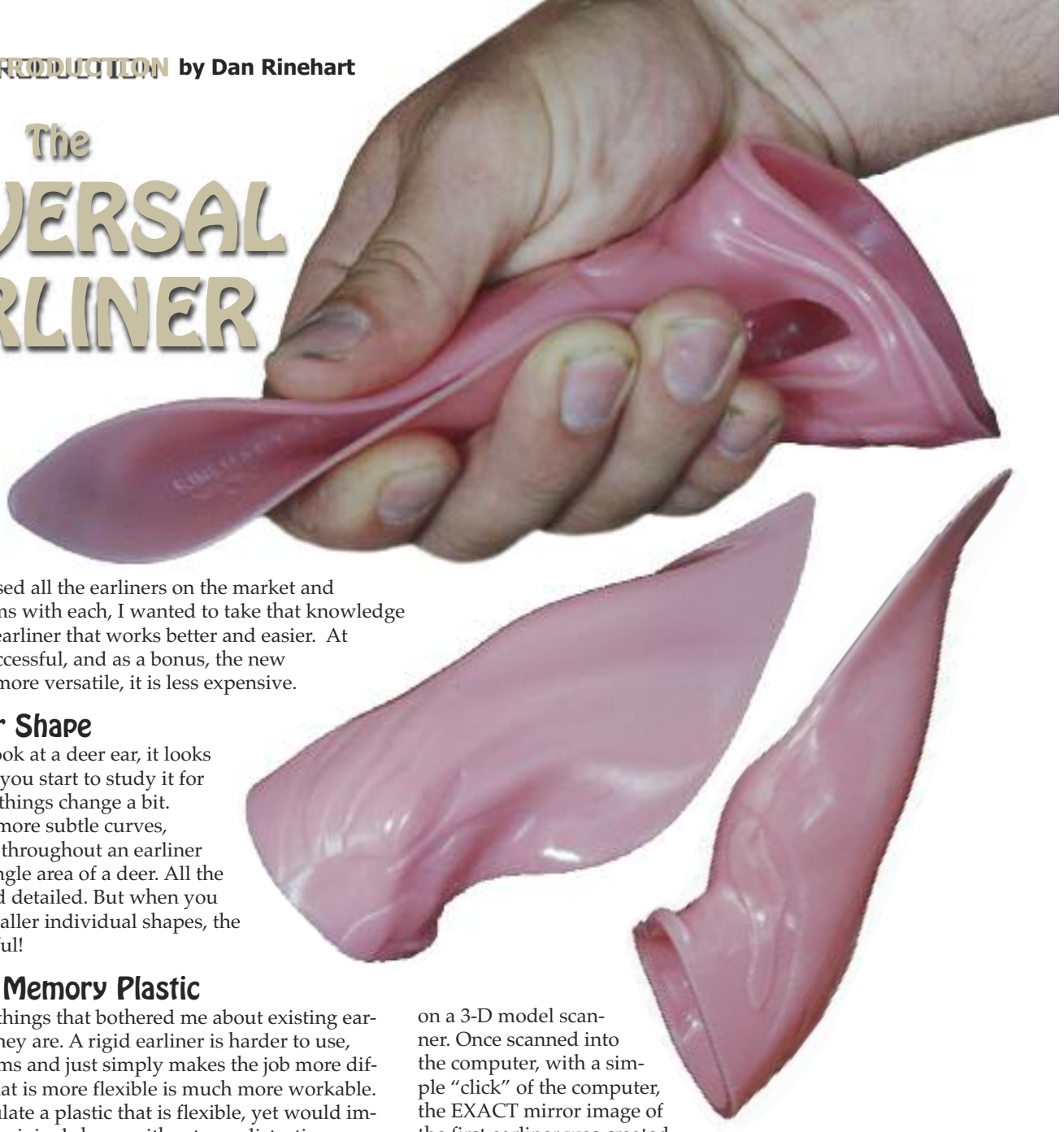
by Dan Rinehart

The UNIVERSAL EARLINER



Having used all the earliners on the market and learning the problems with each, I wanted to take that knowledge and make my own earliner that works better and easier. At TASCO we were successful, and as a bonus, the new earliner is not only more versatile, it is less expensive.

Ear Shape

When you first look at a deer ear, it looks quite simple. When you start to study it for making an earliner, things change a bit. There are probably more subtle curves, twists and contours throughout an earliner than in any other single area of a deer. All the shapes are small and detailed. But when you recreate all these smaller individual shapes, the result can be beautiful!

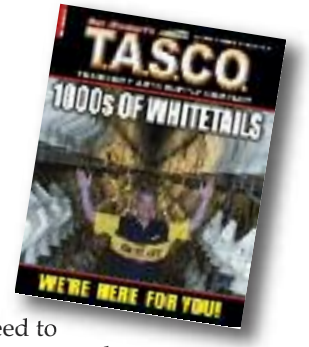
Memory Plastic

One of the main things that bothered me about existing earliners is how rigid they are. A rigid earliner is harder to use, creates more problems and just simply makes the job more difficult. An earliner that is more flexible is much more workable. We needed to formulate a plastic that is flexible, yet would immediately return to original shape without any distortion. None of the various plastics on the market provided the flexibility and rebound that we were looking for. We enlisted a helpful chemist to "tweak" the plastic compound and the result is a plastic that immediately returns to shape and holds shape. We call our formulation – MEMORY PLASTIC.

CAD Technology

The same CAD (Computer-Aided Design) technology used to create CAD whitetail manikins was used to create these new CAD earliners. CAD technology allows for precise detailing with PERFECT symmetry. In fact, I needed to create only one earliner that was then scanned on a 3-D model scanner. Once scanned into the computer, with a simple "click" of the computer, the EXACT mirror image of the first earliner was created, producing a perfectly symmetrical opposite second ear. With everything scanned in, we went back and perfected the shapes, contour and surface through computer manipulation. Once we had both ears perfected, it was time to create a mold and produce the first CAD earliner.

UNIVERSAL Earliner



One thing is for sure, when you need an earliner, you need it now! So many times I get phone calls from taxidermists that are delaying mounting their whitetail because they are waiting for a pair of earliners. They have a pair of ears "forward" liners but this customer wants ears "back". Well, there is no need to wait (or even order the new earliners) because there is a simple

and quick alteration you can do on a CAD earliner that enables you to place the deer ear in ANY natural position. That's what I want to show you here in this article. So let's jump right in and take a look at making a CAD earliner "UNIVERSAL".

I have drawn a dotted line to illustrate where the cut is made on the CAD earliner.

Notice that the V corner of the earliner is ALWAYS preserved. The V corner of the ear is the most important area on the ear to align properly. At this corner, both the upper and lower ear edges join together, creating this V. Whether an ear is forward or back, the V corner remains constant. Also notice that the back of the ear base is trimmed at the rounded transition from the back of the ear base to the back of the ear surface.

When we mount the deer and place the earliner, an ear forward position will have the V juncture with the manikin at the X.

As the ear rotates back, notice that the concave opening of the ear also rolls down.

This photo shows INCORRECT placement of ears-back positioning. Notice that the ear has been positioned back, but the inner concave of the ear has NOT been rolled down. This is THE most common mistake I see in "ears-back" positioning of whitetail ears. I want to stress that a whitetail CANNOT roll it's ears back without rolling the inner ear down. The anatomical reasons for this rotation are numerous and require an entire article within itself. Just simply remember that when you move the ear back, rotate the ear as well.

O.K., now with our CAD earliner trimmed for universal placement and a basic understanding of ear movement, let's set an ear. The ear set is always initiated by pre-fitting the earliner to see if any alterations are needed.

First, stretch the base of the ear so that it is easier to insert the earliner into the ear. I'm using an ear-splitter tool, but you can simply use your fingers to stretch the ear base.

Make sure that the ear is split to the edge and place your finger on the inner tip.

Invert the ear to create a "cup" that the earliner can be placed into. At this point the ear should be half inverted / half right-side-out.

Place the earliner in the "cupped" ear so that the tip of the earliner matches the tip of the ear.

Hold the tip of the ear so that the earliner cannot slide forward or backward during the insertion process.

Working from side-to-side, slowly work the hide over the earliner so that the earliner is fully inserted and the hide is right-side-out.

The one most critical area to align on a deer ear is the V of the ear canal. Again, this is the V corner of the ear that goes into the ear canal. If the hide is not tight to the V of the earliner, the outer ear skin will not fit properly and wrinkles can occur. The first step in getting this V to sit snugly between the hide and earliner is to make sure that the ear canal is placed in the ear canal at the base of the earliner. Simply push the ear canal in place and press the hide/earliner V together.

You can see that the hide and earliner match tightly at the V juncture—PERFECT!

If the V is not in place, the entire ear is usually bunched away from the earliner. This bunching can easily be corrected by pressing the ear canal into place in the ear canal (opening) of the CAD earliner.

With the earliner inserted, we have to read the earliner fit to see if any earliner alteration is needed. There are two alterations that are possible on an earliner. The first alteration is the width of the earliner and the second is the length of the earliner.

If the width of the earliner is too wide, the inner ear skin will not rest in place inside the earliner and the skin will "drum" away from the inner earliner surface. The proper alteration for this problem is to trim the upper and lower edges of the earliner, making the earliner narrower.

The second possible alteration of an earliner is in regard to the length. If the earliner is longer than the ear (from the V to ear tip), the V of the hide will not match the V of the earliner. This will cause a misaligned ear edge. The solution for this is to decrease the length of the liner. I have drawn a dotted line where such an alteration would be performed.

With the CAD earliner pre-fit and altered (if needed), we can start mounting the ear.

First, prep the ear so that your filler/adhesive will firmly bond the hide to the earliner. Coat the inner and our surface of the CAD earliner with Manikin Prep.

Then sprinkle sawdust over the surface of the earliner.

Then shake-off all excess sawdust and spray a sealer-coat of Manikin Prep over the sawdust. Then hang the ear-liner to dry and cure (approx. 10-15 minutes).

Now, let's mix some auto body filler. This may seem quite basic to some, but I have seen some very experienced taxidermists mix the filler and catalyst INCOMPLETELY. It is important to thoroughly mix the catalyst into the filler. The second photo above shows the catalyst only partially mixed. There are strips of catalyst that still exist. Everything must be mixed completely (third photo above) for the filler to cure properly. With the filler fully catalyzed, we can apply filler to the ear.

Similar to the pre-fit, half-invert the ear into the "cup" position. Apply a coat of filler to the surface area of the inner-cup.

Next, coat the inner and outer earliner surface. There is no need to apply filler on the base half of the ear liner – the squeegee process will push filler into the lower area as the ear is worked.

Insert the CAD earliner, hold the tip and work the skin over the base.

Again, push the ear canal in place and press the V juncture firmly.

Start forming and shaping the ear. Start with the upper and lower edges of the ear. Once the edge is positioned, start pressing and thinning the edge to form a perfectly tapered/feathered edge. Start at the tip and work down along each edge.

There are three inner ear channels along the concave surface of the ear. Use your finger to shape, smooth and thin these three channels. If uncertain about these channels – study the CAD earliner before mounting.

The final area that needs positioning is the guard hairs along the upper roll on the base-half of the upper edge. These hairs should roll slightly into the concave of the inner ear. A common mistake that I see here is the edge not rolled in and the guard hair sticking out. Even though our ear is positioned properly, continue to perfect the edge and shaping until you feel the filler start to cure. Once you feel the filler slightly firm and heat begin to be created, I stop forming the ear. If you continue to move the skin past the point that the filler gels, you will certainly break the bond between the skin and filler—the opposite of what you want.

Brush-out the hair patterns and take a look at the beautiful ear!

One area that you also have to consider before the filler cures is the back ear base hide. Make sure that the skin has not unnaturally bunched up the back of the ear, leaving inadequate hide to reach the back seam. This is the area between my fingers that I have pulled past the earliner base.

Now it's time to make the ear base. Form a ball of Critter Clay® that is the approximate size somewhere between a tennis and racquet ball.

Clean all filler from the hide along the base of the ear.

Firmly press the Critter Clay® over the base of the CAD ear. Use your thumb to press and feather the Critter Clay® along the juncture with the ear surface.

Position and feather along the V as well.

Generally, begin forming the ear base anatomy. Sculpture the rounded lower ear base anatomy. Now your ear is complete and mounting can begin.

Once your deer is mounted, the CAD ears can be rotated and placed in ANY position. Ears forward or ears back – it's your choice. Have FUN!

Once ears are positioned to your liking, clip strips of wire mesh along the upper and lower edge. By sandwiching the ear edge between two strips of wire mesh, the edge will dry perfectly straight.

This is what it is all about – a BEAUTIFUL mounted whitetail! Since this is an "Aggressive Upright" CAD manikin, I positioned the ears in an aggressive ear-back position. The result is a mount that is both attractive and accurate. Ear positioning can be the final touch that brings realism to your whitetail mount. CAD earliners can help you create an accurate ear for ANY attitude – and for ONLY $3.99!

My primary objective when creating a new product is to increase ease-of-use and decrease price. We did it at a price of only $3.99 per pair! When you order a whitetail manikin from TASCO, you get the special price of $3.99 on the corresponding CAD earliners you order. Order ten manikins, get ten pairs of earliners for ONLY $3.99 per pair! This is simply our way of thanking you for your business and helping you save a little money in a challenging economy. •