Alpha Planes in Animations

I know some of these ideas are not exactly new. But when I tried to find info on creating planes I couldn't locate anything simple to follow, particularly in relation to animation. So here's my attempt at a simple tutorial. You'll also a find a "bonus idea" at the end of the tutorial "Animated 3d Decoupage & Back Projection".

Stage 1

Get your background video or picture. You won't need Photoshop, layers or anything fancy for the 1st few stages.

If making a video, extract the first frame and save it as a .bmp. Don't use .jpgs because of compression and the edges can get feathered.

This image MUST be exactly the same size as the video or the background picture. We'll call this "Background Image" for clarification.

Stage 2

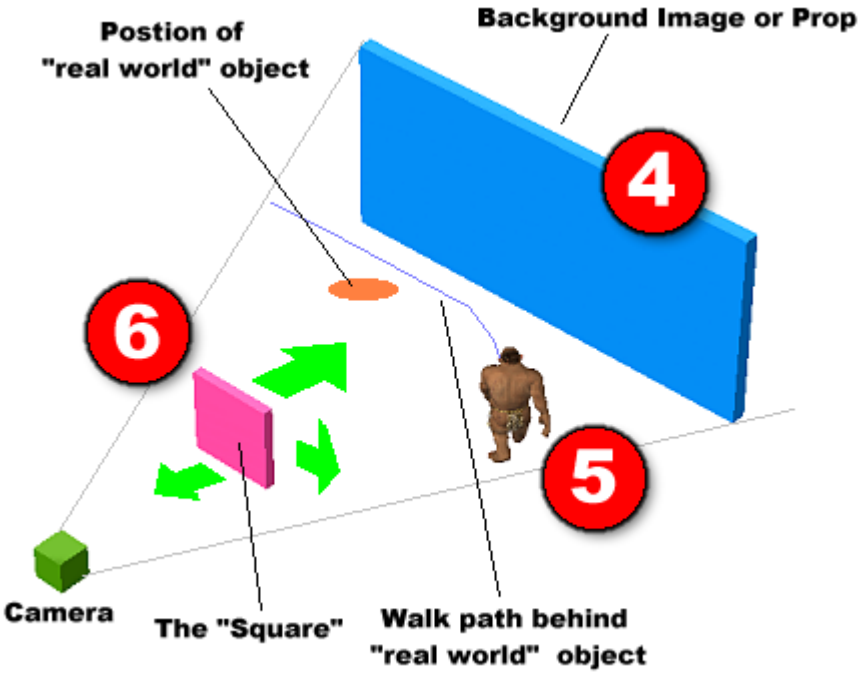
Using a copy of "Background Image". Cut away the image leaving only the areas the figure will go behind.

It's also important that the areas you want to be invisible are black. NOT any other colour or this won't work. We'll call this image "Foreground Image".

Stage 3

Once again, you'll need to duplicate an image. This time it's "Foreground Image". Make all the non black areas white.

Just be careful when editing you don't lose any detail, as this is the "mask" for the transmap/alpha plane. Call this picture "Foreground Transmap"



Stage 4

Load up Poser. Load the background image: .File -> Import -> Background Picture. For Use the file in stage 1: "Background Image".

Or if you use a background figure or prop, add "Background Image" to that. For video use File ->Import AVI as the background.

Plus if you like to change the camera focal do it now, otherwise you may have to repeat some of the next few stages. It's also a good idea to add your camera to the library, in case it gets moved by accident.

Stage 5

Add your figures, props and lights now. If using Global or IBL Lighting, don't add it at this stage because you'll be making some test renders.

When making a walk path modify it, so the figure goes behind the "real world" object. (like the orange dot on the image). Don't forget to save at this point. In case you need to revert.

Stage 6

Go to the props library and load the One Sided Square. You'll have to re-scale it sometimes by a range of 500-700%. It will look odd but don't worry. Don't re-colour this prop as you'll be adding a material.

Stage 7

Bring up the Materials dialogue box for the one sided square. Set the following:

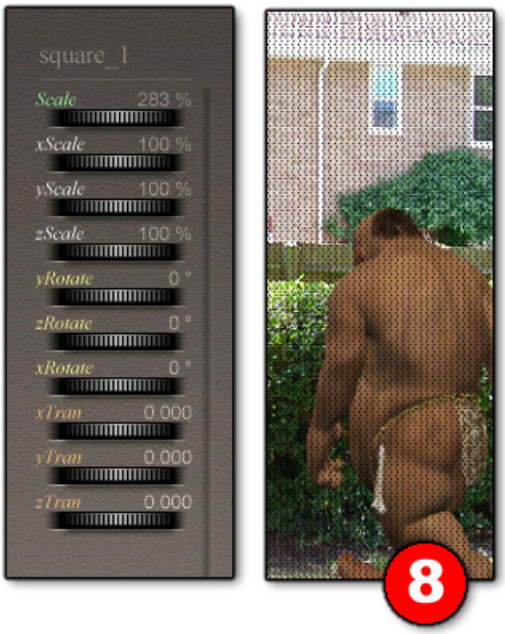
Object Color = White
Highlight Color = Black
Ambient Color = Black
Reflective Color = White

Highlight Size = 90%
Transparency Min = ZERO
Transparency Max = 100%
Transparency Falloff = ZERO

Texture Map = (for this example) = Foreground Image.bmp

Transparency map = Foreground Transmap.bmp

Stage 8



The square will now partially disappear.

Dependant on your document display style, you may see a semi-transparent effect like black dots over the image. This is normal. Don't panic!

Do a quick render. Most likely you'll see that that things don't match up, The picture of the "Foreground Image" will be floating in the wrong place, too wide or too not tall enough.

This is easy to fix, but it needs a little patience and you'll be using the Parameter dial for the square to do this. If you can't see the dial click: Window->Parameter Dials.

Adjust the scale, X (left/right), Y (up/down) and Z trans(front/rear). As there are no exact values, you'll have to experiment with the dials and making test renders until things line up.

You can gauge the location a little better by using the materials dialogue and adjusting the transparency Max settings to around 50%.

To get around a feathering effect that can occur with 'alpha planes'. Make the square look slightly larger, only a few pixels, so it overlaps the actual object on the background image.

Stage 9

Once you have everything lined up correctly, remember to set the Transparency Max back to 100% and create your movie.

You'll see that figure(s) can now walk behind things.

Chromakey Overlays

Stage 10

It's also possible to use this technique to create an overlay for use in other packages that allow chromakey, such as Adobe Premiere, some versions of Roxio VideoWave or Pinnacle Studio.

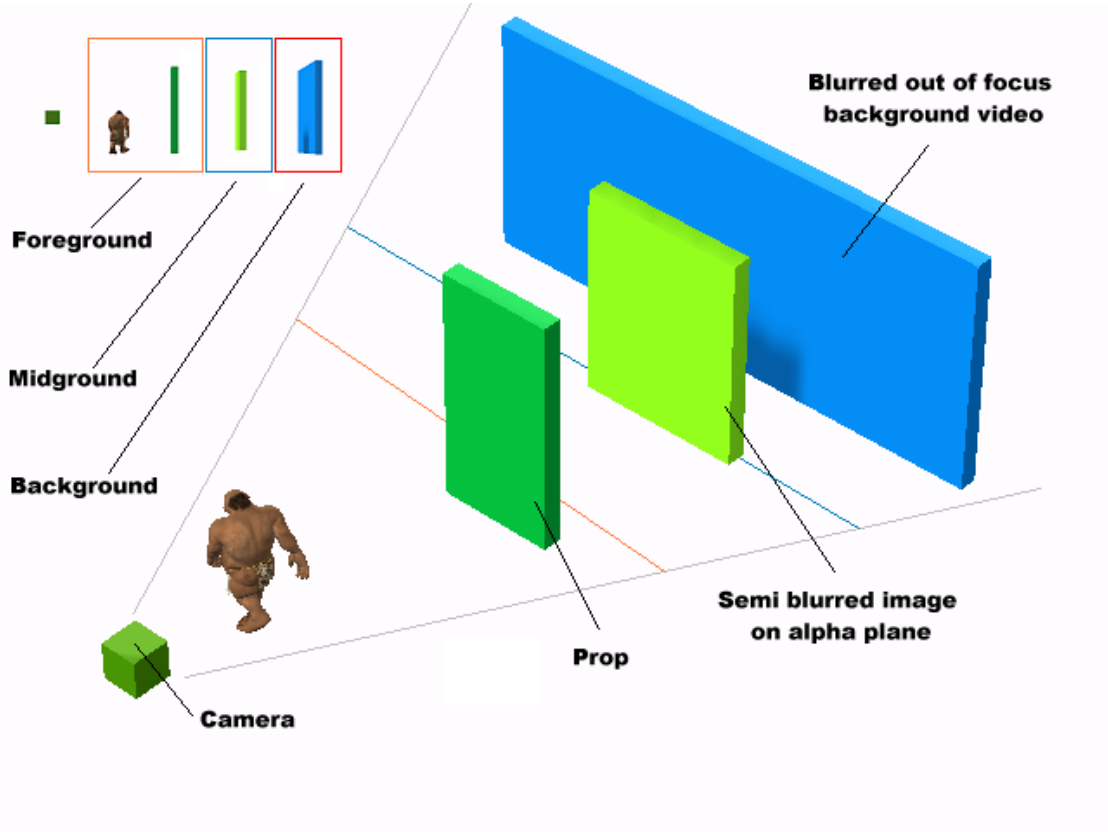
Replace a "Foreground Image" in stage 2 like the one shown in the large image. Basically a green silhouette with absolutely no detail. Keep the transmap as in stage 3 and follow the stages as before.

Stage 11

After making a movie, you'll see this. It's not perfect as you'll see a rough outline. I've not tried but I suspect some experimentation and manipulation of the green colour anti-aliasing and may help resolve some this.

Plus if your software allows you to set the "chroma" tolerance levels you may be able to fix it this way.

Animated 3d Decoupage & Back Projection



This concept is a fusion of the kind of classical artistic "rules" like composition, and the "golden rectangle", mixed in with photography and decoupage.

You make 4 or 5 images with areas that will be used as transparent parts later. Then blur each one by a decreasing degree from the background forward to the foreground.

Next each one is pasted like a "peusdo layer" (NOT a real layer for Photoshop users) using paste as transparent selection over the preceding image. But this involves lots of postwork on each stage.

Then while making the chromakey guide I thought what about applying a similar technique in 3d and animating it to give an effect seen in manga movies.

It should be remarkable simple. An out of focus video clip is imported as the background. Which could be the tricky bit as many new camcorders are designed so an image is always sharp, so you might need to use your cameras manual settings.

If you want to use an image on a prop, or the background, blur and soften the source image. Example: A cityscape filmed from a car.

Next up is the mid-ground. Make an "alpha" plane and on this place a semi blurred image. Remember if you're making a scene where the camera is animated and tracking along with the figure to the left or right. You'll need to

make the alpha plane long and may it need to extend outside. For example: a street scene.

Or you may wish to make this move along with the camera. But I'm not sure how to or attach this to the camera. Parenting maybe?

Finally lets work on the foreground. Stick a couple of foreground props in place and your figure's walk paths, lights, props etc and render.

You could also dispense with the mid-ground and keeping a tight camera, use this technique to create back projections. For example a video clip filmed from a train and used as the background on Poserworld carriage set.

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