How to do Stucco

How to do stucco walls
By Tony Rieger

Stucco walls are often found throughout the world. Stucco is applied in its wet clay-like form often with hands, or some type of tool to spread out the material across the intended area to be covered. Stucco, once dry, hardens to a very dense solid form. It is used for covering areas that might be more permeable to the cracks and holes in the wall's base material (like straw, sticks, stones and the like) to make the wall less porous and thusly protects against the outside elements. It is also used as a decorative coating for walls and ceilings, and as a sculptural and artistic material for decorations in architecture and often covers fewer appealing surfaces below.

Materials
The following are the materials I use when doing these kits. A few steps you might find unnecessary or you have already skipped to the end. I'm covering a few steps in this write up, the stucco effect is but one part, but that maybe the only 'one part' you need. Look at the whole article, then determine if you need all these tools or not.

Joint Compound
When I model stucco on the model walls of the models I make, I often just use plaster, usually of the *Joint Compound* variety (which is more a white paste in texture) *Joint Compound* (also known as drywall compound or 'Mastic') is a white powder of primarily gypsum dust mixed with water to form a mud the consistency of cake frosting, which is used with paper or fiber joint tape to seal joints between sheets of drywall to create a seamless base for paint on interior walls. It is often referred to simply as mud or as joint cement. I also use 'spackle' as well, interchangeably. Spackling paste is a putty used to fill holes, small cracks, and other minor surface defects in wood, drywall, and plaster. Typically, spackling is composed of gypsum plaster from hydrated calcium sulfate and glue. Regardless of which one you have or grab, they both will work. This really is 'the' material I use in the process.

Palette Knife
I know many of you will have some way of finding some way around buying a proper tool for this, but I have found having the right tool makes the difference in time and headache. My favorite tool is a palette knife painters use. Know, I have the 'whole collection' of these different types of knives, and they all have their use. Some are better at getting into corners and the like, where others are better at covering large areas. But that all said, there is a 'favorite' as it pretty much has proven to be the one, I grab most often. It is the number 4 in this set shown to the right.

Paints
While I do occasionally use oil-based paints, as a rule, I usually use acrylic paints when I paint models. If you are more comfortable with the oil paints, go for it. I use the less expensive 'craft paints' for my models, as they are often larger then miniatures, and there is allot to do, and it's just easier on the wallet to buy. Plus, for many folks here in the USA, it's just easier to get to a craft store that you mom or wife by yarn at, than at a genuine hobby shop, which can be few and far between here. Some 'brand names' in the USA at the time of this writing are *Americana*, *Apple Barrel*, *Delta Creative*, *Deco Art*, and *Folk Art* just to name a few. Colors? For the project I'm about to show you I keep the following colors on hand, even if I might not use them all, or in the same amounts. White and Black (for darkening and lightening if need be) Light Grey, Barn Wood, Raw Umber, Sand, Ocher, Khaki.

Brushes
Yes, you will need brushes for the painting. The size will depend on the area you are trying to attack. You will need a jar of water, piece of towel as well.

Glue
You will need wood glue or a good white glue to assemble your model together.

Clamps
Now, these are not often seen as 'necessary'. Rubber bands can work too. That said, I use my clamps all the time. They really help keep the parts together while drying as well as keeping things 'square'. I have found these to help with allot of headache I used to have (slippage, crooked model etc.).

Files
I like to use nail files and emery board because they are cheap and soft to hold. Normal sandpaper and even 'wood files' work well too. Just make sure they are on the 'fine' side of things. I have some wood files in my shop that would chop these tiny models to shreds. Do not use those beasts.

Razor Knife/Scissors
Always have them ready. Keep these things sharp, nothing worse than a feathered edge or tear when cutting.

Ruler
I hate getting cut lines crooked, and I it's nice to have exact measurements.

Step 1 *- Familiarity with the whole kit*

I do not build my model first. I select wall sections and the like that I want treatments done to. Now, this is not that you cannot build the whole model first. I find it easier to work when all the parts are flat in front of me, but some of you will feel that the model is hard enough to build as is, and it would be easier for you to get the whole thing built. The only thing is, it may make it harder (or even impossible) to get into certain areas of the model once it's all built. This might be fine for you, or a deal breaker. It's up for you to decide.

The first thing I do is layout the whole model in the sheets it's in and determine what goes where. I even take lead pencil and write the words 'front' and 'back' on parts, so I know what shows 'outwardly' to the model, and what's 'inside the model' (or doesn't show at all). This will help me in my build as I go and help me at moments when I'm more focused on how things LOOK than how they go together (yikes!).

Step 2 - *Prepare Parts*

Because this tutorial is about stucco, I'm going to assume the kit is all stucco effect, or that we are only focused on the parts that are. Other steps might have already been done or built on your model. We are not concerned with that right now.

First, I punch out the parts that will be used in the stucco procedure. I then carefully file off the contact points (those little 'tags' the models have that keep them on the sheet) I use a nail file or emery board for those steps. Once these are all smooth, I test fit my parts to make sure things are fitting right.

Step 3 A. - *First Coat*

Now the next step is to get a base coat onto the MDF model. As many of you know, MDF soaks up the paint amazingly fast. The way the material is made, makes it very absorbent. In fact, too much so. The MDF will expand the more moisture it has on it, which is bad because it fattens the structures and the fit becomes an issue. And if it gets too much moisture, it will begin to even fall apart structurally. So, when painting these models, keep in mind, use as little water as possible! To prevent this from happening, I often take a clear sealer (a flat acrylic sealer like *Liquitex* flat, or *ModgePodge* Flat, or even Gesso or white glue straight out of the bottle. No water added!) and seal the surfaces I will be painting for this reason alone. Now, if you are more confident, you will know, the acrylic paint does this for you (may take a few coats) but your color eventually will protect the MDF surface for swelling.

Step 3 B. - *Paper Coat*

If you are inclined to use paper coating (a color copy of say, a stone or brick surface) on your model to give it a more 'realistic' look when done, you apply your paper item first! Make sure you have printed out on non-soluble paper. Some copies have ink that reacts to moisture. That is bad. You want it to be colorfast. I have found most commercial color printers are colorfast.

There are many 'texture' papers out there on the market you can glue down to the walls, or you can go to www.thingsfromthebasement.com, and download for free any of the 'wallpapers' you find there, print out and use on your models. Once you print out as much as you think you will need for your walls, get your razor knife, your scissors and glue. Trim off the white edges on the print out. They are only in the way.
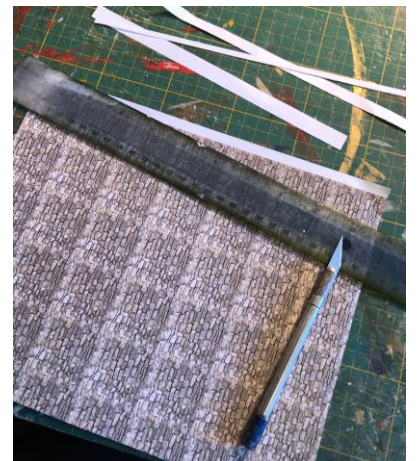
Now, some folks find measuring and cutting the paper to the right size of the part they are covering is the right way of doing. I'm kind of lazy (and prone to mis-measuring) so what I do is glue a sheet that is a little bigger than the area needed and paste it to the part. When it dries, I flip it over and use my razor knife and trim it. The only thing is... make sure it's DRY! Otherwise, it will tear when you do this (it will also tear if the knife is not sharp!).

No matter what way you chose, remember... look at the stones or bricks and make sure you have them going the RIGHT WAY. Too many times have I not looked, and pasted them on, only to find out, they are going the wrong direction! It's not the end of the world: just peel and sand off the offending issue and paste a new sheet over the area again.

Let these all dry. When dry, I usually brush or spray on a clear flat coat to 'seal' everything. It will make them less likely to get damaged or faded as I work on them in coming steps.

Step 4 - *Getting the mud compound on them*

The next step requires the Joint Compound (or Mud or Spackle... whatever your region calls it) and using your palette knife. Now, maybe you have used the papers first, maybe you skipped that part, it will not really matter as this step is the same regardless. You will see in the images to the right, you will be taking small amounts of this 'mud' and applying them to the wall. These layers should be thin. In fact, you might find them difficult to do at first. Do not worry if they look more like cream cheese topping on the model. When it dries, we will be sanding it all down anyway. It's just good to try and do it the best you can now, as it saves on work later.

Technique

As you can see from the photos to the right, we are not trying to cover the whole wall in mud. In fact, only spots on the model. This gives the 'uneven' look most stucco has on walls, especially when the material is falling or flaking of. It's also to make it look like patch jobs on the walls, which do not always look like the original when repaired. With the wall that has the 'stone' on it, you are intentionally leaving it, so the stones show through. The mud you are placing on will end up being the stucco that's still on the wall, and the 'holes' reveal its core structure below.

Once done, let these dry. No, seriously... they really must be completely dry for us to paint them!

"Good lord... this looks bad already. I hope this guy knows what he is talking about!!!"

The walls need to be sanded now. As you look over your dry walls, you will see obvious thick spots and mounds on them. These must go. As you use you file, keep in mind you are going for a 'flat all over' the surface... but without going too deep and merely removing all your hard work. We are going for highs and lows to the texture. We want it to look like the stucco is on the wall, unevenly in spots, and none existent in others (like where you have the stone wall showing... we want none). Now, it's a dusty affair doing this, so you will probably want to sand where you're allowed to get dust everywhere, and you should wear a dust mask. I often must blow away the dust as it accumulates both on the model and on my files, as they will clog up too. If the model is not dry, this is when you will find out the hard way, as it will not 'sand' it, it will shred. Stop, and let it dry if you see this. A warm lamp or hairdryer usually will help to get it dry faster.

Looks bumpy here...

Step 5 - *Seal them*

Because the 'mud' will react to being painted over (it will flake) I cover the whole area in that flat sealer again. This will keep it (mostly) from flaking off when we paint. I've tried to skip this step in the past, but it's always a fail at some point, so, it's best to just bite the bullet and do the sealing.

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more sealing ..gahhh!

Step 6 - *Painting*

Once the 'sealer' has dried, we are finally painting. Now, this is the 'artistry' part that I know, not everyone really gets. It can be frustrating, I know. Many of the folks here will be set at this point. they really know how to apply subtle, believable paint jobs on the stucco and remaining parts of the walls. Whereas many of you will be following this next step, and still feel like it's not right. I have been there over the years. What I say to my friends (and to myself as I work) is this (1) It can be fixed! No matter how off it may look. You can always put a base color back on and redo it. So, do not (2) panic! Keep with it as you go. Many times, things do not look right until the last steps and you find yourself saying: "Wait! It's looking right now! Wow! It was scary up until now. I did it!" Many times, this stuff look like a mess until you get to that final stage. Even I fret sometimes, when I'm working, and I have done this for years. Doubt is all part of it. But do not give up. That's really the only thing that 'stops' a project. No matter what... stopping is the death knell. Taking a break is good! In fact, very good when you're getting angry. Just don't stop altogether or give up!

Okay enough pep talk. The *Base* colors.

I use a yellow ocher as my base. It will give a more 'golden hue' to the model when it's all done. It's that 'newly made structure' look if you will. I conversely also use a muddy grey as well, to give the model an 'old building' look. This treatment makes the stucco look like it has started to form molds or pollution from fires etc. in the once pristine white stucco. In Southern climates where it is drier, it might be more of a tan looking yellow ochre, and in the northern colder climates, where it gets wet more often, the muddy grey might be better 'base' choice. I often paint the interior walls the dryer ocher color and do the muddy grey on the outside. With drier climates, I do the ocher inside once again, but then the tan ocher on the outside. that way the 'outside' always reflects the punishment of the elements.

The 'base' color will always be the darkest layer of all. Don't worry, your wall is going to get allot lighter after this. In fact, you will be surprised how little 'base color' you will end up seeing in the end. But like with all painting, it's about building up... *layers*.

Muddy Grey - I take the light or Barn Wood grey I have, and I add a small amount of the Raw Umber (dark brown) to it. I want the color more on the grey side than brown. We are not painting it 'brown'. A great rule of thumb to use if you have decided to use the stone (or brick) papers is this: the base color should match the darkest stone or brick on the paper. Not darker. As close a match is ideal.

Tan Ocher - We are taking a sand or khaki color and adding a little ocher to it. This will give us an ocher tinted tan. Much like the 'brown' above... we want the color to still be tan or khaki but tinted with the now yellow mustard color of the ocher.

Second Layer

The second layer will be 'dry brushed' (this is a special technique of painting} Dry brush is a painting technique in which a paint brush that is relatively dry, but still holds paint, is used. Load is applied to the brush and then wiped off on a paper towel or piece of cloth. The resulting brush strokes have a characteristic scratchy look that lack the smooth appearance that washes, or blended paint commonly have.

You will be taking your khaki color and dry brushing over the base color you laid down first. You will undoubtably feel like you are covering up all that hard work you just did, but because your dry brushing over it, you will see it does 'peek' through much of what you are doing.

Next up, is the sand color layer. Some will feel the khaki is enough, others will feel the khaki layer is not necessary and just go straight to the sand color dry brushing. Like I said... this is the 'artistic' part of the project. Taste will vary from person to person. Not everyone wants their model to look new. Not every modeler wants the thing to look old and moss covered. It's your choice!

The next layer is white. Now this one you must use sparingly in my opinion, as it can really overpower the layers below if you're not careful. You will do this to bring out the highlights on the stucco. Granted, that said, some of you may feel the white is really the look you are going for, and that's fine. The more experienced painters know what they are doing. The less experienced, will have to go slowly. You can always add more if it is still too faint.

At this point, you can call it done!

But for those of you who want a little more... here are some other steps you can take:

Special Step - *Filth and Aging*

In the photo to the right, you will see I have added some 'dirt' or 'oily' spots onto the church wall. This gives the appearance of age and weathering to the building. As time rolls along, moss, fungus, soot and other elements begin to attach or grow on the surface of the building. I did this technique by taking Isopropyl Alcohol and pouring it straight into a small dish, cup or container and then added a few drops of Black India Ink. I then take a toothbrush (that I will not be using to brush my teeth with from now on) and dip it into the mixture and then with some care flick the brush at the model surface or by running my thumb down it so it 'sprays' the ink. These small droplets will land on the wall. Let them dry flat (Unless you want streaks! In that case, stand the model wall up.). Let this dry completely. When it is dry, you will then dry brush a little of the sand, and the white over them so they blend into the wall a bit more.

Algae
You can also do this effect with a green ink (in replacement of the black) for an algae look. It's usually advisable to only apply it where moisture would naturally collect (like on the bottom base of a building where the floor meets the wall. Around fountains or other water producing locations. Maybe where the window sills are.). This should be brushed on with care to make it look like moss and algae taking root. Note: when you do this, you are saying your model is in a wetter climate as this effect is more likely in rainy, wetter climates.