El Caballero Tutorial

In this tutorial I will attempt to demonstrate how I created the piece "El Caballero:

Before doing so a few tips/things I always do:

1. Work as large as possible - most of my pieces the finals average about 16" x 20" at 300 dpi. Reasons for doing so are:

      a. By the time you reduce the final images mistakes are much less visible.

      b. I just plain find it easier to work at a large size so I can see what I am doing:)

      c. Wouldn't you rather be able to make and sell your artwork? That is the minimum size work done to be printed/sold should be- larger is even better- BUT most available commercial texture maps "blow out"/pixelate badlyat that size. No fun. Basically you have one of two choices (at least that I know of! If anyone has suggestions I am all ears!:) I either make my own texture maps at a very high res and save as a tiff or BMP file with best settings. Tedious to say the least. Or you plain old hand paint over the pixelated render in either Photoshop of similar program or "paint" the image in Painter using a variety of tools such as the cloning tools and the kind of medium you want: ie: oil paint brushes; then going in with the soft cloner to get some of your details back. You can then also take your retouched Painter image and add the details etc back in Photoshop.

      d. Don't be afraid to look at reference material!!! Google image search makes it so you can find just about anything you need. On "Traveller" I referenced an actual photo of Traveller and photos of old cavalry tack as my guides as I hand-painted in those on my Bryce render.

Some tips on horses in particular:

You can use the "poses" that come with the Mil Horse but please don't ever just use them without fixing them up. They really aren't very good/realistic IMO. Use great reference materials such as Eadward Muybridge's great photo series of horses (available from Dover Books for around $15) and George Stubbs "Anatomy of the Horse" (also from Dover Books for around $20). George Stubbs is THE master of drawing and painting horses:)

Frankly I think it's better to just start with the default Mil Horse and study/try to copy the pose of a photograph of a horse in a pose you would maybe like to emulate in your 3D rendered picture. With that said there are some things the Mil Horse just can't do well/realistically. So expect to have to retouch in Photoshop.

Study art!:)

The Mil Horse eye is pretty lackluster/dead looking. Again I always end up hand painting in the eye that I want my horse to have in conjunction with his expression (alarmed/sad/weary etc). Use reference material to find the expression you want to use. The Mil Horse doesn't have much in the way of expressions and horses' faces are so much more expressive than most people think. If you have a horse study him/her. Take pictures of his/her face and study those. Same goes for ears. Pretty much expect to need to do some retouching unless they are pretty much straight forward.

Hair:

Well I pretty much learned to do hair from Ravenheart- her tutorial is excellent so I would suggest checking that out. I also studied her Heavenly Hair products that I bought a year ago very closely to see how she does it as she is very, very good. It does take some practice and patience- MUCH easier with a good tablet like the Wacom Intuos series. BUT remember THE best thing about digital art IMO- the "undo" key and photoshop "history":) Both give you the chance to experiment without mucking up the rest of your image/all the work you've done so far. Also I like to work in layers in Photoshop- ie: My hair/manes/tails usually have at least 3 layers- base dark color, intermediate color on another layer up and highlights on a layer above that for real full adjustability at all

So enough of all that blather:) On to the actual piece.

For many reasons I basically do all my 3D art by starting with the base pose and morphing in Poser 5. As I only have Bryce 5 which is not happy about importing wavefront objs from Poser with texture maps embedded in them I always make sure to "strip" my models down to no textures. You sure don't have to do this- but I did learn a lot about applying materials in Bryce from having to do it this way. Some people ask me why I don't render in Poser much- I am a Poser idiot when it comes to the lights- I can rarely make them do what I want them to:) Also I find the rendering time to view a draft excrutiatingly slow :) But that is just me.

So beacuse I don't have any tex maps on my models when they go into Bryce I do some basic drafts with no tex maps to get my camera angle. basic lighting etc set up. If I see something I don't like about the pose... well back off to Poser to fix it. (PS- I also haven't had any luck in getting Daz Studio to work properly for me- but again that's just me)

Personally I find Bryce lighting much easier and more intuitive than Poser plus Poser lighting often looks to me very studio/indoor-ish) Since I do a lot of animals I like the outdoor lighting in Bryce better/seems more natural to me. Lately in Bryce I have been using the most simple of lighting set ups- I pretty much start with the "Simple White Background" for a lot of stuff. I may add a spotlight or two- I normally change the colors of the shadows/clouds/ambient light etc. I always use the soften edges setting on my spotlights. I use spotlights to add my shadows as to get the Sun/Moon shadows in Bryce nicely soft takes massive render time in my experience.

So with that said, here is the first base render done in Bryce at approx 4800 x 6000 pixels. I always work at about 800 x 1000 (at 1:000) to proof and get things set up. Once I like my small render then I set off the big render late at night to not tie up my computer. I also love the fact that you can stop, save and resume a render in Bryce- With currently only one computer here that is invaluable to me. Poser won't let me do that.

Base render 1 in Bryce 5. Note- always export your renders as tiff files NOT jpgs. Jpgs are "lossy" Yes the tiff files will be very big. This was around 80 MB. Knowing I was going to add in my own mane and tail I deleted those in the Bryce file as they slow down render times significantly.

Base render 2 in Bryce 5. Pretty basic lighting used. Final full size render exported as a tiff file. I did this as a separate render as I wasn't sure when I first started the main render what kind of background I wanted and I later remembered this from another piece I did a long time ago. I always save all my full size renders and Bryce files so I can use them over again in other piees if I want to. I most certainly could have rendered both parts of this as one Bryce file.

To make it easy to separate my horse and rider from all that white I used the masking button in Bryce. Since it is a simple white background you could use the magic wand tool in Photoshop as well to get rid of the white. Here is the Bryce mask:
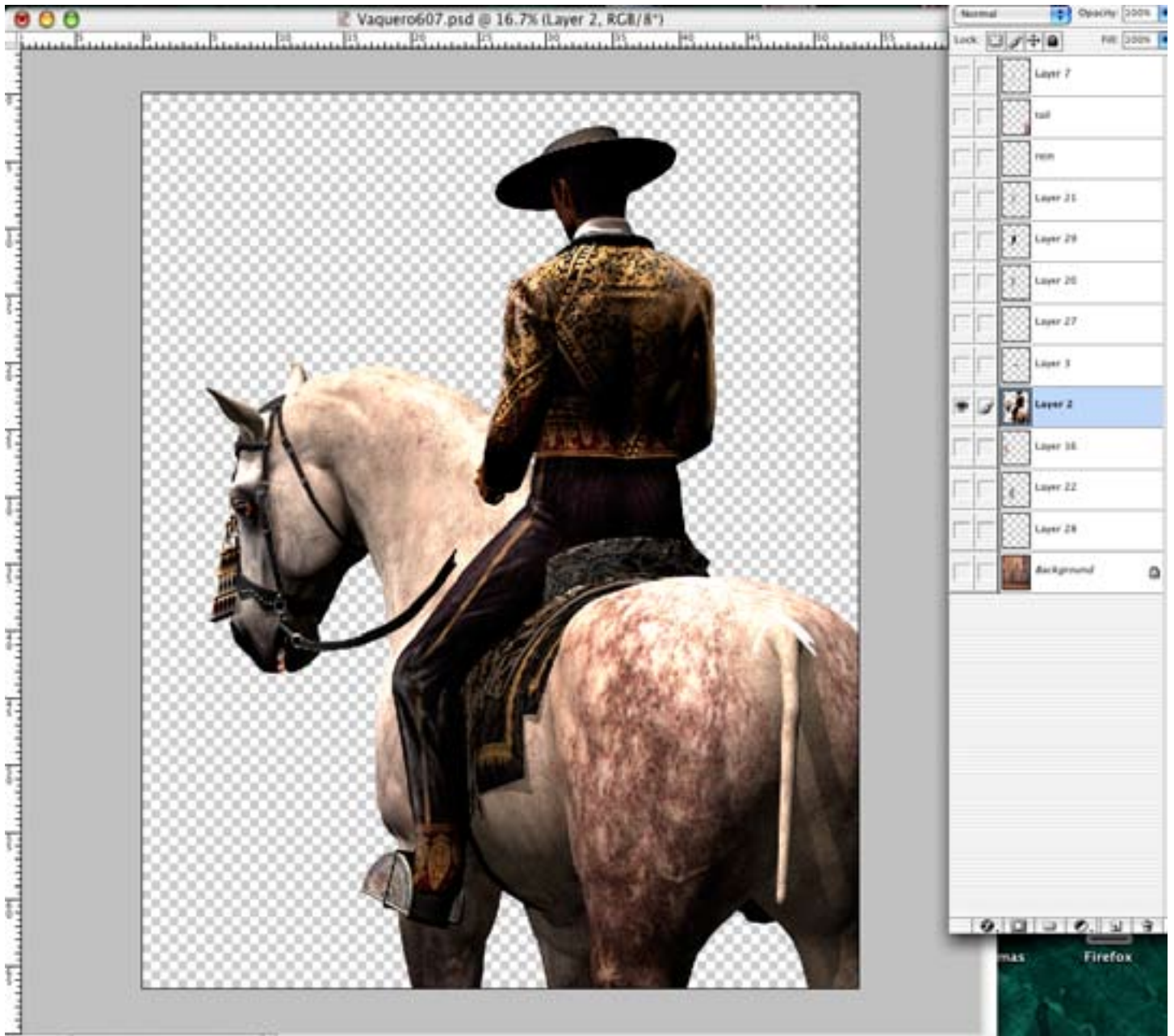
So now here's my horse and rider silhouetted/on a transparent layer in Photoshop CS (PS). Expect to have to clean up the edges a bit. You'll probably want to as even with polygon smoothing in Bryce a lot of the edges are still very "polygonal" and need to be erased/shaped/touched up to have smooth flowing edges as well as to correct flaws in the models. This is a whole easier with a pressure sensitive tablet at least for me. All work in Photoshop on this piece was done with a Wacom Intous 3 tablet - in my case a nice 6x8 sized one.
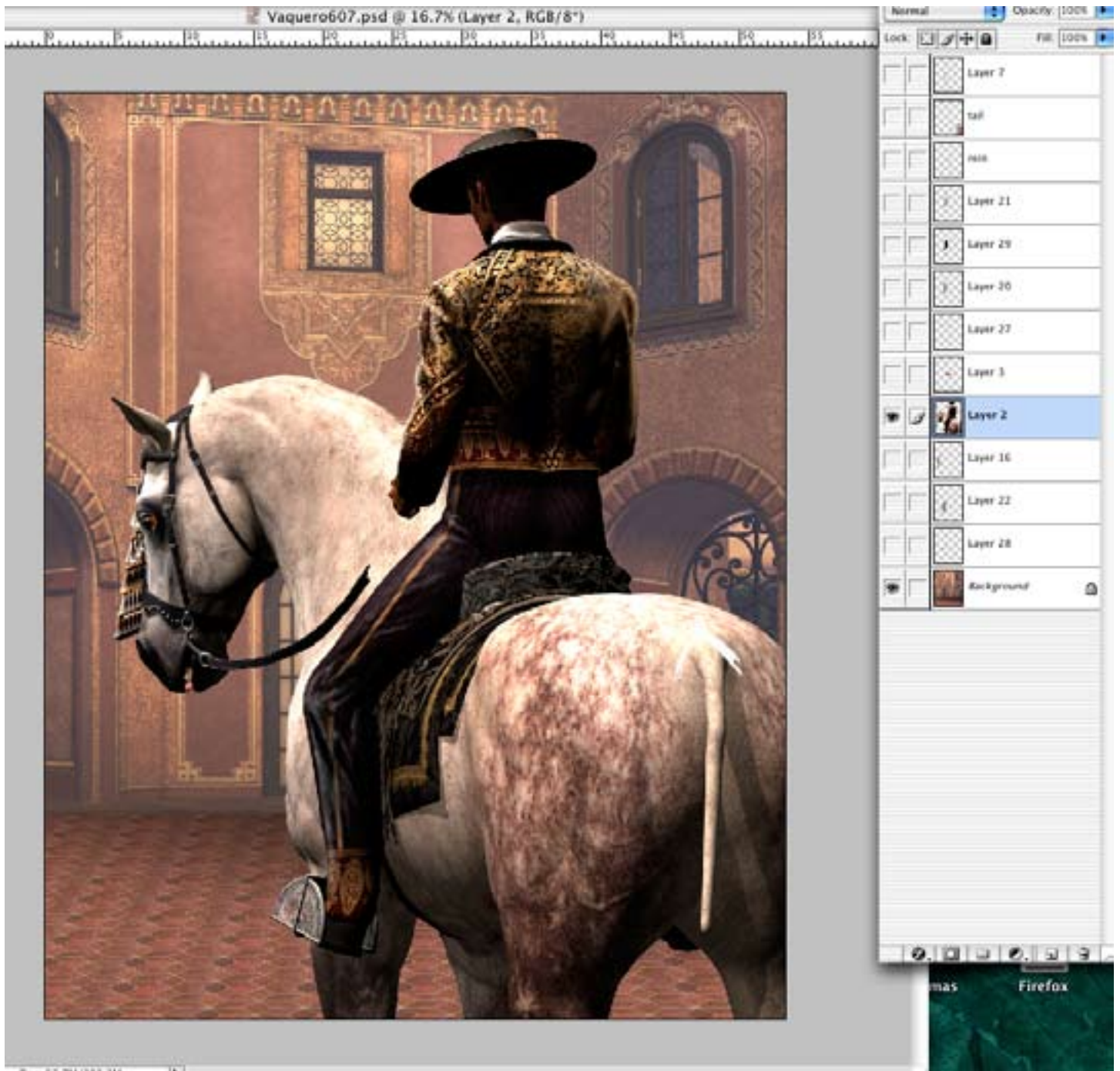
Next I pasted in the 2nd base render - of the background - and merged that down to the bottom layer in PS. Now I can see how the horse and rider base render looks against this background and what needs to be lighter or darker etc. As you can see I ditched the shadow beneath his hand. I'll add my own in later. Also if you look back at the base render both of his arms look odd/the elbows are exceedingly weird looking:) - I cut and pasted the left arm and added that in down and then reshapd it with the brush and eraser tools to make it look more natural. Ditto the right arm. So his pants look pretty odd too in the base render. I hand painted with the brush tool at various opacities and brush sizes to add some creases etc to his pants. On his coat again it looked kinda stiff etc. So I hand painted in light and dark areas and creases to make that look more natural. (I used primarily lighten and multiply at various opacities for my brushes to do this) By using lighten and multiply the color in those areas got a little blah so I went back in with the sponge/saturate tool to get some of my color richness back. Also I used the dodge and burn tools to add more light and dark as needed.
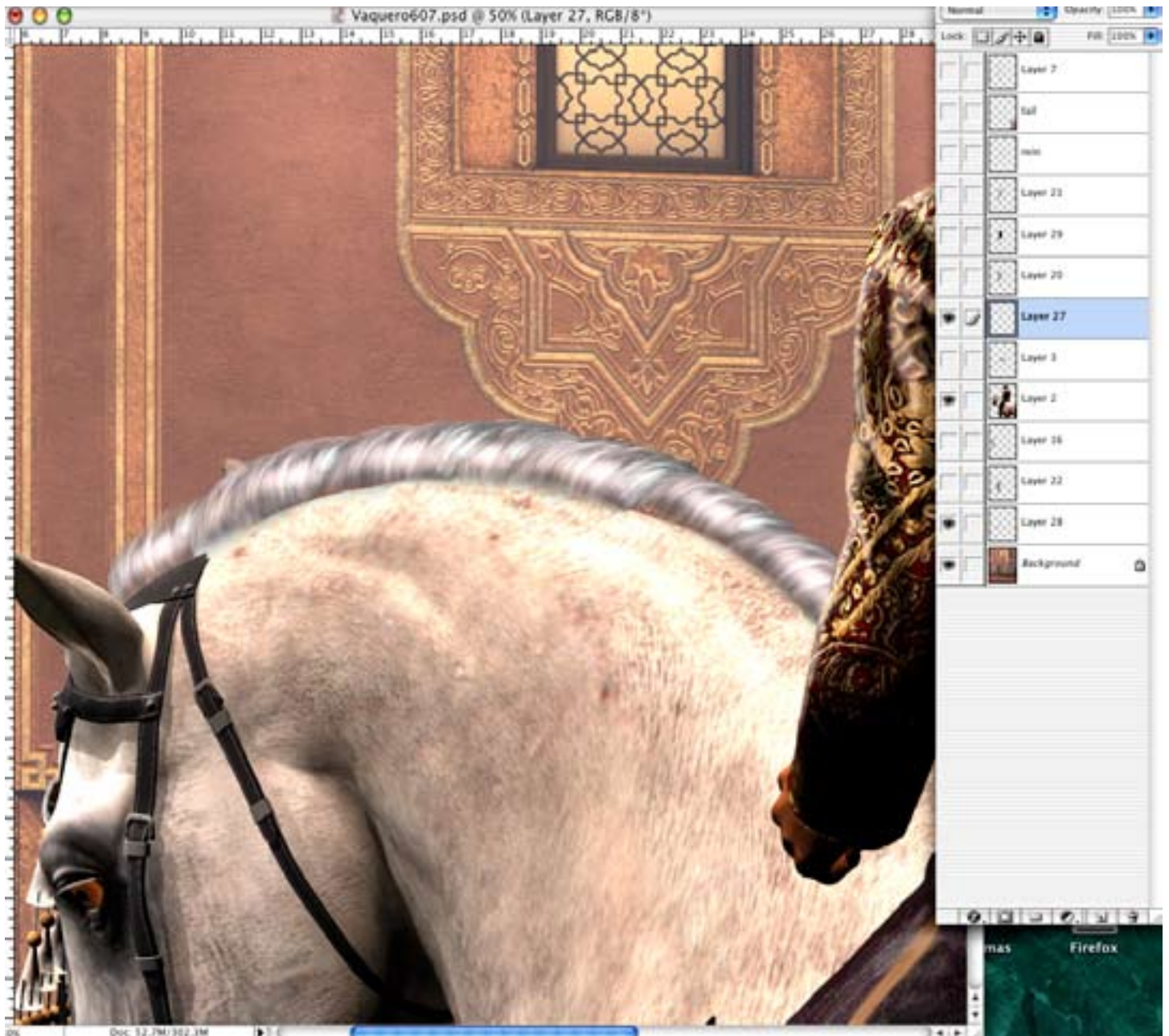
Ok so now the rider is getting there, time to work on the horse. I painted in the top of the mane on a separate layer, then used the smudge tool and a soft eraser to soften it all where it meets the horse's neck. In the final flattened tiff file I used the smudge tool small in the direction of the hair to make it look more like the mane is growing out of the horse's crest, not just sitting on it.
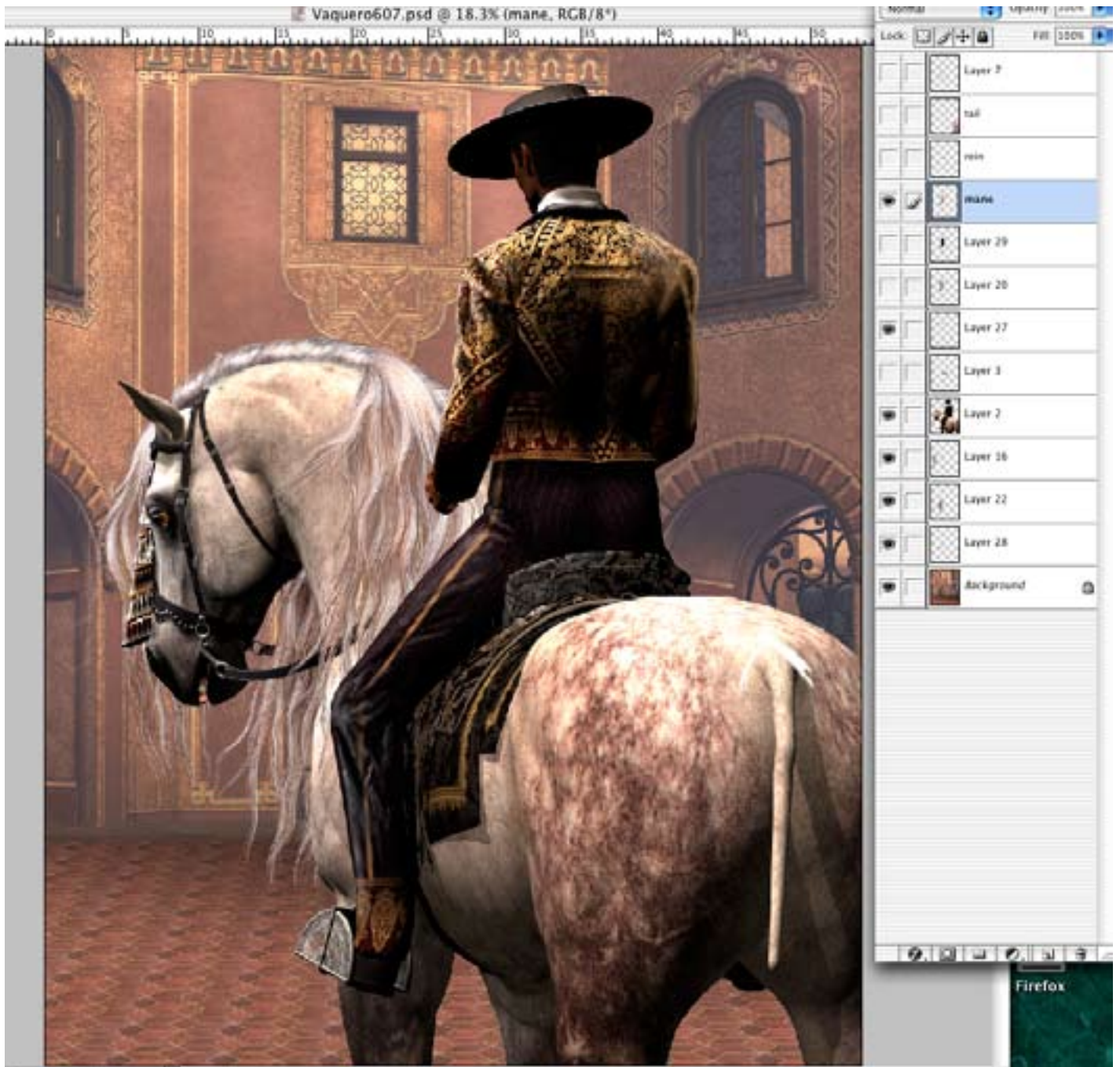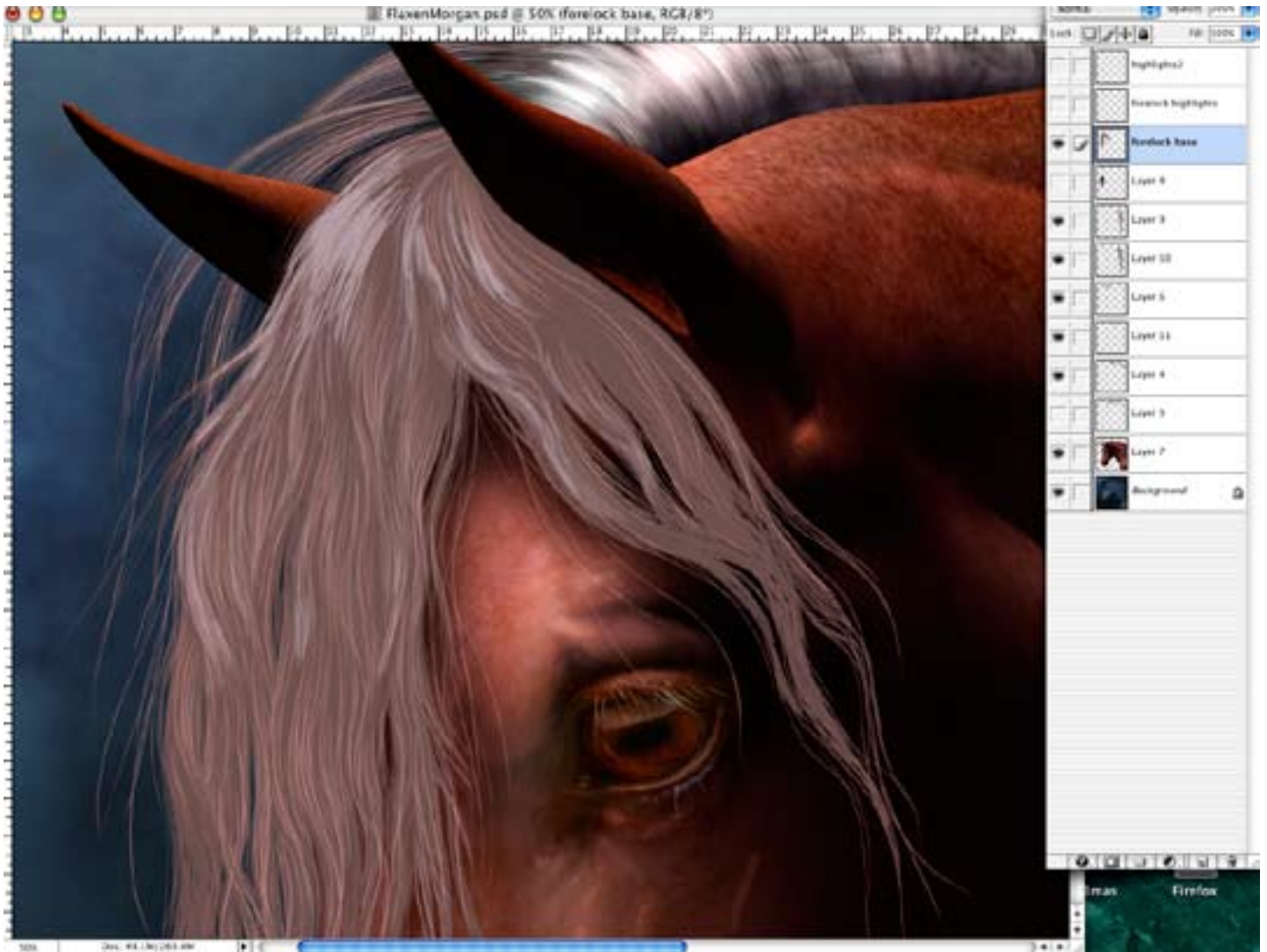
So I cheated a bit on the mane and tail in this piece- If you look closely, the mane and tail parts might look a little familiar:) I took them from my "Flaxen Morgan Stallion".   So I'll use that as an example of how I do the manes and tails next.

I used the art I created in "Flaxen Morgan Stallion's" forelock as the base for the mane and tail in
 "El Caballero"

Using a pretty large brush (65 or 100 pixels) I laid down the basic shape of the forelock in the darkest color I wanted to use on a new layer. Then I went back in and added more wispy-ness/individual strands of hair in. I then used the color picker to go up a little lighter shade and stroked in more hair strands with the brush tool. I tend to build up slowly with a very small diameter brush (in this case a soft 9 pixel brush) and then as I get the basic flow of the hair resolved I then go in with bigger brushes for more definitive hair strands.
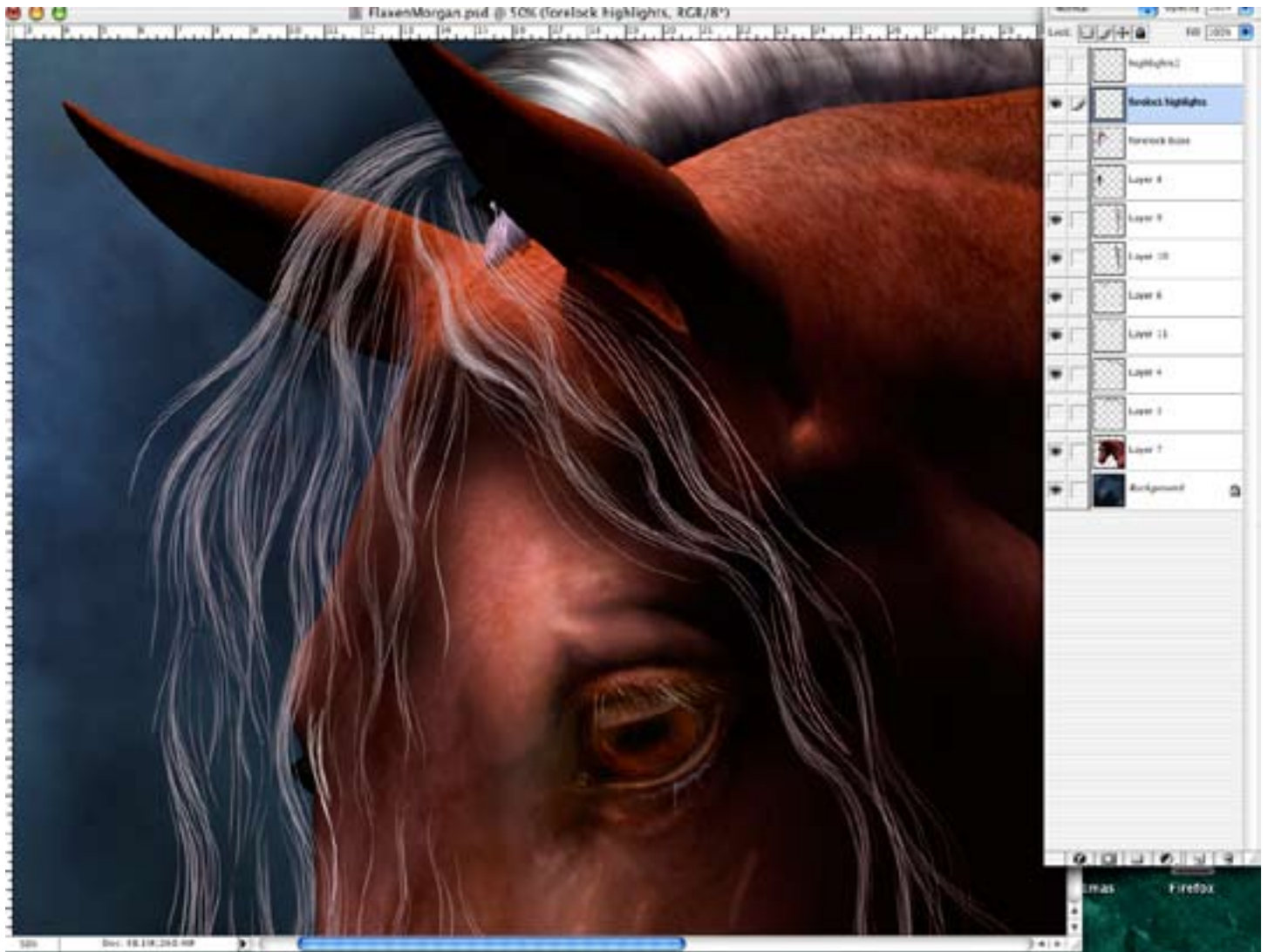
Adding yet another new layer I started adding in strands of again a little lighter shade. Here I am showing just the next layer- I would do the actual painting with the darker mane layer showing so I can see what I am doing:)
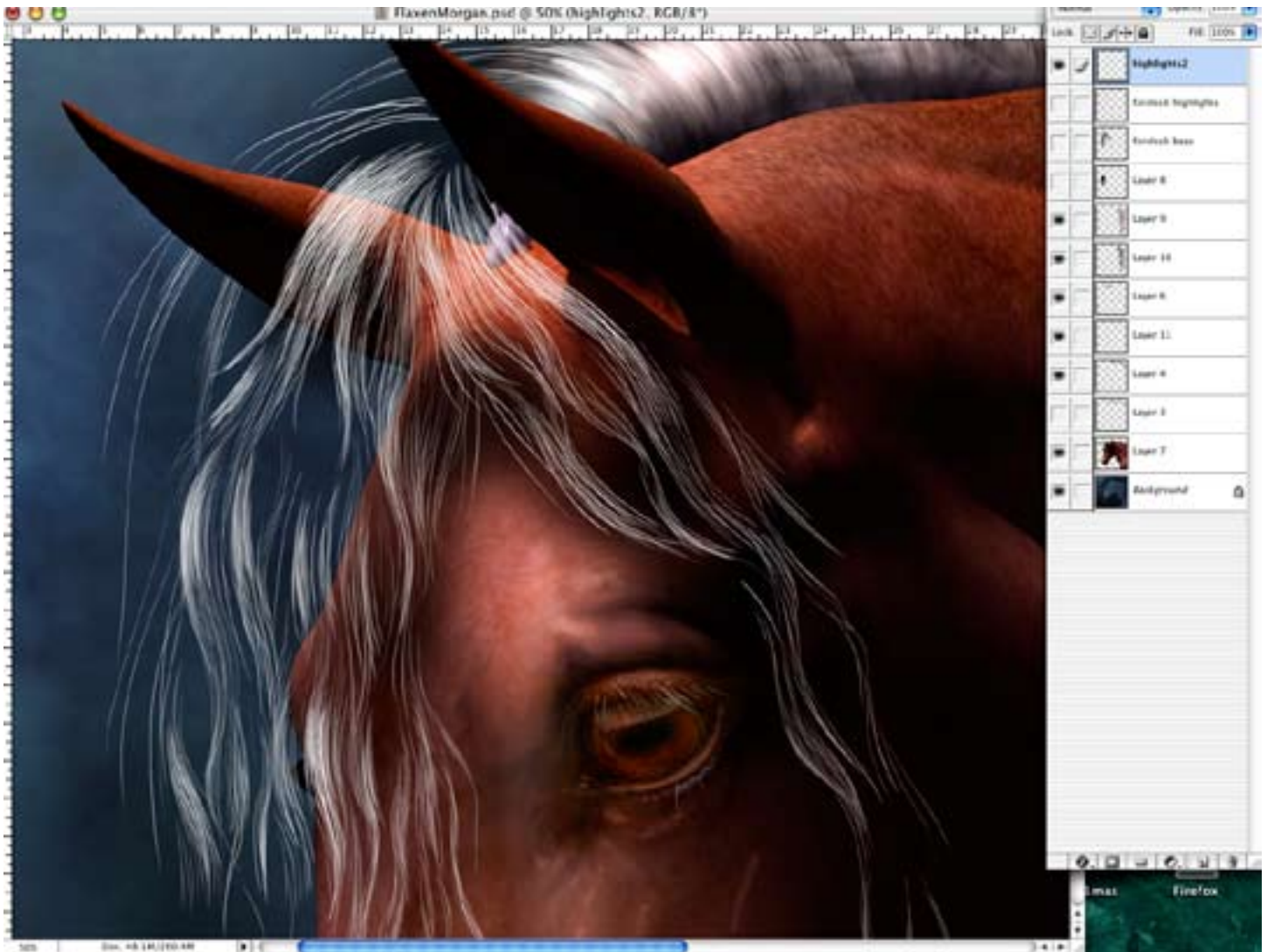
Another new layer- this time almost pure white for the brightest highlights for this guy. You will also notice the shadowing on the face. At this point with all the mane layers showing I go in on the base render layer (or on yet another new layer:) and use the brush tool at multiply and fairly light opacity (say 20-30% at most) to add in shadows on the face. On the hair to keep the strokes looking free flowing it's best to just ignore the stroke going over the ear for now for example- partly beacasue you are on a separate layer so no biggie. and then go back in and erase out the parts of the strokes you don't want over the ear.

During this whole process I may have erased whole chunks totally and started all over. :) Also I zoom in and out a lot to see how it all looks. When I am happy with all that and am ready to flatten all the layers for the final tiff file I may go in and add a few more strands here and there and dodge and burn to lighten or darken strategic areas.

So now back to "El Caballero"! :)

So here is the forelock from "Flaxen Morgan Stallion" with the 3 mane layers flattened down into one layer. I then cut and pasted that into a new layer in the "El Caballero" photo-shop file.

As you can see there are a lot of hair strands I didn't want so I went in and erased those.

The tail is this copied, rotated, flipped, contrast added etc about 3 or four times.

The mane is this once on top. once behind and once for the forelock. All then adjusted lighter darker etc/more hairs added etc as needed. I also used the dodge and burn tools in various areas as well as using the brush tool set to color and picking out colors from the horse's body
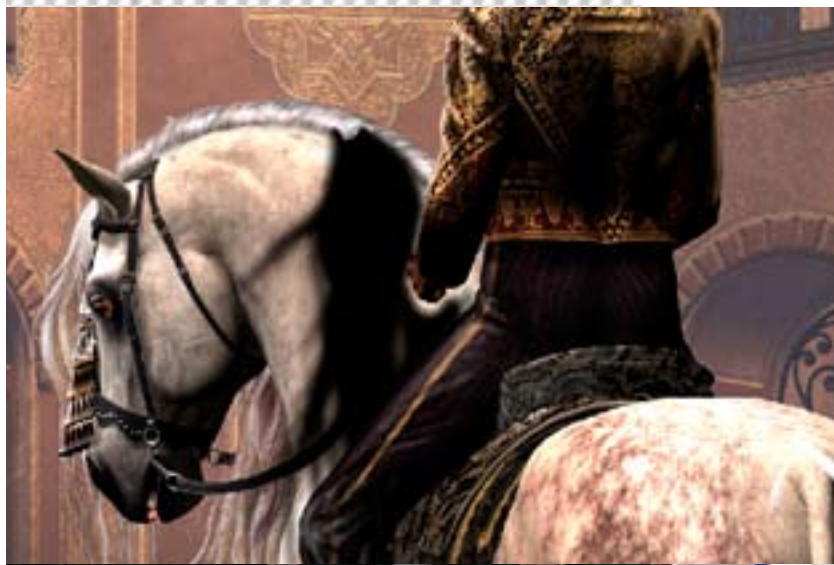
Then to make shadows caused by the mane on the neck/body I duped the mane layer and adjusted the brightness and contrast all the way down so I had a black silhouette. I then applied a gaussian blur to soften it. That layer was then set to Multiply and opacity of about 50%.

Below shows it with the mane layer showing over the shadow layer.

Here also I hand painted the eye/expression around the eye using the brush and smudge tools; and retouched the mosquero again with the brush and smudge tools.

So now the foreground of the horse and rider is fairly complete. My background now looks a bit flat and blah so I went in with a really big brush (about 500-600 pixels) set to Multiply at about 15-20% opacity and kept painting in shadows on the background to accent the horse and rider. I then did the same with Lighten and then used the sponge/saturate to get my colors back.

Also at this time I did any last curves and/or brightness contrast adjustments on several of the layers to get it all to "gel".

Save, then time to flatten layers and save as a tiff file. I then decided I wanted a small gold border on it. So I added that and voila!

I hope this has been informative and that I haven't been too "windy"! :) I certainly learned a lot from the tutorials here at Renderosity when I was first learning Bryce and Poser about 3 years ago. I have been using Photoshop for a very long time so am very comfortable and familiar with it as a program. So time for me to give back! Enjoy creating!