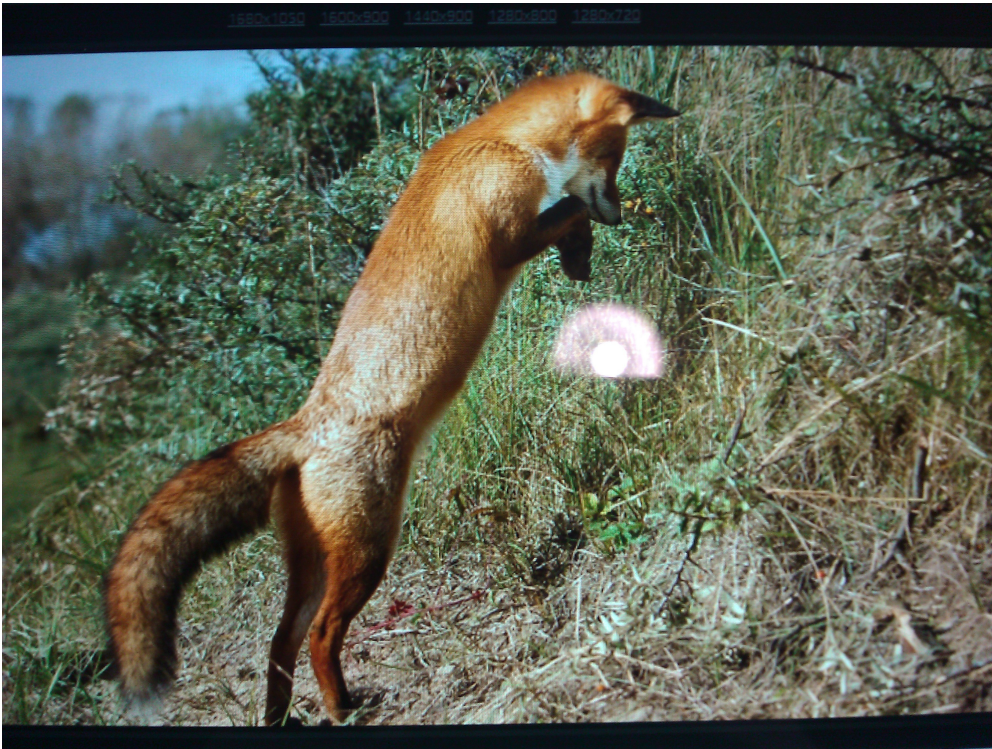
Moulding and Casting Tutorial

Materials

Plaster of Paris – Bunnings
Petroleum Jelly – Coles & Woolworths
Plasticine - \$2 shops
Polyurethane Foam – Dalchem
Car Bog/Bondo – Supercheap Auto
Gorilla Glue – NZ and USA



First – Get the animal you want to cast, in this case a fox cub. Skin it to how your going to mount it (Eg, final pose will be jumping, so I can do a dorsal cut down the back to make it easy to mount later)



Reference is essential! This is just one of the pictures I used to get the pose that I wanted.



Pose your body in the freezer how you want it. I've used Styrofoam to sit the legs up along with T pins (any pins will do) to help hold the legs in the correct position. The cardboard is under the arms to give me a gap later and save me dremeling that section out, or having it too "tight." Plasticine can also be used there.



New toy! Now, not everyone can go out and get a reciprocating saw when they need one, so I'll be adding tips for how to do this if you don't have one of these. They are pretty handy though, but I would recommend getting one you can reasonably comfortably hold in one hand.



Frozen! One step I didn't show was cutting off the head – will show why later. Also cut off the toes as well, this makes it easier for casting. Now already you can see some issues here because I froze it on it's side. The left side the arm is sitting higher at the shoulder, and much tighter to the body, and the stomach at the top is flat compared to the other side. I knew as soon as I pulled it out, but also know I can fix this on the form, rather than refreeze and try to pose it again.



Here is the body from the side, and I'm pretty happy with the overall shape for the pose I am going to do.



Here is the fox and how I cut it, straight down the spine, so I only have two halves to cast and the head. Now, for anyone that does not have a reciprocating saw to do this, this can still be done with a handsaw! You need to cut in different area's and do more moulds, but it's pretty simple!



Here is where I'd cut if I didn't have a reciprocating saw and wasn't going to be adding threaded rod right up from the toes to the neck. Simply cut each leg off at an angle so you have your 4 legs separate and the body by itself.



Here I've made a "bed" of plaster about 2–3cm thick and gently pushed one half of the fox into it and built up the plaster a bit around the steeper edges – feet, belly etc. The

plasticine keys at this point I'd already taken out – but you can see the holes where they were. Once the plaster on the bottom is set I push a bit of glad wrap into the holes, so it surrounds the edges, but isn't packing it full. I generally lie a bit over the hole and push it in with a pencil, just to have some around the outside, and a layer in. This I find helps release the top layer from the bottom once they are both set, because it's hard getting a good layer of petroleum jelly into the keyholes. The plasticine at the severed head is where my pour hole for the foam will be, and the plasticine at the lower leg where the toes should be is where the wire or threaded rod will be placed. The green random lump is to make a gap to help pry the mould open.

At this point once that lower layer is dry and the glad wrap is in the keyholes I cover all the plaster and plasticine with petroleum jelly. A good layer is a fantastic release agent, plus it smooths out any bubbles or ridges in the plaster. Don't bother putting any on your carcass though.



Here it is with the top layer of plaster added, it seems it started bleeding and that was oozing up between the plaster as it set, ew. It all still set alright, but was a little bubbly when I pulled it apart, but that's not a problem! The main thing here is to make sure your plaster is thick enough that it won't crack when you pull it apart, so make sure there is a good thickness between the highest point of the carcass.



Here is the mould pulled apart! My god, it STANK so badly. As the plaster heats and sets it defrosts the meat, the smell from this was... unpleasant at best. I actually prefer doing 4 legs separate and the body whole because you don't get cooked intestine smell. The body is easy to pull out of the mould at this point, it'll be fully defrosted so watch those intestines if you've cut it like this! I put my halves back into the freezer to keep for reference until the mount is complete and finished. It always helps to keep these around to refer to if you need them. Another bonus of keeping them is if you spot anything wrong with your form (like the arm issue with this one) I was able to fix it later by recasting the arm, had I thrown it out at this point I'd have had a much worse time. While you can't really recast the whole thing once it's defrosted, it'll never line up again properly, sometimes you have just enough to work with.

You do this exact same process for the other side of your animal, so you have two easy halves to join later!



Here is the head, midway through the “bed” layer setting – now one very important part I forgot for this mould was a pour hole. Once both sides had set though I just cut one in with a knife, it's not a big deal, but it's definitely easier to remember before it's all set.



Now onto the fun part. Get your foam, the stuff I use is from Dalchem, you can order it from their website and they're based in Victoria. As it turns out this is finicky stuff. On cold days I heat both bottles in a bucket of warm/hot water and put both sides of the plaster moulds in front of a heater for a while to get it to “kick” properly. When this stuff works it's fantastic though! If you want a harder foam, mix it 1.1 with the dark liquid to the white liquid.



Here is my body mould all ready to go – because I'm hoping to take this to a competition I've used threaded rods all the way up to the neck in both halves for maximum stability when it's on the base. If you have a regular standing mount you can use threaded rods, or most commercial forms have a thick gauge wire running up the legs and out the bottoms (the smaller the form the smaller the wire) and ALWAYS have wire in your arms and legs, even if it's free standing, it helps to reinforce the foam especially when your taking it out of the mould, along with helping reinforce the mount when complete. No one likes broken legs. Once again I've covered the plaster completely this time in petroleum jelly which also smooths the bubbles and imperfections out, so you have far less to deal with once you pull your form out, plus it means you can actually release your form. I find where it's been added before I don't usually have to reapply, but if you don't think its got a good enough layer, add a bit more on. Don't cake it on, but have a nice layer.



And here it is once it's pulled out! At the top I need to cut off the excess from the pour hole, and you can see it's leaked through a bit around the legs. It's easy to cut off and I generally fix all that with a knife.

With the taxidermy foam it expands 20 times its size, so be careful how much you mix and hold your two halves of your mould together! It will expand like mad and if your not careful it'll expand too much upwards and you'll end up with a form too big because it's expanded. If that happens pull out the foam and try again, or if it's not too bad you can sand it back. On smaller animals even a small amount of expansion can cause huge problems, because you don't have a lot of allowance with the skin.



Here is the other side, all cleaned up around the edges. The rod coming from it's butt is from the other side still sitting on the table, so ignore that.

As you can see the foam didn't go all the way down the lower leg, but this isn't a problem because that will be rebuilt with clay. Here you can also partially see why this side isn't as good as the other. Compare the picture to the above one and you can see the above side has a "deeper" arm slot, where this side has none, along with where the shoulder is sitting and the shape of the stomach.



Here is the head, all ready to go, a little damaged from prying it out, but clay goes there anyway, so it's not a big deal.



About to join the two halves together, this also shows the leg difference nicely too. Plus some gaps along the belly. Once it's glued together if car bog/foam/gorilla glue doesn't fix it, clay will be put in any remaining holes.



Here is the leg that I wanted to fix, all cut and ready to make a mould of and frozen in place. This is how I'd cut legs normally if I hadn't done the whole fox in half.



Once again, always remember to add leg wires, and somewhere for those leg wires to come out of – that wire sticking out at the top will go into the body of the form once the leg is cast and the old one is cut off. The wire adds stability and is essential.



Using the tip of a knife I cut a bunch of small holes on the two sides of the fox, this is to help the glue you use to seal the two sides together.



Here is the two sides bogged together, I couldn't get the two sides at the neck to stay connected, so once the first lot had dried I mixed up more bog and filled the neck again and this time had it in a vice until it dried – worked perfectly.

Here I've used bog because it's what I had available at the time, if I was to redo this form today I'd have glued it using taxidermy foam or Gorilla glue. Bog sets very hard and without those holes cut into the form in the last picture it forms a very weak bond compared to foam or gorilla glue, which are both polyurethane and bond far better to themselves. They're also much, much easier to sand down compared to bog which can make any alterations needed far easier.



Getting ready to set the new arm after hacksawing off the old one, still getting position right



New arm from the front, much more space to work with! Plus the shoulder is now in the right position compared to the other side. The black lines are marking top of the shoulder, and where the elbow sits in line with the body.



Inserted wire from through the arm, and a small piece for extra stability and bond. This also stopped it rotating around while I was gluing it.



Finished form! At this point it's all sanded down, tail has been wrapped (wire wrapped in cotton wool and thread) all the needed parts are glued on (Woo! A head!) and it's ready for clay work and to be used. The dimple in the shoulder will be filled with clay and more details added once it get's to the mounting stage.



Other side with it's nice new leg, hopefully it makes sense as to why it was replaced and you can see how much more I have to work with and with a much better positioning and groove to tuck extra skin into. Also at this point I'd bent the threaded rods to fit into the base.



Front view, the leg imperfections will be fixed with clay and the toes and feet also filled with clay when it's at the mounting stage.

Extra Tips!

Got extra plaster left over that hasn't set? If you have any offcuts of the taxidermy foam left over I make rocks for habitat! These still need to be painted, but it's an easy use for left over plaster and foam offcuts!



If you have any questions or comments, don't hesitate to contact me at

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