



# MiniWarGaming's

## Guide to



## Painting Miniatures

Written by Mike Cousins and Tim King  
Foreword by Matthew Glanfield



MiniWar  

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Gaming

# Inside the Front Cover

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I remember the day I bought my first miniature. It was Games Workshop's Mines of Moria starter set (that's for Lord of the Rings Strategy Battle Game).

Some of the employees at the Games Workshop showed me their armies, and I fell in love with the paint jobs right away.

I got home, and with excitement opened up the package. I immediately set to work putting together the goblins, the troll, and the various members of the Fellowship of the Ring. I knew that my little army was going to look fantastic.

And then I started painting them.

At first I had to figure out priming. I could never seem to get it quite right. I either had too much or too little paint.

Then I started painting the clothes, the weapons, the hair, and the faces! When I finished my first goblin I looked at it and thought "What the heck did I just do?"

**It looked awful.**

I went on to paint my other goblins. Then I attempted to paint the troll, and finally, the Fellowship.

When I finished I stood back and looked at it. OK, it didn't look that great. In fact, when I look at it now I am rather embarrassed that I am the "painter" behind those miniatures. But I was happy nonetheless.

Over the following years I learned more and more painting techniques. I learned that a simple application of a few techniques made you look like a much better painter than you really were.

And now, after all this time, I thought it would be pertinent to allow other "real" painting experts to show you all of these tips, so that you can skip a few

months of practice and start producing great looking miniatures right away.

That is the goal of this e-book. In fact, it will be the goal of all our future e-books as well – to trim the time off of your learning curve, so that you can be proud of the miniatures you bring to your club, to tournaments, and everywhere else you dare to show them off.

So get to work – read, apply, practice, and perfect. Before you know it you will be getting the same reaction that I have seen so many others get, and that I have even been able to get. People will love your miniatures, and you will never have felt so proud.

Happy war gaming!

**Matthew Glanfield, President  
MiniWarGaming**

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Our thanks and appreciation go out to the MiniWarGaming Community - you're the motivation behind everything we do, and why we do it.

**-MiniWarGaming**

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# Chapter 1 - Before you Start

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This chapter is possibly the least exciting part of this book, but it's arguably the most important. In the next few pages, I've taken my years of experience and boiled them down to a few short articles.

When you're reading this book, keep in mind that I've had no formal art training - I've picked up or developed most of these painting techniques on my own. It wasn't that long ago that I was a complete noob, with a mini in one hand, a paint brush in the other, and a baffled expression on my face. It took months of trial and error (emphasis on the error part) to develop my painting skills, learn why paints should be thinned, and how to overcome my incredibly shaky hand.

I hope the following pages shave a few months off of your own trial and error.

-Mike

## **Terminology**

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It's easy to be overwhelmed by the number of new terms you'll come across when you're new to the War Gaming hobby. What's the difference between Basing and Basecoating? What does Pinning mean? It can be pretty daunting!

In the back of this book we've provided a Glossary of common terms to help you over this hump. If you still have questions, don't forget to visit the Mini-WarGaming Forums - we work hard to maintain a family-safe and newbie-friendly community.

You can visit our forums at:

<http://www.miniwargaming.com/forum/>

## **Preparing to Paint**

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It's easy to get excited and jump into painting with both feet, but there are a few things you should have available before you do.

**1 • A roll of paper towel.** Remove two sheets and fold them back to back and then into quarters, giving you a small, thick pad. You'll want this for cleaning your brush, or preparing it for drybrushing. Keep the rest of the roll handy - accidents happen!

**2 • A few small cups of clean water.** You'll want one for cleaning your brushes, and a second is handy for thinning paints. If you're using both regular and metallic paints, use two cups for cleaning your brushes - one for regular paints, and the other for metallics. I explain why later in the book.

**3 • Your assembly tools.** Have your hobby knife, file, and glue handy. Sometimes when you're painting, you'll notice a mold line or flash that you missed, or might need to make an emergency repair. You'll minimize the interruption and keep the paint flowing if you have these things ready.

**4 • A palette for mixing and thinning paints on.** You don't need to spend any money on a real painter's palette - the plastic blister packaging your models come in is good enough. If you need something larger, try using foam dinner plates, an old CD, or a sheet of plasticard.

**5 • Paint and Brushes!** You're not going to get very far without these!

**6 • Patience.** Your paint job will only be as rewarding as the effort you put into it.

## **Setting up your Painting Area**

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You might be lucky enough to have a special area set aside for your hobby. If you don't, there are a few things you should keep in mind. Having a clean area to work in is important - if you need to, spend a few minutes cleaning up and dusting your desk or table. If you're painting at the kitchen table or on another 'important' piece of furniture, put down some newspaper first. You'll also want to make sure you have good lighting, so you can see what you're doing - if





## Before you Start

there's not enough light in the room, plug in an extra desk lamp. Natural light is your greatest ally when you're painting – if you can sit near a window on a sunny day, do it!

Having a comfortable place to sit is also very important – you'll be more patient and steady when you're comfortable. Try to avoid slouching forward over your painting area.

## Thinning your Paints

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If you're new to the hobby, it may be tempting to paint “straight from the pot”, dipping your brush deeply into your paints and applying them to your model in thick layers. After all, a thick layer covers better than a thin one, so you'll be done painting that much faster right?

Many paints are simply too thick in the pot (or bottle) to be used directly. If you can see the brush strokes in your paint, it completely covers up tiny details, or just looks really thick and goopy in the pot, you should thin it. A professional painter might argue that paint should always be thinned, but that's not necessary when you're still learning the basics.

To thin your paint, gather some up using your brush and create a small pool of it on your palette. Next, add a small amount of flow improver – clean water works well, though some commercially available products will work better. Using your brush, mix the paint and flow improver on the palette until it's a solid color and looks consistent – there shouldn't be any thick globs left. Your paint should have a much more liquid feel to it, and will go on the model in thinner coats, preserving the details of the model.

When paint is thinned, you usually need to apply it in two coats, especially when painting a light color over a darker one (or vice versa). The extra time and effort is well worth it though, and will give your mini a higher quality paint job.

## A Note on Foundation Paints

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Citadel's line of Foundation Paints at first appear to be a rather thick paint, and after reading the last section, your first reaction to them might be to thin them out. However, Foundation Paints are specifically designed to provide one-coat coverage straight from the pot. Though they will seem thick, they brush on smoothly and flow well enough to eliminate the appearance of brush strokes. I personally use them frequently as a base coat for my models.

## Ignore the Labels

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Paint manufacturers like to give their colors interesting names. Sometimes these are fairly generic, like Blood Red or Sky Blue. However, sometimes the names are themed towards a specific game, army, location, or unit, and don't describe the color at all – Space Wolf Gray, Templar Blue, or Dwarf Flesh. Names like this are a mixed blessing – while it's easy to pick up a pot of Ultramarine Blue for your new Ultramarines, as a new painter it can be hard to see past the name of the color and realize how else it can be used.

The best advice I can give you here is to look at the colors themselves, and ignore their labels. If you want to paint a robotic figure brown, don't let names like Dark Skin or Graveyard Earth stop you. You may find it helpful to organize your paints by color group – keeping all of the blues separate from all of the greens, etc.

## Choosing Colors

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Before you begin painting, you should consider the theme of your army. Is it agile and stealthy, or bold and confrontational? Is it closely bound to a forest or desert, or a particular planet? Would it be trying to blend into its surroundings, or stand out? Having a central theme can really help with your color choic-

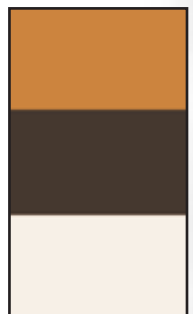
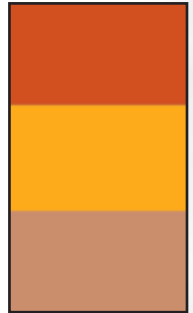
es – and even help choose the units that make your army.

It's usually a good idea to pick a single central color, and one or two accent colors. If you're having trouble choosing accent colors, take a look at the color wheel. There are two common types of accent colors – analogous (similar), and complimentary. For example, if you chose yellow as your base color, then shades of green-yellow and yellow-orange would be analogous colors, while shades of purple would be complimentary. White and black usually make good accent colors as well – and if either is used as a base color, almost anything can be used as an accent.



The Color Wheel makes finding analogous and complimentary color groups simple. Choose a color, and look directly beside it for analogous colors, or directly across it for complimentary colors.

Nature can also be a great source of inspiration. Try searching Google Images or iStockPhoto for pictures of landscape, wildlife or flowers, and looking at the color combinations in them.



Paint swatches are usually available free from most hardware stores, and can be a great tool for choosing your paint colors – they're not just for interior decorators! These swatches are also useful since they usually show 5 or 6 shades of the same color, ranging from very dark to very light. While you likely won't have that many shades available to you, don't be afraid to mix a little white or black with another color to get the shade you really want.

When you choose a color for a model, consider what painting methods you'll be using. If you plan on applying a dark wash over a model to providing shading, you might want to use a color just a little brighter than you want your final result to be, since dark washes tend to tone down any colors they're applied to. If you plan on using layering or highlighting, you might want your basecoat to be a few shades darker, so you can gradually build up to a lighter color.

### Make Mistakes

When you're painting, it's pretty much inevitable that you'll make a mistake once in a while – even the most experienced painters slip up now and then. There's nothing wrong with making a mistake, especially if you're a new painter, or trying a new technique. Don't be discouraged when the paint didn't go where you wanted it to, or the line you were painting wasn't smooth enough.

Most painting mistakes are very easy to correct – after all, you just need to paint over them! If you're painting a small detail and accidentally get some paint on the surrounding area, finish the detailed work first, and then touch up the area around it.

If you paint over an area several times, you might notice the paint beginning to build up and hide the underlying detail of the model. If you get to this stage, it may be time to strip the paint from your model and start again – don't look at this as being defeated! Although the time you put into painting the model is gone, you've no doubt gained some valuable experience, and you'll be able to paint that same model again with greater confidence. Don't let the fear of making mistakes stop you from trying something new.



### Dealing with Shaky Hands

When I first started painting miniatures my hands were incredibly shaky. On top of that, when I'd try to paint a small detail, I'd get nervous and shake even worse! As if that wasn't enough, my hands would actually cramp up if I painted for more than an hour or so. My early paint jobs involved a lot of drybrushing, and very little else – at the time, I didn't have the patience or steady hands for anything more than that.

When you're painting something as tiny as a War Gaming miniature, you're using a lot of very small, controlled motions, and the fact is that unless you've been doing it for a long time, your body simply won't be used to it. You wouldn't expect to be able to run a marathon or lift a heavy weight without training first, and training is exactly what you need to overcome your shaky hands. So how do you train for painting? Well, you train for a marathon by running, and you train for weight lifting by lifting weights, so to train for painting – you guessed it – you paint!

The phrase “practice makes perfect” is almost an understatement. Practice will not only improve your painting, but it's a great workout for a bunch of tiny muscles in your hands that you probably didn't even know were there. Until you've been painting for a while though, you'll still have to deal with the shaky hand problem. Luckily, there are a few things you can do to overcome it.

**Try different hand positions.** The most common way to deal with a shaky hand is to support it with your other hand. Hold your brush in your lead hand and the mini with your off hand, and then rest the bottoms of your palms against each other. You should find that your shakiness is minimized this way. If that doesn't help, try other variations – supporting your painting hand and mini against your desk, for example. Personally, I used to lean back in my chair with my feet up on my desk, and rest my hands against my chest for support. This also brought the mini closer to my eyes without requiring me to hunch forward.



**Get a grip!** Most brushes have very tiny handles, and it may be that you're used to working with something thicker like a pen or pencil. Try 'bulking out' your brush by adding a grip to the handle. If you can't find something suitable at an art or office supply store, you could always make one out of Green Stuff.

**Walk away.** I used to find that my shakiness was pretty minimal when I first sat down, but got worse the longer I was painting. It was a long time before I learned to just put the paint brush down and walk away. When you're getting too shaky (or frustrated) to keep painting, close up your paints, clean out your brush, and just walk away. Get up and leave your painting area for a while. Watch some TV, have a snack, go for a bike ride, or play a game – do anything that isn't painting. Chances are, you'll know when you're ready to pick the paint brush back up.

## Paint Brushes 1(1)

You can walk into just about any art store, and be absolutely blown away by the number of different paint brushes available. As a new painter, buying paint brushes can be downright frightening, and it's easy to be overwhelmed and discouraged. Fear not, MiniWarGaming is here with some helpful advice!

When you're painting minis, you'll only need a handful of brushes – one for basecoats, another for fine details, and another one or two for drybrushing. A few sizes between the basecoat and fine detail brush are helpful, but not necessary, and you may want some even larger brushes if you plan on painting vehicles or large models.

## Brush Shapes

While there are many different brush shapes, Round and Flat type brushes are most common in miniature painting. Round brushes are typically used for detail work, while flat brushes are used for quickly painting or washing large areas with an even coat. You may also find a spotter handy if you plan on painting very tiny details – this is basically a round brush with only

a few short bristles. Stippler brushes (a stubby round brush with a dome-shaped tip) also make excellent drybrushes.



**Top to Bottom:** 00 Round, 1/8 Flat, 000 Fan, 1/8 Domed Stippler. The first two use fine White Taklon bristles and are suitable for most painting, while the bottom two use coarse Hog Bristle and are excellent drybrushes.

## Brush Sizes

The sizes on Flat brushes are typically written as a fraction, such as 1/8 or 3/8. This is simply the width of the brush in inches. For most miniature painting, a 1/8 flat brush will suit your basecoating and washing needs. Larger brushes such as a 3/8 are suitable for vehicles.

Round brushes are sized differently, and use a numbered size. Larger sizes start at 1 and count up, while smaller sizes are given as a number of zeroes such as 0, 00, 3/0, 5/0, 10/0, etc. The latter sizes are a shorthand format, since 10/0 is easier to identify (and print) than 0000000000 is. Typical Round brush sizes used in miniature painting are 1, 0, 00, 5/0, and 10/0, with larger sizes used for painting vehicles.



## Before you Start

Brush sizes are not based on an exact standard, and can vary from one manufacturer to another.

Round brushes may also be sized by diameter, in the same way that a flat brush is sized by width.

### **Bristle Types**

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The type of bristle on a brush defines how the paint will flow from it, and the amount of control you can expect when painting. Bristles may be made from natural fibers such as squirrel hair or hog bristle, or from a synthetic material such as Taklon. Hog bristle and similar synthetic materials are very stiff and excellent for drybrushing, while soft bristles such as sable or Taklon are used for most other techniques.

### **Recommended Brushes**

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For the new painter, I'd specifically recommend the following brushes:

- Flat brush, size 1/8, soft bristle – for basecoating and applying washes.
- Round brush, size 0 or 00, soft bristle – for painting larger details.
- Round brush, size 5/0, soft bristle – for painting fine details.
- Domed Stippler brush, size 1/8, coarse (hog) bristle – for drybrushing.

If you're on a tight budget, you can use the Flat 1/8 as a drybrush, though it will wear your brush out quicker.

### **Brush Care**

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Cleaning your brushes properly can be a little bit time-consuming, but it will help them hold their shape longer and extend their life. It's a good idea to rinse your brush in lukewarm or room temperature water when changing colors, and to clean it thoroughly when you're done painting or taking a short break. Never use hot water – it can cause the ferrule (the metal or plastic clasp holding the bristles

in place) to expand, and bristles to fall out.

Most brushes can be cleaned with a small amount of liquid soap. Rub this into the bristles gently with your fingertips until it works up a lather, and then rinse the brush. If the brush looks like it's still holding paint, repeat the process. You'll know the brush is clean when, after rinsing it, you can stroke the brush across your paper towel or cloth and leave only a clear wet spot behind – if the streak is colored at all, there's still paint in your brush. Once the brush is clean, rinse it one last time to work out any remaining soap, and then gently reshape the brush with your fingertips. Leave the brush to dry at room temperature, either lying flat, or upright. Do not rest the brush on its bristles, as this will cause them to misshapen.

Commercially available Brush Cleaners and Shapers are also available from most art supply stores, as well as the MiniWarGaming online store. These are usually soap-like products which help condition and maintain the bristles of most brushes, and are worthwhile if you plan on investing in high quality brushes.

### **Separate Media - Separate Brushes**

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Most common Miniature paints are made of a water-based acrylic, but some (such as Testors) are enamel-based. If you're using different types of paint, be sure to use different brushes for each. If you use varnishes, masking fluid or gesso, you should also use separate brushes for each of these as well. Different media have different chemical bases, and switching a brush back and forth between them can cause the brush to wear out faster. Games Workshop's Citadel Color and Citadel Foundation lines, as well as Reaper, Vallejo, Privateer Press, Model Master Acryl, and many other common lines of model paint are Acrylic based, and can share the same brushes.

Don't throw out your old brushes - keep them handy for applying glue, or painting terrain.

## Priming your Models

Priming a model is an important step in the painting process. By coating a model with a primer you provide a better surface for paint to adhere to, and increase the durability of the paint. This is especially important for metal models which are prone to chipping.

Primers are available in both spray paint and brush-on varieties, and there are pros and cons for using both. A brush-on primer is more time consuming, as you effectively have to paint the entire miniature with it. It also runs the risk of showing brush strokes if applied too thickly, but it lets you make sure every detail and crevice is properly primed. A spray primer can be applied to an entire army in a matter of minutes, but will often miss areas blocked by part of the model such as the backside of a shield. It's also possible to apply too much spray primer, resulting in runs or drips.

Primers are most commonly available in white and black, and there are different reasons for using both. By priming your model in white, you effectively highlight every area that hasn't been painted, making it very easy to locate areas you've missed. Of course, this also requires you to paint the entire model, no matter how hard to reach or insignificant an area is. On the other hand, black primer tends to hide any areas you've missed, which is especially useful on models with lots of deep crevices or shadowed areas.

The color you intend to paint your model may also factor into your choice of primer color. If you plan on painting your model primarily bright yellow, you would need to use several coats to cover a black primer, but only 1 or 2 to cover a white primer.

While not specifically primers, Games Workshop Skull White and Chaos Black spray paints do a respectable job of preparing a model's surface for painting.

## Using Spray Primers and Paints

Spray paints should always have instructions written on their label – please use the following as a guideline only.

Always spray in a well-ventilated area – outdoors or in the garage with the door open are your best choices.

Line up the models you'll be spraying. If any will be knocked over by the spray paint – for example, standard bearers - tape down or weight their base somehow. Worst case scenario, lay that particular model flat.

Before spraying, shake the can well – up to a minute may be necessary.

Hold the spray paint at least 6 inches away from the models, and move in a constant side-to-side motion. Don't pause over a particular model, or you'll likely end up with too much paint on it, which can cause drips and hide details.

Once that coat has dried, rotate the models and coat them from a different angle. Repeat this until the models are coated. It may be necessary to lay the models flat and spray them bottom-up in order to reach all areas.



The key to achieving good coverage is patience. Allow each coat to dry completely before rotating the models and applying the next coat.



# Chapter 2 - Techniques

Now that you've got the basics down, it's time to learn some common miniature painting techniques. I'll also cover how to handle Green Stuff and using it to assemble metal miniatures.

As you become a more experienced painter, you may find you'll outgrow certain methods like drybrushing, and it may be tempting to simply skip ahead. However, the techniques you'll learn here lay an important groundwork for developing your skills.

## An Introduction to Drybrushing

Drybrushing is a very common method of painting in the War Gaming hobby, which can quickly add depth and highlighting to a mini with very little effort. It is especially useful when painting hair, fur, or other heavily textured surfaces, and is a great for applying metallic paint.



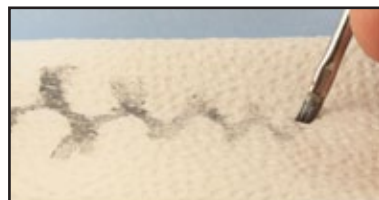
You'll normally want to use a stiff bristled brush such as hog bristle for this technique. Drybrushing can be very rough on softer bristled brushes - if you need to use one, set it aside for any future drybrushing you'll do as well - there's no point in shortening the lives of multiple brushes.



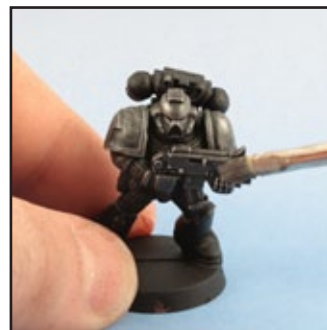
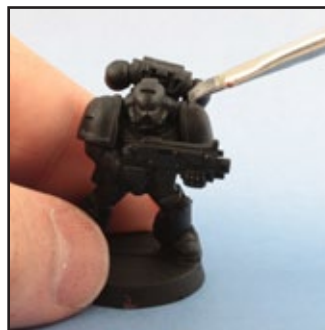
specifically trying to achieve a reversed effect.

Load the brush with Boltgun Metal, and wipe the excess off on the rim of the paint pot. Begin drying

the brush by stroking it across a paper towel in a back-and-forth motion. If you're using an older brush, you can do this quicker with a swirling technique, but it is incredibly rough on the bristles.



Continue stroking the brush back and forth until only a very faint, almost negligible amount of paint is wiped off onto the paper towel. At this point, the brush is dry, and ready for drybrushing.



Paint the model by flicking the tip of the brush back and forth across it. The drybrushing technique will cause more paint to cling to edges, and little or none to make it into deeper areas. This simultaneously highlights and shades the model in one fell swoop.





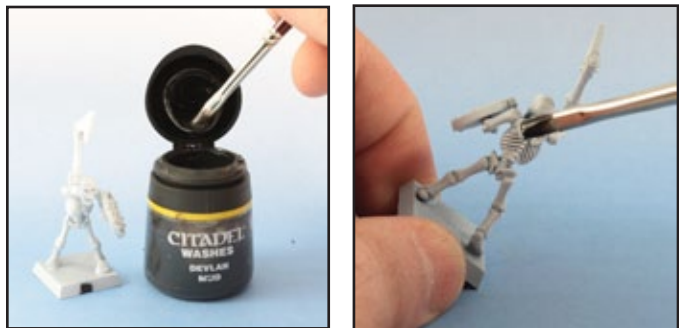
# Detailing with Washes

Washing a model is a great way to give it a lot of definition and a finished look quickly. Washes are diluted pigments which seep into the crevices, creases and folds of a mini, quickly applying shading with a minimal amount of effort. There are many ways to prepare a wash using inks and paints, flow improvers, and other fluids. Many, such as Citadel Washes, can be purchased premade and ready to use straight out of the pot.



In this example we'll be washing two Skeletons with different Citadel Washes.

Before washing a model, it will need a base coat of some color – in this case, we're using white and will be letting the wash add most of the color.



Use a wide brush, such as a 1/8 tip, and dip it into the wash. Wipe any excess wash off your brush on the rim of the pot – you want the brush to be very wet, but not dripping.



In reality, there's not much technique that goes into washing – you can pretty much just spread it over the entire mini, and the wash takes care of the rest.

Be sure to work the wash into any deeper recesses to really benefit from the shading it provides. Don't be afraid to add what may seem like too much wash to the mini – you can always drybrush a lighter color back over it later.

The Skeleton above on the left was washed with Devlan Mud, while the one on the right was washed with Gryphon Sepia. Devlan Mud gives a very dirty, straight-from-the-ground feel to the first skeleton, while the second appears well-preserved. Neither one took more than a few minutes to wash completely.



# Highlighting

When an object is life sized, it's usually good enough to paint it a single color – natural light takes care of adding highlights and shadows. When you're working with a small scale model though, natural light doesn't seem to work quite the same, and a model painted a single color can look very flat. Using a dark wash is a quick and easy way to make up for the apparent absence of shadows, and the technique you'll learn here – highlighting – can be used to draw attention to 'light-catching' edges and add definition to a model.

Highlighting is one of the harder basic techniques to master, and you can easily produce tabletop quality paint jobs without it. It involves painting very thin lines of brighter color onto the raised edges of a model; this accentuates sharp angles and creates a visible division between adjacent areas. In other words, it gives your model more definition.



Here we have a Dark Elf Black Ark Corsair, already painted to an acceptable tabletop standard (although his base is incomplete). However, even after a wash of Badab Black, his armor looks very flat and boring. We'll fix that with some quick highlighting.

First, you'll want to select a color that's similar to the area you'll be highlighting, only brighter. If you don't have a suitable color, you can usually create it by mixing the color you painted the area with a small amount of white or light yellow. In this case, the armor was painted with Citadel Foundation Adeptus Battlegrey, and I'm using Reaper Rainy Grey for my highlights.

I begin by mixing my Rainy Grey with an equal amount of flow improver, since I want the highlights to be smooth and subtle, rather than a bold outline. Using a 5/0 Round Spotter, I begin by outlining part of the collar/shoulder guard, as well as the outer edges of the bracer on his left arm.



Already, the collar/shoulder guard stands out better against the rest of the chest piece. I'll continue with the other half of the collar, and the lower edge of the next plate.



The chest plates are now clearly distinct, and the shadows created by the black wash look darker by



comparison now. Highlighting really is the counterpoint to dark washing, and the two combined almost always give simple and stunning results.



We'll finish off the grey areas by also highlighting the bottom edge of the chest plate (hidden by his hand) and his boots. Highlighting fabric can be a little trickier than armor, since the areas that should be highlighted aren't always as clearly defined. I like to try and highlight any noticeable edge, as well as the tops of any sharp creases or folds. In this case, I also highlighted each knee, and across the toes.



Here you can see the highlight along the bottom of the chest plate, as well as some additional highlights on the gloves and boots. A thin line was drawn down each finger to separate them, and the topside of the calf and ankle were accented.



The model is finished off by highlighting other areas using the same technique – a light purple was used to outline the sleeves, and a light red was drawn along the edges of the cape. The outer edges of each weapon were also highlighted using a very light silver color.

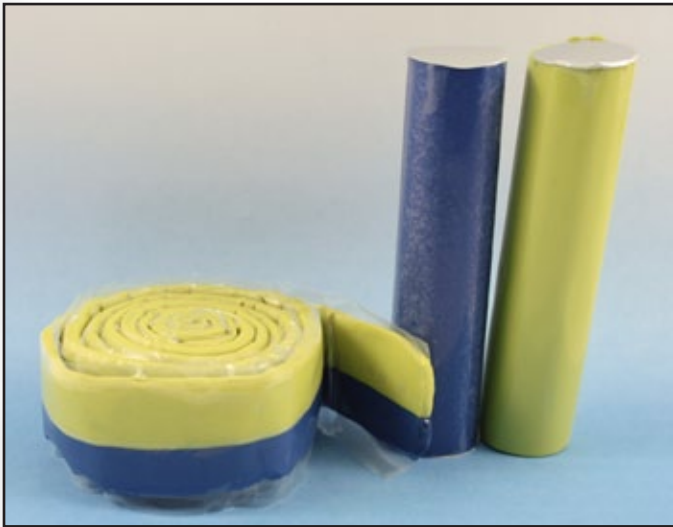
Freehanding these thin lines does take some practice, and if you don't like how they appear right away, you're not alone – it took me a few models to get the hang of highlighting. If your highlights are too bright, try thinning your paint further, or toning down the highlight color with some of the base color.



# Working with Green Stuff

Kneadatite, Green Stuff, 2-Part Modeling Epoxy - whatever name you know it by, this material is practically essential to the War Gaming hobby. From assembly to conversions, to completely scratch-built units, there's almost no limit to what can be done with it.

Learning to use Green Stuff can be daunting and frustrating. If you've never used Green Stuff, have only had moderate (or no) success with it in the past, or just want a refresher on how to work with it, this article is for you.



## Handling

There are a few things to keep in mind when working with Green Stuff that will make your experience simpler and more enjoyable.

**Wash your Hands!** Scrub them clean. Make sure there's no dirt, paint, glue, or food on them - especially your fingertips. Any kind of dirt on your hands will end up mixed into the Green Stuff, discoloring it at best, and making it harder to work with.

**Clean your Work Surface.** Make sure there's no spilled paint or glue, small plastic or metal shavings, dust, or anything else where you're working. Break out a rag and some soap and scrub down your work

surface if needed. As with your hands, any dirt on your work area will end up in your Green Stuff.

**Keep a glass of clean water nearby.** You'll constantly need to wet your fingertips, your tools, and occasionally your work surface itself - this prevents things from stick to the Green Stuff, making it easier to sculpt. Don't use the dirty water you cleaned your paint brushes in an hour ago - get a clean cup, and clean water.

**Have your supplies ready.** Depending on what you're doing, you'll probably want a small stash of paper clips and toothpicks nearby, as well as any tools you use for sculpting. Toothpicks work double-duty here as both supports and sculpting tools.

## Mixing

Green Stuff typically comes in two formats - strips (or rolls) and tubes. The Strips are most common, and contain the Blue and Yellow components side by side in a pre-measured ratio. Tubes contain one large chunk of each component, and require you to manually mix them.

**Mix small amounts.** It's very easy to grab big chunks of blue and yellow and just go to town, mixing up a big glob. Chances are pretty good that you won't need as much as you think you do, even if you're working on a large project. My rule of thumb is to make half as much as I think I'll need - and I still usually have more mixed than I need. It's easy enough to mix more later if you run out, but since it's a self-curing epoxy, it's hard to keep around that extra blob you made. If you find that you mix up too much, you can put Green Stuff in the freezer to slow down the hardening process. Frozen Green Stuff is can still be used up to 24 hours later.

**If you're using a Strip, remove the Joint.** Strips of Green Stuff have a small space where the Yellow and Blue meet. Being an epoxy, this spot often ends up hardening as if it were mixed together. If it gets



worked into your Green Stuff, you'll usually find small, hard chunks that are difficult to work with. Just use a hobby knife and cut that part out prior to mixing.

## Sculpting

**Tap and Dab.** Green Stuff is easiest to sculpt with small, gentle movements - you can create a depression in it by tapping or stroking the surface gently with your sculpting tool repeatedly, rather than forcing your tool into the putty. While the latter method will work, you'll usually distort your surrounding details.

**Be Patient.** When you've completed a few details, put your work aside for a few hours to allow the Green Stuff to harden. This lets you add more detail later without worrying about damaging anything you've already done. Have something else to do while you wait - painting, reading, or even another sculpting project. If you're doing a sculpt from scratch, try making 3 or 4 of them at the same time - this will help you cram lots of experience into a shorter time period, fill out the waiting times, and in the end, you can select the best of the group as your final model.

**Work Outwards.** Begin by building basic shapes - often much skinnier or smaller than you intend your final work to be - and bulk out the detail bit by bit. If you're sculpting a person for example, begin with a thin, wiry skeleton, and slowly add in muscle groups, clothing, and other details, working on your smallest outer details last.

## Step by Step Mixing



If you've ever mixed two colors of Play-Doh together to make a different color, you've already got the skills needed to mix Green Stuff.

Remember to keep your hands and work surface clean, and your fingers wet. Begin by removing a small amount of Green Stuff. If you're using a Strip or Roll, simply cut this from the end with a hobby knife. If you're using a Tube, pick an equal amount of both blue and yellow stuff from the respective chunks, using either your hobby knife or fingers.

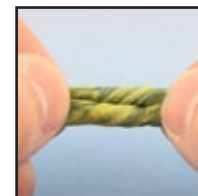
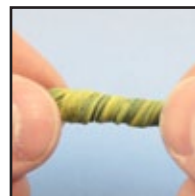
If you're using a Strip or Roll, cut out the 'joint' - the place where the yellow and blue meet. This spot is often hardened, and will show up as small chunks in your final green stuff.



Roll the blue and yellow together into a single blob. At this point, I mix it using the 'taffy pull' method. Grab both ends of the blob, and twist in opposite directions, until you have a blue/yellow swirl effect.

Pull on both ends to stretch out the blob, and fold it over itself end to end.

Repeat with the folded blob, twisting from both ends, and folding. Repeat again as necessary, until your blob is a solid green color. If you can still see streaks of either blue or yellow, continue mixing.



Once your Green Stuff is a solid color, you're ready to start sculpting!



# Assembling Metal Models - No Pinning!

Depending on your mindset, metal models can either be a joy or a pain. They typically have much greater detail than plastic models, which makes them great subjects for painting. However, they don't assemble nearly as easily as plastic models do.

If you're new to the hobby, there's a good chance most of your models so far have been plastic. You may have heard about some seemingly difficult techniques such as pinning, and may be a little hesitant to try your hand at metal. Hopefully, this walkthrough will alleviate that.

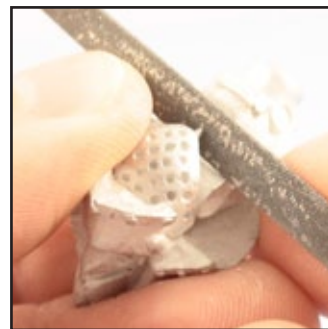
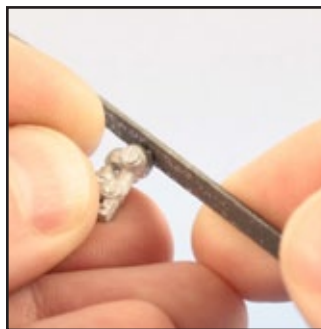
Here we'll be assembling a Warmachine Light Warjack, but the steps involved can be applied to any metal figure. You'll need green stuff, super glue, a pair of clippers, a hobby knife, a hobby file, a pinning drill – and of course, a metal mini.



Begin by clipping any items that are attached to a sprue. Be sure to clip away from the model – you're better off leaving a small bit of sprue to file down, than accidentally clipping part of the model.



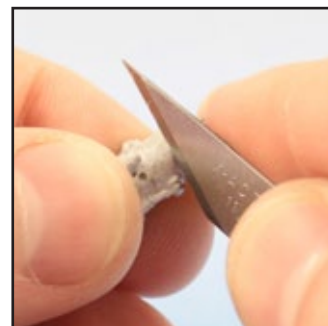
Using a hobby file, grind down any nubs left from the last step, as well as any mold flash or flak. These often appear as small folds of excess metal, or string-like run-off near the extremities of the model.



Use the edge of your Hobby Knife, and drag it over any mold lines that appear. These typically run down the dead center of a model, and are especially prominent along the edges of wings and cloaks.



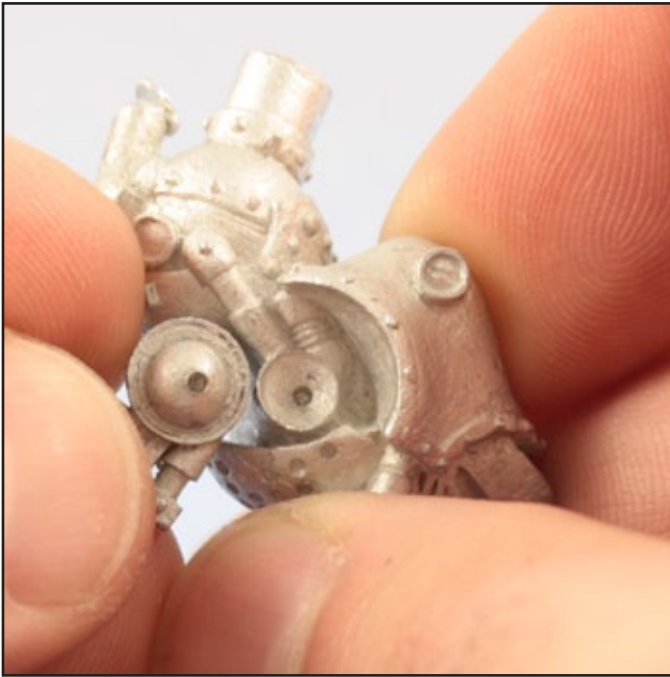
Be careful not to use too much force when scraping mold lines off, and always scrape away from yourself. Use a hobby file for any particularly pesky lines that refuse to simply be scraped away.



Scrub the parts of the model with water and a toothbrush, particularly if there are areas that appear chalky. Metal minis are often coated in a Mold Release agent as part of the casting process, and this can make them difficult to paint later on.

Now the Mini is cleaned up, and ready to assemble!



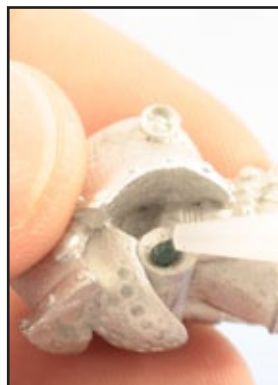


At this stage, I drill small holes wherever two parts of the model will join together. I don't worry about making sure the holes line up, as we won't be using them for pinning – they instead provide channels for the Green Stuff and Super Glue to take hold in, creating a stronger bond between the two pieces.



Mix up a small amount of Green Stuff – the amount shown here was in fact much more than I needed to assemble this entire model. Especially when assembling, a little bit goes a long way!

Place a small dot of Green Stuff into the joint, and add a drop of Super Glue to it. Once you've done this a few times, you'll swear Green Stuff and Super Glue were made for each other – they act together to make a strong, and nearly instant bond.



Push the joint together with a decent amount of pressure – you want to squish the Green Stuff into the holes you drilled, and create as tight a bond as possible.

Lastly, use a toothpick or the end of your hobby knife to pick away any Green Stuff that may have squirted out of the joint – you can do this immediately before the Green Stuff has had a chance to set, or wait a few hours and cut it away with the knife.



Repeat this process for each joint being assembled. Depending on how many joints are on your model, you may want to wait 5 or 10 minutes between them to let the Super Glue and Green Stuff take hold.



Your metal mini is now fully assembled and ready for painting!

# Handling Metal Models while Painting

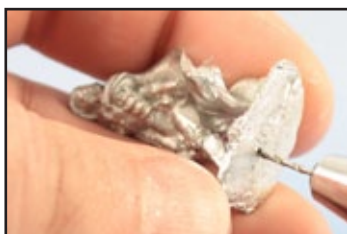
If you've painted a metal mini before, you've probably noticed that the primer loves to rub off of the model's edges under your fingers, no matter how carefully you handle it.



Using a pinning drill and a paper clip, you can make a simple 'popsicle stick' handle for your metal mini, allowing you to handle it without rubbing the primer off. This works best

with minis that have a built-in scenic base, but can be tweaked to work with those designed for slotted bases as well.

Begin by drilling a hole through the base of the mini, in a relatively inconspicuous area. Make sure it's not too close to the model's leg or other detail that might be scratched when installing the handle.



Straighten a paperclip, and insert it through the hole you've drilled. Be careful not to scratch the mini.



Use a pair of pliers and bend the paperclip around the base of the model. You may need to bend it in stages, pushing more of the clip through at each stage.



You should now have a secure method of handling your mini that won't wreck your primer. You may want to bend the bottom of the paperclip into a shape that's easier to handle, or cut it short and hold into it with your pinning drill. If you find that the mini wobbles on the handle, just add a few drops of super glue to the bottom and give it a few minutes to dry.



Once you're done painting, you can remove the handle with a pair of clippers, and fill the pinning hole with a tiny bit of Green Stuff or a drop of super glue.

Unfortunately, you won't see me use this method often in this book. While it's great for safe painting, it makes taking photographs a bit awkward!



## Chapter 3 - The Basics

It's time to start putting the skills from Chapter 1 and the techniques from Chapter 2 into practice. In this chapter I'll walk through using both drybrushing

and washes to get achieve some quick, impressive results. I'll also be using inks, rather than premixed washes.

### Painting Cloaks with Drybrushing

Figures of all shapes and sizes, from every gaming line, love to wear cloaks. The layered folds of flowing fabric give characters a sense of movement and personality, or shroud them in mystery. There are many different techniques you can use to bring out the detail in any cloak, and we'll be discussing the Drybrushing technique in this case.

Begin with a Primed Model. In this case, the figure's face and armor have also been painted. For the remainder of this article, you'll be looking at this figure's back, where the majority of the cloak detail can be seen.



**Step 1:** Decide on the overall color you want your cloak to be, and select several shades of that color ranging from dark to light. Begin by painting the cloak using the darkest of these colors. In this example, I want the final cloak to be red, so I've started with Reaper's *Burgundy Wine*, a very dark shade of red. As you're transitioning from a white primer to a very dark shade, you'll likely need to apply 2 or more coats for even coverage.



**Step 2:** Select the next brightest shade from your range (*Deep Red* in this case), and begin drybrushing the entire cloak. As you're transitioning from a very dark color now, you'll probably want to brush this new shade in more than once. Only the deepest creases and folds should maintain the original darkest shade, with the rest lightened up by your recent drybrushing.



## Painting Cloaks with Drybrushing



**Step 3:** Follow the same instructions as Step 2, using your next brightest shade (*Blood Red* here). Focus primarily on the raised folds and outer edges of the cloak, unless you feel the cloak as a whole should be brightened. Repeat Step 3 with as many shades as you have remaining.

The photos below show three progressively lighter drybrushings, each bringing out more detail in the cloak, while making its overall appearance lighter.

Your cloak should now be complete. If it appears too dark, simply reapply your last drybrushing, or choose an even lighter shade. When you're drybrushing, because so little paint is actually being transferred to the model, you often have to use paint that is slightly brighter than your intended final color.

This mini is almost ready to kick undead butt!





# Metallics Made Easy

For the new painter, Metallic paints can be difficult to work with – they're thick and goopy, and hard to get good coverage with. Really advanced painters often shun them as well, in favor of techniques such as non-metallic metal.

In this article, I'll walk through painting a Mercenary Warjack step by step, primarily using metallic paints. I'll explain the methods I use to ensure smooth coverage and good detailing.



Begin with a mini that's cleaned, primed, and ready for painting.

For whatever reason, silver-tinted metallics seem to coat better than other colors such as gold. Use this to your advantage. I've applied what I like to refer to as a Metallic Primer – an equal mix of Reaper Shadowed Steel and Flow Improver, brushed over every area that will later be painted metallic. It provides a metallic base that gives other metal colors better coverage.



Give areas that will be steel-shaded in your final paint scheme a second coat of metallic primer, and begin adding further detail. In this case, I've painted many of the Warjack's details with Reaper Ancient Bronze, mixed with a small amount of flow improver. Colored metallics in particular tend to be somewhat clumpy, and a little flow improver goes a long way towards getting a thin, even coat. You may have to apply a second coat of color, but it will be smooth and look professional.

A few additional details were painted with Reaper Ruby Red, a maroon-shaded metallic. As above, this was thinned slightly, and applied in two coats.



To add definition to the metal, a mix of equal parts black ink, brown ink, and flow improver is washed over the entire model. Make sure you work it into deeper areas where natural shading would be really dark and heavy.



The first time you do this, you'll be struck by how dirty the model looks now – you may even feel like all the effort you just put into your paint job has been ruined. But don't worry – I have a plan for that!



Drybrush each large area with the colors you used prior to the ink wash, particularly towards the center of each area. This will leave the shading near the edges, and around details such as rivets and bolts, while lightening up the larger surfaces.

It's time to put some finishing touches on this model. Highlights were added to the steel areas using Reaper Polished Silver, and to the Bronze areas with Reaper New Gold. On the larger surfaces, some of these lighter shades were drybrushed in as well to make them appear to gleam just a little brighter. Otherwise they were directly painted onto the leading edges.

A highlight was mixed for the reds areas by mixing Ruby Red and Polished Silver in equal amounts.

Lastly, the eyes were painted Pure White, and the area around the eye was given a subtle highlight.



Weathering and defining your metallics using inks, and brightening them with drybrushing and highlighting really makes them stand out, and eliminates the flat look many models painted with metallics seem to suffer from. Even though metallics naturally highlight by reflecting light around them, they still benefit from a push in the right direction.



# Painting Scales with Drybrushing

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When scales on a model are well-defined, they're one of the easiest features to paint well. In this article I'll be painting the scaled skin of a Dark Elf Cold One, primarily using drybrushing.

Since this is a plastic model, I began by basecoating the model with white spray paint – primers are rarely (if ever) needed on plastic models.



Before you paint your scales, you need to decide what color you want the model to be. In this case I choose green, with a beige belly. I'll be using Reaper Forest Green, Grass Green, and Jade Green on top, and Bone Shadow, Aged Bone, and Polished Bone on the bottom. First, the scaled areas were basecoated with straight Forest Green.



The entire area was then drybrushed with Grass Green. I pretty much ignored the belly with this drybrush, since it will be painted beige shortly anyway.

Next, the same areas were drybrushed with Jade Green, with particularly focus given to the upper surfaces to create a fade effect.



The scales didn't quite stand out enough for my liking, so I carried the Jade Green drybrush a little further down the model. I then mixed equal parts of Jade Green with Sunlight Yellow to create a very bright green, and lightly drybrushed it across the uppermost surfaces. Sometimes the colors you planned to use don't give the result you were hoping for, and you need to improvise!



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**Painting Tip:** *When you're drybrushing, select highlight colors that are brighter than what you actually intend the model to look like; because so little of the pigment makes it onto the model, it will appear darker than if you painted it on normally.*

---

Next I applied a heavy drybrush of Bone Shadow to the bottom of the model, on the belly side. Typically, lizards (and in fact most animals) have lighter shaded undersides.

## Painting Scales with Drybrushing

**Painting Tip:** *The heavy drybrush technique, sometimes called a wetbrush, is effectively the same as drybrushing, but uses more paint. Instead of wiping your brush on paper towel until it's nearly dry, you only need to wipe the excess paint off on the edge of your paint pot or palette. The brush should not appear wet – you shouldn't see large amounts of fluid paint on it – but should still leave clearly noticeable marks when stroked across a surface.*



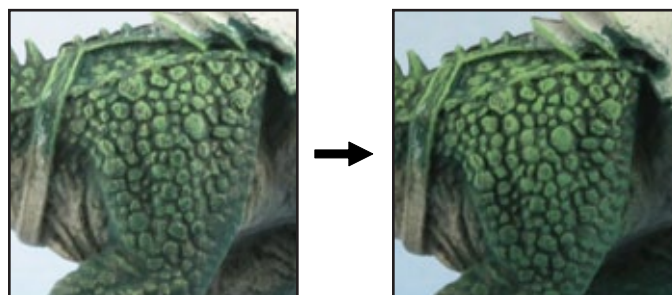
The underside is then given two drybrushes of Aged Bone and Polished Bone, respectively, focusing mainly on the center of the belly – the outer edges are left with their Bone Shadow color intact to blend better with the dark green above.



While the Cold One's scales were basically done at this point, there were a few details I wasn't completely happy with. Since this Cold One will be the template I'll be using for many units in a Dark Elf army, I wanted to make sure every detail was correct.



Some of the underside drybrushing spilled over to the front of the feet and hands, so I touched them up with the 3 shades of green, giving the large scales an extra highlight of the Jade Green / Sunlight Yellow mix.



The fade I was hoping for across the Cold One's flanks wasn't quite as noticeable as I was hoping for, so I drybrushed in a little Forest Green near the bottom to darken them up, and a little of the Green / Yellow near the top. The result is a much more defined color fade.



The scales are done, and this Cold One is ready to have his eyes, teeth, claws, and saddle painted.



# Great Metallic Armor in 3 Steps (or less)

Plenty of Gaming Minis are clad in armor – from medieval plate armor to nuclear-powered combat suits. Regardless of what type of armor your figure is wearing, you want it to look striking. This quick tutorial will show you how to produce amazing, well-defined armor in 3 easy steps.

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**Painting Tip:** *Metallic Paints are often thicker and tend to clump more than regular paints do. Consider thinning down your metallics with a flow improver. You might need to apply 2 or 3 coats to get full coverage over the primer, but you'll end with a much smoother finish.*

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Begin with a primed model – in this case, I've also painted his face.

Select a metallic paint for your armor. You'll probably want to choose one that's just a little bit brighter than you want the final armor to appear, as it'll be darkened slightly later.

**Step 1:** Simply paint the visible parts of the armor with your chosen metallic paint.



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**Painting Tip:** *Use separate cups of water to clean your brushes when switching back and forth from Metallic to Regular paint. Metallic paints have small flecks of metal suspended in them, which can end up in your regular paints through your brush if you use common water.*

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**Step 2:** Mix up what I call Armor Wash: 1 part Black Ink, 1 part Brown Ink, 2-3 parts Flow Improver. I usually just mix this right on my palette, as you won't need very much of it. The brown ink helps give the armor a weathered look – you can easily replace this with more black ink for a cleaner appearance.

Brush the Armor Wash over and around the armor, particularly near the edges, creases, and where plates overlap. The wash will quickly add depth by defining the borders of individual plates, and providing a shadowed effect where one overlaps another.



## Great Metallic Armor in 3 steps (or less)

Apply additional coats as needed to achieve the amount of detail you want.



In the image above, only his Torso has been washed, while his legs remain flat. Below, all exposed armor has been washed.



**Step 3:** This last step is completely optional, and you may be completely happy with how your armor appears already.

Using the same metallic you originally painted the armor, lightly drybrush the larger exposed areas – in this case the shoulder pads, chest plates, and some parts of the leg armor. Your intent here is to brighten these larger surfaces back up, as the wash more than likely toned down the original color somewhat. Your focus should be on the center of each plate, allowing the wash to hold to important details, particularly at the edges of each plate. The difference made by Step 3 is subtle but important.

That's it! You're ready to send your mini off to fight against (or for) the forces of evil, in the relative safety of his shiny new armor.



# Chapter 4 - Advanced Techniques

In this chapter, I'll build on the use of washes and highlighting to paint some simple but incredible detail. Tim King (aka Fireman Tim) also joins us

and introduces airbrushing - an absolutely awesome way to paint your vehicles quickly and consistently. Let's start with a new skill - layering.

## Painting Cloaks with Layers

This technique is more advanced than the Drybrushing method, but produces smoother results with a greater level of control.



The layering technique, similar to the drybrushing technique, uses a series of related paint shades. The primary difference between the two techniques is how the paint is applied. Some type of Flow Improver is absolutely essential to this method.

**Step 1:** Decide on the overall color you want your cloak to be, and select several shades of that color ranging from dark to light. Begin by painting the cloak using the darkest of these colors. In this example, I want to final cloak to be purple, so I've started with Reaper's Nightshade Purple, which is nearly black. It may take two or more coats for such a dark color to achieve full coverage over a white primer.



**Step 2:** Select the next brightest shade, and mix it 1 part paint to 2-3 parts flow improver. This should make a much thinner paint, though the color should not appear diluted at all. Load your brush with paint, and then touch it to a paper towel – you want your brush to be wet, not dripping. Apply the paint thinly, moving along the folds of the cloak towards the outer edges, particularly from top to bottom. As the paint is very thin, you'll want to apply this color in several layers, each one building up the color of the last. Apply more paint to raised areas, and less (or none) to deeper folds and shadowed areas.





## Painting Cloaks with Layers



**Step 3:** Select the next brightest shade, and mix it 1 part paint to 3-4 parts flow improver. This color should typically be brighter than your intended final color, as it will be going on in exceptionally thin layers, adding only a small amount of color each time. Use the same technique for applying paint as you did in Step 2, paying particular attention to outer edges and raised folds. As this color is essentially your highlight, you want to apply it most to those areas which would be brightest, and avoid completely areas which should remain dark. You'll likely be applying many layers in this manner to build up the color to your desired level.

This Dark Elf Assassin's cloak is basically done. We could add some additional detail to it later, but the basic garment is completed, and has a great, smooth finish.





# Airbrushing Vehicles

By Tim King

I used to paint vehicles by hand. The problem was that I would sometimes be left with brush marks and paint that covered up the details of the vehicle. It just didn't look right, it looked hand painted. Then I bought my first airbrush, and never looked back. If you want to paint vehicles, you gotta airbrush em!

## Advantages:

Thinner paint coat, crisper detail  
Even paint coat with no brush marks  
Faster, way faster than painting by hand  
Better, more realistic looking Camo

## Disadvantages:

Costly Start-up investment  
A bit messy, so do it in a well ventilated area.

## Mixing your paint

You want to premix a 50:50 mixture of paint and water and be sure to mix it thoroughly. The last thing you need is dried paint clumps clogging up your airbrush, so use a fresh paint pot, not the one you have been using from your paint station for 5 months. I have even used Citadel foundation paints which cover in fewer coats, just be sure to mix them well. Washes straight out of the pot will work in your airbrush too, no need to dilute.

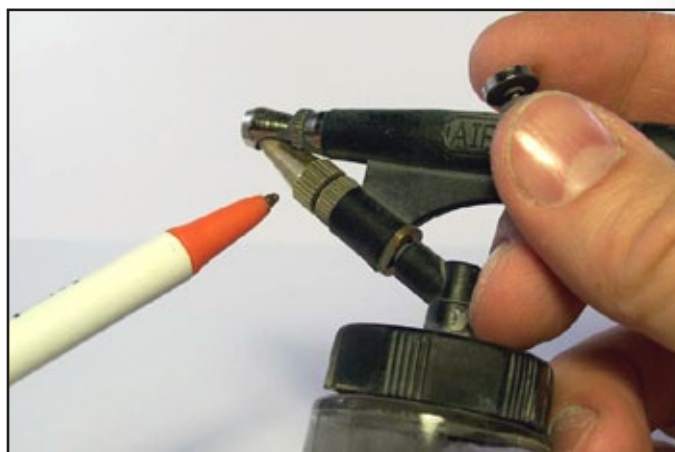


## Propellant:

If you plan to paint lots of tanks in the future, invest in a small compressor. I bought my 3 gallon air compressor at a national hardware chain on sale for \$60 Canadian. There is nothing wrong with compressed air in a can; it just gets expensive over time. I operate my compressor at 30-45 psi when spraying.

## How to paint:

Set your airbrush tip to the widest spray possible or at least one that you are comfortable with. The wider the spray, the more paint that comes out, so find a width that works for you. Sometimes a finer tip and some patience is a wiser choice.



Turn the tip to adjust the spray pattern.

The key to airbrushing is to apply light dusting coats. Holding the airbrush in one spot for too long will give you a glop of paint that will drip down the side of your vehicle and look terrible. Better to apply two or more light coats, than one heavy drippy one.

**Painting Tip:** *I take an old hair dryer to my tanks in between coats to speed up the drying process, but if you are painting more than one tank, put it down, let it dry and go on to the next one.*



## Primer Coat

I tend to choose a primer coat that is darker than my base coat. For this tank I used Krylon Tan. Don't forget to give it 24 hours to dry before you start painting over it.



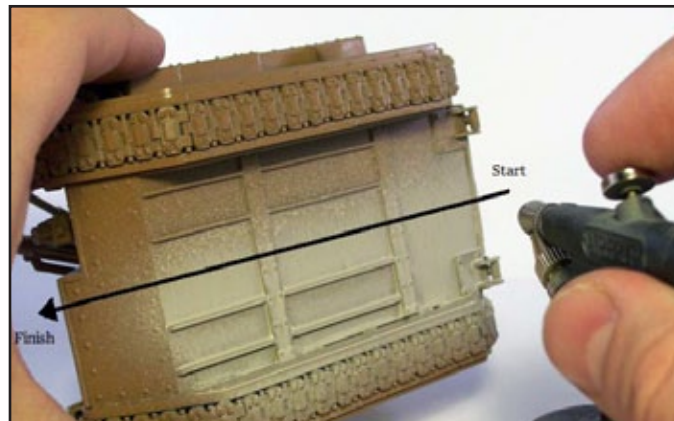
## Technique

I hold my airbrush about 6 to 8 inches away from the vehicle. Any closer and you will find that your paint goes on too heavy.



## Sweeping

In order to avoid 'glops' during painting, start spraying with the airbrush pointing away from the vehicle, spray across the vehicle in one smooth motion, then stop spraying again with the brush pointed away from the vehicle.



## Swirling

If you are painting a turret, or trying to cover a small crevice that it hard to get at, a circular painting motion with a tight spay pattern can be used.

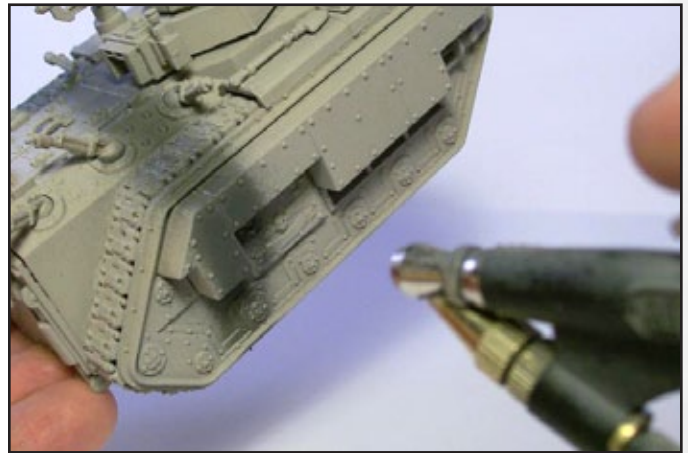




### Camouflage:

Once your base coat is dry, you can now mix up your camo colors. I apply my camo after the base coat so that I don't have to mask anything off, but if there are parts of the vehicle that you don't want camo on, take the time to cover them with some masking tape.

The same techniques apply as with the base coat, but you will want a tighter spray this time. Again, be careful not to spray in one place too long and resist the temptation to apply a heavy coat of paint in one go, keep the airbrush moving.



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**Painting Tip:** *Pre-plan where you are going to apply the camouflage. Reference other camo patterns before you dive in. If you mess up, you can always go back and apply the base coat over your mistakes, hence the advantage to applying thin coats of paint.*

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Now this Chimera is ready for a Devlan Mud wash, some detailing and weathering.



# Simple and Stunning Eyes

A well-painted pair of eyes can really help a mini stand out from the crowd, but it's also one of the trickiest parts of a mini to get right, even for a seasoned painter. Many painters save them until the end of their painting, considering them a 'finishing detail'. Unfortunately, this brings the risk of throwing off the whole paint job with a slight of the brush. So take the risk out of painting eyes, and get them done first!

Begin by priming your model, as you normally would. In this case I used a white brush-on primer.



Next, paint the eye area completely white. Unless you want your mini to have a 'cartoony' appearance, use an off-white by mixing in a small amount of gray or blue, or selecting a color such as Reaper's "Ghost White". Don't worry about painting only the eye area – you're better off painting too much at this point. To be honest, I usually end up painting about half of the face with the eye-white shade.



Select a dark shade to use for the centers of your eyes. At this scale, it's unlikely you'll want to try and paint the pupil (the dark spot in the center) and the iris (the colored ring around the pupil) separately, so you'll want to use one color for both. I like to use a dark blue or brown, rather than straight black.

At this stage I paint a very thin line vertically through the center of each eye. I find it simpler to paint pupils in this way – trying to place a dot in the dead center of each eye, that's also the same size, can be very frustrating, while a short brush stroke can be pretty easy to do well.



The lines should be right through the center of each eye – they can extend above and below the eye as far as you want, as you'll be painting over that later. If either pupil looks out-of-place – too far to one side or the other – simply paint over the area with your with shade again, and redo the pupil. The beautiful part about painting eyes first, is that you can take as many do-overs as you need to get them the way you want.

With the pupil-lines in place, select your darkest skin tone, and begin to carefully outline the eye area - it should look a fair bit like a common Super Hero mask.



Continue to cover the entire face area with your darkest skin tone, leaving only the eyes untouched. Once this is done, inspect the eyes again to make sure they don't look cross-eyed, and that they're well shaped. Touch up as necessary, or go right back to square one if you really need to.



Now you're ready to paint the rest of your mini with confidence! Here I've painted the rest of the face to help set off the eyes in this example.



**Editors Note:** The photos appearing in this article were taken with a Fuji Z-10 Digital Camera, and without the benefit of a light box, or even a tripod. While they are clearly not as vibrant and professional as the photos appearing elsewhere in the book, they are evidence that with a little understanding and patience, respectable photos can be taken even with simple equipment. The model was illuminated with nothing more than a desk lamp and the normal room lighting, and white printer paper was used as a back-drop.



# Painting Faces

It's time to bring a whole pile of skills together and tackle one of the biggest challenges facing painters of every age and skill level – painting ridiculously awesome faces. Before we were finished writing this book, we asked the MiniWarGaming community to take a quick survey – and over 30% of you requested that we show you this!

In this article, I'll be using washes, highlighting, the 'simple and stunning eyes' technique, and even a little bit of layering. You'll only need two small brushes for this – a 00 or similar round brush for basecoating and washing, and a 5/0 or 10/0 spotter for adding fine detail.



Begin with a primed model. In this case, I'll be painting the head of the Space Marine Sergeant from the Assault on Black Reach box.

To get started, select a skin tone and paint the entire head. Use a color that's a bit lighter than you want the head to be, since you'll be darkening it with a wash. I've used Reaper Fair Skin here.



Lightly wash the entire head, using the tip of your brush to work the wash into any creases or detail lines. In this example I've used Citadel's Gryphon Sepia – you could also use Ogryn Flesh or Devlan Mud for a grittier look. If you just want to paint your model to a tabletop standard, you can pretty much leave off right here – but that wouldn't make for a very good tutorial on my part!



As in the "Simple and Stunning Eyes" article, paint the eye areas with an off-white. I've also painted the teeth the same shade. If you paint a larger area with white than you meant to, don't worry – we'll fix that soon.



Select a dark color for the pupils, and paint them as a thin vertical line through the center of each eye.





Select a darker variant of your skin tone, and reshape the eyes. Use a series of smooth brush strokes to bring the skin tone closer to the eye, until the eye-white and pupil ‘spillover’ is covered and the eyes look correct. If your model looks cross-eyed, you can usually correct it at this stage by simply reshaping one of the eyes, or widening a pupil. Using the same darker tone, carefully touch up any spillover around the mouth.



Thin down a small amount of your base skin color with your flow improver – a 50/50 mix should be fine. Using your fine detail brush, carefully apply highlights to the light-catching features of the face – in this case, the forehead, eyebrows, nose, cheekbones, jaw lines, and the bump on the chin. Depending on how thinly your paint is applying, you may



wish to repeat these highlights until they are clearly defined. If you’re feeling adventurous, try to fade the forehead highlight across the top of the head – assuming you’re painting a bald model, of course.

If any of your highlights seem to run into the creases of your model, your highlighting paint may be too thin. Just use your fine detail brush, and add your wash back to those creases.

This face is essentially done, but I wanted to give it a more rugged appearance – and nothing says “I’ve been at this all day and I’m going to snap” like a 5 o’clock shadow. I mixed a small amount of the original skin tone with a medium gray and some flow improver, and lightly applied it to the chin, jaw, and lower parts of the cheeks using the layering technique.



## Painting Faces

The 5 o'clock shadow was looking more like 2:45 to me, so I darkened up the mix with a touch of dark gray, and applied another few layers. Now this marine looks rugged!



To finish off the head, I painted the metal plate and headset silver, and outlined them with a Sepia wash to set them off from the rest of the face. I also used a spotter and applied a very small amount of Badab Black wash in and around the teeth to help define them.



There's the process for painting faces in a nutshell – basecoat, wash, eyes, highlight, and detail. The key is to make sure your paints are properly thinned so that they apply in thin, light coats without being too runny – and of course, patience.





# Chapter 5 - Finishing Touches

If you've picked up all of the techniques we've covered so far, you're probably painting some pretty incredible models. Now I'm going to show you how

to add the extra little details that'll push your minis over the top, and really make them stand out on or off the table.

## Getting Dirty

So you've just spent 4 hours painting a mini, and it's absolutely awesome. You've done layers, blends, highlights, and lowlights – the whole 9 yards. There's just one problem - he's too clean.



Your Brave Warrior might as well have just waltzed out of his tailor's shop in new garments. There's no sign of struggle, conquest, or tireless hours spent trudging through unforgiving

dungeons. In short, there's no dirt.

Whether your mini is at home on the battlefield, in a dungeon, or scouting the forest, chances are pretty good he's going to get dirty. This is especially noticeable on fabrics, where even a brief encounter with a small mud puddle can have dire consequences. Cloaks are a great example of this, as they tend to drag along the ground every so often, picking up dirt like a sponge.

Luckily, adding a believable amount of dirt to a cloak is very simple – you just need a little brown paint,

and some flow improver. In this example, I'll be using two shades of brown, but it can easily be done with just one.



Mix your paint with flow improver, 2+ parts flow improver to 1 part paint. Load your brush, and touch it to paper towel to drain the excess. In short strokes, apply the paint towards the bottom edge of the cloak, so that you're

painting about a quarter inch of the cloak with our mud color in total, leaving the majority of that paint towards the very edges of the cloak. Continue doing this, making progressive layers shorter and tighter to the cloak's trailing edge. Repeat with a lighter dirt color if you like.

There's really nothing more to it than that! You're just layering in a new color over the very bottom edge of the cloak.





# Weathering Vehicles

By Tim King

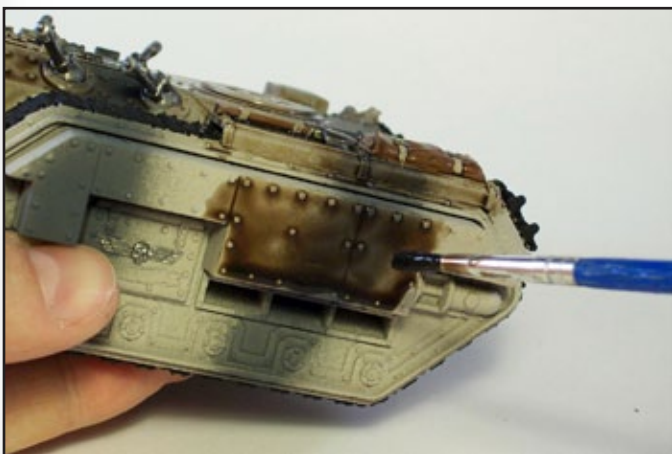
This article will cover three simple methods you can use to weather your vehicles.

## Wash and Dry:



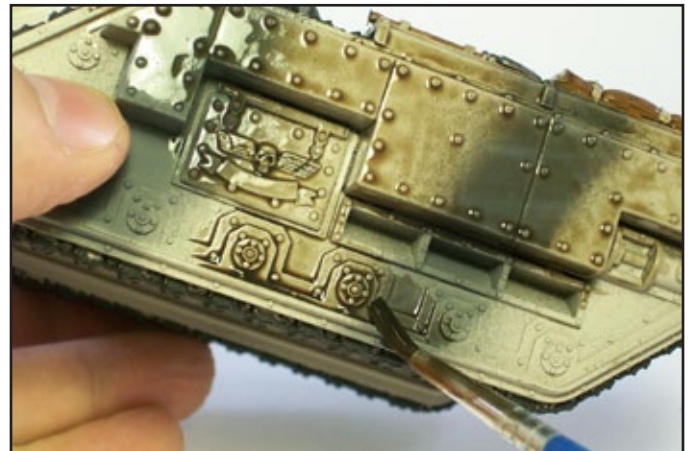
Probably the best method to weather and add detail to your vehicles is by using washes. For this tutorial I will be using Citadel Devlan Mud Wash over top of my previous base coat of Dhenneb Stone. The wash does two things, one it stains the paint you previously applied; second it adds depth to all the detail on the tank. The wash will settle in every crevice and around every rivet to make your vehicle look dirty. You can use Badab Black on metallic parts and make Oil stains by brushing on a drop of Badab Black around engines and exhausts.

## The Wash:



I use a thicker brush that will hold a good drop of paint. Apply the wash liberally, but be sure not to leave any puddles of wash.

Spread the wash out evenly and use a finer brush to get the wash into cracks and hard to reach places. I even cover my drivers with the Mud wash.



Once you put the vehicle down to dry, the wash will collect around the rivets and in the crevices.

## Oops, I missed a spot:

You may find that after the wash dries, that you missed some spots. These stick out like a sore thumb, but don't worry; you can always go back over it with a light coat of wash on the missed area.

## The Dry:



After your wash has dried, you can now bring out all the raised pieces and edges of the tank by dry brushing your base color over top of the vehicle. This added with the previous wash brings everything to life.



Simply dip a wide bristle brush into your base coat, brush off all the paint onto a piece of paper until no more paint comes off it, then lightly brush it over your vehicle. The raised portions and edges will catch the paint off your brush, while all the lower portions will hold the wash.

### Trail Dust



Add dust and mud to your treads and lower half of your tank by airbrushing on a mud or dust color. I applied a water based tan to the bottom sides of my

vehicles. You will notice that the tan is thicker on the bottom and thinner on the top to give it realism. The tan also will accumulate in corners and cracks, just like real dust. (See my previous article for airbrushing methods.)



### Chipped Paint

Adding chipped paint is a great way to give your vehicle a battle worn look. The choice of color should be one that would resemble the factory primer coat of the vehicle. I used toothpicks to scratch on scorched brown on the edges of my vehicle.







I paid special attention to anywhere a hatch or corner would come in contact with the ground, trees or would see wear from soldiers. You only need to make chips.



Next I went over the larger chips with some bolt metal, again applied with a toothpick.



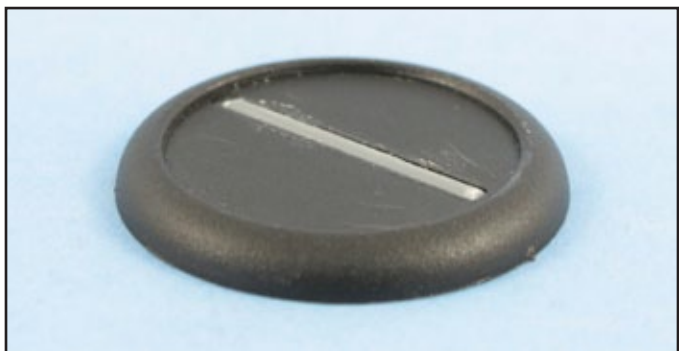
Here is the final product. The amount of paint chips is up to you.



# Simple Gravel Bases

Detailed bases are an important factor in making your minis really stand out on the table. Common gravel – the kind you find at the side of the road, or in public parks – makes an excellent basing material, and best of all, it's free!

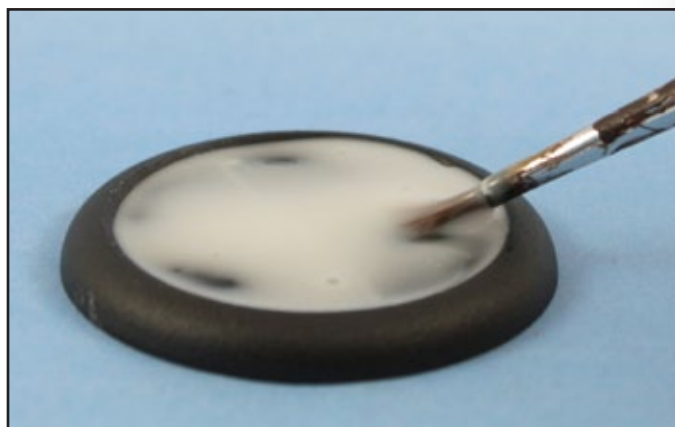
I'll be starting with a 40mm Warmachine Base. I've filed down a sprue and glued it in place to fill the slot in the base, as we won't need it to support our model.



The first step is to collect some gravel. I literally took this from the fringes of the Miniwargaming Parking Lot. You'll want to use fairly fine gravel, since the bases you're working with are relatively small – look for pebbles, not rocks. A fair bit of dirt or dust in the gravel is good as well – it will help fill in some gaps between the individual stones. Make sure the gravel is dry; you can bake it in the oven if needed, just be sure to let it cool before you work with it!



Apply common white glue or craft glue to the base, and spread it around with an old brush to get even coverage.



Dump a pile of gravel onto the base – or alternatively, bury the base in your pile of gravel.



Pick up the base, and shake off any excess gravel. Your base is probably very dusty now – blow on it or wipe it down with a damp towel before you begin painting it. Make sure you let it sit around long enough for the glue to begin setting as well, so the gravel doesn't shift on you as you paint it. Depending on the glue you've used, this can be anywhere from a few minutes, to several hours.



## Simple Gravel Bases

Next, you'll want to basecoat the gravel – I've chosen to use Pure Black, but any dark color matching your scheme will also suffice.



With the gravel basecoated in black, I applied 3 progressively lighter shades of gray using the drybrushing technique.



The outer edge of the base was repainted with black, as some of the drybrushed grays got onto it. I personally think that a clean base edge just looks better.



Finally, the mini just needs to be mounted on the base. Mix up a small amount of Green Stuff, and apply it to the bottom of the mini – in this case, it's feet.



Decide how you want to position your Mini on the base. Once you're happy with the position, apply a small amount of super glue to each bit of Green Stuff, and firmly press the mini onto the base. The bond should be almost instant, and your mini is ready for action!





# Sand and Flock Infantry Bases



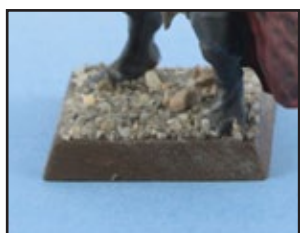
While detailed and scenic bases are great for individual or show-piece models, they can also be a lot of work. Chances are, you'll want to do something quick and easy for the rank and file troops in your army – but that doesn't mean it can't look good.



Here we have a Dark Elf Black Ark Corsair, and an unfinished base. I'm going to give this model a mixed base – part gravel, and part grass – to

give the appearance of a war-torn battlefield under his feet. To get things started, paint the entire base with a dark brown – this will show through any spots that get missed. Don't worry if you get a little bit on the model's feet.

Using an old brush, carefully coat the surface of the base with white glue.



Sprinkle sand onto the white glue, rotating the model to cover every angle. Put this aside and allow the glue to dry completely.

Paint the sand with your dark brown base color, and allow this to dry.



Next, apply a lighter shade of brown to the top of the sand with the drybrush technique. You'll probably want to use a flat brush so you can reach all the sand without painting your model.



Using an old brush, create some small patches of white glue where you'd like grass to be.

Sprinkle your flock onto the white glue, and shake off any excess. Set this aside to dry.



Finally, touch up the edges of the base with your dark brown color, and you're done!

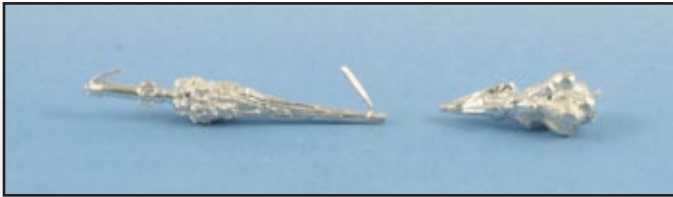




# Cinematic Effect - Rocket Launcher

Armorcast's line of Cinematic Effects can really make a model stand out with very little extra effort. They're quick and easy to paint, since you really only need to know how to drybrush to make them look incredible.

In this case, we'll be adding an effect to a Space Marine with a Rocket Launcher. This effect has two aspects – the rocket being fired, and the blowback.

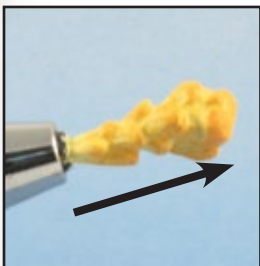


We'll start with the blowback. I've found it easiest to paint Cinematic Effects by holding them with my pinning drill. Begin by priming the effect – I've used Brush-On Primer here.

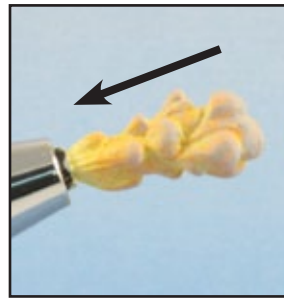


Before you jump into painting the effect, consider how it would appear in real life – the effect is essentially a still frame of a rocket launch. If you're coming up blank, try searching Google Images.

Next, paint the entire effect yellow. We want this cloud to appear to be glowing from the inside, especially towards the smaller tip where the rocket fuel will still be burning.



Drybrush a layer of orange over the yellow, stroking from the narrow end towards the tip – this should focus the orange on the underside of each puff of smoke, leaving the round tops yellow.

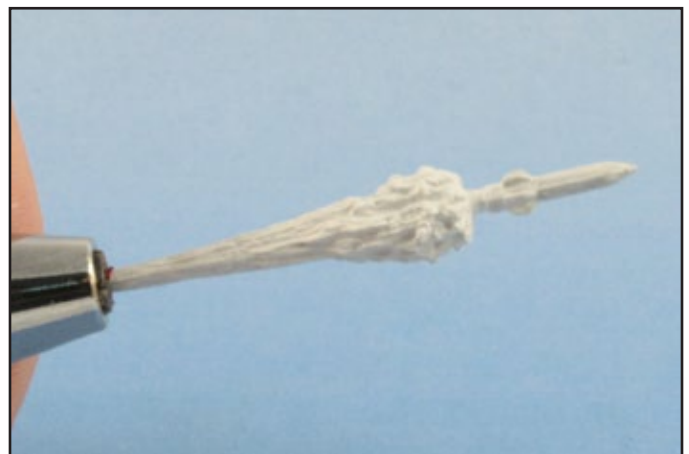


We need to be sure this effect looks like smoke, rather than a puffy fire. We'll begin this by drybrushing light gray across the tops of the puffs. The direction should be opposite the orange highlights added earlier.

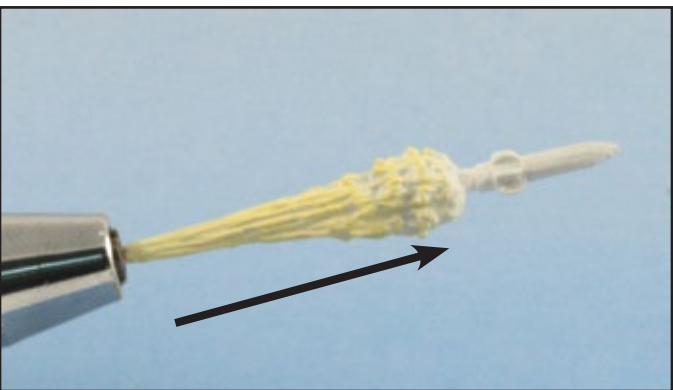
Lastly, use a darker shade of gray and repeat the above process. This gives the impression that the cloud is made of burnt, carbonized fuel. Remove this part of the effect from your pinning drill, and set it aside.



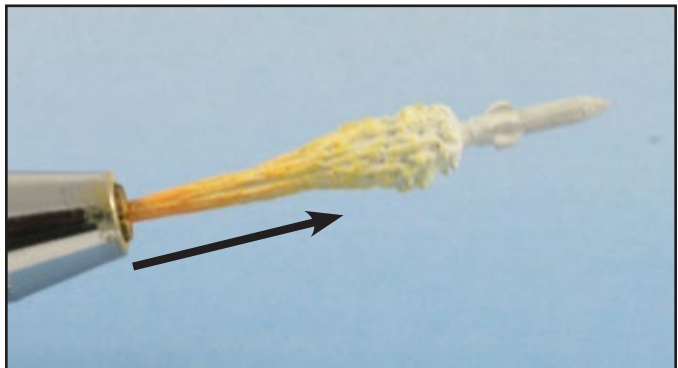
The rocket effect will be painted a little differently, but using the same techniques. The flame will be hottest near the rocket where the fuel is burning, and coolest at the narrow end that will attach to the rocket launcher. To give this effect, we'll gradually fade from white to orange.



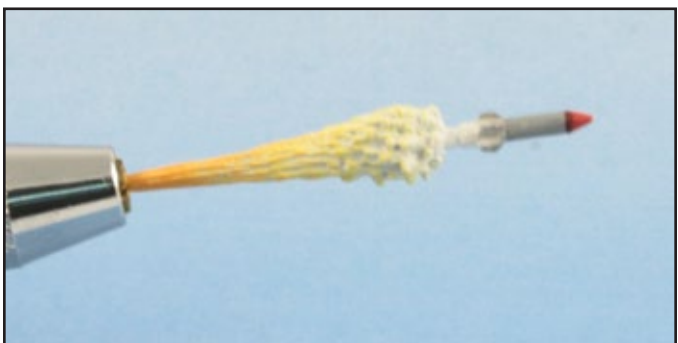
Begin by basecoating the primed effect with pure white, making sure to get good coverage in the circled area.



Drybrush a light yellow in the direction indicated, making sure the coverage is heavier near the narrow end of the effect, and leaving the top of the rocket exhaust pure white.



Repeat the above step using orange paint, this time focusing mainly on the trail part of the exhaust, and only highlighting the very bottom of the puffed out part. You should see a sort of heat-vision effect at this point.

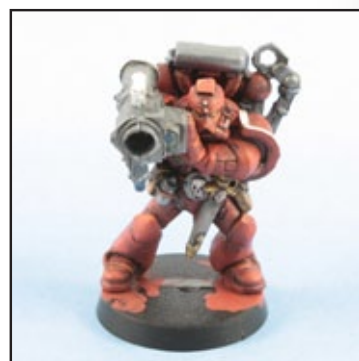


At this stage, all that's left to do is detailing the rocket itself. I've painted the body of the rocket plain

gray, using a drybrush technique around the fins and exhaust so that some of the white basecoat shows through – giving the appearance that the exhaust is casting off bright light near the bottom of the rocket. Embellish the rocket as much as you want to match your mini or army – I simply added some red to the nose of the rocket.

Lastly, we need something with a rocket launcher to attach the effect too – chances are you had a particularly mini in mind all along. In this case, we'll be using a Space Marine.

You'll need to drill mounting holes for the rocket and exhaust. The rocket itself will usually fit nicely into a normal pinning hole, and can be held in place with a little super glue.



Because the smoke cloud is tapered, you'll need to drill a slightly larger hole in the back of the rocket launcher to make room for it. Trial fit the smoke before gluing it in place. If the hole isn't big enough, you can use the edge of a hobby knife in a circular scraping motion to dig out and widen the hole. Once the smoke fits in place, apply some super glue to the hole and attach the smoke, holding it in place for a few seconds. With any luck, your final result should look something like this:





# Introduction to Object Source Lighting

One of the most stunning effects you can add to a mini is Object Source Lighting – and for a new painter, it can also be one of the scariest. Rather than writing a long article about lighting theory, I’m going to show you the methods in practice – and yes, slip in a little theory along the way.

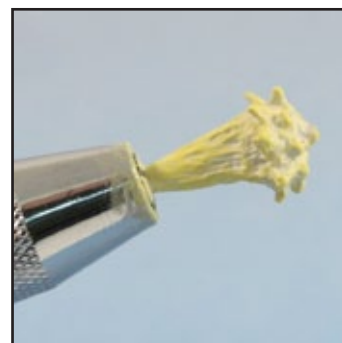
Object Source Lighting creates the illusion that either some aspect of your mini, or an element in its environment, is casting light onto the figure. This can be a glowing sword or rune, a burning fire, or the muzzle flash of a rifle – or something mundane like a light bulb. While you’ll usually want to paint a mini from scratch with this in mind, it can also be added to a painted mini, which is what we’ll be doing here.



This little Grundback Gunner is going to receive an upgrade – we’ll start by adding some muzzle flash to the Jack’s cannon. Most cinematic effects are easiest to paint while mounted in your pinning drill. Begin by priming the effect, and then basecoating it with Pure White.



Drybrush most of the effect with bright yellow, leaving only the deepest areas white. Unlike the rocket exhaust in the Cinematic Effects tutorial, we don’t need to leave the leading edge of this effect purely white.



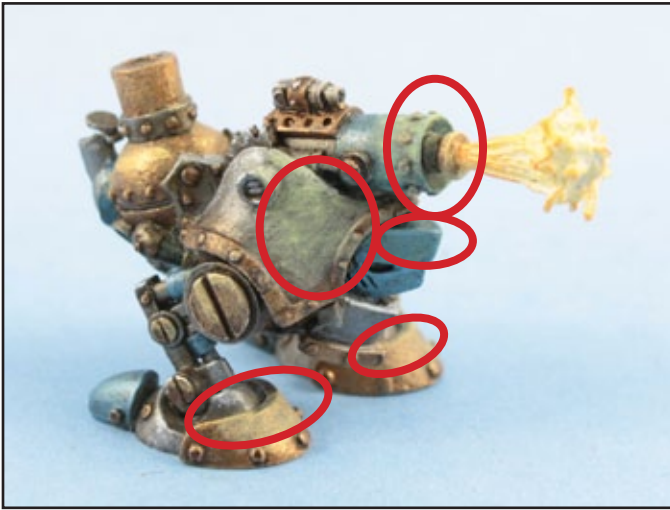
Repeat the last step using a bright orange, focusing more on the outermost areas – the narrow end of the tail, and the outer tips of the explosion.

Interestingly enough, the end of my drill has almost picked up an Object Source Lighting effect – it appears that the explosion is casting an orange light onto it.



To attach the effect to the mini, a pinning hole was drilled into the barrel of the cannon (this hole is visible in the photo on the left) and the muzzle flash was glued in place.

This muzzle flash is going to be the source of our light – we’ll want it to cast a bright light on the nearby surfaces of the model. Like the explosion itself, the light will fade from orange to white.



To determine where the light will fall, you need to think of what areas would be lit up if you placed a small light bulb where your light source is located. If you have trouble visualizing this, you can try shining a small flashlight on the mini from roughly the same point, and noting where the light falls. In this case, the muzzle of the cannon, the front-facing parts of the armor plating, and the top of the Jack's head will receive most of the lighting. I'm also going to add a very small amount to the tops of both feet.

The light should be dimmest – orange in this case – furthest from the source and brightest – white – nearest the source. However, I'm going to apply a base highlighting of yellow to the affected areas, as seen in the photo above. A mix of 1 part Reaper Sunlight Yellow and 2 parts Flow Improver was brushed lightly over the areas.



The same areas were then lightly brushed with a similar mixture of Fire Orange and Flow Improver. The paint is applied thinly, brushing from the furthest areas towards the light source, so that the light is most vivid near its source.



Reaper Sunlight Yellow is painted on the same surfaces, leaving the furthest third or so painted orange. Very little flow improver was added to this color, as we're getting closer to the light source and the light will begin to completely overpower the normal color of the mini.

The light source effect is essentially done, but the steps from orange to yellow are a little harsh and too clearly defined – I wanted to see a more gradual fade from one shade to the next. To smooth out the transition, I worked a small amount of orange paint over the boundary between the two colors, using a drybrush style technique I've always called **swirlies**. There might be a more technically correct name for this method, but once you've tried it, you'll see why the name fits.

**The swirly technique** requires a small, soft brush. I use an old 10/0 with curled bristles, that's otherwise completely useless as a paint brush. Dip the brush in the paint, and wipe it off on a paper towel as if you were preparing to drybrush – you want very little paint on the brush itself.



## Introduction to Object Source Lighting

With your small, soft brush essentially ready for drybrushing, begin applying the paint where it's needed using small swirling motions. The swirls will provide a simple means of gradually highlighting a small area, or evening out rough transitions.



You can see that the orange-yellow transition is much smoother now after a quick application of the swirly technique. However, the light wasn't really bright enough nearest the source for my liking, so I added a layer of white over the yellow. I also realized at this point that I hadn't painted the Jack's eyes, so I did that while I had the white paint on hand.



As with the yellow and orange before, this ended up with a pretty sharp division between the white and yellow areas. The swirly technique comes to the rescue again. I mixed Fire Orange and Sunlight Yellow in equal amounts for this application, and faded the new white areas back to the orange.

Our Light Sourcing is done! All of the major nearby surfaces now have an orange glow from the muzzle flash, which gradually gets brighter closer to the source – the flash itself. The last thing to do is apply a few coats of sealer to protect the paint job.

If I were painting this mini from scratch with the Muzzle Flash in mind, I would have done two things differently.

First, I likely wouldn't have used metallic paints for the rest of the mini. Because the colors used for the lighting are flat rather than metallic, they look a little out of place on this mini – though they do add to the effect of the light source overpowering the model's normal colors.

Second, I would have painted the rest of the mini a few shades darker. We have a light source, so we should also have shadows on all of the surfaces hidden from the light. Still, for an after-the-fact add-on to this mini, the muzzle flash is very convincing.

# Step by Step - Gnoll Ranger

In this article, I'll cover every step of painting a Gnoll Ranger from start to finish. I'm going to focus heavily on drybrushing in this case, as the model includes fur, fabric, and wood grain.



I've started with a cleaned and primed mini. The left hand holding the bow is pinned in place, but the pin has not been glued yet. The Gnoll will be missing his left hand in most of the following photos.

## Painting Fur



I'm going to begin by painting the Gnoll's fur. Because I'll be drybrushing several different areas, I want to start with the largest areas and work our way into the smaller ones – and it's hard to find a larger area on this guy than his fur! I've started with a basecoat of Reaper Muddy Brown on all of the furred areas.



Next, I've drybrushed the same areas with Reaper Earth Brown to lighten them up. You can already see the detail in the fur standing out, and if you were looking to get this mini

on the table quickly, this would certainly be a decent place to move on.

I want to give the Gnoll a hyena-like appearance, and spots in his fur will really help with that. I've used small dots of Blue Stuff, lightly stuck in place, as a masking agent. I'll be able to drybrush on lighter colors, while leaving the original darker fur underneath alone. If you're going to do this, use a very minimal amount of pressure to stick the Blue Stuff in place – you don't want to get any stuck in the fur.



With our masking dots in place, I've drybrushed the fur again with Reaper Leather Brown, paying particular attention to the Gnoll's face which I want lighter in general.



## Step by Step - Gnoll Ranger



Remove the dots carefully. If any seem stuck to the mini, lightly pick at them with a toothpick. If for some reason any paint lifted off the mini with the dots, simply dab the area with a little Muddy Brown again.

The Gnoll's fur is now done!

### Painting Chainmail

The Gnoll is wearing a sort of Chainmail Apron to protect his chest, and very little else. While I question the protective value of this garment, it sure is easy to paint!



I've started by basecoating the Chainmail in Pure Black. A dark brown could have also been used, to make it appear that there's fur underneath the armor as well. I assumed that the Gnoll is wear-

ing something between the chainmail and his fur though – otherwise he'd keep getting fur snagged in the armor!



Next, I've drybrushed the chainmail with Reaper Honed Steel. There's nothing more to it than that – chainmail looks great with 2 simple steps.

## Painting Fabric

While the Gnoll isn't wearing much in the way of clothing, it still deserves attention. I've broken the clothing into two groups – the kilt, and the straps. I've decided that both groups will be green, but I'm using a lighter shade for the kilt.



The kilt has been basecoated with Reaper Pine Green. The same area was then drybrushed with Reaper Leaf Green, and Reaper Pale Green respectively, giving the final effect below.



When drybrushing smaller details like this, I use a much smaller brush, and tend to swirl it over the surface being painted, rather than using the normal flicking motion.



The straps were basecoated with Reaper Forest Green, and given a single drybrush of Reaper Grass Green. The straps on his wrists were included in this.

## Painting Teeth and Claws



The Gnoll's teeth and claws were all painted with the same technique – I've zoomed in on the teeth in this case.

The teeth and claws were first basecoated with Reaper Bone Shadow, shown in the second picture above.



The teeth and claws were then given subsequent highlights using Reaper Aged Bone, and Reaper Polished Bone.



### Painting Bronze Metal

The Gnoll has a spiked shoulder pad and bracer on his left arm that I'd decided to paint as metal. Since my focus is on using simple techniques on this figure, I wanted to use a metallic paint, rather than trying to paint it with a non-metallic metal technique. I've basecoated both parts with Reaper Ancient Bronze (as mentioned before, you can't see his left forearm as it's not attached).



I mixed up a batch of Armor Wash – an even mix of brown and black inks, and flow improver. This was then brushed over the bronze, paying particular attention to defining the outer edge, and isolating the spikes. After the wash was applied, the larger surfaces were given a very light drybrush of the original bronze.



### Painting Leather:

The Gnoll has a few small pouches on his back, as well as a quiver for his arrows. I've chosen to paint these as darkened leather.



I began with a basecoat of Reaper Midnight Blue, followed by subsequent drybrushes of Twilight Blue and Snow Shadow. These colors are basically shades of gray with a very light blue tint to keep them interesting.



Skipping ahead a little bit, the dagger sheathed on his left hip was painted using the previous 3 techniques – bronze for the exposed metal, leather for the sheath, and the tooth and claw technique for the cloth-wrapped handle.

## Painting Wood



The bow and arrows were painted using a basecoat of Reaper Dark Skin, followed by two drybrushed highlights of Dark Highlight and Tanned Shadow. While these colors are meant to work as human skin tones, they also work great for wood grain. When you're painting, look at the color of your paints – don't focus on what they're labeled.



## Finishing Touches

The cloth wraps on the bow, as well as the fletching (guiding feathers) on the arrows, were basecoated with Reaper Deep Red, and given two drybrushes of Blood Red and Fire Red, respectively. See what I mean about ignoring color names?



The base of the model was given a basecoat of Stone Grey, followed by a black wash and a drybrush of Weathered Stone.





## Step by Step - Gnoll Ranger



The Gnoll's eyes were carefully painted with a single dot of Sun Yellow, and his nose was painted with Muddy Brown to separate it from the rest of his muzzle, giving his face a more dog-like appearance.



The left forearm was glued in place, and the different details on the Gnoll were distinguished with some quick lining. This was accomplished by mixing Reaper Brown Liner in an even ratio with Flow

Improver, and drawing thin lines of it along where different details meet using a 10/0 brush – where the green straps overlap the fur or chainmail, for example.

I realized at this stage that the Gnoll had a cloth wrap around his right foot which I had overlooked. This was painted using the same technique as his teeth and claws, giving it a bandage-like appearance.

There were a few tiny nicks and scratches to touch up (an unfortunate but common occurrence with metal minis). The final step in any metal mini is sealing the paint job, protecting it (at least somewhat) against future chipping. I mixed Brush-On Sealer with a small amount of Flow Improver, to ensure a thin and even coverage. This was brushed over the entire model, left to dry, and then repeated several times.



Above is a profile view of the final paint job. This was completed in a matter of a few hours, and was done almost entirely with drybrushing – often considered to be a very basic “newbie” painting technique. However, even basic techniques can produce professional quality results when applied correctly and patiently.

# Step by Step - Space Marine

I'm going to put together several different techniques into this article, as I walk through each step involved in painting a Space Marine. I'll be using the following techniques:

- Basecoating with Spray Paint
- Washes
- Drybrushing
- Highlighting
- Basing



I'll begin with an unassembled, plastic Space Marine. At this stage I've cleaned up mold lines and flash, and have glued the main body to the base.



I want to spray on our base color. To make sure I'll get good coverage on the backpack and bolter, I'm going to want to support these pieces upright. To do this, I've drilled a small hole in each piece where they won't be seen, so I can prop these pieces up on wire stands, as shown in the next picture.



The spray stands for these two pieces are simply bent paperclips, taped to a sheet of cardboard so they'll stand upright. This lets us get full 360° spray.

Spray the model and additional pieces using short, back and forth motions – never focus the spray on a particular spot. In this case, I'm using red Krylon Fusion paint.



Spray Paint usually needs time to dry before you can handle the mini. If you're unsure of how long it takes, try touching the base of the model with your finger. If it's tacky, it's not dry.

Next, I painted the details we wanted washed – the chest emblem, shoulder pads, skull, etc.



## Step by Step - Space Marine



With the details basecoated, I applied a wash of Badab Black to the entire model, focusing on deep areas, details, and joints in particular. Sometimes a wash covers too well, and can actually dull the base color. In this case, we drybrushed some light red back over the red areas to help them stand out again. Drybrushing pairs well with washing, as they tend to affect completely different aspects of the model.



Next, I added a reddish orange to highlight the edges of the model – particularly edges on the helmet, backpack, and legs. This is done using a small brush with very little paint, basically dragging the side of the brush along these edges.



This model is nearly complete. I've drybrushed some light yellow back over the chest emblem, and picked out a few finishing details – the eyes and emblem on the helmet, in particular. The bolter was painted with Boltgun Metal and given a Badab Black wash as well.

I've assembled the model, and quickly based it. Normal white glue was spread over the base with a old brush, and sand was simply sprinkled onto the glue. The edge of the base was painted black, to cover the red spray paint.



This Marine is ready for the table!

# Glossary of Terms

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**Basecoat:** a coat of paint applied to a model, usually a dark solid color, before any detailing is done. With metal miniatures, this is usually applied over a Primer – when working with plastic miniatures, the basecoat can often be applied directly to the plastic.

**Basing:** adding texture to the base of a model – typically sand, grass, or another ‘flock’ product. It may also be used incorrectly to refer to basecoating.

**Drybrushing:** a painting technique where nearly all of the paint is removed from a brush prior to painting. A brush used for this often has very stiff bristles, and a flicking or rubbing motion is used to transfer the paint onto the model.

**Flash:** a by-product of the casting process common to both metal and plastic miniatures, this is excess material on a model where two parts of a mold meet. These often take the form of mold lines, cast-off, or flack, and can be removed easily with a hobby knife or file.

**Flow Improver:** any product used to thin paints. Water, floor polish, and Reaper Flow Improver are just some of the common liquids used.

**Heavy Drybrushing:** a technique similar to drybrushing, where a small amount of liquid paint is left in the brush. The tip of the brush is then lightly flicked across the area being painted, leaving a thicker shade than normal drybrushing does.

**Highlighting:** a method of adding detail to a model by painting a lighter shade to raised or ‘light-catching’ edges.

**Layering:** a painting technique where paint is substantially thinned down, and applied to an area in many consecutive coats. The color used becomes more defined with each coat. This technique is often used to create fades from one color to another, and is common on clothing.

**Object Source Lighting:** an advanced painting technique giving the impression that an aspect of a model or its environment is casting light on the model itself.

**Pinning:** a method of assembly, typically used with metal models, where a metal pin is used to connect two pieces of a model. Holes are lined up and drilled in both pieces, and a metal pin is glued in place, adding strength to the bond.

**Plasticard:** thin sheets of extruded polystyrene (plastic) commonly used when converting or scratch-building models. Plasticard is available from many hobby stores and the MiniWarGaming online store.

**Pot:** a common style of paint container, often with a snap-shut or twist-off cap. Games Workshop/Citadel and Testors paints use this style, for example.

**Primer:** a kind of paint designed to prepare the surface of a model so that other paints will adhere better to it. Primer is available as a spray paint or a brush-on.

**Straight from the Pot:** using a paint or wash with no thinning or mixing.

**Varnish:** a transparent, protective coating applied over finished miniatures to protect them from scratching and chipping. Varnish is available in a variety of finishes.

**Washing:** using a wash (diluted pigment) to add detail such as shading to a miniature. This may also refer to cleaning something – your hands for example!