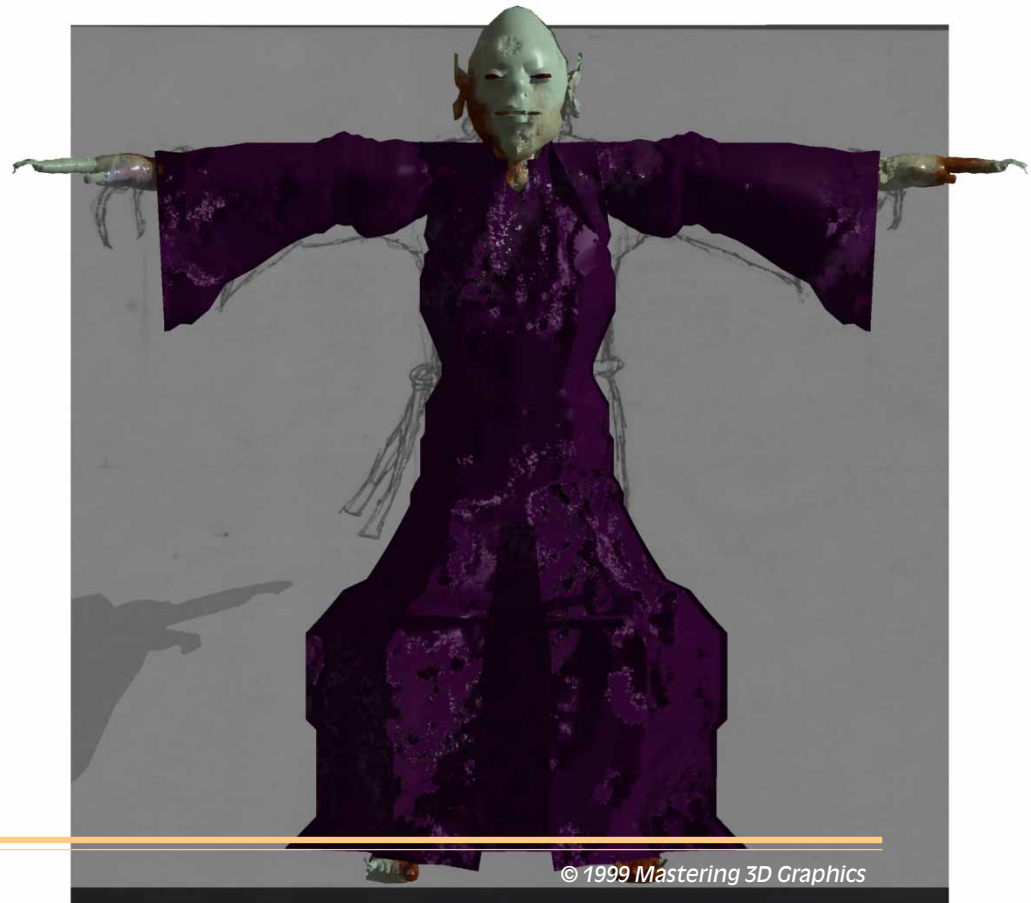


for Ray Dream Studio 5 ~ Dave Thomas

This tutorial will show you how to use drawings that you've created, as guides for modeling in Ray Dream Studio. You should have a working knowledge of RDS, but it isn't strictly necessary. I have done all the modeling in the Mesh Form modeler, but some of the ideas could be applied in the Free Form modeler. The tutorial will also guide you through making a figure that can later be used in Poser 3. This is the first in a series of articles that will deal with RDS, Poser, and Painter 3D.



That being said, you should probably get the support file from the downloads area. It's very small, so don't worry. I've also set up a site at <http://www.geocities.com/TmesSquare/Arena/8095/studioindex.html> that covers the first few pages of the tutorial.

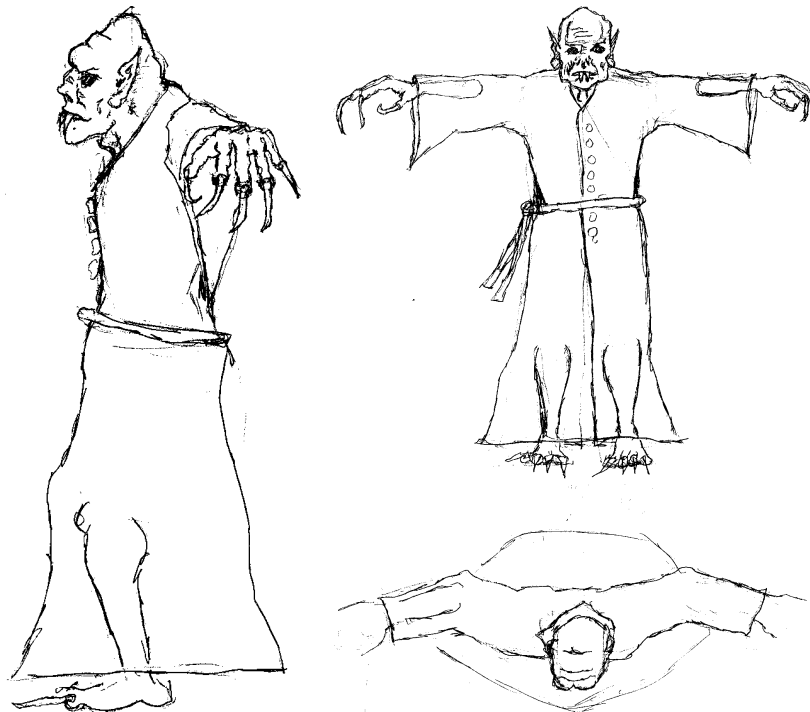
I know that I don't usually do this myself, but please read through the whole tutorial before you start. That way you can apply the basic ideas to models of your own, and not have to sit through the hours it will take staring at Nicholas, the Forsaken. He's ugly!

Character biography

Nicholas is a very pathetic excuse for a vampire. His memories go back two hundred years, but no further. His first memory is awakening in a bog in the middle of the night. His screams of frustration were only heard by the other residents of the fetid marsh. He later learned that he was in the New Jersey pine barrens when some intrepid businessmen decided the land was suitable for building an amusement park. Nicholas now lives in the abandoned buildings and run-down rides that the failed venture left behind.

Nicholas is very much the cursed creature. His skin is blotchy and stained from years of hiding from

the sun in damp air. He still wears the cleric's robes he had on when he awoke in the swamp. Two hundred years of humidity have reduced their splendor to a mockery of what they perhaps represented. He ties the robes to his emaciated form with a length of rope. The rope and robe appear to be the only things holding his emaciated body together. His mouth is a maloccluded mantrap of jagged bone that only could possibly exist in a supernatural creature's maw. His eyes are the only thing that appear to



Preliminary sketches: Side, Front and Top views.

have retained any semblance of his lost humanity. Nicholas regularly sates his lust for blood on the other residents of this murky bowel. He had on occasion – before the people abandoned the carnival – supped the blood of unaware mortals. Those few who recall his visits have dubbed him the Jersey Devil.

We can go on from there later. I find that as I model and paint, I refine my ideas to provide a better suspension of disbelief and better specifics to the story. Nevertheless, this is my basic idea.

Starting off....

We will begin the modeling process by applying texture maps to the different faces of the studio box. These guides will help as we start the process of creating a new model. You should now apply the drawings to the different faces of the box. If the texture doesn't face correctly, use the properties box to rotate its orientation along the correct axis. Rotating the texture is a no-no. It's much easier and less time-consuming to rotate the faces.

Once you have the textures placed, create a new mesh. Using the drawing tool, add axis lines inside the new mesh. This will give us an idea of how deep, high and long the finished model will be. It also allows you to fill the interior

of the studio box with the drawings we will be doing and to resize them easily. We need the correct dimensions to work without the drawings.

Jump out of the mesh when you have the axes positioned. Right click and jump into a new window. The original window should be set to phong preview so that you can accurately see the texture guides. Change the view for both windows to Right and, using the grid in both windows, draw a silhouette of Nicholas's face. Be sure to close the profile you've drawn by having the last vertex meet the first. I would suggest starting the drawing at the top of his pointy-head or, at the front or back of his slug-like neck (Figure 1).

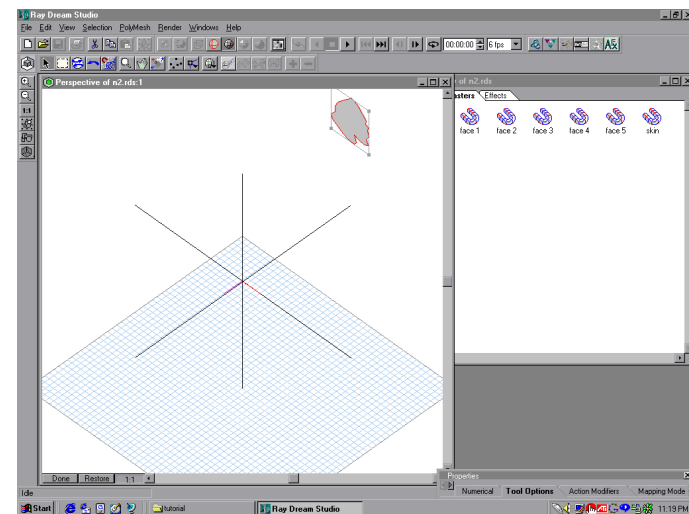


Figure1: Profile view.

See that? I'm already starting to refine the model by using adjectives. The whole process is based on how well I can describe my model and what I do to make those descriptions work. Nicholas's head is now "pointy" and his neck "thick and slimy".

You should also draw a frontal polygon for his head. I included the ears, as this will give me a better idea of his cranium's dimensions in relation to the rest of his body. Once you have both views drawn in the Mesh Form modeler, center them as shown in [Figure 2](#).

Now we begin the awesome task of modeling in earnest. Select vertices on the front and side views and link them. As you do this, subdivide the new lines you create; I subdivided twice. I could have done more, but it's a lot easier to add vertices than remove them. I'll be saying that frequently, so you don't need to write it down.

Only link what is necessary for the top of the head now ([Figure 3](#)). I like modeling in little pieces. It gives you better control over what you can and can't redo. It also allows you to duplicate what works. And duplicate you will!

Duplicate what you've done so far. Click on the silhouettes and hide them so you have nothing to interfere with the next step.

You should be prepared to switch views frequently when modeling. Nothing's more frustrating than modeling something that looks great while looking at it from the right, then finding out that it doesn't look so hot from the front.

Drag the vertices of the new lines to create the illusion of a curve. We don't have any bezier tools in this modeler, so we use what we do have: our eyes and hands ([Figure 4](#)).

You'll now want to link the vertices vertically. Don't link anything to the head point. It'll make the surface look weird. It should only take a few minutes to do this.

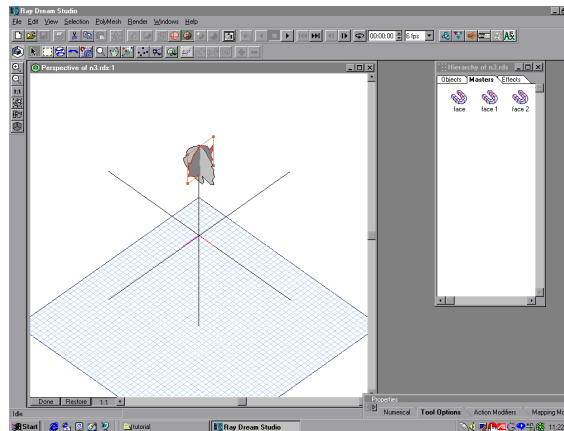


Figure 2: Centering the silhouettes.

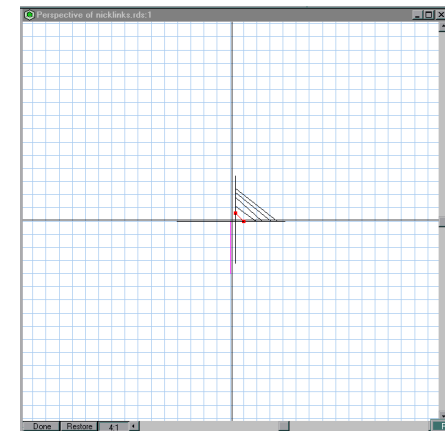


Figure 3: Linking the views.

Once the lines are curved and the verticals linked, you're ready to fill the polygon (Figure 5).

The top of the head won't fill unless you select individually, the lines and vertices that comprise it. With the polygons filled, change your view to the right and duplicate symmetrically. It's important to remember that the symmetrical duplicate will be made on the drawing plane. Change your view to front now and zoom out to all objects. Select all the polygons that make up the first part of the head. Look at your Properties palette. This will tell you the center point for the x, y and z coordinates of the selection. The important one for this piece is the x. If you have to, write it down! Now, click on the symmetrical duplicate and change the x center for it to the same value but with a positive number. This will move the mesh to butt up against the first.

With patience, now unlink the lines that form the butting edge on either set of polygons. I did this to the symmetrical duplicate, but it doesn't really

matter which. We want to weld together the edge vertices. If you are having trouble selecting the pairs, select the line first, then deselect the far vertex. With both sides welded, fill in the new empty polygons. The head point will do that strange thing again, but we can cure that!

You can now repeat this process for the back of the head, once you've revealed the silhouettes. I'd suggest hiding the front part of the skull you've just finished, to avoid any confusion. The process is exactly the same and once finished, you'll want to unlink the butting edges at the back of the skull and weld them to the front of the skull. Viola! We have pointy-top, Captain! (Figure 6)

The same process can be applied to the face, keeping in mind that you want to have the nose on its own line configuration. Also, it's worth mentioning that you'll want

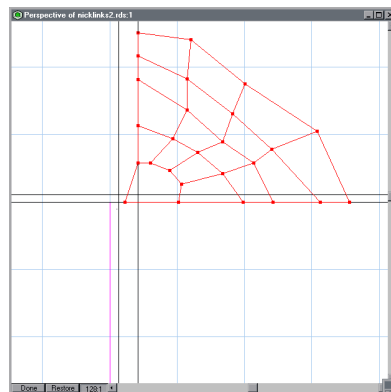


Figure 4: Curving the head.

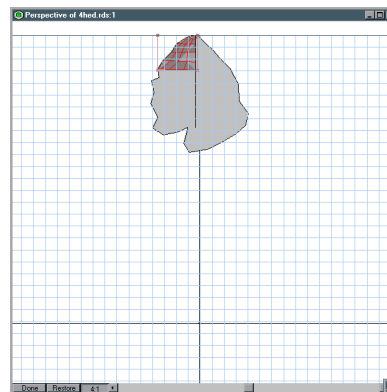


Figure 5: Front of skull.

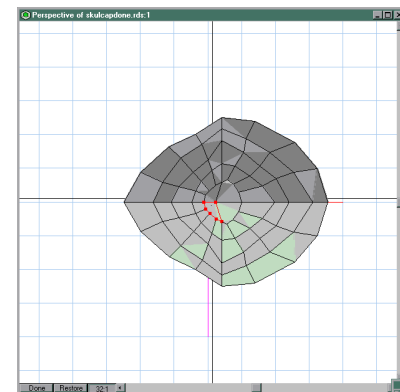


Figure 6: Joined Skullcap.

to link the nearest part of the ear's top and bottom and detach those polygons. If you don't have the RDS/Poser plug-in that allows detaching the polygons, you'll have to hide it and re-link. Subdivide the new line so it has a sure set of vertices to link. When you get near the chin area, link those vertices to the underside of the frontal silhouette's jaw line. Don't forget to duplicate, once the lines are linked.

Remember I said the nose was a special case? You want to subdivide the line that links the bottom of the nose to the bottom-most edge for the ear. Subdivide this line first and connect the nose to the closest vertices. I would also add new vertices to the line that is closest to the front. When you link them to the nose, you'll have started the surface that will eventually become Nicholas's proboscis; such as it is. Subdivide the other lines once this is done. Connect the verticals and use your views to create curves out of the lines.

Once the polygon is filled, you should have a face that looks something like [Figure 7](#).

Repeat the process for the back of the head, as far as linking and unlinking goes. However, we'll

postpone duplicating the mesh until we've got a little more specific with the front ([Figure 8](#)).

Now is the time to make the nose. Add vertices to the area where you want the nostril flare to sit and round them out. Add vertices to the area where you'd like the nostril hole to sit and round it out. Push and pull the vertices so they create the illusion of a curve. Remember to change your point of view and watch the surface. Even using the add vertex tool can triangulate the surface. Empty the nostril when you feel it looks correct ([Figure 11](#)). With a little care though, we can make a suitable nose. With the nose done, we work on the lips.

The mouth can be easily created by linking the corner of the mouth to the point where you would like the front to

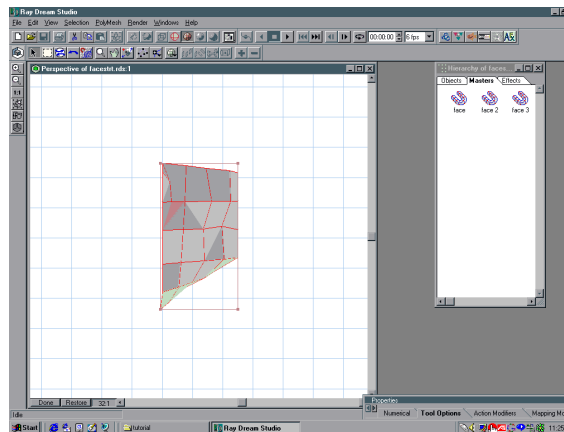


Figure 7: Half the face.

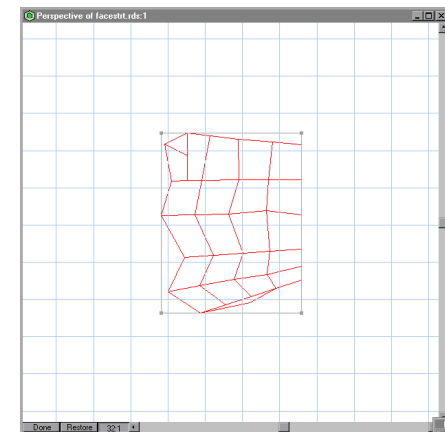


Figure 8: Wireframe face.

be. Make curves with new vertices, then link the bottom lip to the corner again; make more curves on the new line. Click on the space where the mouth is open. I purposely made the mouth open so that I could select it and empty the polygon. Now, we can link to the back of the head (Figures 9 and 10).

With the head linked, we'll duplicate with symmetry again. Place and weld the right side of the face to the left. The nose area will need to have the polygons filled separately, as with the top of the head. Link the top of the skull to the face when this is completed.

Now, the face is done, but the head looks a little flattened. The easy way to cure this is to select the centerline all the way around the head. Invert the selection so all the other lines and vertices are now chosen and offset your surface (Figure 12). I actually put my thumb in my mouth and blew into it while pointing at the screen and clicking "Okay". But I'm crazy that way.

And now you should have a good deal of the head.

The Maw of Gloom

Now, we'll start constructing the teeth and gums. Remember how I described it as a maloccluded mantrap of

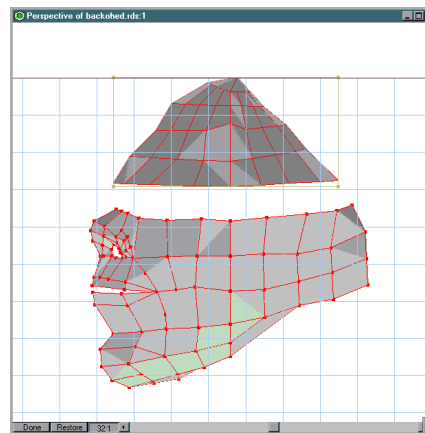


Figure 9: Front and back of face portion.

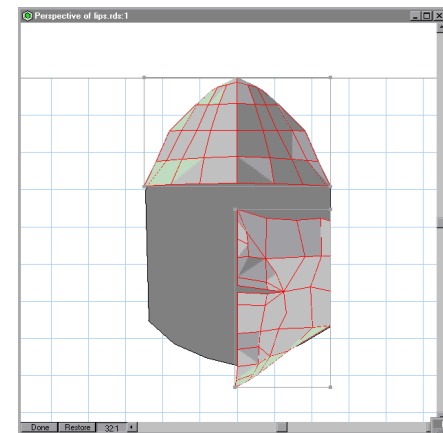


Figure 10: Front view of face portion.

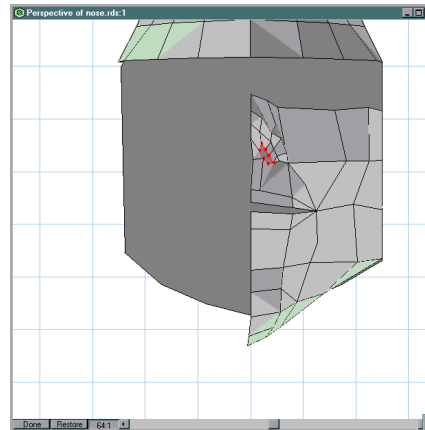


Figure 11: Emptying the Nostril.

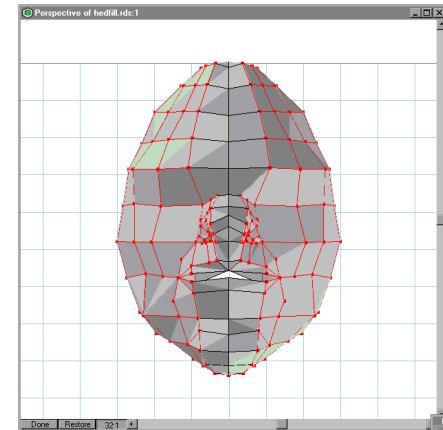


Figure 12: Offset the head.

jagged bone? That's what I'm aiming for. Maloccluded means something along the lines of this: Remember that kid from middle school with the really, really bad teeth? Not just an overbite, mind you. This kid's teeth pointed in so many directions, it looked like he had more teeth than a shark. Now, when he finally got braces, rumors spread about how the orthodontist had used so much silver in making the braces that the price on the stock and commodities market had quadrupled. And that Central American Inca mine that Cortez was looking for had to be found or there'd be no more silver in the entire world!

I like to exaggerate, obviously. But that's what I want the inside of Nicholas's mouth to look like. Some poor child's tale to frighten his friends enough that any dentistry is out of the question.

Okay, so we'll start with the gums. This is one of the two times that we'll use a primitive to make a model in this tutorial. I feel that primitives are constricting to creativity. They don't allow for very much asymmetry and only create problems later when you want to model variation. Nevertheless, for now create an oval with 32 sides.

With the oval created, bisect it by linking the opposite points. Then detach the back half and delete it. Again, if you don't have this option, bisect the circle anyway and

delete the back 14 vertices. Use the head to judge how wide the semicircle should be from a top view, and how long it should be from a bottom view. It should be just under the width of the mouth corners and as long, past the lips to where the chin meets the jaw.

When you have it sized, duplicate it and move the duplicate so that it is as high as you'd like the gums to sit. Resize the x and y to create an angle and loft it to the first semicircle. Make sure the top part sits slightly back from the larger bottom. There's the gums!

To make the tooth, change your view to either the left or right side and use the drawing tool to create a curved line that traces the outside portion of the front of the tooth. Don't use too many vertices when making the tooth "spline". It will slow your computer terribly and automatically switch you to wireframe view because of the dense poly-count inside the mouth. Now, lathe that baby.

This will be your canine. It will also form the basic shape for the other teeth ([Figure 13](#)).

Place and size the canine on the gum model. I felt that Nicholas's canine should be angled in towards the horizontal center. I also pulled the bottom vertex down to make it more pointy (I like that word). Duplicate the first canine and place it opposite the second. This is why I

made the oval with 32 sides and cut it in half. You have thirty-two teeth. Sixteen on top and sixteen on the bottom; unless you've lost a few like me. I can use the lines I see on the front of the gum to place the canines. If you duplicate these teeth and manipulate the size and end vertex, you can make and place the next two teeth in on either side. Your front teeth are wide and flat. The next two teeth are not as wide as the front and more edged than flat. The teeth right behind the canines are wider and start dipping in. I spent a lot of time looking in mirrors and sticking my finger and tongue around the edges to see how the teeth looked (Figure 14). I'd suggest you do the same. A vampire's teeth are his life!

Once you have the teeth placed (don't forget to check your views) you can duplicate the entire mouth selection from a top view. When you want to place it, set it so they sit slightly "open" vertically (Figure 15).

Now, we make tongue. We'll lathe a "spline" again for the tongue. I keep putting spline in quotes because the line isn't a spline as defined by other programs. It is a spline as I mean, which is a centerline to lathe. Make

the tongue an elongated shape like the outside of a pear. We want it to sit behind the teeth and back in the throat. I wound up rotating the back few lines to get it to sit in the throat. Resize the width so it sits behind the teeth

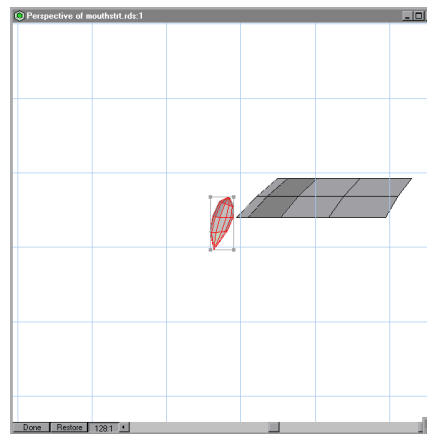


Figure 13: Canine and Upper Gum.

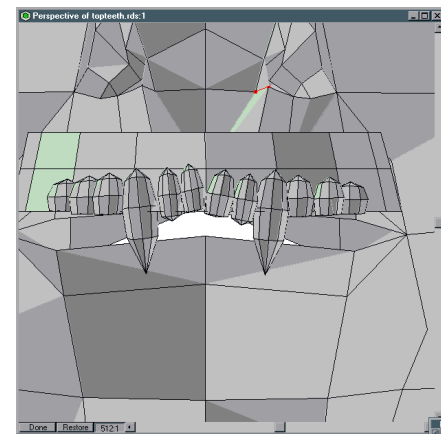


Figure 14: Upper teeth.

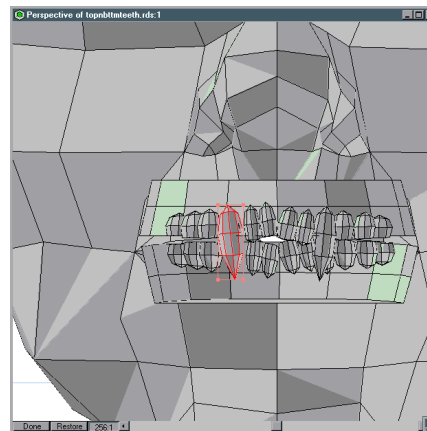


Figure 15: Upper and lower teeth.

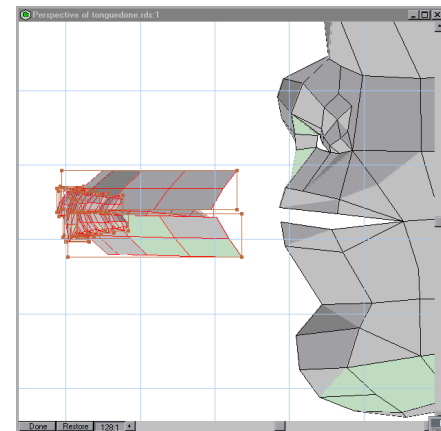


Figure 16: Teeth, tongue and gums selection.

inside the mouth. Then select all the teeth, tongue and gums and move them to sit behind the lips (Figure 16).

Once I moved the teeth to where I felt they should sit in the mouth (checking the front and side views to get it right) I had to tweak the lips so they went past the teeth. I added some vertices and vertical lines to the lips to get a better curve, moved the mouth corners closer together and finally added a little thickness to the lips (Figure 17).

In the end, I finally got something I was satisfied with.

Goggle-eyed freak

Got your attention? This is the point where we make eyelids for our ugly, but loathable Mr. Nick. Things you should think about when making the eyes are: Only the top eyelid actually moves. That sounds kind of silly, but put your finger on your bottom eyelid and blink. I'm not responsible for any damage caused by anyone who misses. The bottom eyelid is static. The top eyelid does all the work of wrapping and protecting the jelly-filled eyeball. Your eyes also don't sit directly forward. If you hold your hand about three inches from your face, you'll see a double image. This is because your

eyes' focal point is much further back. They process the information they take in to appear as one image, but each eye actually records a separate image. Moreover, your eye isn't perfectly round. Nature makes a lot of oblate spheroids.

Relying on this, we can plan the eyelid so it sits where it should. We can use the vertical lines we made for the face and some extra points to make circle-like arcs. Do this by subdividing the line that goes from the top edge of the nostril. Don't subdivide the eyebrow line, though; the eyebrow sits forward of the eyelid. Eyebrows are an evolutionary protective measure against getting whacked. With the line subdivided, pull the points to make the arc that will be the top of the eyelid. Next, link the two points that formed the original line, and make the bottom of

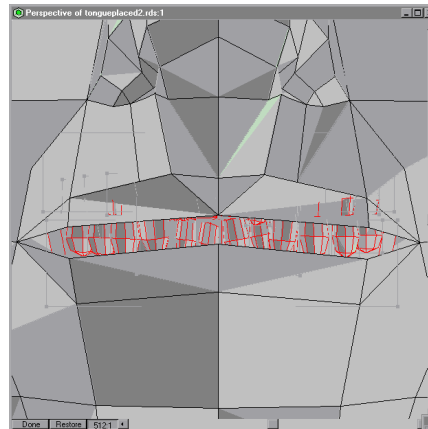


Figure 17: Lip Problem.

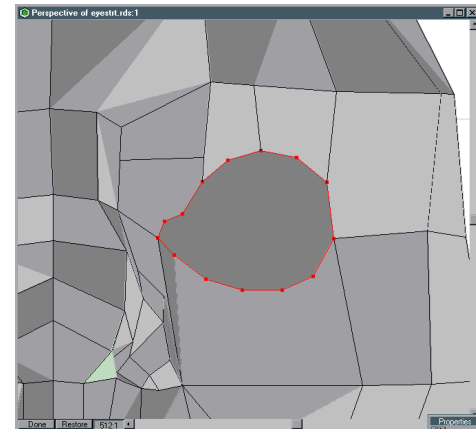


Figure 18: Empty eye-socket.

the eyelid. You can then click on the space you've created and empty the polygon. You should get something that looks like [Figure 18](#).

Remember to make the little corner area for the tear duct. Nicholas is creepy, but we want to make him as anatomically accurate as possible to creep people out with belief suspension.

Select the lines that form the main arc of the top eyelid and extrude them. Rotate the line slightly (no more than 10 degrees) and link it back to the inward vertex of the tear duct and the opposite corner of the eye. I did this about four times, with some mild moving of the outside vertices to attain a rounded surface. Don't make too many extrusions. We want the eye to appear open. If the extrusion goes the wrong way for you, change the value to a negative number. And use a small value, since the eyelid is made of little steps.

You can do the same for the bottom eyelid, only remember to keep it rounded and almost perpendicular to the rest of the face. The finished product should look along these lines ([Figure 19](#)).

You can repeat the steps for the opposite eyelid. Part of why I didn't do

this before mirroring the face was to make little inconsistencies that will become part of the finished product. It's not a very good trick, but it works none the less.

Pointy Ears:

To tell the truth, I've always found ears a daunting task. There are so many shapes and surfaces involved that I felt some indecision as to whether to make each and every surface, or just flattened gobs of flesh. We'll be making a nice in-between here.

Select the outside lines of the ear silhouette. Duplicate the lines and make the silhouette invisible. Extrude the line with a nice round value like ten, then extrude it again with a negative value ([Figure 20](#)).

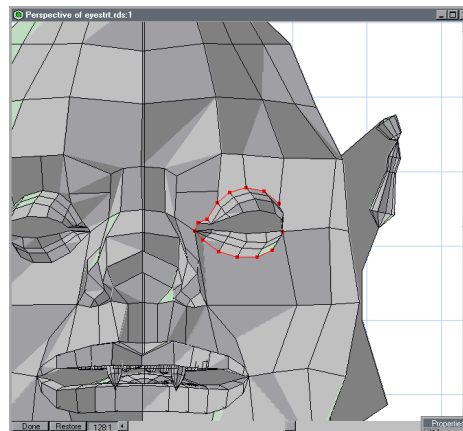


Figure 19: Eyelids done.

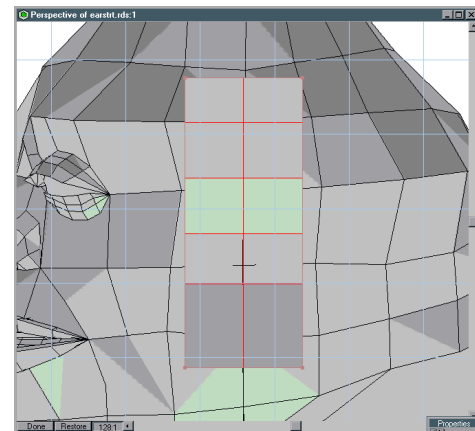


Figure 20: Extruding the Ear.

Make the corners rounded on the top and bottom. Now would also be a good time to make sure that the lobe sits slightly forward of the upper ear. Select the center vertices and delete them. We won't be needing them anymore.

You're left with a rough outline of how we want the ear to look. You can resize it so it fits better on the head; but I waited. I like working on big things and know I can always make it smaller later.

Now, duplicate the outline and resize it to about ninety percent of the original size and loft it to the original. The important thing to remember here is the difference between using loft and extrude. Lofting connects two separate shapes. If we extruded here, the second set of shapes would have been used as a sweep path, and Nicholas's ears would have looked like a cauliflower.

Add thickness to the new shape, and we have the outside of the ear done. Duplicate everything, but not where the front of the shape meets. This will become the space where that little pocket in your ear (whose name eludes me) now sits. Resize the new shape as before. Now, use the rotate tool to twist that little pocket to the

front of the ear. Select the outside bottom lines of the inside shape and the inside bottom lines of the outside shape (it's not that confusing, come on!) and loft them together. If you get stuck, Hide the head and look from the other side.

Now, here's the tricky part. Select and fill the inside of the inner ear. You should have a very undulating surface. Zoom in and connect the bottom of the pocket to a good point opposite, on the inside of the ear. Don't pick one too far from the outside, or the next step will be a pain. With the points linked, add vertices and round out the shape. Select the inside of the new polygon and empty it. Ear hole! Now, extrude the shape so it moves inward a bit. We don't want to see that we didn't make a brain, now do we?

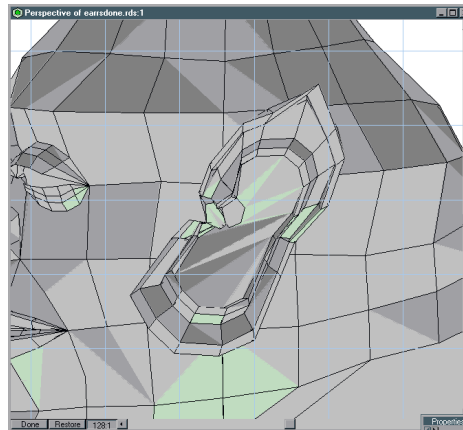


Figure 21: Ear Done.

Tweak the ear as you'd like. I moved the upper line of the ear to make a point (Figure 21). I know a couple people who have pointy ears (but not my wife; she'd kill me if I ever said her ears were pointy) so I went on little visits to see them and stare at their ears for awhile. I do this a lot to people. You'd be surprised how quickly they become accustomed to this once they know you're using them as reference.

Select the entire ear and duplicate it with symmetry. Attach it to the head by rounding out where you think it should sit, extruding the shape and welding enough vertices to make it believable. Remember that your ears sit slightly behind and slightly above your jaw. Your ears are also angled back 15 degrees. The lobe is attached to the skin around the jaw. However, since Nicholas isn't exactly your normal person, we can fudge a bit of this.

Slug-like Neck

At this point, I want to continue with modifying my descriptions. Nicholas's neck is a slug-like thick affair. This small sentence gives me a visual clue. Also, remember that I'm setting this up to be Poser-ready. I believe that if you were to set this up for Bones, the process would be slightly different, but not by much; and the important thing is the process. I have read a number of tutorials for other programs and found ways to apply the ideas in RDS. Okay, enough of that.

Select and duplicate the bottom lines of the head.

Before we extrude this shape, feel your neck and throat. Notice how it's smooth around the back and ridged where the windpipe sits in the front? Add vertices in the front to emulate this. We also have a nice shape ready for the rest of the neck from the work we've already done. With the new vertices added, extrude, resize and taper. I did this by adding increments of five to the percentage and decreasing when I felt the neck went back in (Figure 22).

Select points to make the curves for the Adam's apple. You also want to add some irregularity to the front view taper for this. Select lines and resize (Figure 23). It's important to remember that, in RDS selecting and resizing vertices moves them! Selecting lines and resizing them shrinks them. You get the idea.

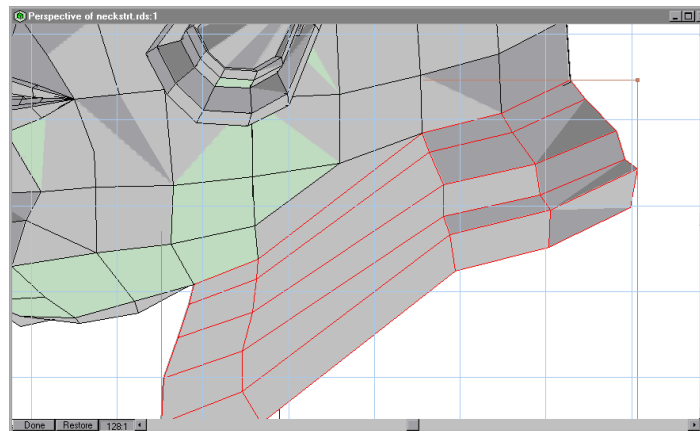


Figure 22: Neck Extruded.

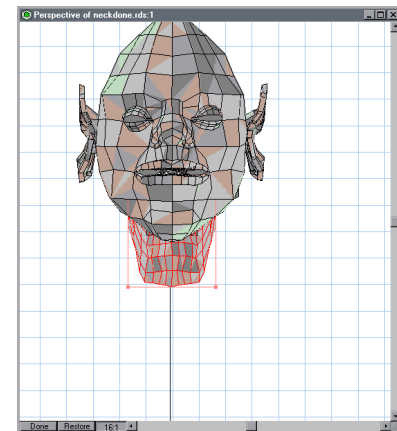


Figure 23: The Adam's Apple Tweak.

And that's the neck. I'll probably wind up going back in and adjusting things to get that "slug-like" feel, but for now, let's move on!

The Arms of Death!

For this part, I'm only going to make a forearm. I want to have something under Nicholas's robes should they move up or down. I often frighten people on the street by watching how my arms and legs move as I walk. Well, maybe only slightly disconcert them. When my arms swing as I walk, my shirt sleeves move up and down. If I wear a very loose shirt, as I usually do, the movement is more pronounced. I want to simulate this when I animate Nicholas. His robes hang on his emaciated form, remember? So, I'll need a forearm, but not much else until I get to making the robe.

I start by drawing a line that will become the top of his forearm (Figure 24).

I want to leave enough space between the neck and the forearm, where the upper-arm of the robe will sit. Move the line so the center is on the x-axis, then rotate the line slightly. If you hold your arms out "straight", there's a slight

angle to your forearms because of the elbows. Joints are spheroids and that makes it angle a bit.

Next, Extrude the line and rotate it ten degrees. Repeat this until the shape is almost perpendicular to the original line. I say almost, because this line is where the muscle meets the bone in your arm. This will later become a new surface. Go to a top view and duplicate the shape with symmetry. Move it up until it sits near the top arm. Select the lines that we'd normally weld and loft them together. Mirror this and weld the vertices. That's the arm.

To make the wrist, extrude the end of the arm out and resize it along the way to make the wrist bones. This area should be a bit more dense, so the taper is correct. The last line of the wrist gets duplicated and extruded to become the hand.

If you look at your hand, with your thumb extended, you'll see that it gets wider very quickly and thinner just past the thumb. Now, use one hand to cover up your thumb and look at the line again. The line is only slightly tapered at the thumb joint on that side, but the taper is much more on the thumb-less

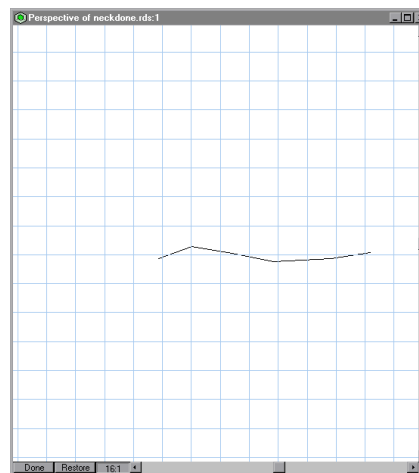


Figure 24: Forearm line.

side. Extrude and resize this. You'll want to get wider quickly past the wrist, but move the line over as you do this so the thumb side stays within the limits. You also want to rotate along the y-axis where you make the hand thinner past the thumb. This will set us up for the fingers and knuckles (Figure 25).

Now change to a front view. Connect and subdivide the vertices there. You want to make a center point for each finger. Nicholas has many aspects of a "Level Two Living Toon", but I'd like him to have four fingers and a thumb. I think it would be more appropriate. I want him to later interact with some of the standard Poser figures and think that the already startling differences wouldn't be enhanced by a three-fingered hand. That's my call.

Link the lines and make round edges for the top and bottom of the fingers. Remember to make the Middle finger the widest, index and ring finger less and the pinkie the thinnest (Figure 26).

As you make the fingers, you'll want to select the shapes and delete the center vertex, so you're left with the basic shape with no link in the center. You'll also want to drop a line down between the fingers to where the finger shape ends, to simulate the skin between the fingers.

Extrude each finger, duplicating just before the knuckle joints and beginning a new selection. When you reach the end of each finger, link up the bottom vertices and

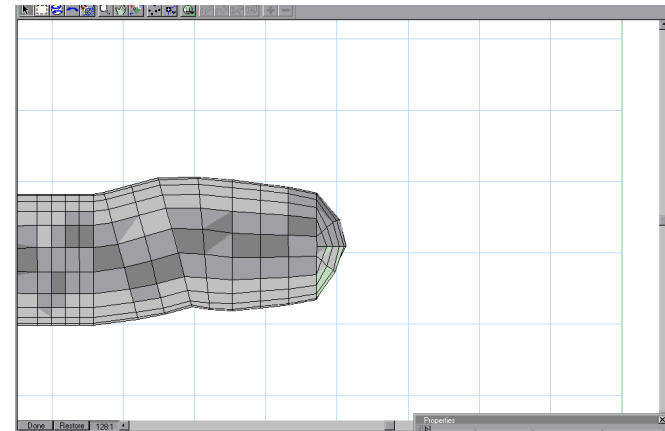


Figure 25: The Hand.

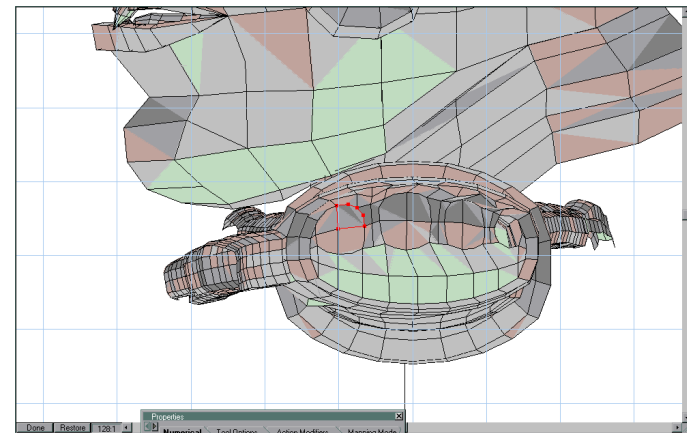


Figure 26: The Finger Shapes.

drop a line to the center. You can round them out in the usual way. The cuticle is an important shape. I simulated this by duplicating the upper arc, saving this selection and resizing the new line by eighty percent for y and z. I restored the old selection, double clicked on a vertex on the new one to loft them. The nails will come out as duplicates of the inside loft. I used the same process where the nail meets on the x plane and joined the cuticles.

Like I said, the nails are duplicated and extruded out. I tried to keep in mind a picture in the Guinness Book of World Records I saw a very long time ago of the Man with the Longest Recorded Fingernails. His nails were gruesomely long (obviously) and twisted about like corkscrews as they grew. Keep this in mind as you make the nails. Use the same process for the end of the nails as you did for the end of the fingers, only make them pointy.

I keep emphasizing pointy to differentiate between these parts and the rest of Nicholas, which looks like a fish with skin problems. This contrast will add to the believability of your character immensely.

Remember to re-size while extruding the fingers. Use your fingers as reference. The muscles in the finger are more arched along the underside and less so on top. Move the lines to do this. The fingers are deceptively simple, but a bit of planning makes them spot-on.

When you have the fingers finished, work on the thumb. The difference between the thumb and fingers is the axis they sit on and the fact that your thumb is a bit wider and shorter than the fingers. It actually works out to be as long as your index finger. Rotate slightly on the z-axis as you extrude to get the angle differentiation down. Also, your thumbnail is much longer and wider than your other nails.

With all your digits made, select all the new meshes, change your view to right and mirror them; they'll wind up on the drawing plane. Change your view to front and, using the grid, place them as close to opposite to the originals as you can. Then there were arms!

The Transport of Death

Now, we'll work on the legs, feet and toes. Draw a line to use as the front of the shin and extrude this like the forearm, rotating along the z-axis this time. Draw another line to extrude as the back of the calf. The front line is almost straight. The calf is where the motion muscles are in your legs. With this line extruded, make slight height and depth adjustments to just the muscle parts. The calf muscles are almost like a deflated basketball that's had the bottom edge stretched. Count your vertices while you draw the lines, leaving out the knee, as you'll want to link the front and back.

The foot will be a separate extrusion. Adjust the width to simulate the fall of the ankle. Use your ability to save the selection to make adjustments to the ankle. Select front and back parts and resize, then do the same to sides. When you have what you want, restore the original selection and extrude on to make the ball of the foot; extrude only the rear arc down to where you think the ball should start (Figure 27).

Link the opposite wide sides and subdivide the new lines. Link them and use the power of arcs to make a semi-sphere.

Extrude the front arc and rotate it on its x-axis. You'll have to adjust its location. I find it is one of the problems with the rotate tool, but it's easily remedied. Stop extruding just before the front part of the foot. Poser figures foot parts end where the lump on the top of your foot stops.

Go back and select the bottom arc of the ball you made and extrude this out to the end of the top part of the foot. Change your view to make sure you're getting the alignment to the top of the foot correct. Link the top and bottom extrusions. Duplicate the entire front arc and start extruding the foot.

The same process that went into making the hand and fingers is applied in making the toes, except that the toes aren't individual meshes (Figure 28). They are at-

tached to the front of the foot and bend with it in Poser. However, you can do as you will. I can always add toe motion morphs later, or I could make them posable parts of the hierarchy. I'm sticking with the first option for now.

When you have a good leg, foot and toes, mirror it from the right and place it like the arms.

The End is Near!

With the foot finished, we can now breathe a sigh of relief. The robe is what remains; and the eyes. Jump out of the modeler and, dare I say duplicate the mesh you've named skin. Jump into the duplicate. When asked, tick the "Create New Master" radio button and get ready to clothe Mr. Fish-Face.

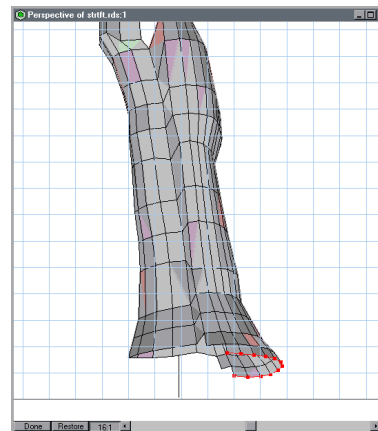


Figure 27: Ball of foot set-up.

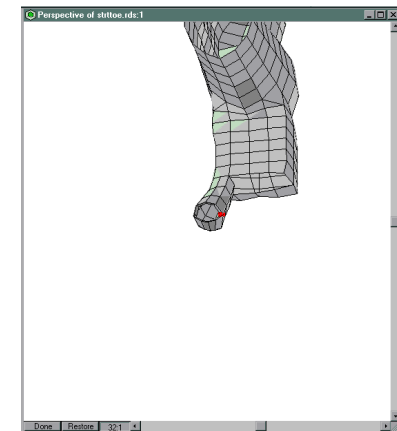


Figure 28: The foot and toes.

In your new master, decide what you will and won't need as guides for making the robe. I decided I didn't need the hands, fingers, head, toes and teeth; I promptly deleted them.

This left me with the neck, the forearm, the leg and the foot. I will use them to act as guides for the robes.

Starting with the forearm, draw a line that will become the top of the robe's forearm, ending just before the wrist. Draw another line that will become the bottom of the robe's sleeve for the forearm. Extrude the top line around the outside of the forearm, rotating the line so it wraps correctly and resizing it to add folds to the surface. Do the same in the opposite direction for the bottom of the sleeve. Then link the top and bottom (Figure 29).

Use the inward shape to extrude the upper-arm we left out of the skin mesh. Extrude to where the shoulder starts and duplicate the edge for the collar mesh. Extrude this to where the neck sits, lengthening and rotating as you go. Mirror all three and position them.

The neck is a bit rough, but not too daunting. Duplicate the bottom outside of the neck mesh and link it to a duplicate of the upper part of the collar.

Use this to make a surface around the outside of the neck (Figure 30). I actually only did one side, then mirrored it and welded. It saved me a bit of a headache.

With the neck portion of the robe done, you can delete the forearm and neck. Use the bottom line of the neck to extrude the chest down to the abdomen, duplicating where appropriate to new Poser body parts. As you go, resize and rotate to create a flowing over-sized article of clothing that barely hints at what is beneath it.

At the bottom of the hip portion, deselect the center front vertex and extrude. Save the new extrusion, then link the corners back to the center. The bottom parts get very deep very quickly as you reach the hem of the robe.

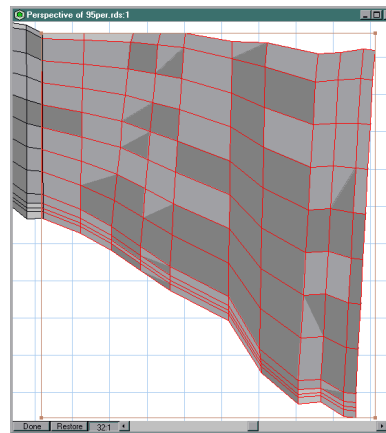


Figure 29: Robe Sleeve.

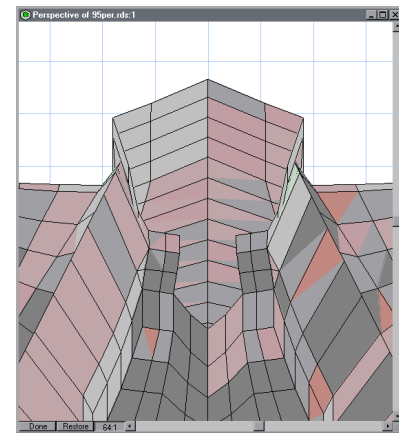


Figure 30: The Neck, collar and chest mesh.

Take care to give him a bit of a posterior. Even Nicholas has to sit sometime. Make sure that the robe wraps over the knees as well.

Fish-eyes

The final mesh you'll make is the eyes. I'm not fond of any of the primitives in RDS, so here is what I did to make Nicholas's Orbs of the Soul:

Duplicate the skin again. Jump in and Create a new master. Select the head and Invert your selection. Delete everything else.

Now, for the second time, I'll use a primitive; and it's the oval again. Make an oval by selecting the oval tool and clicking in the window. Don't click and drag, as we want to be a bit more symmetrical than that. I adjusted the sides so there were thirty-two. Link the horizontal midpoints and detach the upper half of the sphere. Delete the bottom and unlink the midpoints. Use the lathe tool to make an orb with twenty steps. Now, move that sucker over towards the head. Use the properties palette to change the size for all proportions. Set the resized orb inside the empty eye socket. Remember when I said that nature doesn't make perfect spheres? Un-tick the Keep Proportions box in the properties palette. Make the orb longer slightly, then rotate it to fit in the upper eyelid.

We can go back and adjust the lower eyelid so it sits correctly later by Jumping into a New Window and making the changes.

The End is Here!

And that's it for Nicholas, the Forsaken fish-faced, slug-necked vampire. These are a few renders of the finished product. I left the box in on the front view so you can see



Figure 31: Top Render.

that, while I used the drawings I made as guides, the finished product is a bit different (Figures 31, 32 and 33). The texture of the skin is a slightly adjusted version of Eric Winemiller's Zombie Flesh shader.

I'll be finishing up writing how to make Nicholas a Poser figure for an upcoming article. In the meantime, go in and name the different meshes to the correct Poser Body part designation. It's like homework.

My hope is to create a brigade of repulsive vampires that will start eating all the fairies that have been popping up on the Poser Forum and mail list lately. Send me renders of your repulsive vampire as you finish him or her at nanodave_t@msn.com and we'll start organizing the anti-fairy army. Remember, this is supposed to be fun. If you get frustrated, stop working and go see a movie or something. Hopefully, something I suggested will help.



Figure 32: Front Render.



Figure 33: Side Render.

Biography:

David Thomas was released in Philadelphia, Pa. the same week as the Beatles' "Sgt. Pepper's Lonely Hearts Club Band" album, and was in production for about the same amount of time as the album. His initial reviews were almost as good, but to a much smaller audience.

David graduated from the only high school in the United States dedicated to agricultural studies. He attended Temple University as an Engineering major, switched to the local community college as a Painting/Photography major, then moved to Baltimore, Md. to complete his degree at the Maryland Institute, College of Art. He's still working on that last part.

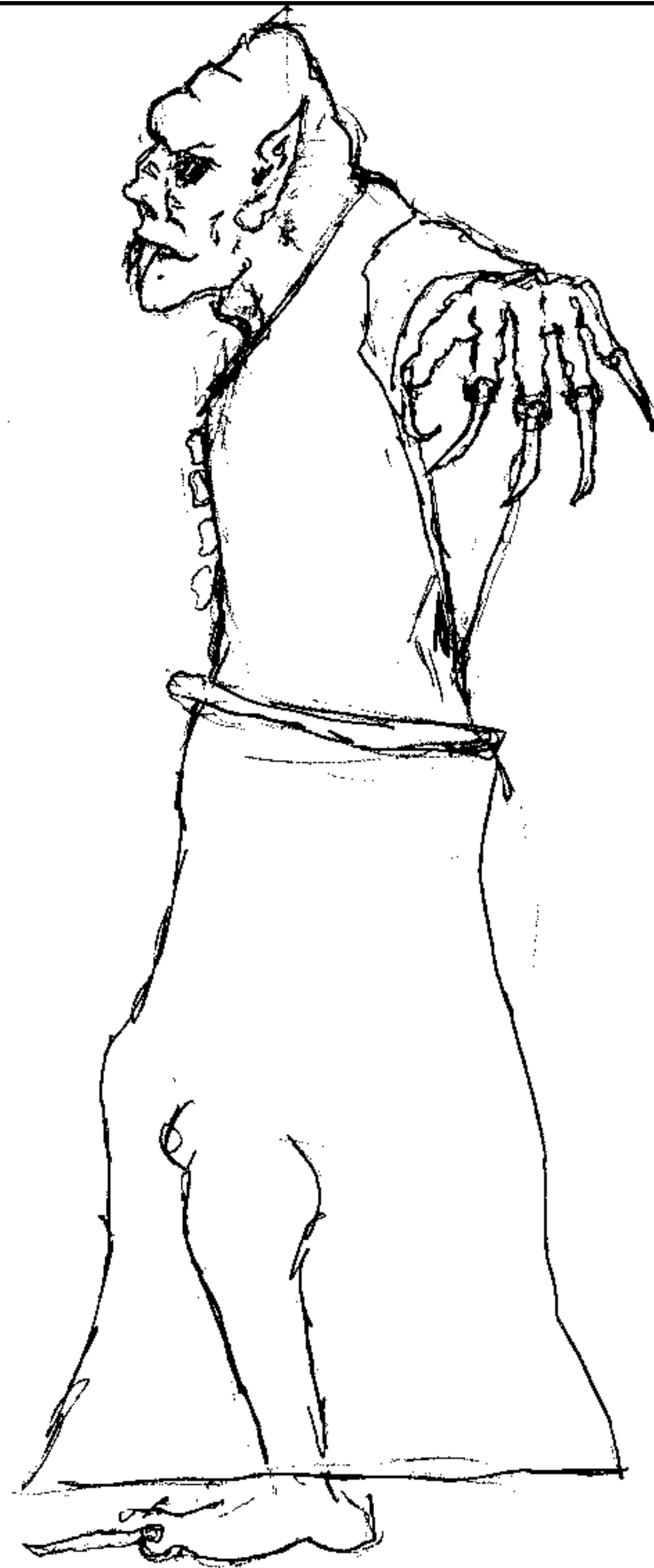
David still lives in the Baltimore area, is married to the most beautiful lady in the world, and has two cats who

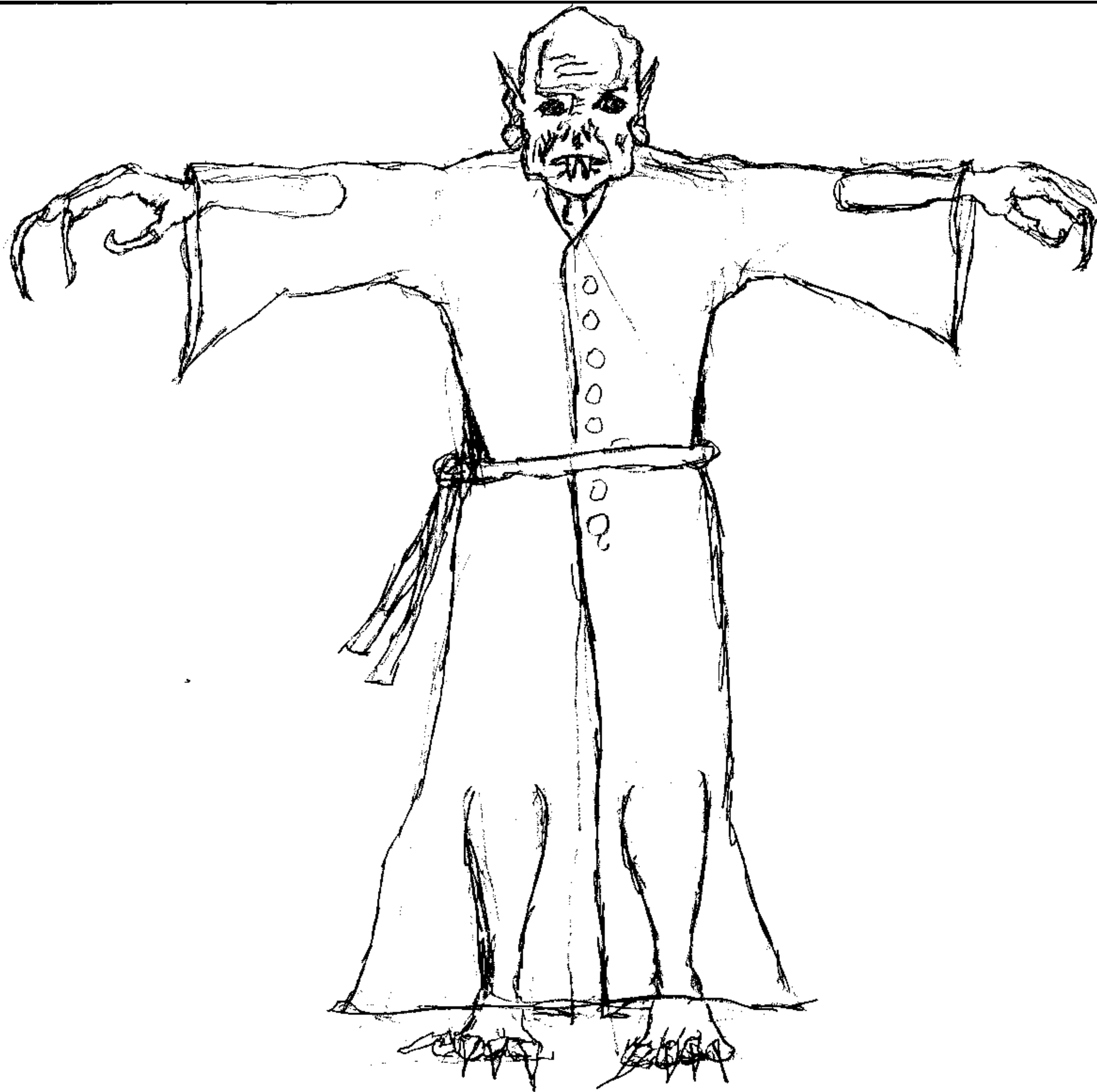
think they're dogs (a subtle, but useful training technique he picked up in high school). He also has a murderous, indestructible fish that he thought was a danio when he purchased it. He's not so sure, now. David reads almost anything that is science fiction or horror. He has an eclectic comic book collection, which he uses as source material for his Poser/RDS/Painter3D web-page dedicated to comic books at:

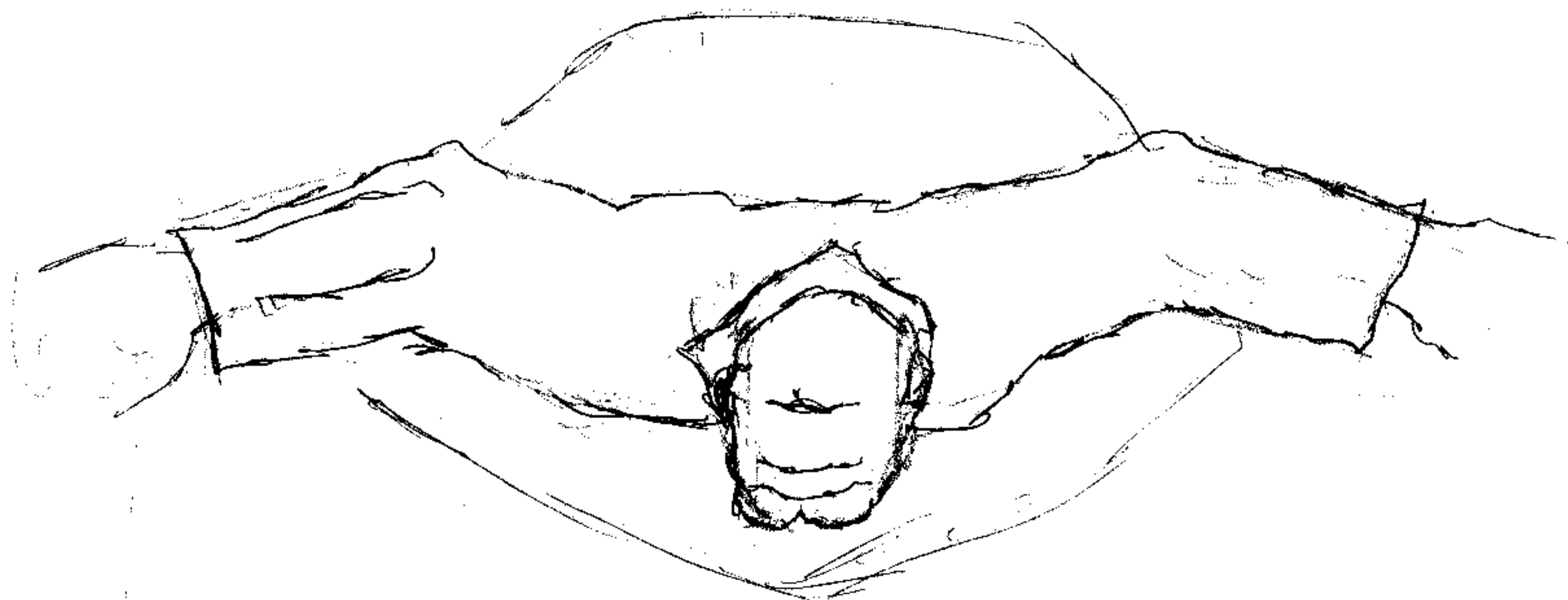
<http://starfireseawater.freesevers.com>

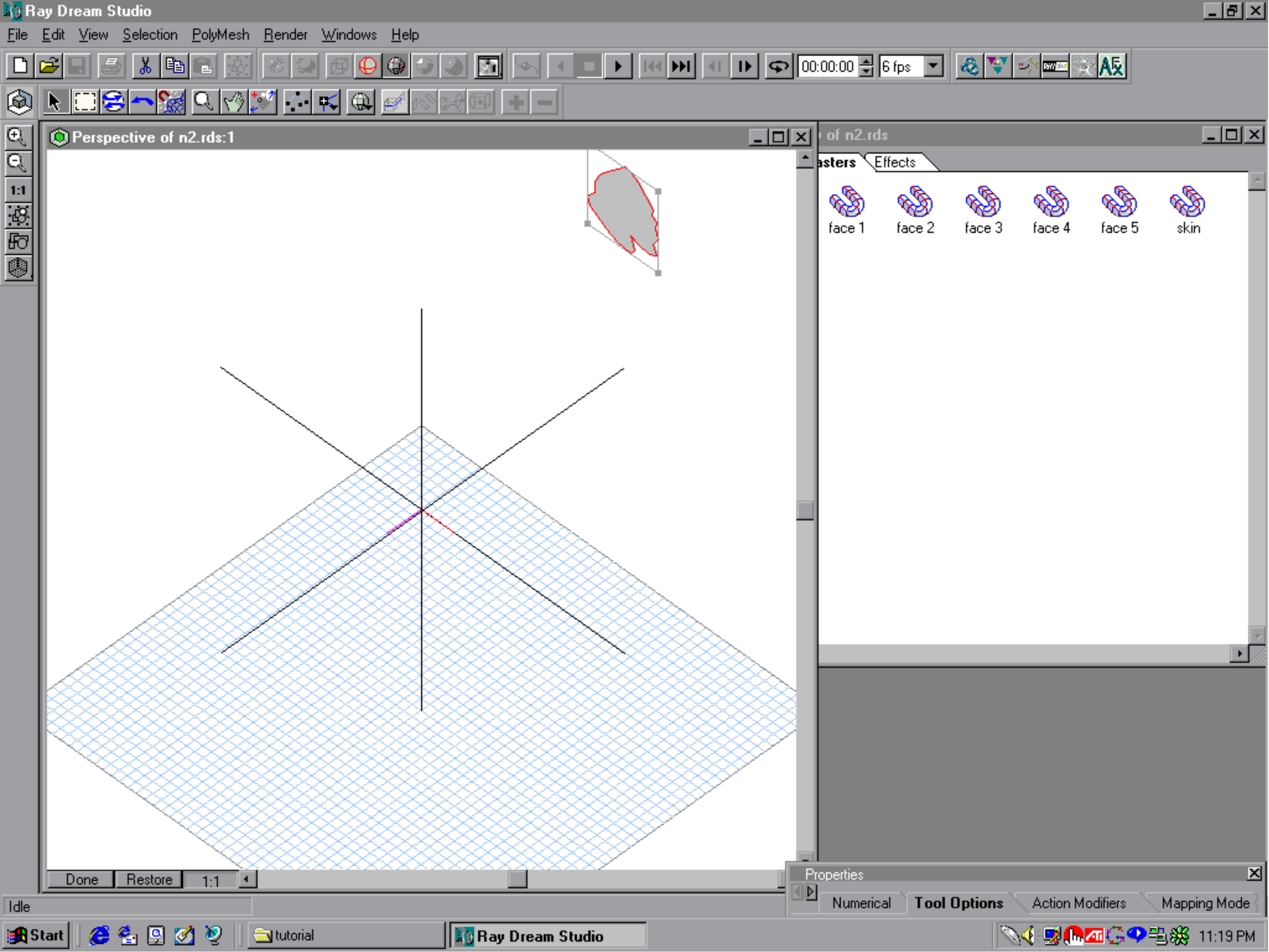
His brain is full of useless trivia that he spouts out of his mouth at inopportune times. He enjoys role-playing games, and plays weekly with a murderous, indestructible group of fellows that he's pretty sure are responsible for the fish.

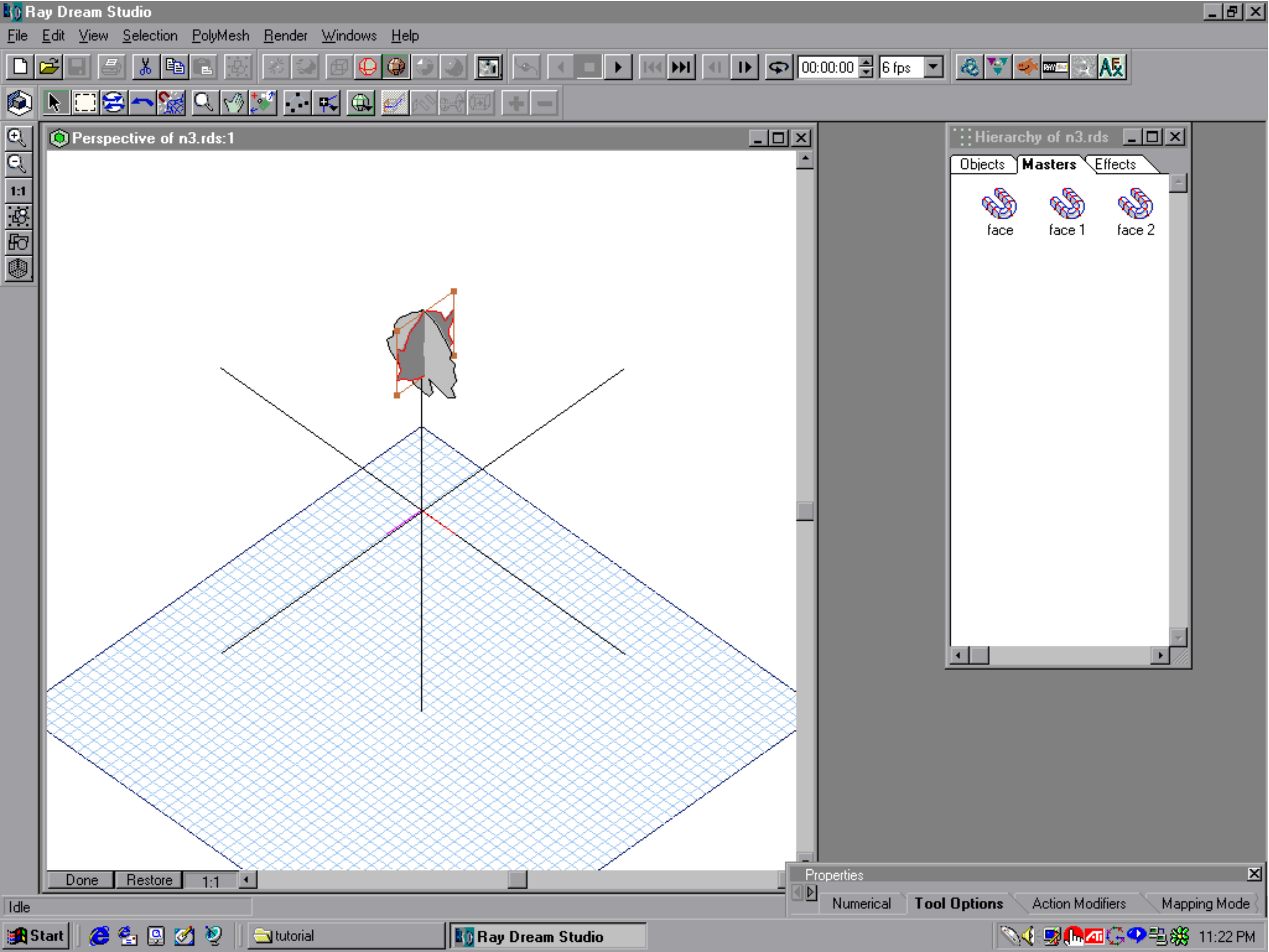


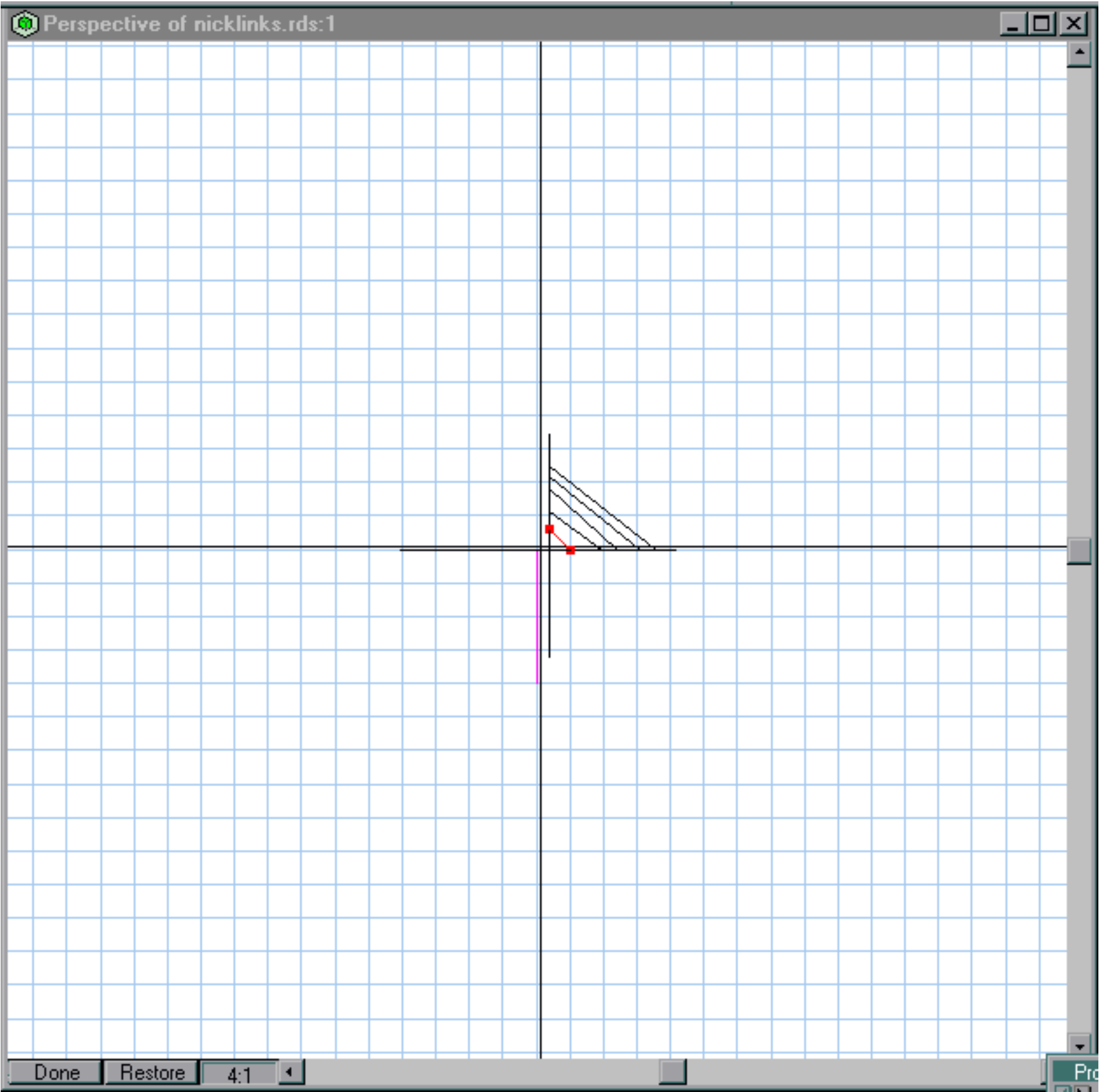


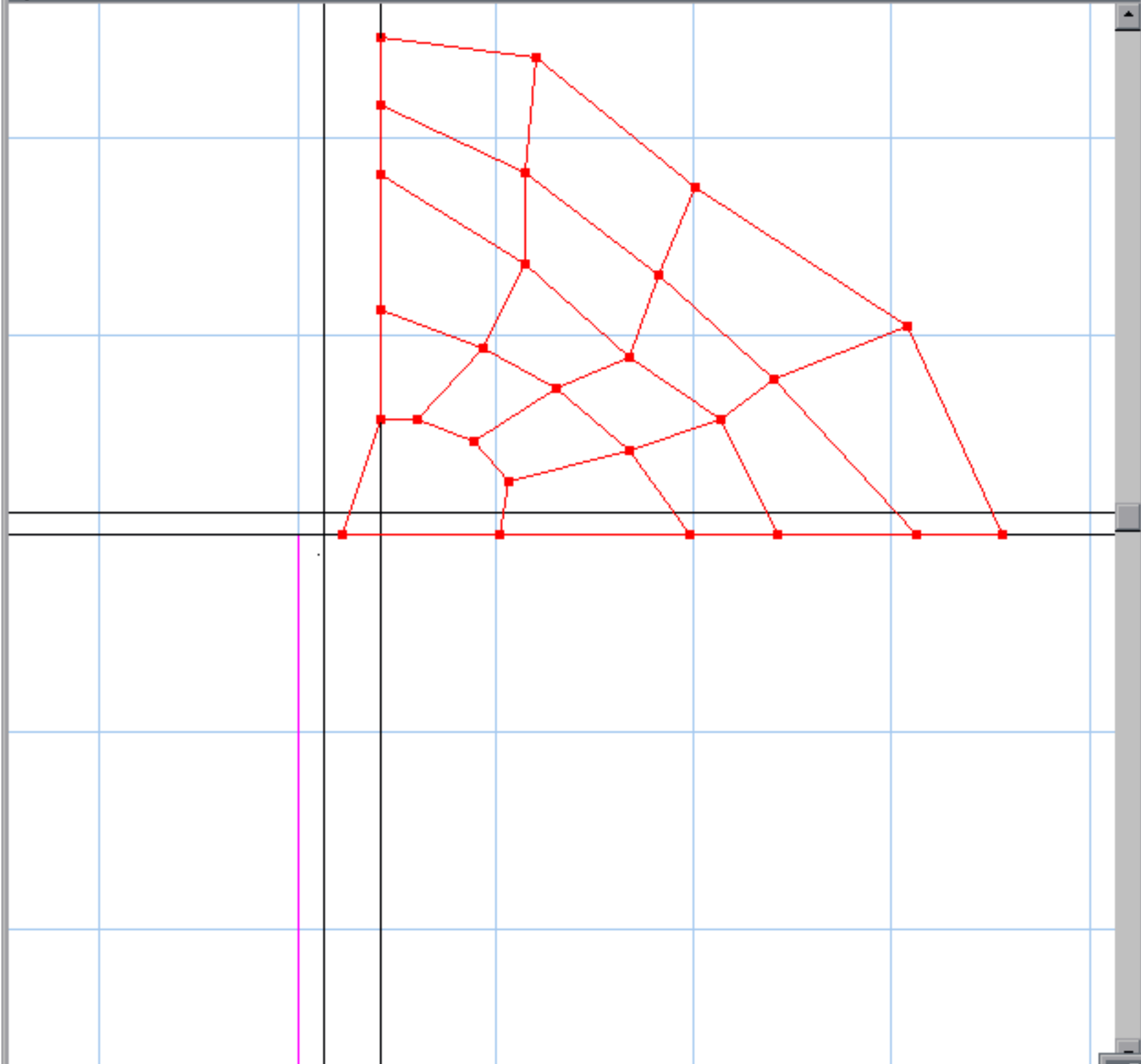


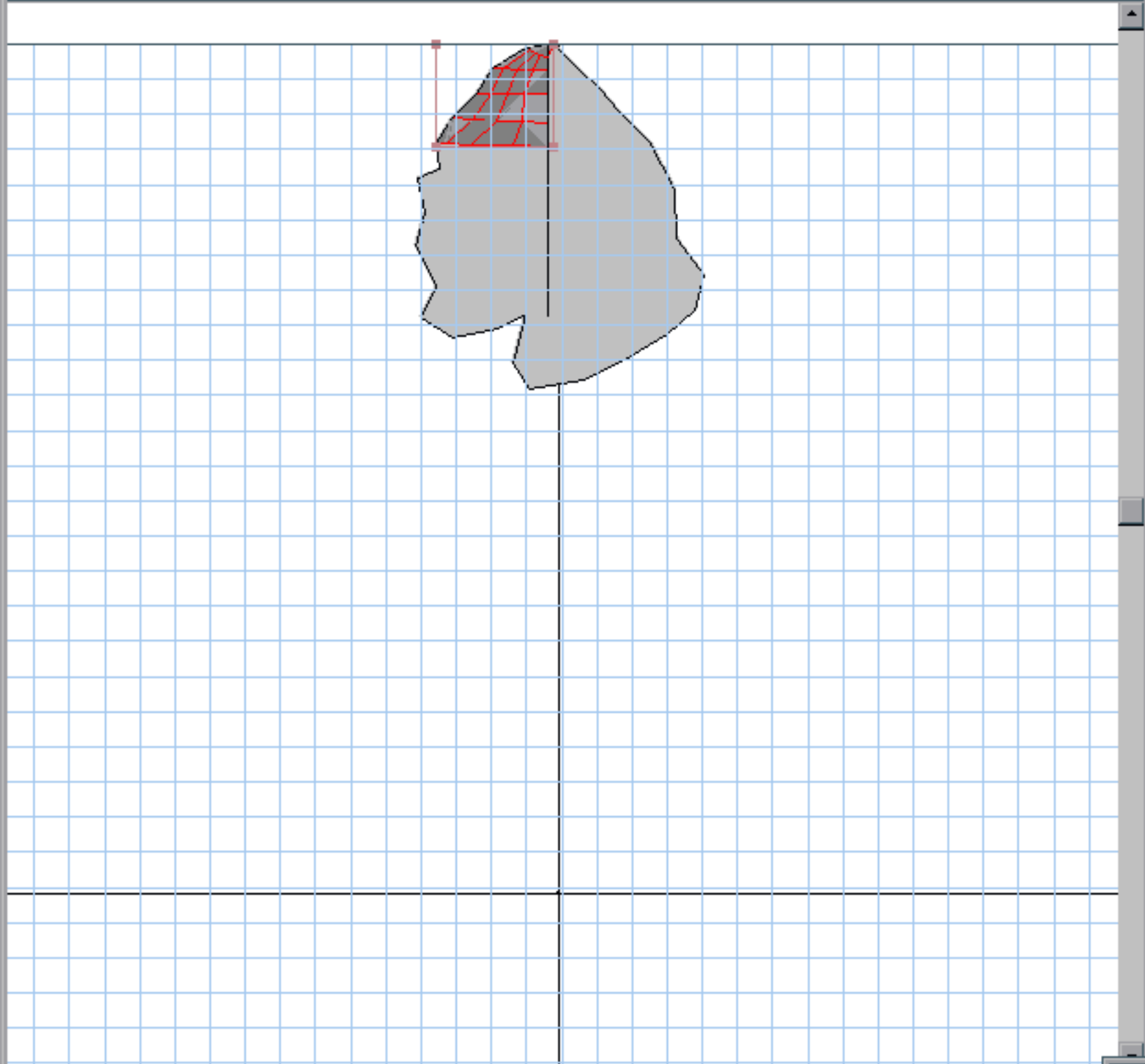


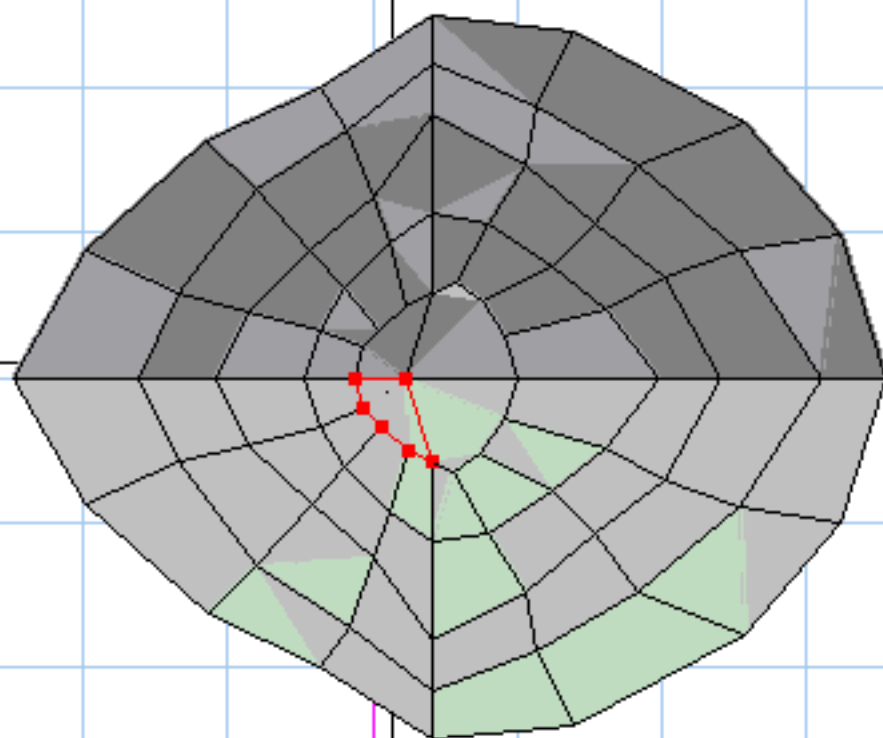


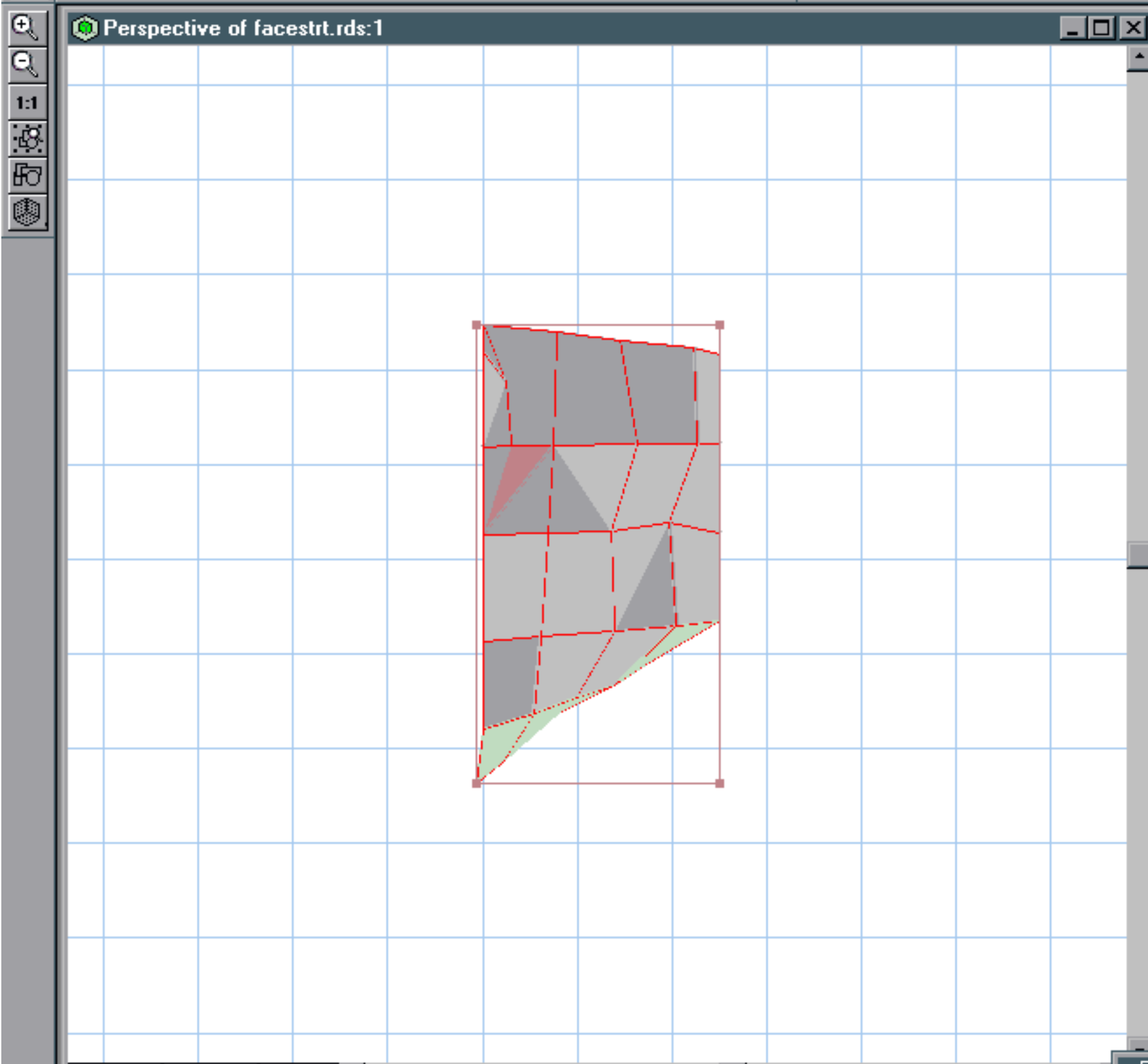


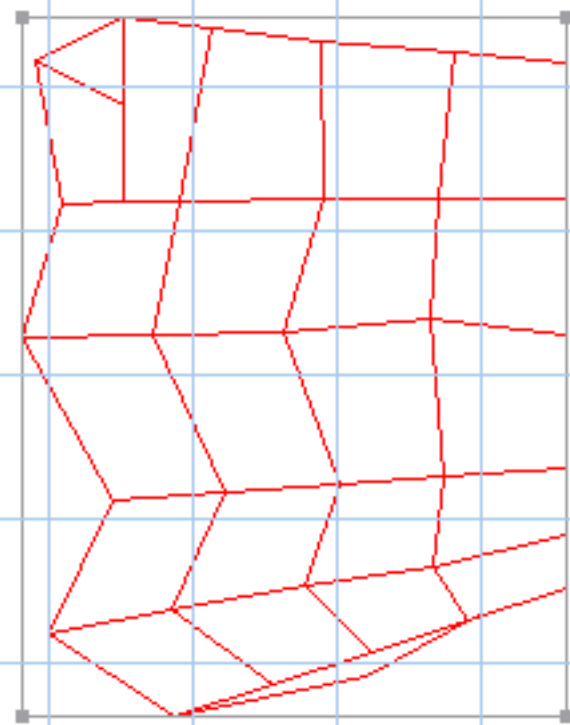


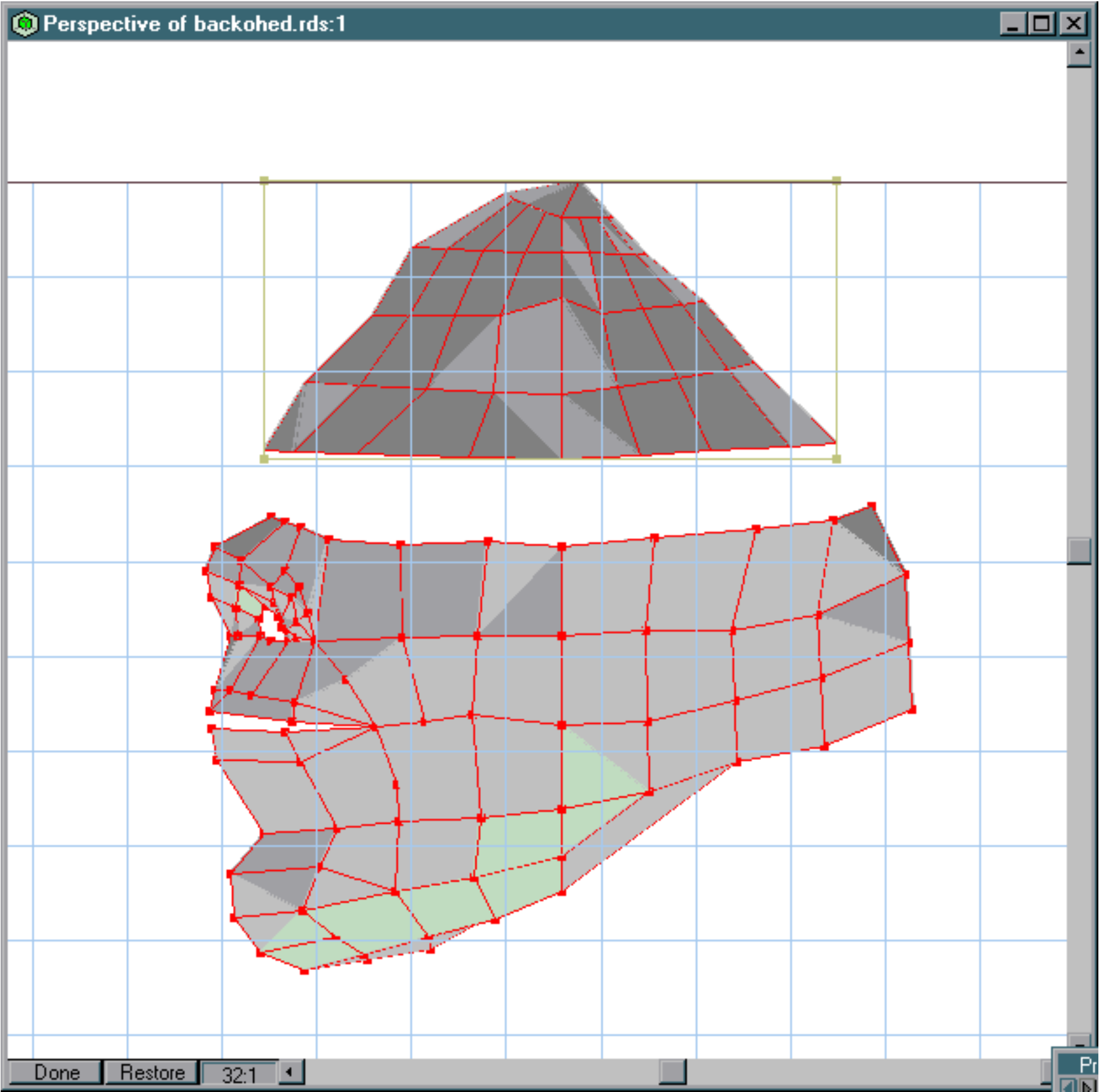


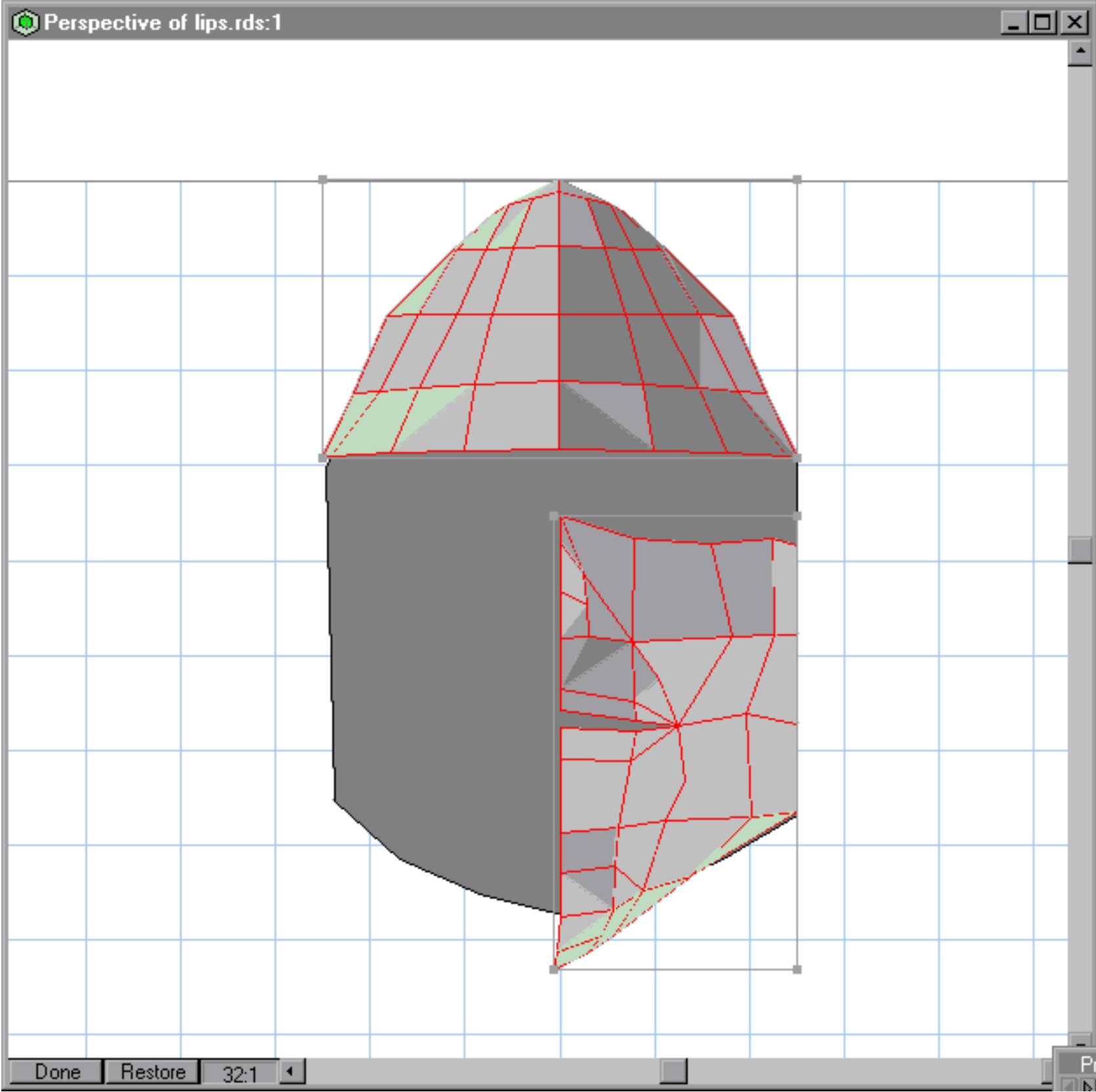


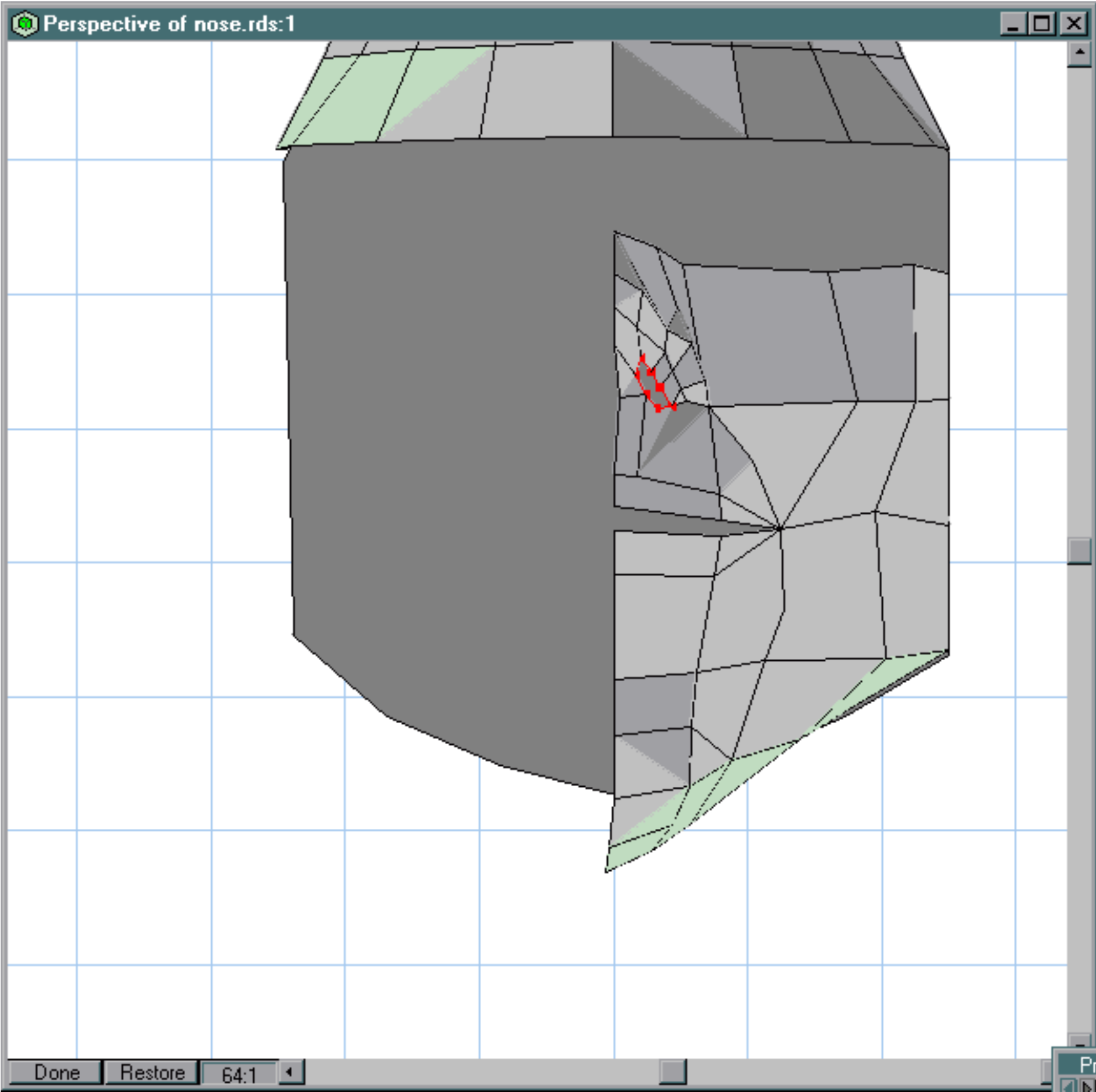


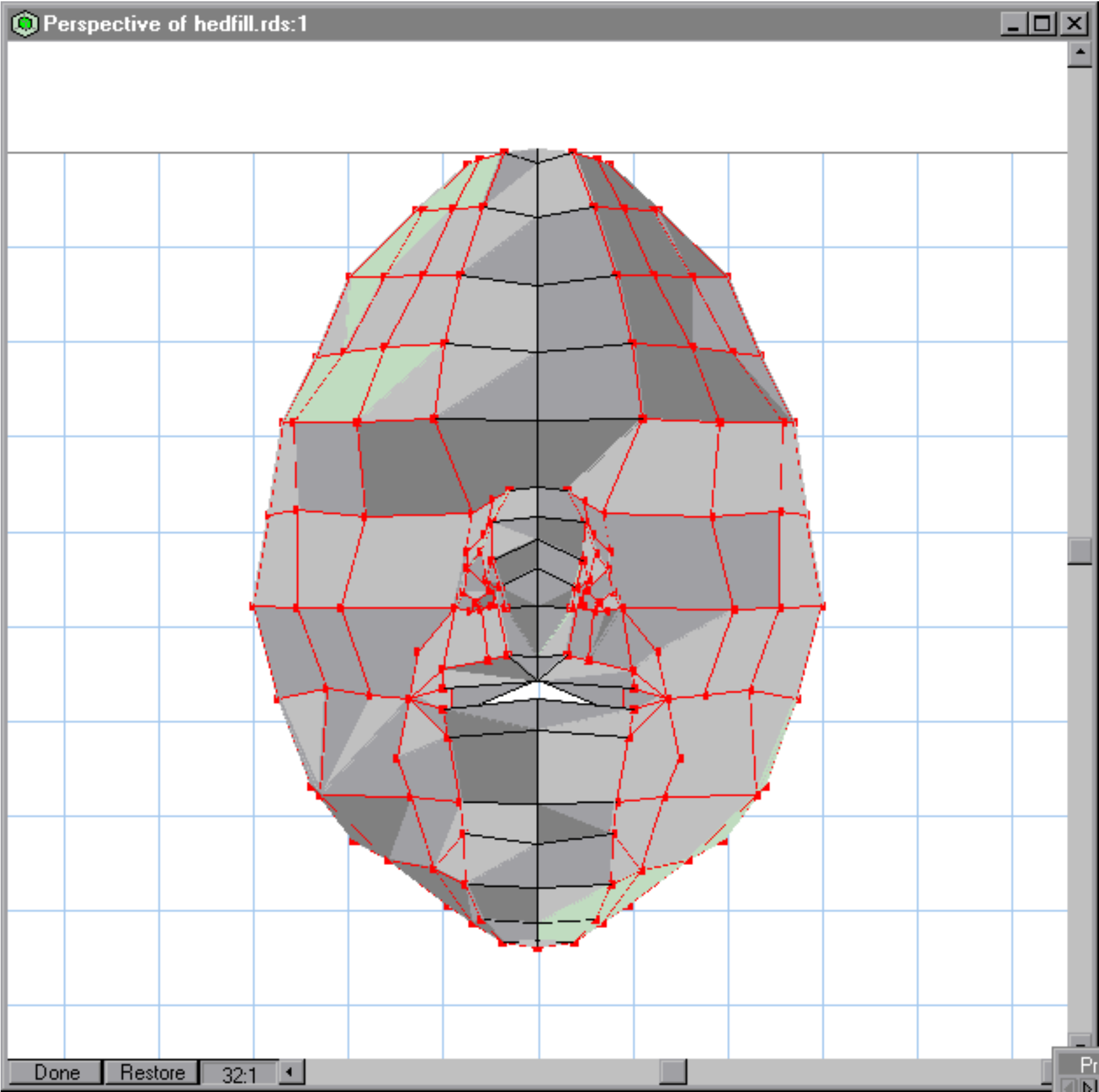


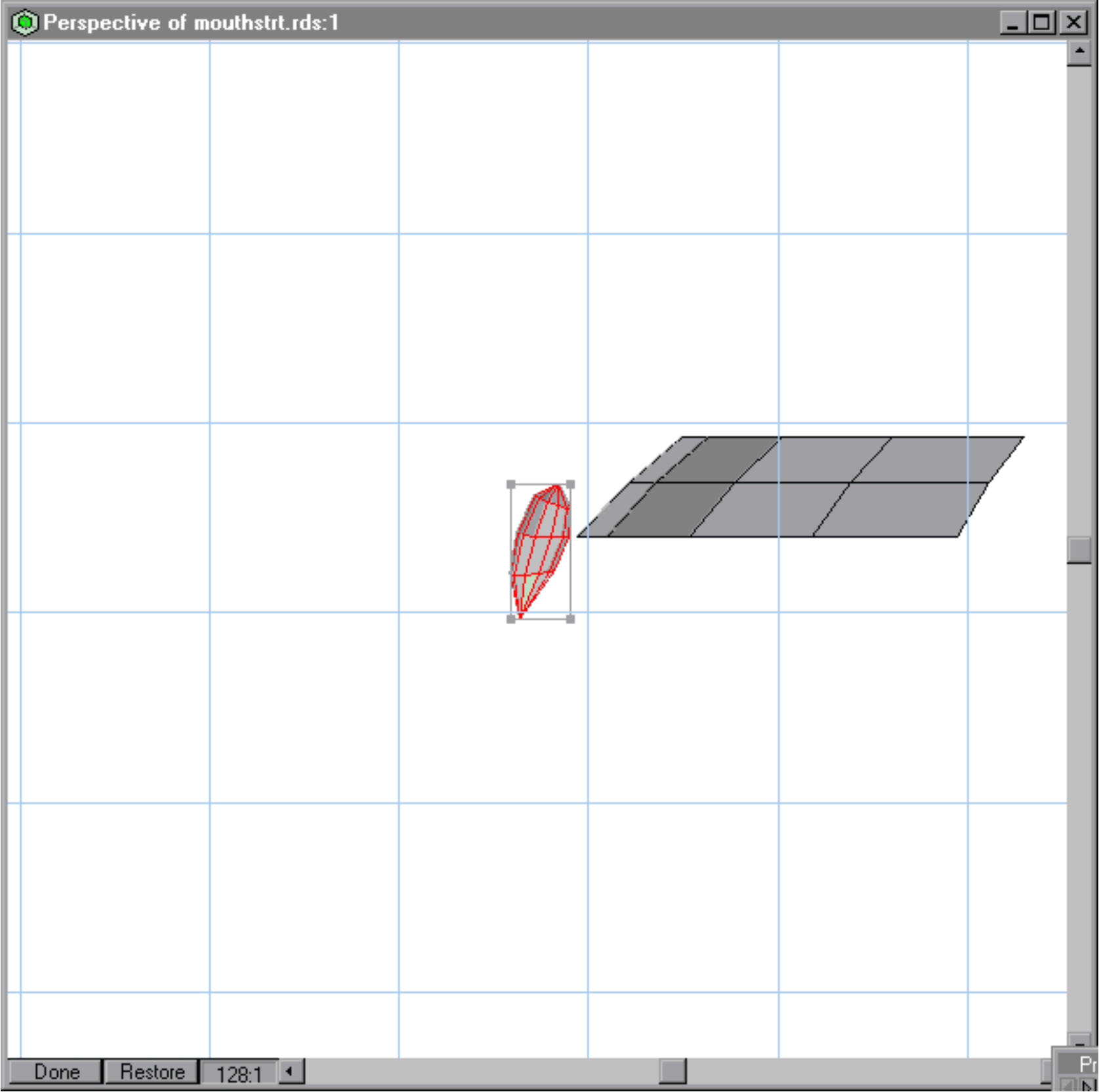


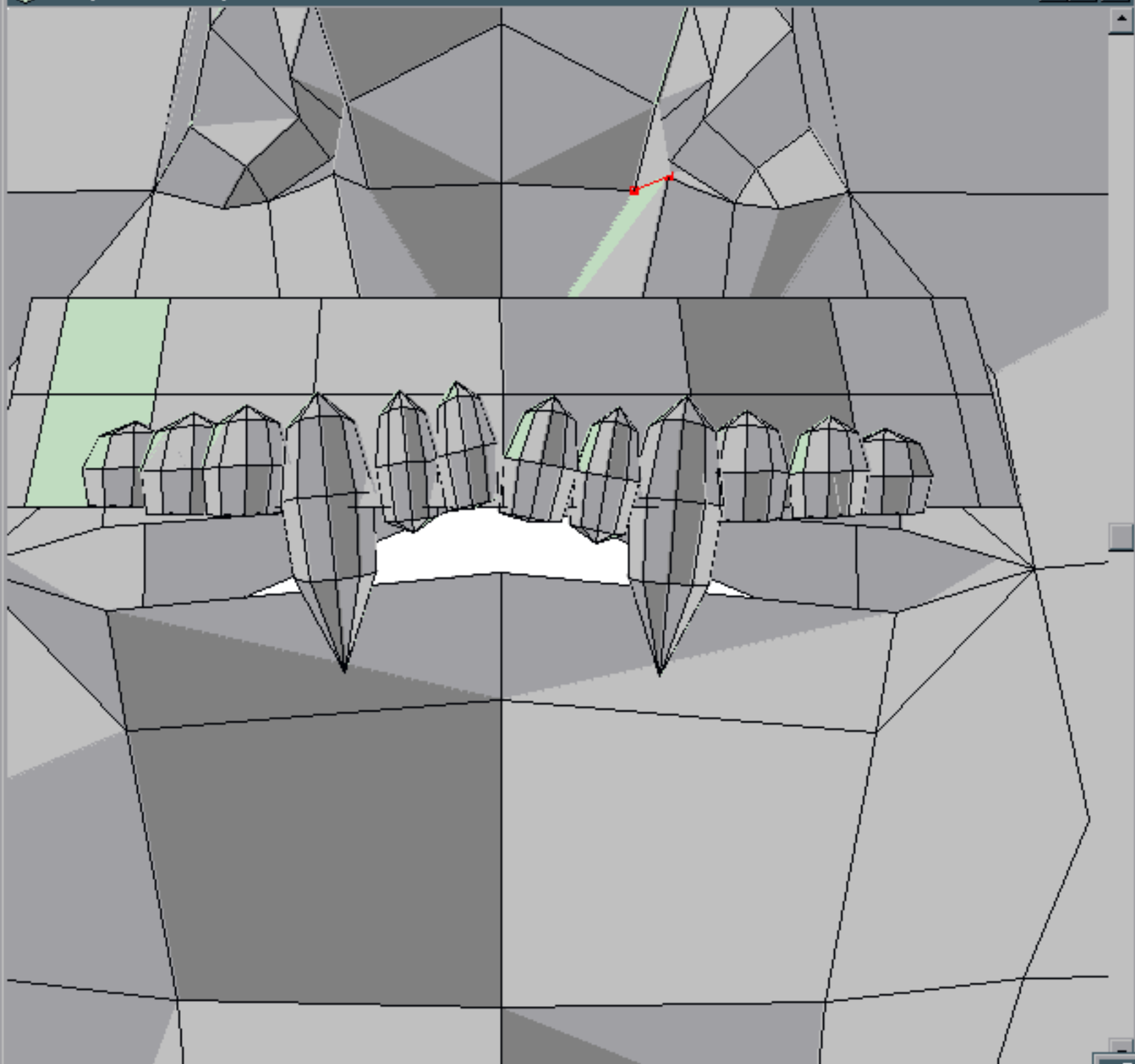


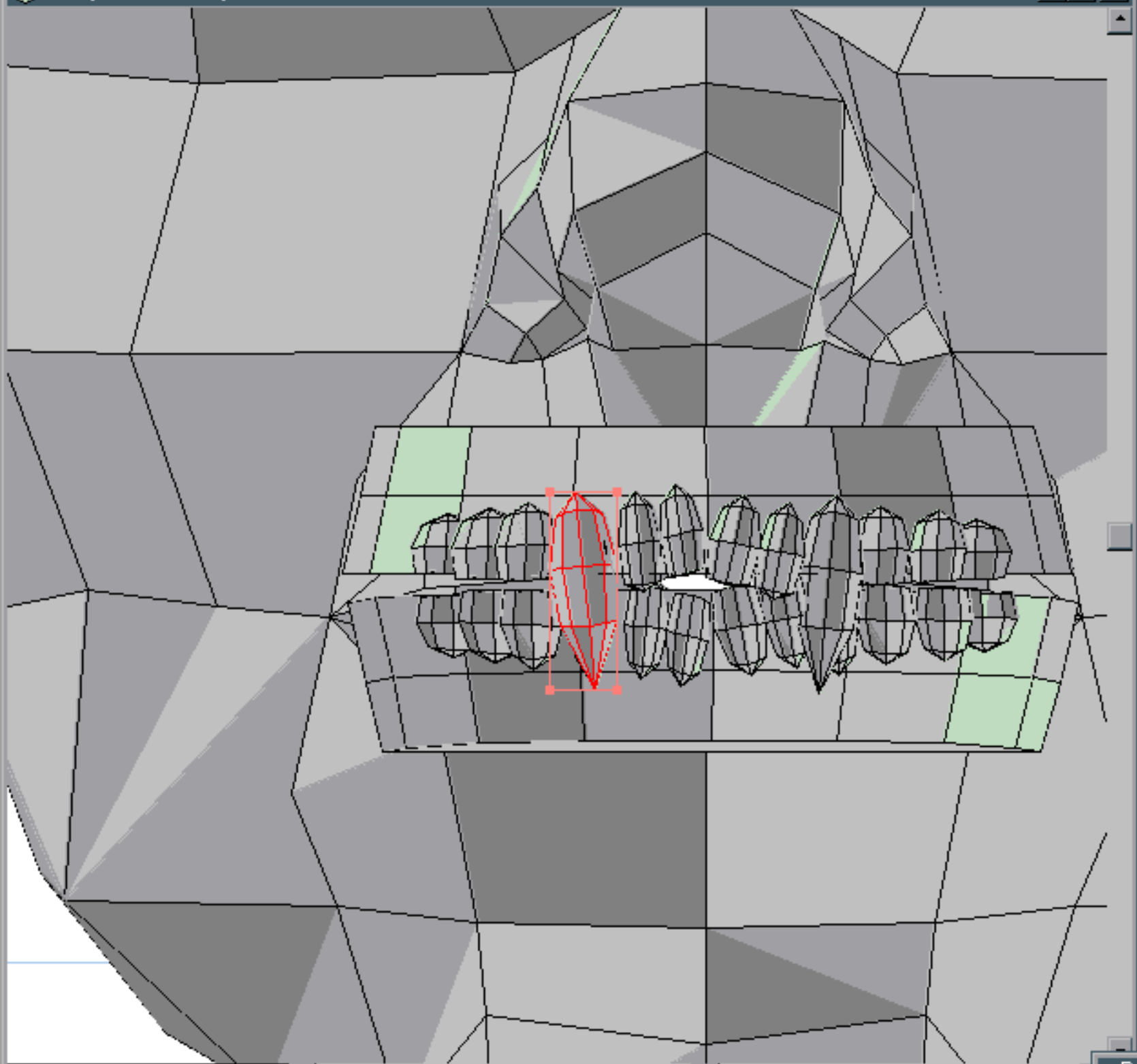


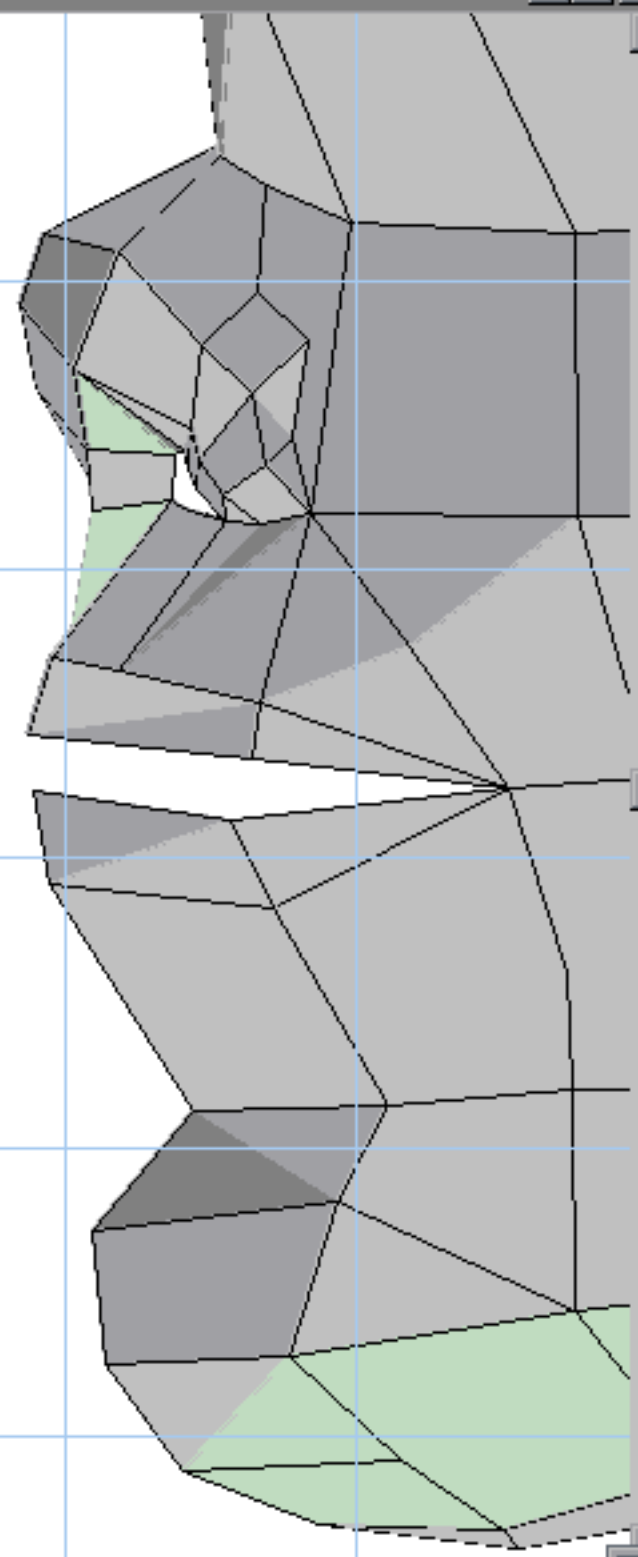
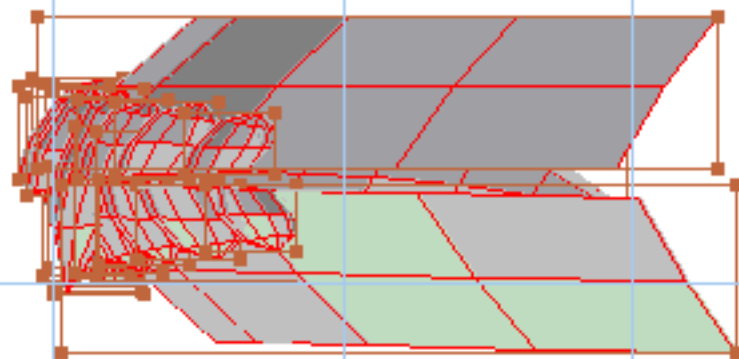


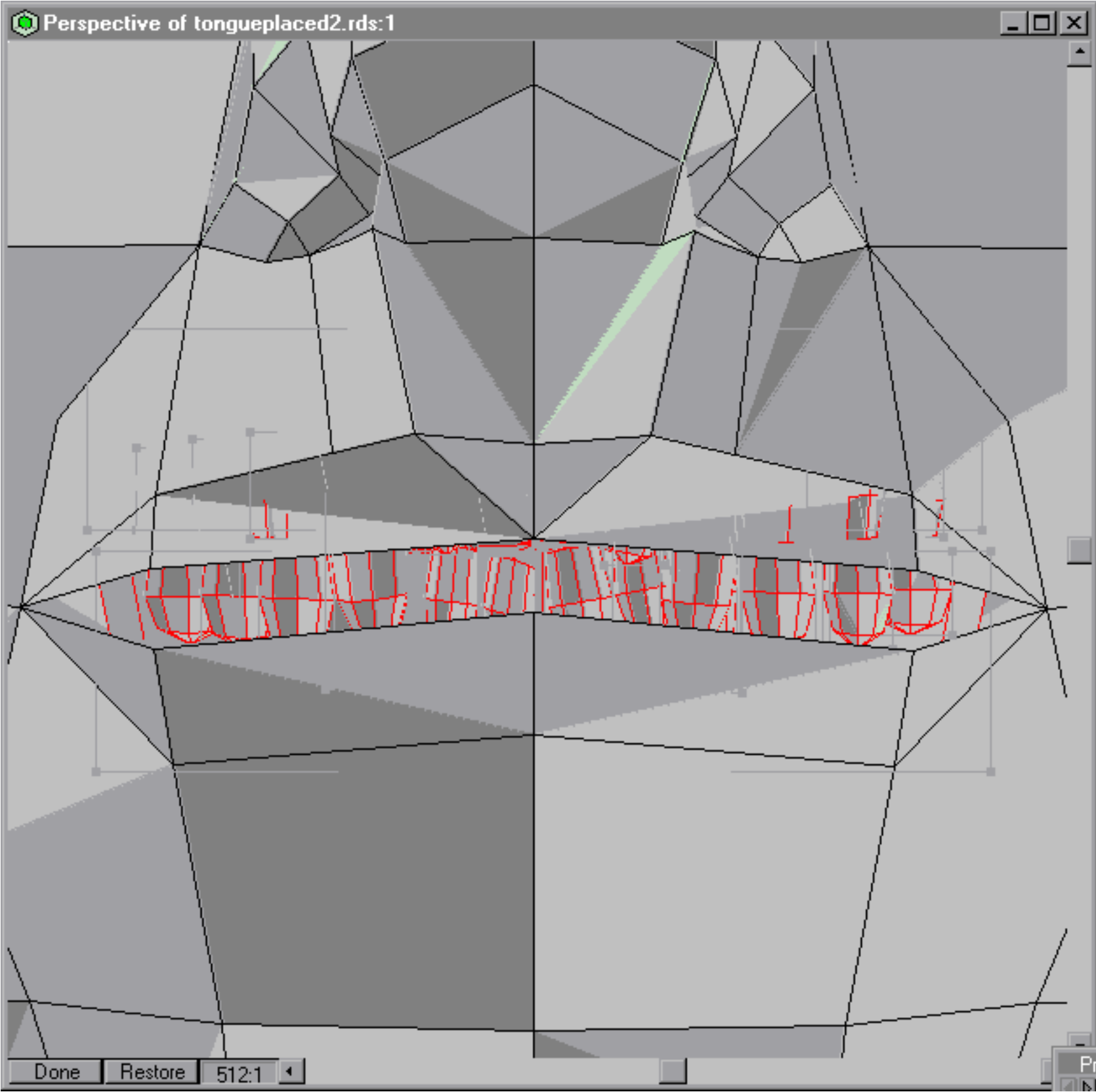


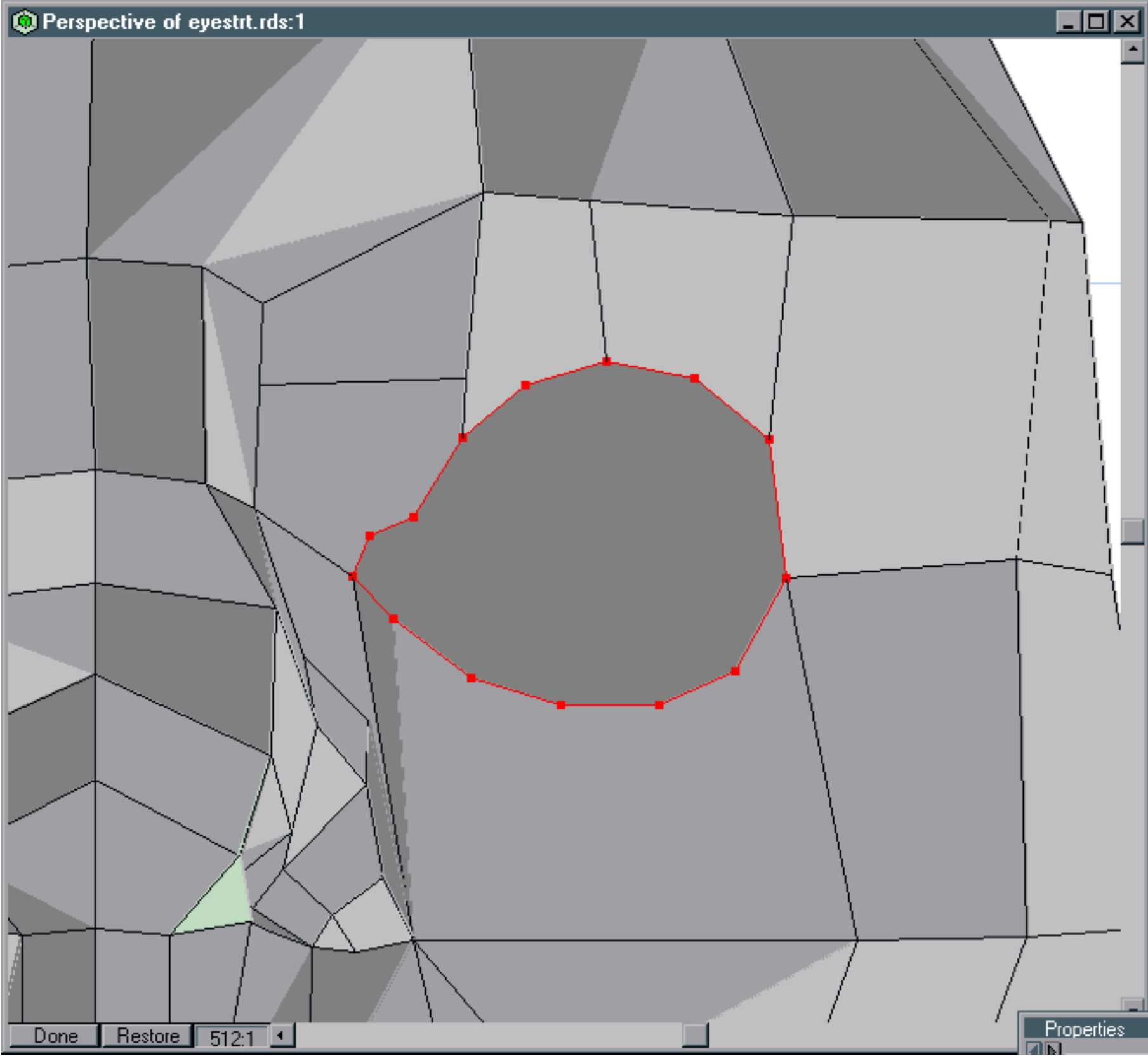


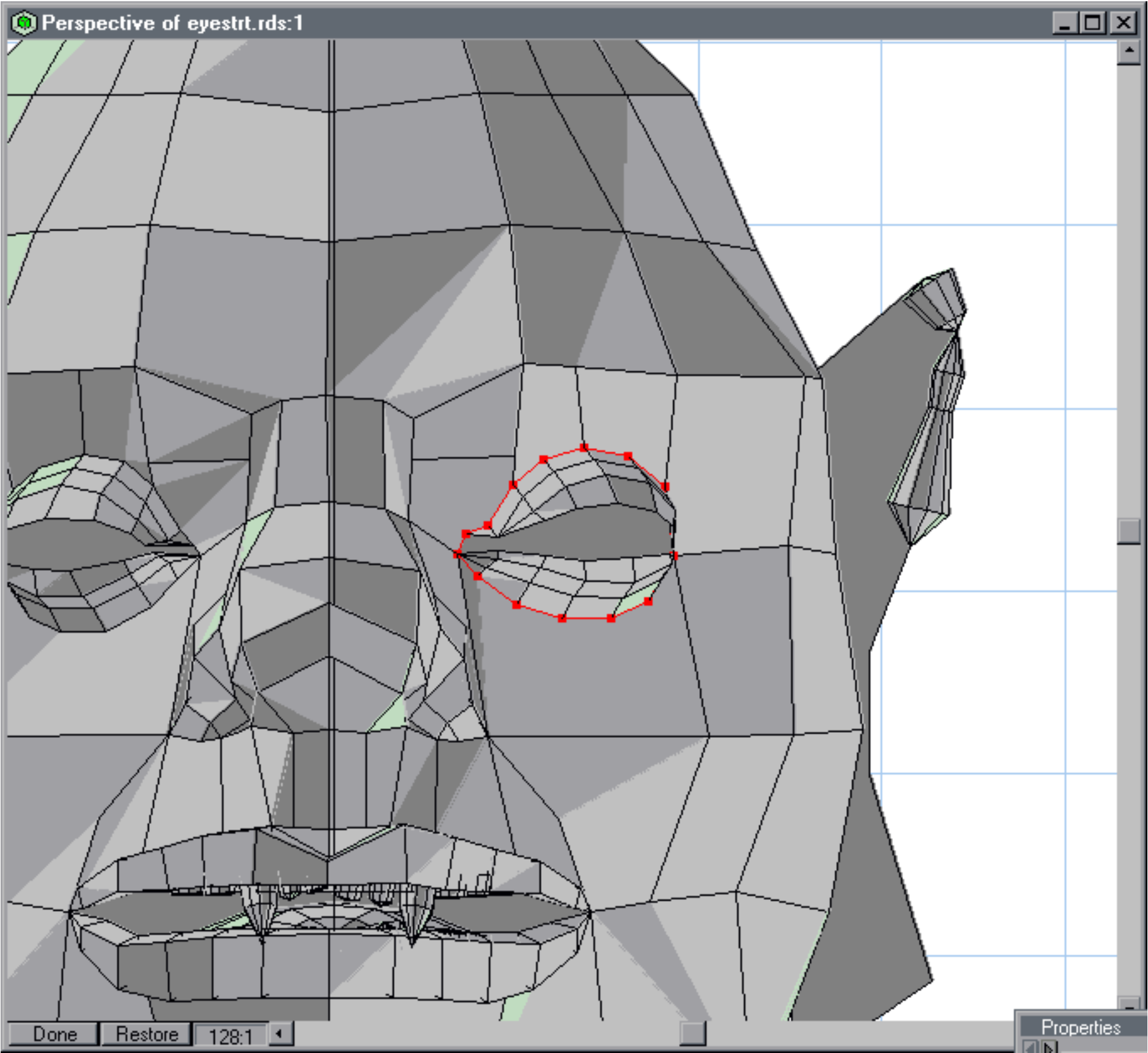


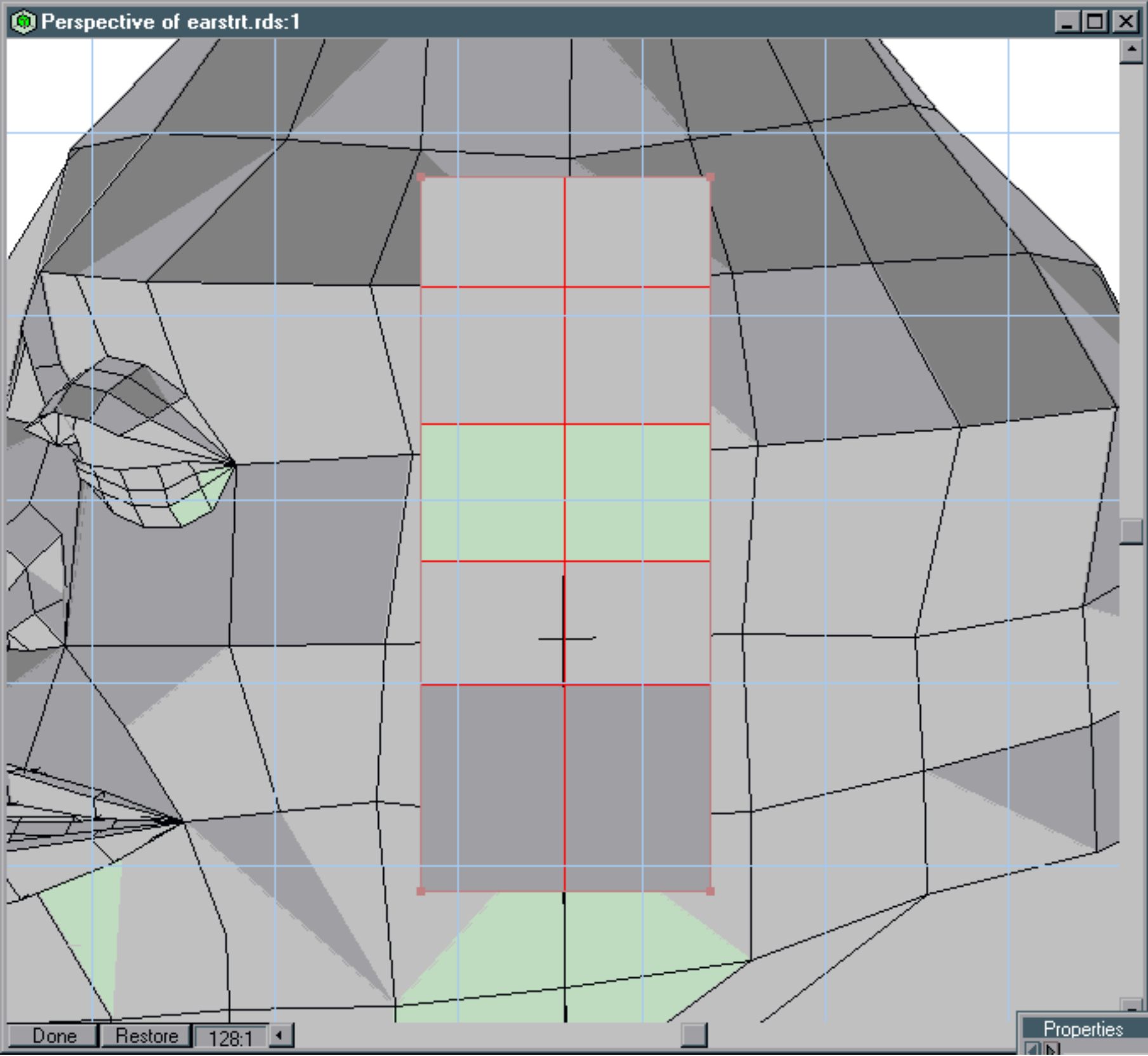


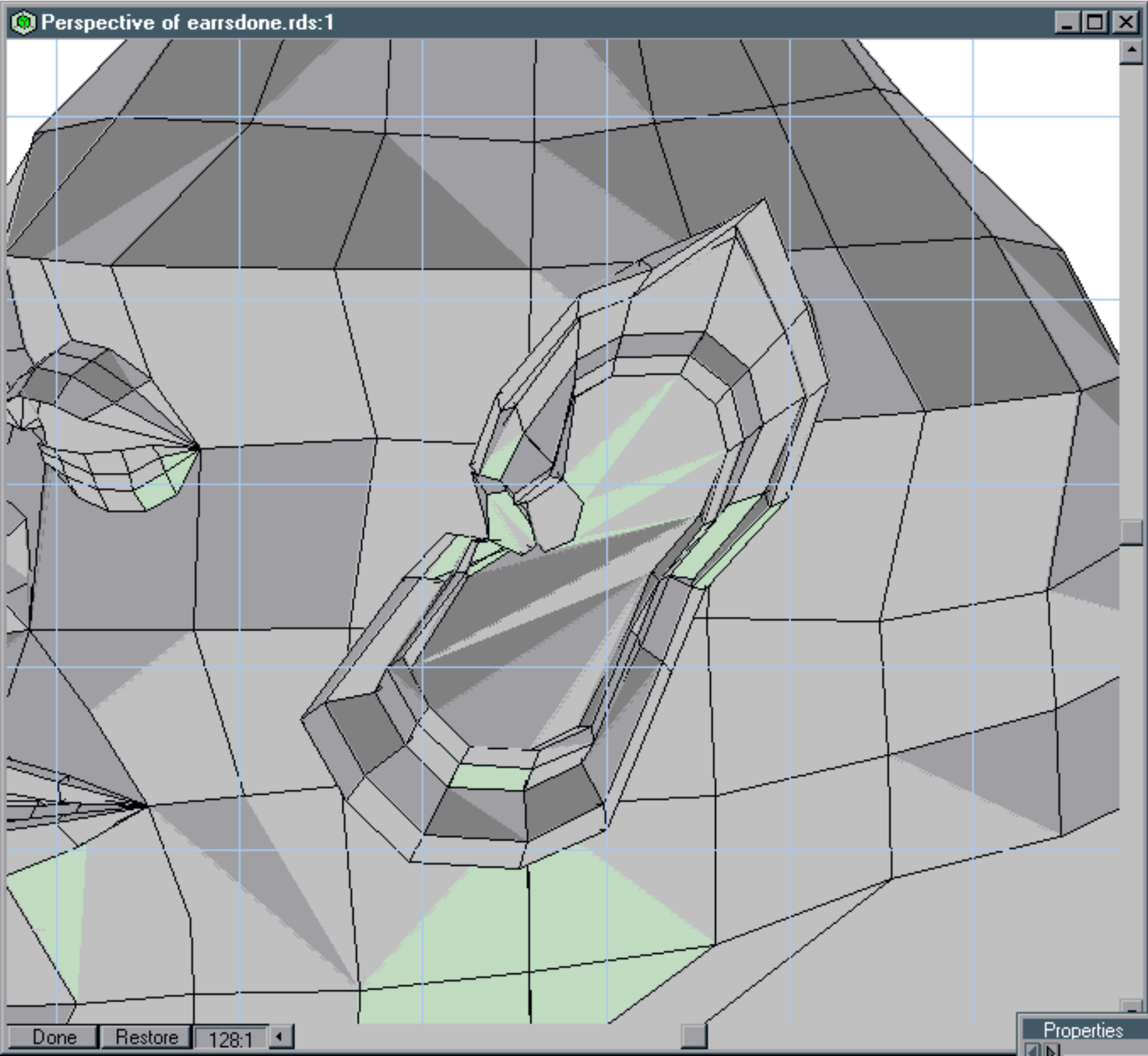


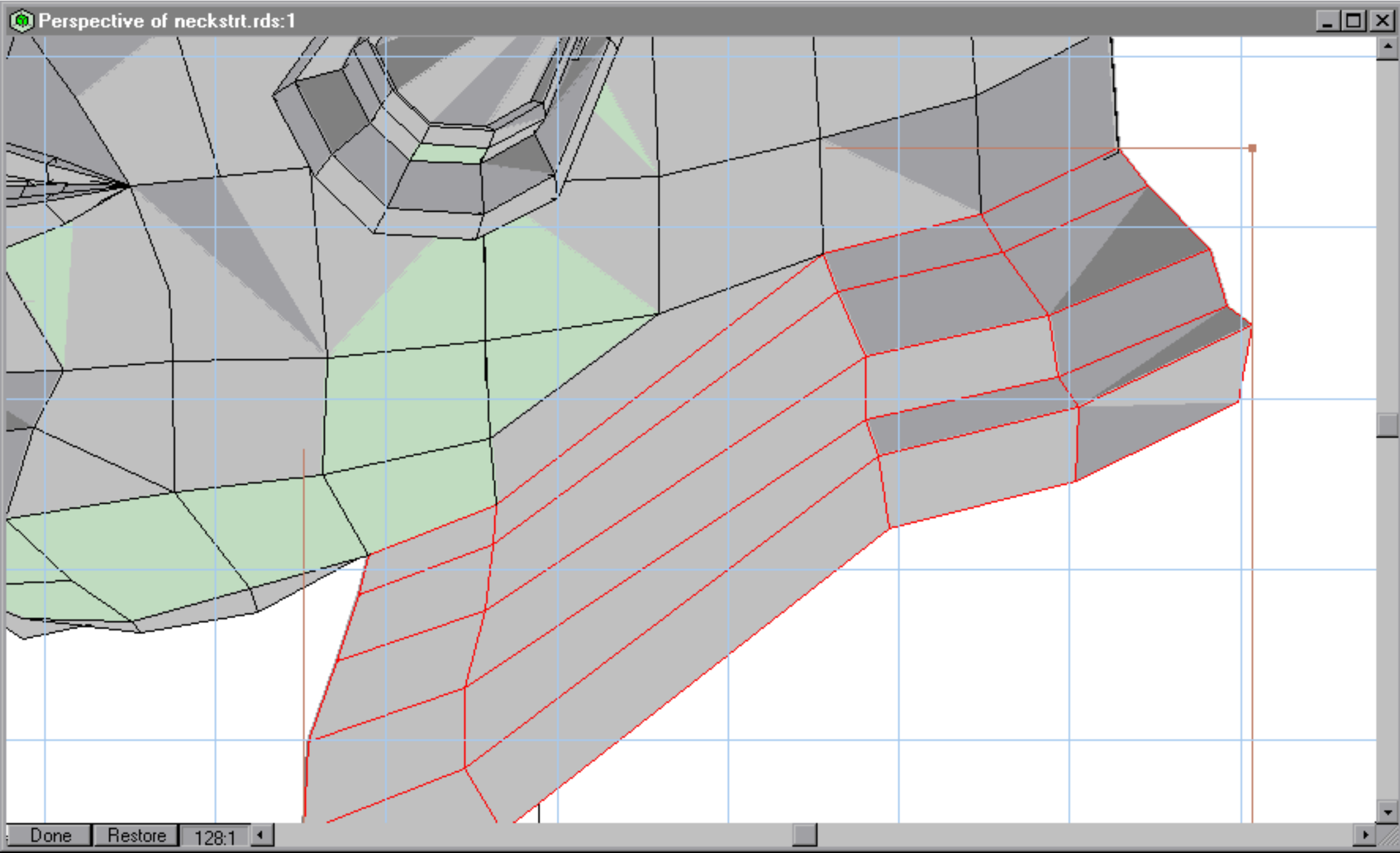


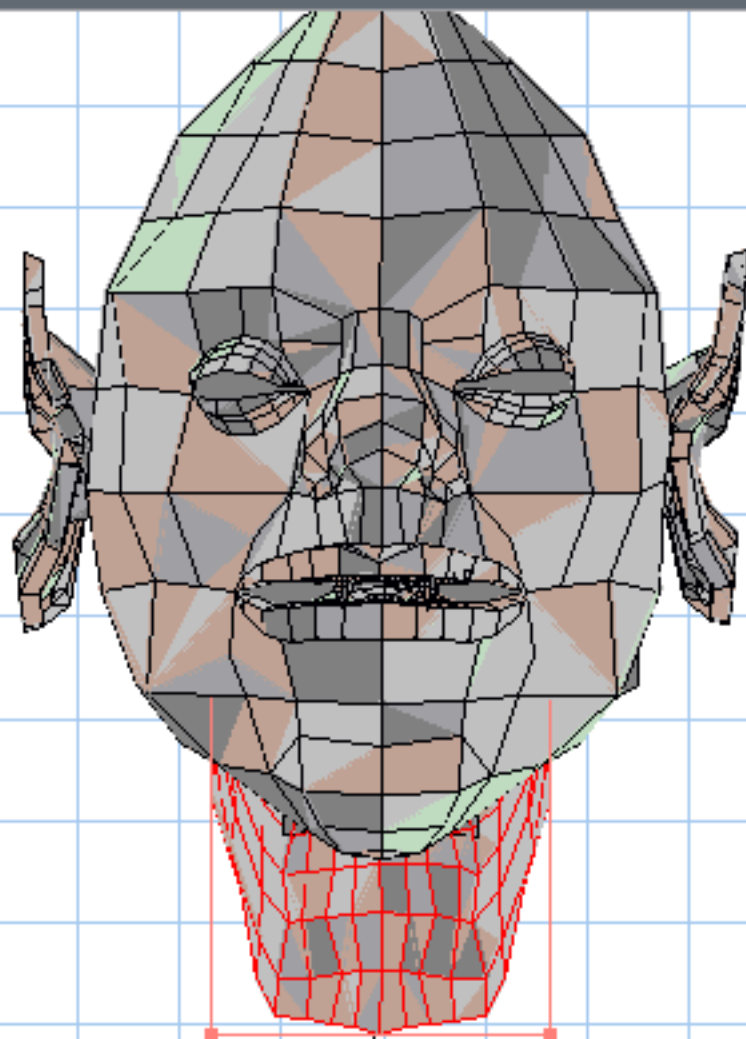




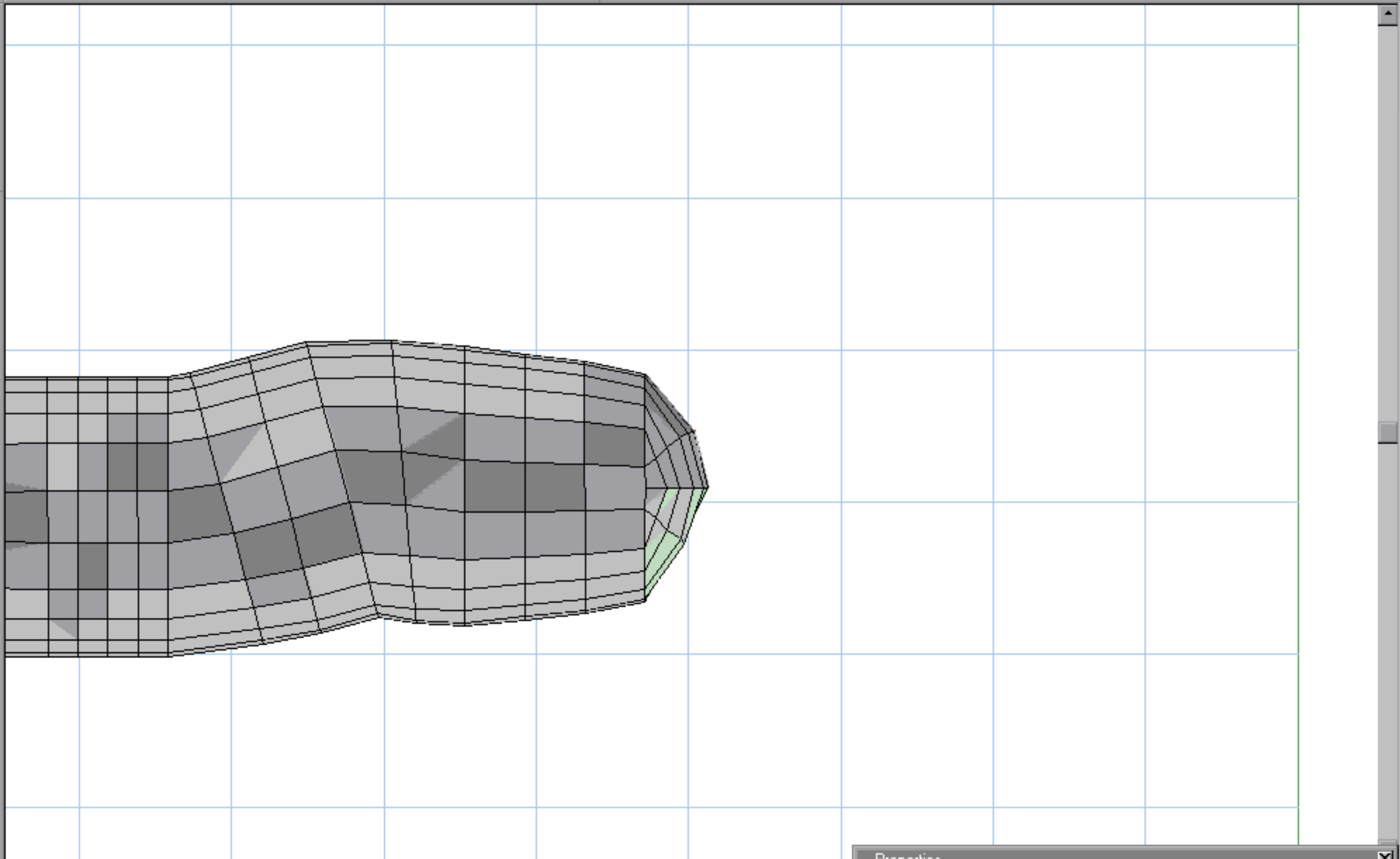


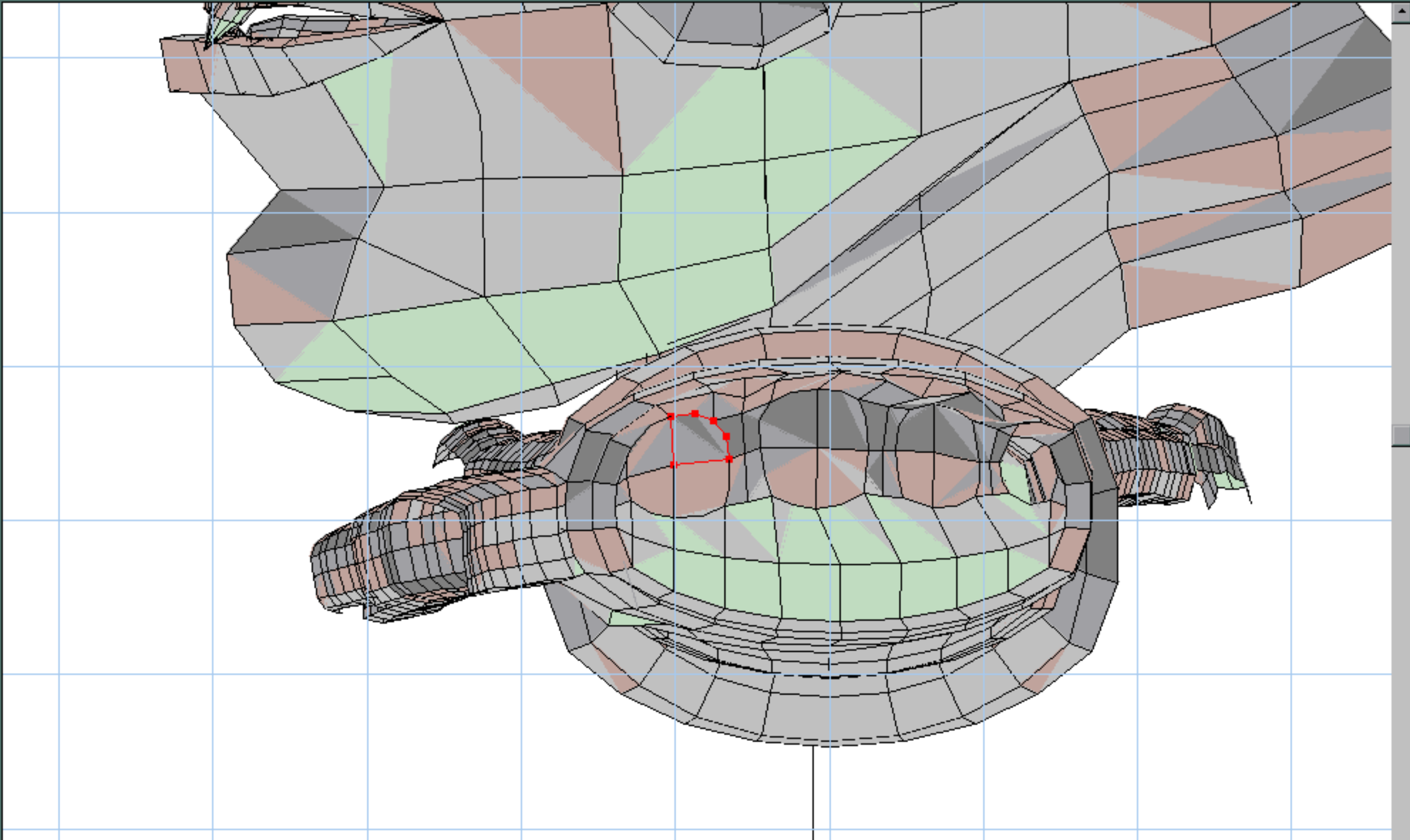












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Tool Options

Action Modifiers

Mapping Mode

