WARGAMES illustrated
PAINTS

YOUR COMPLETE GUIDE TO PAINTING WARGAMES MINIATURES

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PAINTS

Welcome to *Wargames Illustrated Paints*, a guide to painting wargames figures by some of the best professional painters in the hobby, from the pages of the world's best selling wargames magazine.

Wargames Illustrated Paints is a collection of material which has appeared as articles in the magazine, plus new and exclusive content which connects these articles together, providing you with a complete, easy to follow and superbly illustrated painting guide.

This guide features the talents of multi-award winning figure painter Matt Parkes, along with those of highly respected brushman Dave Taylor (davetaylorminiatures.blogspot.com), between them they have over thirty years of professional miniature painting experience.

www.wargamesillustrated.net

CONTENTS

BONUS

AN INTRODUCTION AND
THE BASICS

Matt Parkes, a professional figure painter and model maker for over 20 years explains how to get set up to improve your painting skills, from your workspace to the tools of the trade. Matt has vast experience from working for a variety of different miniature companies, and - in his spare time - for himself, Matt paints vignettes and dioramas for competitions and has been highly successful over the years.

THE WORKSPACE

Whether you have a dedicated room or the kitchen table in the evenings, to paint successfully, you need to be comfortable. Painting units or an army require many hours of sitting in the same position, so make sure your chair and table are the right height for you. I have been known to put wooden blocks underneath my table to get my sitting position.

As you can see, my workspace is situated next to a window for daylight and ventilation. I keep my area tidy with lots of storage for everything to be put away. I am slightly OCD about this, but there is nothing worse than having a great idea, going to your workspace and having to clean up before you can even start. Everything is close to hand and labelled up, so I'm not hunting around for that certain type of glue.

LIGHTING

Your light is probably the most important thing on your desk. It is the first thing you switch on before you start work. I recommend that you do not use a normal yellow tungsten bulb, but a blue daylight one. This gives you a consistent lighting and a really good colour balance. I use a daylight strip lamp, which stays cool and illuminates my whole desk and not just a single spot. I know they are expensive, but it is money well spent. I do use a normal poise-lamp with a household bulb in, because it gets quite warm and is great for gently drying models.

FILES AND SANDING STICKS

With so many shapes, sizes and grades available, it is best to buy a set with a variety of different files in it. I think the Gale Force 9 file set is really comprehensive.

I am finding myself using sanding sticks more and more, due to their flexibility and cheapness. There are many different grades of these available, from very coarse to the final polish. Because these are on foam backed plastic sticks, they are excellent at conforming to the miniatures curves and shapes but are not so good at absolute straight lines e.g. sword blades, the trusty file is best for this kind of job.

THE TOOLS

When buying tools, always go for the highest quality you can afford, you won't regret it. If kept in good condition, they can last you a lifetime. With so many tools available, I'll just cover the basics now and go into more detail over the coming months.

HOBBY KNIVES

These are probbly the most important tool on your desk. You'll need a knife that has interchangeable blades. When I'm cleaning up units of metal miniatures, I can go through ten blades a day. My workhorse is the Swann Morton scalpel with an extra wide handle (5a) - which, after eight hours work, does not hurt my hands - and 10a blades.

Another knife I find very useful is an X-acto style knife, because you can put any shaped blade or jewellers' saw in it.

SIDE CUTTERS

With more and more companies releasing plastic box sets now, a good quality pair of side cutters is a must. What you are looking for is the outside of the blades to be flush with each other for a clean cut, this saves on a lot of extra sanding. Just a quick word of warning about side cutters, only use them on white metal or plastic. Anything harder will certainly damage the blades. If you need to snip any steel wire for example, use regular pliers.

SCULPTING TOOLS

This can mean anything that can push filler or green/ grey stuff around. I use a variety of sculpting tools depending on the job, from the humble cocktail stick, Gale Force 9 sculpting set to a high quality dentist's Tiranti Wax 5 tool.

One of the most common uses for these tools is filling gaps with putty on multi-part kits. I will be covering putty and fillers in more depth, in a later article on conversions.

PIN VICE, DRILL BITS, AND WIRE

If you are planning to do any figure conversions, assembling a metal multi-part kit or need a very strong join, pinning the bits together is the best way. For this technique you basically need a pin vice with a 1mm drill bit and 0.9mm wire. You should be able to find the the right drill bits and brass wire in any good hobby store.

I also make my own very thin sanding sticks, to get in those tight spaces; with lollypop sticks, double-sided tape and some fine wet and dry paper. The best thing about these is they are very cheap and can be customised to your own needs.
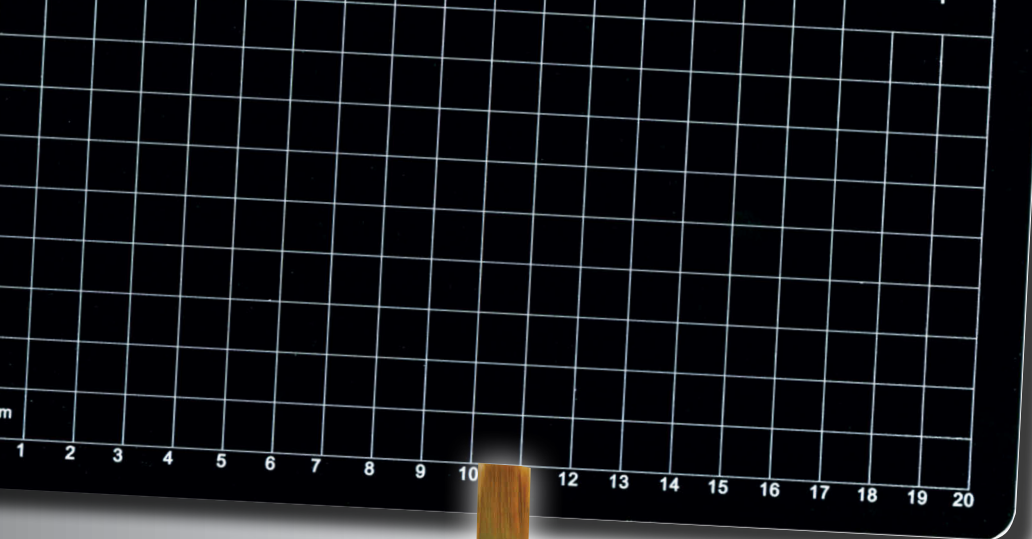
CUTTING MAT

A self-healing cutting mat is essential, unless you want your wife to go mental when you accidently cut into the dining table. I use one mat for everyday work and one which is kept clean for detailed modelling.
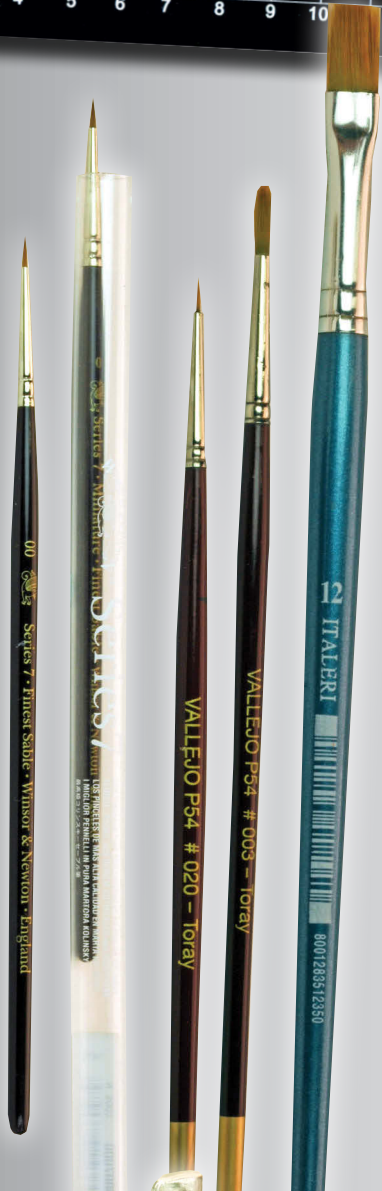
BRUSHES

I cannot stress enough about buying high quality brushes for the bulk of your painting, preferably Kolinsky sable. My favourite brushes are Windsor and Newton series 7 in sizes 00, 0 and a 1, which I keep in good condition. Don't let paint get on the metal ferrule, as this blocks up the core of the bristles, causing the brush to become stiff and harder to use. *Top Tip*: a new brush will take at least one good painting session to wear in to a nice point.

For mixing paint, applying PVA, drybrushing, and basing I use cheap (or very old) brushes, as they are not going to last long anyway.

PALETTE

Over the years, I have used all different types of palettes and I keep coming back to a piece of cardboard wrapped in regular brown tape (they grow over the years!)

Firstly; it is very cheap and secondly, certain paints have a characteristic where they do not like fresh paint being put on top of old paint - this causes the old paint to re-hydrate and break apart, leaving bits in your mix. Brown tape is an ideal solution to stop this from happening.

TAPE

There are two main types of tape that I use a lot of; double-sided and masking tape. Double-sided tape is so useful, that I would be stuck without it. I use it everywhere, from sticking down figures on a base for handling while painting, for spraying primer and to making a mock-up building out of foam board.

Tamiya masking tape is the best one I have found. It comes in different thicknesses, which are very accurate, incredibly straight cut and have a low tack quality which does not lift paint, also indispensable for airbrushing.
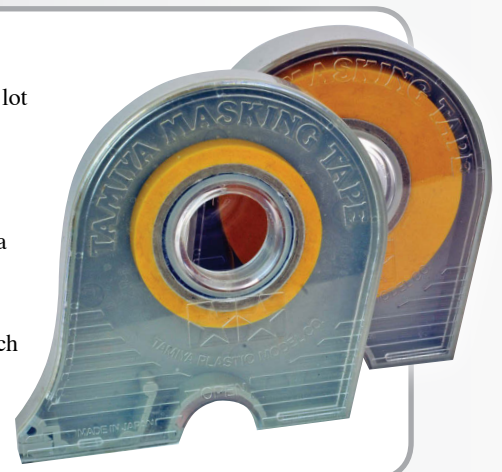
GLUES
(AND RAPID CURES)

A. Superglue is the most useful glue on your desk. With its great tensile strength and ability to stick most things together, it can be even more effective when used with "rapid cure" accelerator (A1), which bonds the two surfaces together instantly, so there is no more holding two bits together for ages waiting for it to cure.

If you do not have any "rapid cure" to hand, bicarbonate of soda (A2), sprinkled over the join makes it incredibly strong and speeds up drying time. It might need a quick pass with some wet and dry sandpaper afterwards, due to the chemical reaction.

B. For an even stronger join, I use a 5 minute crystal clear two-part epoxy glue. This offers great mechanical resistance and, because it dries clear, it is good for shallow water and puddles, but not for filling gaps as it does not sand down very well.

Care must be taken as when the two chemicals are mixed; they get quite hot and can warp thin plastic and ruin models (I speak from personal experience on this one).

C. Another glue, which is always close to hand, is PVA. It is sometimes called white glue or wood glue, the latter being the strongest bond. It is very versatile, as it can be thinned with water, becomes transparent when dry, has high adherence qualities (even on metal) and leaves no residue. I use this mainly for bases and gluing transparent parts together.
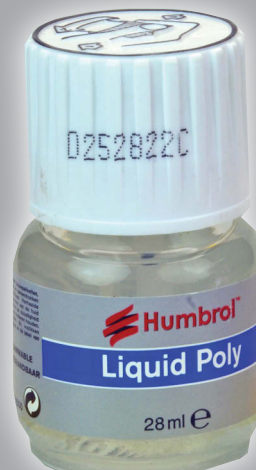
D. With the growing amount of plastic miniatures I have to paint, liquid poly cement is really useful glue. It has a strong bond and quite quick drying time, which allows a little final adjustment, unlike superglue. Always try and buy a bottle with a brush in the cap for easy application.

FILLERS AND PUTTY

Once you have cleaned up the mould line with a scalpel and sanding stick, there still might be surface flaws, dents, or two joining pieces where the fit is not quite right. This is when you have to get the filler out. Because there are so many different fillers on the market, with different properties, I have made a quick list of what are the most popular ones with their pros and cons:

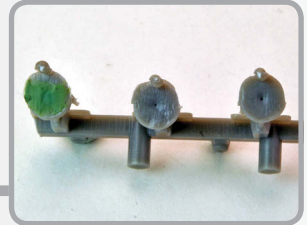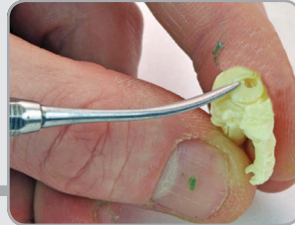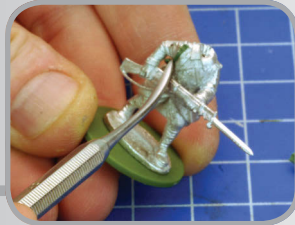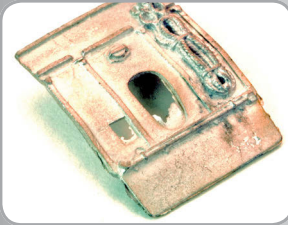|	GREENSTUFF	MILLIPUT	SUPERGLUE	TAMIYA PUTTY	VALLEJO PLASTIC PUTTY NO. 400
PROS	• two-part epoxy putty • very sticky when mixed, even to metal • very smooth finish • 40 min curing time • good at holding defined edges • can carve when dry • clean to use • flexible, even when dry	• two-part epoxy putty • sets rock hard • can be sanded/sawn/filed/baked/carved • good for large areas • does not shrink when drying	• very fast drying if used with "rapid cure" • good for small areas • can be sanded/polished/drilled • different viscosity and drying times available from very thin glue to gel	• can be applied straight from the tube • good for large, thin coats • good for levelling surfaces • can be sanded • can be thinned with liquid poly cement • fast drying time • very sticky • low shrinkage	• initial fast drying • applied straight from tube • good for small areas e.g. sinkholes • saves doing multiple superglue layers for filling
CONS	• must wash hands after working • difficult to sand • will tear with drilling	• 3-5 hrs curing time • needs mixing with water to become sticky • messy • can be brittle • must wash hands after working	• difficult to remove • cannot be used on clear plastic, as it will fog surface	• short working time • work in a well ventilated room	• fully cured after 1-3 days • if applied too thickly, can crack • difficult to sand unless covered in a thin layer of superglue

After all the cleaning up and filling is complete on a typical "wargames standard" unit, I blend the metal base (if the miniature has one) to the plastic one with a thick bead of superglue. This is very quick, blends the two together, and avoids an obvious "step" appearing in the groundwork.

I then glue the groundwork down to the base with PVA and let it dry completely. This groundwork is normally a fine sand mix with some small stones in. I prefer to do this messy stage now and tidy everything up before any primer, instead of applying PVA glue around the feet of a painted model. This also makes the groundwork tougher, with an extra layer of protection. I'll be going into loads more detail in a future basing article.

METAL RULER , SCISSORS, AND TWEEZERS

If you can, buy a metal ruler. They are obviously hard wearing, accurate and keep their straight edge. I also use hair dresser's scissors, which are reasonably priced, very sharp, and narrow. Tweezers are another essential tool in your arsenal. The locking ones are particularly useful for holding small delicate parts while gluing or painting.

PRIMER

For speed and an even coat, I always use spray primers to the manufactures' instructions and have the model stuck to an easy-to-hold base (I have loads of these made from *Flames Of War* bases and old dice, you can see a couple of examples in this article). Wearing latex gloves while spraying saves a lot of hand washing afterwards.

Your choice of primer comes down to what colour scheme your figures are going to be. To be honest, I rarely use black primer, unless the main colour of the figure is a metallic. I know black primer is marketed as a time saver, as it provides a shade for other colours, but you have to paint your basecoat neatly on top, which is quite slow. Because I am quite a messy painter when it comes to basecoats, I prefer to paint the shade on afterwards. Also using white or grey primer shows up any imperfections you might have missed and gives your paint a fighting chance of being rich, colourful and not subdued. You wouldn't give your bathroom door a coat of black primer and then paint it white.

A few good tips with primers are; if it is raining or cold outside, heating up the can gently on a radiator will reduce chances of the basecoat from becoming shiny and helps the aerosol deliver an even coat. Give your models a blast with a hairdryer afterwards, this bakes the undercoat on, making it shrink and further protecting the detail. Also, if the model manufacturer's instructions say to wash your resin models or plastic sprues, I would do it. Failure to do so might cause your primer to flake off later, due to the oily nature of some mould release agents.

WARGAMES ILLUSTRATED PAINTS ALSO FEATURES...

• Conversions - both simple and complex.

• Faces - enhancing the focal point of your models.

• Advanced freehand techniques.

SAFETY

Please follow the manufacturer's safety instructions. If it says 'use in a well-ventilated room because of the dangerous fumes', open a window and use a high quality spray mask. Keep all your sharp stuff away from little hands or paws. Common sense prevails here.

THE PLANNING AND
THE PAINTS

By Matt Parkes

When I buy a box of figures, I will have a rough idea of what they are for and what the miniatures will look like painted. I am quite disciplined these days and stick to one project at a time, otherwise I am just adding to the already massive pile of plastic and pewter in my loft. At the same time as I am cleaning up all the figures, I am looking through my reference material. My first stop is my books and assorted magazines that I have amassed over the years. It is always worth looking at the bibliography in a book to see where the authors got their ideas and reference from. Collection and organisation of reference information has almost become a hobby in itself and I find that any serious modeller/painter will have a steadily increasing library.

PLANNING AND REFERENCE

If your own collections do not have the answers you need, it's time to look elsewhere for information;

• The internet is an awesome tool for collecting information, photos and articles. A good place to start is the website of the company whose figures you are about to paint, as they might offer uniform and colour guides, background information and other useful links, occasionally in handy PDF documents for downloading. Also try Google Images (my favourite online resource) which offer massive sources of information, documentation, photographs and paintings which can be a great help when looking at periods of history before photographs were taken, offering details and lifestyle otherwise missed.

• Films, documentaries, and computer games are also good places to look for ideas. Last year, I was playing the cowboy game *Red Dead Redemption* (set near the Mexican/US border in the early 1900s), a game filled with very detailed vistas, period buildings, and towns with the added bonus of being able to walk around the scene. Quite informative.

PAINT FLUIDITY

Whatever paint you choose, it has to be thinned down with what the manufacturer recommends. Getting the consistency right is important and each brand of paint is slightly different, so a little experimentation is needed.
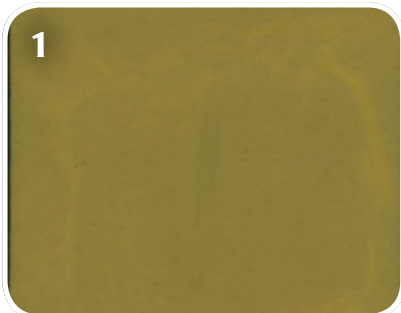
1. You are looking for the paint to be the same thickness as milk and it should not leave any brush marks when you apply it. As a rough guide, I use 50/50 paint to water and adjust the mix accordingly.

2. The more water in the mix, the more transparent the paint will be. There is a fine line between the right consistency and being too thin. A couple of thin coats are better than a thick one; although it is time consuming, you can use this to your advantage and build up the paint layers

to produce a smooth blend. The idea is to hide the different "layer-lines" of paint, which in this example; I have left on, to show you. I will be going into a lot more detail about blending in a later article on advanced painting techniques.

WHAT PAINT TO USE

There are three main types of paint that can be used for painting figures, each with their own characteristics. These three types are: acrylics, oils and enamels. It is really down to personal preference which one (or all) to use.

ACRYLICS

Brands include: Vallejo, Foundry, Citadel (Games Workshop), Army Painter, and Tamiya.

These are my number one paint choice, with high pigments, vast range of individual colours available, and easily mixed with water (or with the Tamiya paint, use their own brand of thinners X-20A) which is kind to brushes. Acrylic paints have a relatively quick drying time, which certainly helps with painting units of wargaming figures. They can be thinned with car windscreen wash (if you don't have the right thinners at hand) for airbrushing and can be thinned right down for washes. Clean-up is also relatively easy.

ENAMELS

Brands include: Humbrol, Airfix, and Revell.

Enamel paints need to be thinned with enamel thinners, as they are typically quite thick out of the tin. There is a good range of colours available from all of these companies and they can be interchanged with oil paints for even more variation. One of the best features of these paints is actually the slow drying time, which allows smooth blending between colours. This curing time can also be a disadvantage, with paint taking two hours to be touch-dry, hard-dry up to 24 hours and the metallics can take up to ten days to become hard-dry. Using thinners or turpentine to clean brushes afterwards can shorten the life of the brush-tip, causing it to "fish-tail".

OILS

Brands include: MIG Abteilung 502, Windsor & Newton, Daler-Rowney, and Rembrandt.

I use thinned oils for washes and shading over a coat of satin or gloss varnish, as they produce a really smooth finish and can be blended well with turpentine, even when dry. The MIG oils, which have been designed with the modeller/painter in mind, have a very fine grain compared to other manufacturers. The drying time can be improved with a hairdryer. You can buy pre-thinned oils, sometimes called filters.

3. This is the paint layer with too much water in the mix. Notice how it brings out the unwanted detail underneath.
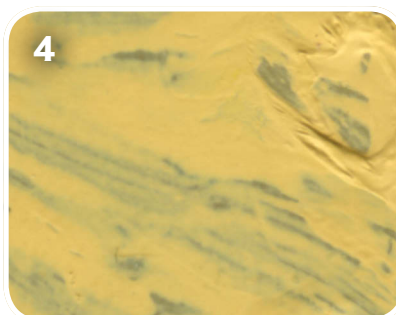
4. When the paint is too thick, it shows brush strokes and dries unevenly with shiny patches and can crack when dry. This can be improved on, with another thin coat of paint to even things out. If that doesn't work, or there are lumps in the paint like my example, then it's back to the 3600 wet and dry paper.

5. Each layer must be dry before the next, or the two will mix together and become a mess. For consistent results, don't forget to agitate your paint on your palette and give it a stir every 10 minutes, as the water in the mix will slowly separate from the pigment as it dries, making the paint an uneven tone.

COLOUR CHOICE AND THEORY

I am only going to talk about this briefly, as it was covered in the comprehensive *The Four C's of Painting* article in *Wargames Illustrated 287* by Joe Sleboda and Dave Taylor (see bonus content on page III). In my experience, there are three basic categories of "colour theory" that are most logical and useful; the colour wheel, colour harmony, and the context in which colours are used.

COLOUR WHEEL

Sir Isaac Newton developed the first circular diagram of colours in 1666. Since then there has been a lot of study into this idea that opposite colours are complementary and the differences between cold and warm hues. After some practice, this will become second nature and you will have more control with colour mixing and choice.

PLANNING AND REFERENCE – THE JOURNEY

British Desert Colours – "Caunter scheme" Egypt 1940-41

A little over a year ago, I received a brief from the Battlefront head office (when I'm not working for *WI*, I often do painting projects for Battlefront). They required a small force of early WW2 British tanks - mainly Matilda Mk2s, Stuart Honeys, and Crusader Mk1s - in the unusual Caunter camouflage scheme.

I knew that the Matilda tank had used this camouflage for a short period and that Tamiya had just released a new updated version of their Matilda kit, to celebrate 40 years and their 300th 1:35 release, so I figured there would be a lot of reference and images on the military modelling forums and magazines. I started to investigate.

The first images I found were in a copy of *AFV Modeller* magazine (issue 44) of a Matilda Mk2 in a museum with what I thought was the correct colour scheme of light blue, sand, and warm grey (1).

I crossed checked this information with the Battlefront team and found that this was the right pattern, but the wrong colour scheme and they suggested I look at a reference manual by Mike Starmer; "The Caunter Scheme".
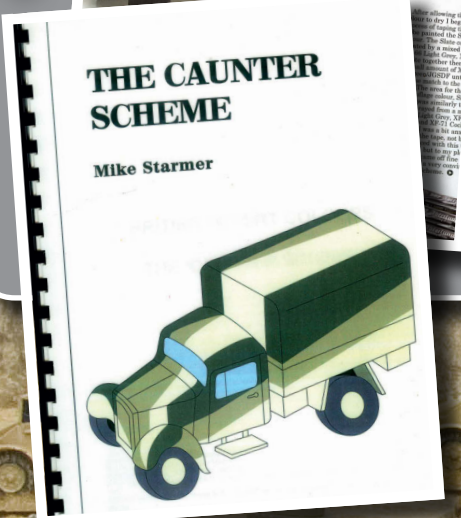
With a bit more digging around, I started to find images of the Tamiya Matilda kit and an article in *Tamiya Model Magazine International* (issue 166) about building this model and painting it in the correct colour scheme.

I read this informative article (2) by Rick Lawler, who also mentioned Mike Starmer's manual as a good source of reference, and included colour

COLOUR HARMONY

Colour harmony (or composition) can be defined as a pleasing arrangement of parts, like the Goldilocks example, you just know that it is just right. It engages the viewer, creating visual interest and a sense of order.

COLOUR CONTEXT

This is how the colour behaves in relation to others around it. Notice above how the red area appears brighter and more pronounced with a black background.
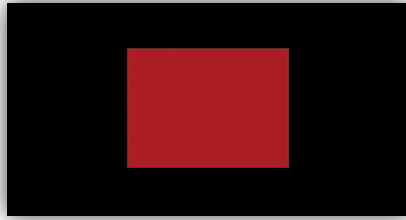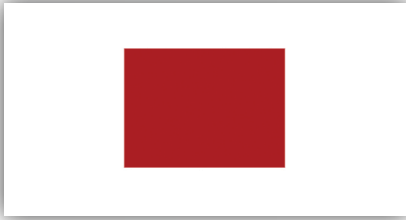
swatches. Despite the colours used in the *TMMI* article being complicated Tamiya paint mixes (which for someone using Vallejo paint as I do, is not that useful) the swatches gave a great starting point for my colour choices.

I wa finally convinced to pick up a copy of Mike Starmer's book. A quick letter and a cheque in the post later, *The Caunter Scheme* manual arrived (3). This was absolutely the reference I needed, with a history of the Caunter, comprehensive blueprints, modelling notes and authentic colour swatches (4).

The only problem with the swatches was that the painting guide used Humbrol enamels! However I had a cunning plan….

I made my own swatch card with all the "ballpark" colours I thought would match up painted on the edge, so I could go along and find the colour I needed (5). After a lot of testing different tones, I finally came up with colours that I was happy with. I keep notes on all my projects as I never know when I'll need them again (6). To the right is a neat version of the colour scheme with shade, midtones and highlights.

With all the research done, it was time to paint the British force. After everything was painted, checked, and checked again, the figures were sent to the Battlefront office in New Zealand for the box cover photographs.

With everything looking good, the figures can now be used in battle reports, *Hellfire and Back* (the early desert war book) and promotion throughout Battlefront Miniatures (below).

All this goes to show, you never know where a painting project is going to take you, and this one certainly made for an interesting journey.

MASTERING THE BASIC
TECHNIQUES

By Dave Taylor

Highlighting, Drybrushing and Shading are some of the basic techniques you will need to master in order to get your models to look their best on the wargames table. In this section Dave Taylor introduces us to these procedures and provides examples of their application.

HIGHLIGHTING/LAYERING

When it comes to painting miniatures, perhaps the most basic technique (after using a brush to apply paint, that is) is the idea of highlighting a model.

Highlighting is the process of adding a lighter tone of paint to a model, over existing paint, in order to create a sense of depth. This can be done in a number of ways, but is **always** about adding a lighter tone over a darker tone. The most common and well-known method for highlighting is layering. Layering is all about successive layers of a lighter tone (or sometimes lighter colour) over previous layers. In this example here, we added three successive layers of lighter shades of blue to the basecoat.

In the other examples on this page we show you the same thing on miniatures. Throughout this book you'll find plenty more examples of this approach to highlighting. Over the page we cover drybrushing, another method of highlighting your models.
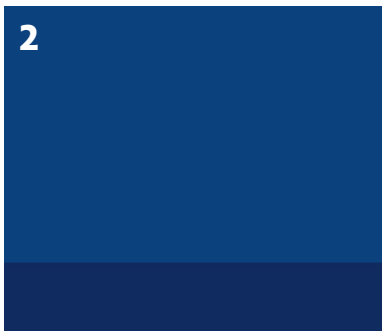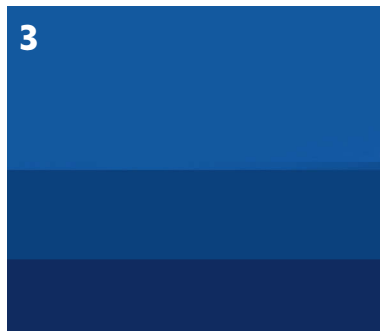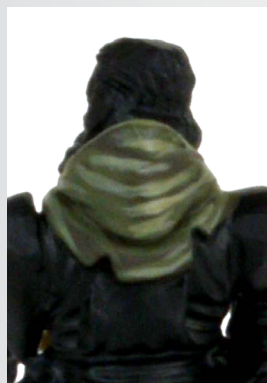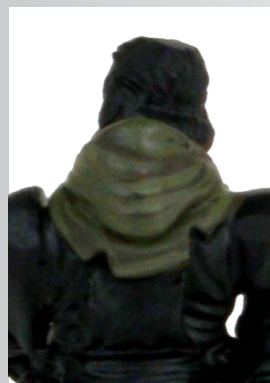
FABRIC

Miniature sculptors often provide painters with slightly exaggerated canvases to paint on, such as the folds in fabric. Layering gives us the tool to add even more depth simply, by leaving the darker layers of paint in the shadows and building up the highlights.

METALS

Shiny metal reflects everything and can look like it runs from black to white. Layering can give you a lot of control when building up progressively lighter shades, but can take considerably longer than other methods like drybrushing and shading.

WOOD

Sometimes we aren't really looking to create "realistic" shadows and highlights on a model, but we'll use layering to create a sense of depth. The arms of this bow have been highlighted towards the ends for this reason.

SCALE IS EVERYTHING

When it comes to layering, scale is everything. The larger the scale of the model, the more layers you'll need to paint to get those smooth transitions. This is because the eye and mind are willing to do the "blending" for you when the transitional steps appear very close to each other.

In our examples here, the 15mm ACW Confederates (top right) look good with only two or three levels of highlighting. The 28mm Confederate (right) needs three or four layers in order to look good. The 90mm Senegalese Tiralleur (far right) and the large-scale Scribe (below) both use many more layers - and an advanced version of layering called blending - to achieve their smooth look. The skin alone on the scribe uses more than ten layers of gradually lighter tones to achieve the effect.

DRYBRUSHING

Drybrushing could be considered layering's faster, but far less precise, brother. The aim with drybrushing (as with layering) is to build up successive layers of lighter paint to create a sense of depth on a miniature.

Drybrushing requires a brush without a point (1), which can be custom designed for the job, or an old, worn, large brush. To drybrush, put just a small amount of paint on the bristles (2), and then brush most of the paint off on a paper towel (3). With this "dry" brush, you can swiftly draw it back and forth across the surface of the model (4).

Drybrushing works best on textured areas (such as fur or chainmail) and best results are achieved when the paint is brushed across the "grain" of the texture.
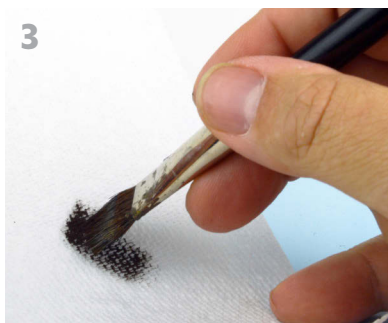
METALS

As mentioned, drybrushing works best on heavily textured surfaces, where the raised detail can quickly grab the paint. Over flat surfaces it can leave a slightly gritty texture as the paint goes on in a random fashion. It works well over chainmail, but not so well over plate.

FABRICS, LEATHERS, ROPES
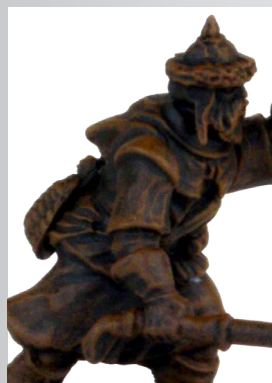
Drybrushing can also be used as a quick way to get a basecoat and first highlight onto a model. For a model that has a predominant colour (such as the brown leather on this one), you can do those sections first. We used a small drybrush to quickly paint the highlight on the rope coil on this model, before finishing the model with layering.

GRIZZLY BEAR

Drybrushing can be quite difficult to control, and therefore is messy. With large areas that require drybrushing, do them first, before you start painting any other areas of the model. That's how we tackled this grizzly bear.

Drybrushing successive layers of paint on is a way to quickly build up depth. Just ensure you wipe off more and more paint and use a lighter hand when dragging the brush across the model.

BASING

Drybrushing is also the best technique for painting the sand/ballast on the bases of your miniatures. When you are working on a large batch of gaming miniatures, the paint on the first base you drybrush will be completely dry by the time you finish the last, allowing you to follow through with the next coat. Also, if you accidentally brush the base colour over the feet of the model, you can simply explain it away as mud and/or dust.

SHADING/WASHING

Unlike both layering and drybrushing, shading is a painting technique that sees darker, translucent layers painted over lighter colours, literally creating the appearance of shade. This technique works best over reasonably textured areas, like the folds in fabric or the segments in plate mail armour.

Shading involves painting a thin layer of translucent paint (also known as a wash) over a basecoat. The thin wash primarily flows off the higher areas and settles in the recesses of the model.

This technique is often used to quickly add depth and pick out detail on wagaming models, as a well-chosen wash can be rapidly applied to an entire basecoated model, as shown in the examples below. Sometimes washes can also be used to change the tint of an area, this is called glazing, which is also described below.

FABRICS AND LEATHERS

This model was basecoated with a variety of colours and tones, and then shaded with a brown wash over the entire model. While that might suffice for many gamers, we decided to highlight our crossbowman to help accentuate the shading.

METALS

This model was also basecoated and then shaded with a brown wash over the entire model. As you can see, while it added depth to much of the model (particularly the armour), highlighting the miniature certainly increases that sense of depth.

GLAZING

Sometimes, when highlighting a model, you might choose a highlight colour (1) that doesn't quite meet your vision of the finished piece, or you'll find your highlighting has been a little extreme. Rather than start again, you can alway try glazing. Glazing is the technique where you apply a translucent layer of the mid-tone over an area in order to change the tint of a highlight and bring the highlight tone back a little closer to the mid-tone (2).

1

2

COMBINED TECHNIQUES CAN PRODUCE GREAT RESULTS

Just as with your various wargaming armies, "combined arms" tactics will often get you better results than just relying on a single approach. When painting this sword, we wanted a dark and heavy iron feel to it, something with a lot of heft to it.

1. Heavy drybrush of VGC Tinny Tin over a black primer

2. Drybrush of AP Gun Metal, a little lighter to allow some of the Tinny Tin to show through.

3. Drybrush of VMA Aluminium, lighter still, primarily to catch the raised edges of the sword.

4. Thinned wash of AP Dark Tone was painted over the entire sword to dull the metallic sheen and shade around the spikes and rivets.

5. Thinned wash of AP Strong Tone was applied in patches on the blade to add subtle variety to the texture.

6. Thinned wash of SWM Amethyst was painted specifically around the spikes and rivets to add some subtle visual depth...

... and finally, small scratches of VMA Aluminium were added.

Paint brands used include:
VGC - *Vallejo Game Color*
VMA - *Vallejo Model Air*

AP - *The Army Painter*
SWM - *Secret Weapon Miniatures*

TECHNIQUE EXAMPLE

The *Frostgave* soldiers and Grizzly Bear we used to demonstrate these three techniques are all ready for some adventuring.
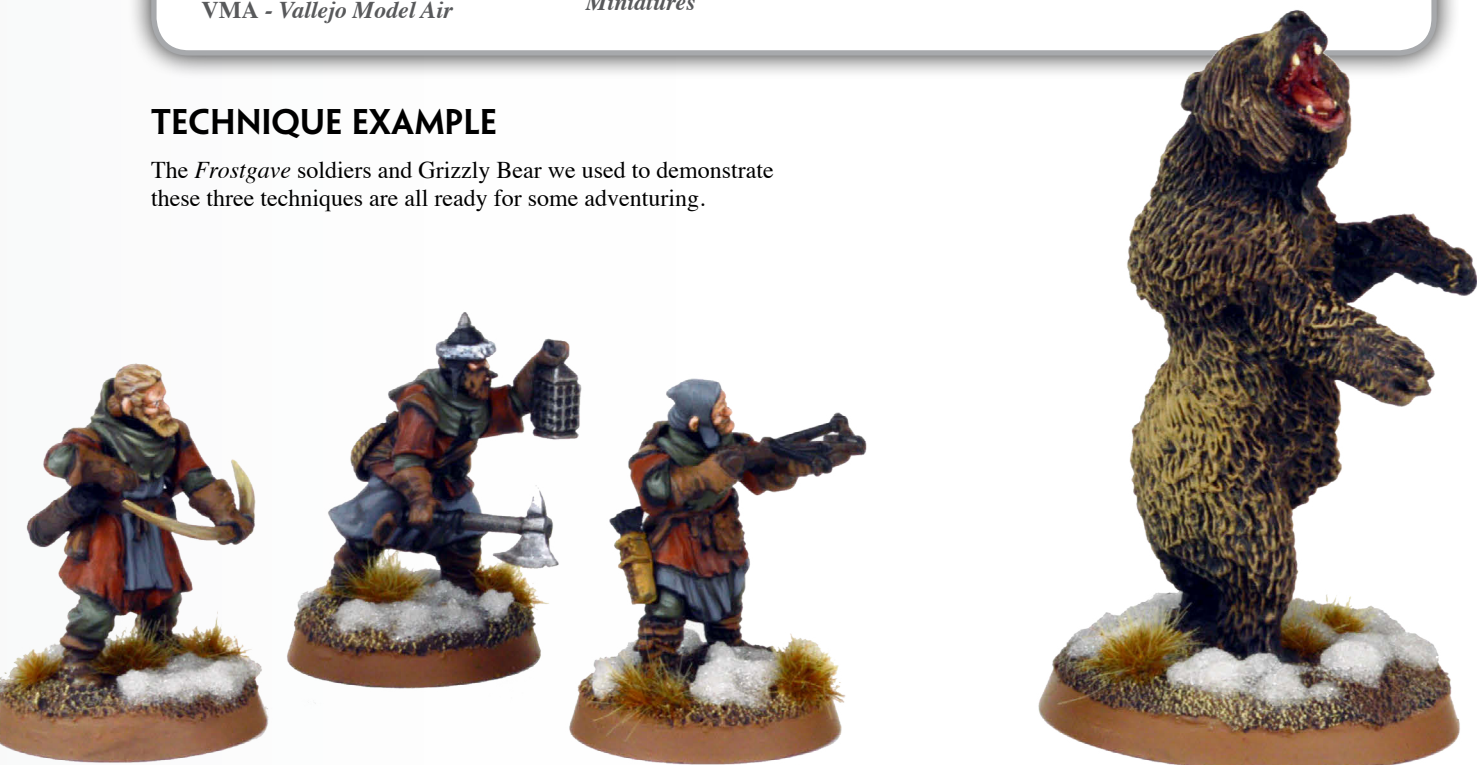
THREE-STAGE PAINTING

By Matt Parkes

In this article, I will be demonstrating the basic three-stage 'wargames standard' approach to painting figures. This is convenient, pot-to-pot painting without using inks, starting with a basecoat, midtone and highlights. I use this method for most of my work, as it is fast, flexible and easy to manage any mistakes. For this example I am painting up a unit of Perry Miniatures American Civil War dismounted Union cavalry figures, as they are not too complex.

BEFORE WE START WITH THE PAINT

As usual, I did all of my basing before any primer hit the models. I added a shattered fence on a few bases for a little more visual interest, making sure that any detail was within the base edges for easy "ranking-up" later on.

Because these figures will be used for gaming, any extra bits added need to be as strong as possible. I used a plastic fence post for the upright as this will stand being dropped better than a wooden post (although wooden crossbeams will survive just fine). These were stuck down with 5-minute epoxy glue.

*Unless otherwise specified, all paints used in this article are from the **Vallejo** paint ranges.*

• A little bit of research

After looking at the miniatures, I was not sure of the best base colour to use for their regulation trousers; a quick look on the Vallejo website soon solved that. They have released an ACW paint pack, and the paint colour I needed was Deep Sky Blue 844.

• Primer choice

With the colour scheme now in place, the models were sprayed up in grey primer, as this neutral tone suits the blue trouser basecoat.

PAINTING THREE-STAGE FACES

I am just going to cover this briefly as next month's article is all about painting faces and skin. The most common colours I use for Caucasian skin tones are Beige Brown 875, Beige Red 804 and Flat Flesh 955. These three colours together are warm, but not sun-tanned, with the highlight not being too stark. This approach, and these colours, can be easily transferred to 15mm (opposite).

• What area to paint first

This depends on the miniature, but I normally start with the largest area, or the most difficult part to reach (like a shirt underneath a shell jacket if there was one showing). In this case, with Wilder's Brigade, I started with the trousers as this matched the primer colour better. With the jacket being a dark Prussian blue, I knew that the basecoat for that would need to be black. At the end of the day, it's a lot easier to paint darker basecoats over a light primer, later on.

• Choosing the right basecoats

When you are doing research for your miniatures, it is fairly easy to find out

the main colours /midtones for your unit. As a painter, you then have to decide what the basecoat will be and later, the highlight colour. This choice is typically down to experience with your own paint collection. If you are using the **Foundry** triads, with their three-tone packs, all the choices are made for you and it becomes a very quick way to paint. As I use **Vallejo** paints, I have formulated my own three-stage colours that work for me. For example, woodgrain is - Flat Brown 984, Beige Brown 875, and Brown Sand 876.

I keep notes on all the projects I work on and the paint I use. This is especially useful when I am using paint mixes.

What you are looking for in a basecoat is a paint that compliments the midtone and is easy to paint over. I painted two examples of different basecoats: the first using a black basecoat (1), which is too dark and, in the end, required three coats of Deep Sky Blue 844 for a smooth colour, and the second using a Pastel Blue 901 basecoat (2), which is too light and doesn't show up the shade very well.

After these two examples didn't work very well, I opted for a tone in the middle of black and pastel blue, Dark Sea Blue 898 (3). This shows up well with photography (something I often have to consider working for *Wargames Illustrated*) and is not too stark.

• Main colour/Midtone

The midtone is the most important stage of painting the miniature and has to be applied with care, making this the slowest stage. What you are trying to achieve here is basic lightsourcing and using the basecoat as a shadow for the figure. I will be going into a lot more detail about this in a later, more advanced painting article.

I try to make this layer smooth, clean and bright as that is my style of painting (4). You can always weather the area up at a later stage if required. I used Deep Sky Blue 844

• Highlights

This stage brings out all the sculpted detail on the miniature, creates light-sourcing and differentiates the various areas of the miniature. I know that a lot of painters skip this stage to be "more realistic" but that, in my opinion, only works effectively for large scale AFVs and other fine-scale military modelling subjects. Figures on a wargames table do look better with a highlight, and for this stage of painting I use a '00' brush.

Choosing a highlight is just like your basecoat, you have to find a colour that compliments the midtone. If the highlight is too light (5), it can affect the overall colour context, making it appear chalky. If this does happen, it can be rectified with a few coats of a suitable thin ink wash.

For the Wilder Brigade trousers, I chose Sky Blue 961 for the highlight (6). I use this colour quite often for blue highlights as it retains the right tone, even when thinned right down.

LINING AND ZONES

After the trousers are finished, I then had to choose the "lining" colour for the rest of the miniature. This is a technique that separates two areas in a graphic way, almost like comic book art. Traditionally, lining is done with a thinned wash after the two areas are finished. Looking at the finished figure's uniform and colour scheme, I obviously decided to go for black lining.

Generally, I use either Black 950, Black Brown 822, or Black Grey 862 depending on the colour of the zone. For example I used Black Grey 862 on the model to the left, where the sleeve cuff meets the gloved hand.

As this article is about keeping things simple, painting fiddly lines with the possibility of mistakes is time consuming, so I paint the next area completely in the "lining" colour and move on to the basecoat afterwards. This technique does have the benefit of keeping things tidy as you go.

ADDING SOME VARIETY TO THE UNIT

When painting an accurate uniform, there is often very little room for adding different colour tones, but you can add some diversity within your unit, with hair colour and if possible shoes, webbing, weathering and horses. With this example, I have painted their hair different colours; black, mid-brown, ginger, and straw blonde.

PAINTING THREE-STAGE BASES

Very similar to faces and skintones, I use certain colours for different countries. Recently I have been painting a lot of European figures, but these colours also work well for the eastern United States. The most common colour combination is German Camouflage Medium Brown 826 (1),

drybrushed with Brown Sand 876 (2) and then drybrushed with Iraqi Sand 819 (3).

Just for an extra layer of protection on the base, I drybrush the static grass with Buff 976. This helps bring out the detail of the grass and makes it more rigid and durable when gaming.

The next thing to do with the bases is to paint the edge. This makes everything neat and tidy, I always use black. I know this is not to everyone's taste, but it is a standard colour with no difference in tone. I have seen too many armies looking a bit odd because none of the edge colours match up.

After everything is completely dry, the final thing to do is give the unit a coat of matt varnish, from a can for an even coat.

3 STAGE PAINTING EXAMPLE - ACW DISMOUNTED UNION CAVALRYMAN

Black - 950

Germ. Cam. - 826

Beige Brown - 875

Brass - 801
Black - 950
25/75 mix

Dark Sea Blue - 898

Dark Prussian Blue - 899

Gold Brown - 877

Beige Red - 804

Brass - 801

Deep Sky Blue - 844

Prussian Blue - 965

Yellow Ochre - 913

Flat Flesh - 955

Gold - 966

Sky Blue - 961

1.

Gunmetal - 863
Black - 950
25/75 mix

Black - 950

Flat Brown - 984

Black Grey - 869

Germ. Cam. - 826

2.

Dark Prussian Blue - 899

Gunmetal Grey - 863

Black Grey - 869

Neutral Grey - 992

Brown Sand - 876

Beige Brown - 875

3.

Prussian Blue - 965

Neutral Grey - 992

Iraqi Sand - 819

Brown Sand - 876

4. Static grass, drybrushed with Buff 976. Also trim any hanging grass from the edge of the base **5.** Whole figure has a coat of **matt varnish**

PAINTING FACES AND SKIN

By Matt Parkes

In this section I will be showing you how to paint the focal point of most miniatures - the face - and we'll look at ways to tackle the tricky subject of eyes. I will also be covering an advanced approach: seven-stage painting, combining washes and more techniques for adding character to your models in 15mm, 25mm and 54mm scales.

THE SKIN COLOUR RANGE OF PAINTS AND INKS I USE

This is the pool of colours that I use for all types of skin tones, in no particular order. Some of these colours are for specific troop types and facial details, e.g. pale, female skin and lip colours.

I do not use the Brown (200) or Black (201) Vallejo inks as they can sometimes dry strangely, leaving a chalky "tidemark".

Unless otherwise specified, all paints are Vallejo.
VPA - Vallejo Panzer Aces, F - Foundry. TAM - Tamiya, W&N - Winsor & Newton, AP - Army Painter.

VPA Shadows Flesh (343)

Beige Brown (875)

Beige Red (804)

Medium Fleshtone (860)

Dark Flesh (927)

Sunny Skintone (845)

Flat Flesh (955)

Basic Skintone (815)

Light Skin (928)

Brown Rose (803)

Old Rose (944)

Salmon Rose (835)

VPA Flesh Base (341)

VPA Highlight Flesh (342)

F Brown Ink (47B)

F Black Ink (47C)

W&N Red Ink

W&N Chestnut Ink

W&N Magenta Ink

W&N Blue Ink

AP Matt Varnish

WARGAMES STANDARD - THREE-STAGE FACE

These colours are my first choice for painting Caucasian units in European and American theatres. These three paints are my "neutral" tones, without any effects like suntanned skin. Over the years I have adjusted the colours to suit my needs, what I am looking for are tones that are quite close together to produce a smoother finish and not massive gaps in the paint, which can look quite jarring on the finished model. This gap is quite apparent in the Vallejo skin colour range from Beige Red 804 to Flat Flesh 955, so I have made my own colour mix to even things out (50% Basic Skintone 815 + 50% Flat Flesh 955, mix colour code - M#1). When making a mix pot, do not forget to label it with the paint and the ratios if you happen to run out of it later.

For this article I am mainly using the excellent "Kiss Kiss Bang Bang" 1960's range of figures by Copplestone Castings. I would not normally use a black basecoat for this type of figure, but for demonstration and colour context, I have painted it on afterwards.

STEP ONE	**STEP TWO**	**STEP THREE**	**"HIGHLIGHT MAP"**
• Beige Brown 875	• Beige Red 804	• Highlight Mix M#1	

In the photo on the right ("Highlight Map") you will notice that I have left out the midtone to more clearly show where I paint the final highlights focusing on the tip of the nose, cheekbones, chin and forehead. These are the main areas I concentrate on and are fairly standard on every face I do. It does change from time to time, depending on the sculpting and if there is another light source nearby.

15MM MODELS

These basic three stages of colours can be transferred to 15mm easily; all I do is simplify the highlights to nose, cheekbones and a small highlight on the chin.

DIFFERENT SKIN TONES

Depending on where in the world your unit/army comes from, their skin tone can vary dramatically. The skin colours you use to show this. Broadly speaking, here are a few groups of different skin tones I use; some only time to time, and others quite a lot, depending on what project I have on.

CAUCASIAN
• Beige Brown 875
• Beige Red 804
• Mix Pot M#1 (as above)

SUNTANNED/ MEDITERRANEAN
• PA - Shadow Flesh 343
• Medium Fleshtone 860
• Sunny Skintone 845

PALE/FEMALE CAUCASIAN
• Beige Red 804
• Flat Flesh 955
• Light Skin 928

AFRICAN
• Black Brown 822
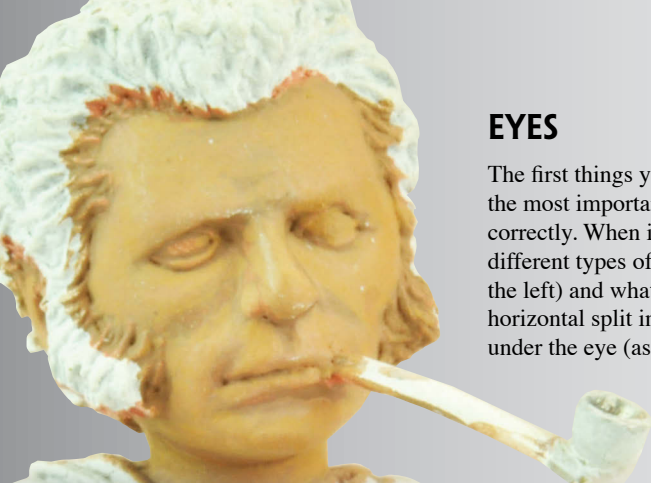• Burnt Umber 941
• F-Black + Brown ink wash 50/50 mix

NATIVE AMERICAN
• PA - Shadow Flesh 343
• PA - Flesh Base 341
• Beige Red 804
• 804 + Flat Flesh 955 - 50/50 mix

ARABIAN
• Flat Brown 984
• Flat Earth 983
• Beige Brown 875
• Medium Fleshtone 860

EYES

The first things you look at on any face are the eyes. Eyes are the most important and most difficult part of a miniature to paint correctly. When it comes to miniatures, there are basically two different types of eye: almond (like on the 54mm Hobbit bust to the left) and what I call "coffee bean", which is a circle with a horizontal split in the middle to represent the eye lids and bags under the eye (as seen on the 28mm model to the right).

There are three primary ways of painting eyes successfully.

PAINTING EYES - METHOD 1

This method is good if you are not very confident about painting the eyes, as there is plenty of room to correct any mistakes. In this method you start by painting the eyes, and then the skin as usual.

From left to right: Paint the face around the eyes black; paint the eye white (this is a great time for correcting if you paint too much white); paint a black dot in the middle of the white; and then paint the flesh as you normally would.

PAINTING EYES - METHOD 2

Another way of approaching eyes is to paint small white dots in each corner. This is a little tricky at first, but once mastered is a quick way of block painting eyes, especially useful for large units.

From left to right: Paint the eye black; paint a dot in one corner of the eye; paint a white dot in the other corner of the eye; and then tidy up any mistakes with black.

ADDING A LITTLE MORE SPARKLE TO EYES

Once you are comfortable with painting eyes, there are a few techniques you can use to add more life to your miniatures. The model on the left is looking sideways, achieved by painting the pupils in the corner of the eyes. The model on the right looks angry, achieved by leaving a thin line of white beneath the pupils.

PAINTING EYES - METHOD 3

This is the most common method of painting eyes, after the skin tones are finished.

The two action shots below show how I let the brush do the work. The first shows the brush tip in corner of eye, being drawn towards the center. I then turn the model upside down and doing the same so both strokes meet up in the middle, producing an almond shape.

Clockwise from above: Paint the eyes black; paint the eyes white, leaving a thin line of black around the edges; and then paint the pupils in with black dots.
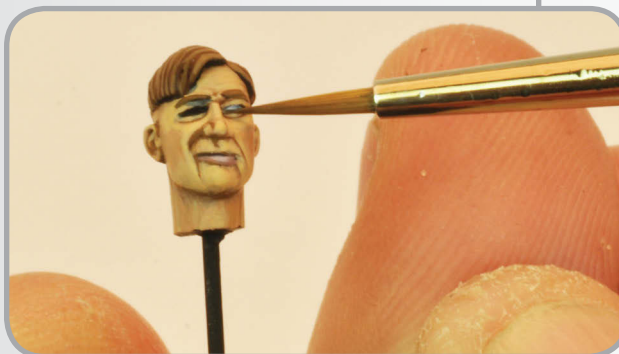
THE MOUTH

The mouth is an area where you can add even more expression, showing if the figure is sad, happy, scared or angry. After a quick look at the the example model you can see the figure has a determined expression, with forehead wrinkles and a lowered brow - painting a downturned mouth suits this.

Below left: When painting mouths, I start from the inside and work outwards, starting with a single black line above the bottom lip.

THE TEETH

If the teeth on a model are sculpted on, I always paint them in for a little extra detail. Missing teeth add another piece of character and story to the model. This is a good way of making the same models in a unit seem different. The inside of the mouth is painted black creating a border for the teeth and lips.

Above centre: If there is not much room in the mouth, a single white (or off-white) line is painted inside the black border.

Above right: With more room available and a '000' brush, single teeth can be picked out, using black to correct any mistakes as you paint along the row.

THE LIPS

With 25mm figures or smaller, I make it a little easier for myself and only paint the bottom lip. This frames the black line of the mouth. What you want to be looking for here is a smooth transition between the lip and the skin colour without any border.

If applicable for any female figures, adding a touch of glamour with lipstick is a good way to frame the mouth with a contrasting colour. Paint the lips with a suitable colour, for this example I have used Scarlet 817, then turn the figure upside-down and paint two very small lines on each side of the philtrum.
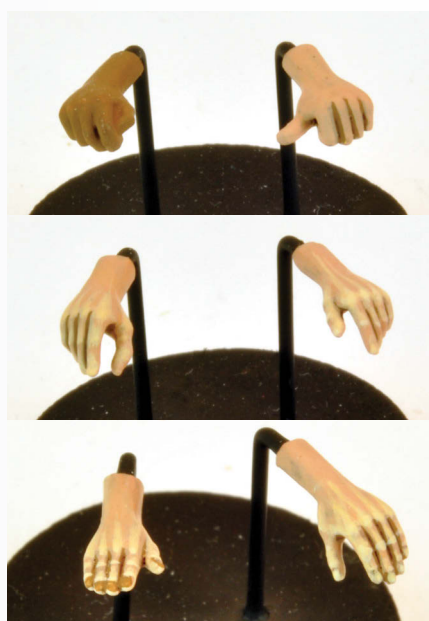
HANDS AND FINGERNAILS

Using the same colours as the face, the hands are painted at the same time. I have added an extra stage here, for a final highlight on the knuckles as this is an area that has an extreme edge.

After the skin colours are applied and if the miniature has fingernails sculpted on, use the basecoat to paint a border where the nail will be. You should not use a colour that is too dark, or the hand will look a little strange. Paint the nail colour slightly lighter than the skin, taking care not to go too white, or your fingers will look like they have had a French manicure.

ADVANCED PAINTING

These extra stages of paint and ink washes are normally reserved for Generals or character models in a unit. By adding ink into the process and then re-highlighting, it produces a richer main colour with subtle shading, especially useful for cheekbones and eye sockets. What the ink does is act like a colour filter over the paint layer, slightly changing the tone of the highlight. Re-highlighting the area with the same colour will lighten it even more, building up to a final white (or near white) dot highlight on the extreme edge.

When using inks, it is always a good idea to give the model a good spray with matt varnish to bring out the colours and counteract the unwanted shiny finish.

1. Basecoat - Beige Brown 875
2. Midcoat - Beige Rose 804
3. 1st highlight - Flat Flesh 955
4. 2nd highlight - Basic Skintone 815
5. W&N Flesh Wash + tiny amount of Red Wash
6. Highlight - Basic Skintone 815
7. Final dot highlight - Light Flesh 928

SKIN EFFECTS

Just to add a few more techniques to your arsenal, here are some easy things to do to make your units look really charismatic and unique.

1. Leave a line of basecoat colour across nose.

1. BOXER'S NOSE

2. STUBBLE

3. BLACK EYE

2. A blue/black ink mix painted in a beard shape; gradually build up the colour in thin layers.

3. A purple/black ink mix painted around the eye socket.

4. After painting the hair with Flat Earth 983, Orange Brown 981, and Light Brown 929, freckles were dotted on with Orange Brown to match the hair colour. Less is more in this situation, as over-use can change the overall skin colour.

4. FRECKLES

5. SCARS

5. Carefully cut scars into the face with a scalpel and a fresh blade. Red Ink is painted around the scars to demonstrate that they are fresh wounds and a thin line of Flat Red 957 on the cut. Note how the injured eye is left white to show that he has been blinded.

6. FLUSHED

6. To give the appearance being flushed or a drunkard, I have washed the face with red ink avoiding the final highlight areas, slowly building up the colour.

HAIR COLOURS

Throughout this article, I have used quite a few different colour schemes on the finished models. These can produce dramatic changes to the colour context of the skin. You have to only look at the hair on the teeth example photographs to see this. Here are a few combinations that I use all the time:

1. Black - Black 950/Black Grey 862/W&N Black Ink wash

2. Blonde - Light Brown 929/Goldbrown 877/Yellow Ochre 913

3. White - Medium Sea Grey 870/Sky Grey 989/White 951

4. Red/brown - Flat Brown 984/Red Leather 818/Light Brown 929

5. Ginger - Flat Earth 983/Orange Brown 981/Light Brown 929

6. Brown - Flat Brown 984/Beige Brown 875/Brown Sand 876

7. Raven black - Black 950/Dark Sea Blue 898/ Luftwaffe Uniform 816 + tiny amount of Black

8. Brylcreem black - Black 950/Black Grey 862/ German Grey 995/Satin Varnish

9. Salt & pepper - Black 950/Black Grey 869/ White 951 in small, parallel stripes on temples

PAINTING 54MM (AND LARGER) SCALE FIGURES

Sometimes I do like a break from 15/25mm figures and enter the land of the giants. Because of their sheer size, you have a much larger canvas to work on and require more stages of paint, washes and blending to really bring out the detail. At larger scales, it is easy to add skin blemishes, moles and more subtle shading effects, making the miniature more lifelike. With the two 54mm faces to the right, the first is painted using my standard, three-stage Caucasian flesh approach. The second uses my seven-stage advanced method. At this scale there is a lot more room for creating those smooth blends.

TOP TIP - Whenever I am painting 54mm figures, I move my brush size up one to size to a No. 1 , just so it is a little easier to hold the paint for longer and cover large areas smoothly.

This beautifully sculpted 1:10 scale model bust below is from the French company JMD Miniatures. It is a project I have been working on in my own time, using all the techniques described, to compliment this article. With the bust being so large, I really can put a lot more detail into it and I wanted to tell a story, so I scratch-built the table, book and quill to make the miniature a scribe (not a very good one!). As the candle is so prominent, I decided to add light sourcing by airbrushing thinned layers of Tamiya clear yellow paint in certain areas to accentuate this. This is what I call competition standard of painting, where there is no limit to the amount of layers used and just going with the Goldilocks principle (keep going until it's "just right").

Most of the photos shown here are larger than real life, just to show you as much detail as possible.

I have used nine very tonally close stages of colour for the flesh alone, by adding an extra 50/50 mix in between each paint pot and slowly building up to the highlights before the ink washes and light sourcing was added.

- Shadows Flesh (343)
- Shadows Flesh (343) + Beige Red (804)
- Beige Red (804)
- Beige Red (804) + Flat Flesh (955)
- Flat Flesh (955)
- Flat Flesh (955) + Basic Skintone (815)
- Basic Skintone (815)
- Basic Skintone (815) + Light Skin (928)
- Light Skin (928)
- W&N Red Ink wash
- W&N Flesh wash (light brown)
- F Brown Ink wash (47B)
- F Black Ink wash (47C) under arms/ eye sockets/under candle/neck
- AP aerosol Matt Varnish
- Airbrush Black (950) shoulders/underarms/chest
- Airbrush TAM X-24 clear yellow
- White (951) final dot highlight on tip of nose/above eyebrow/top of head
- AP aerosol Matt Varnish
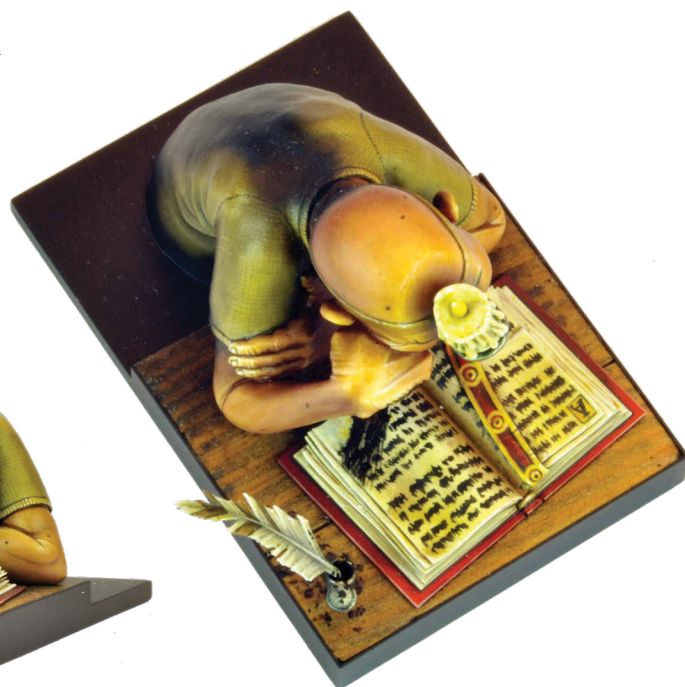
Above: Shown at actual size
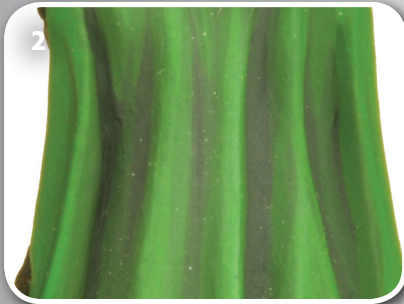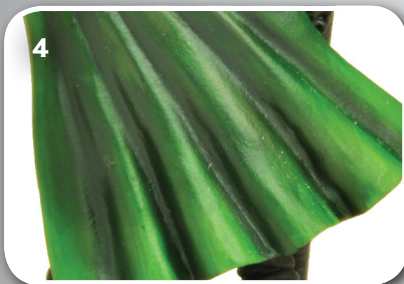
FABRIC AND CLOTHING

By Matt Parkes

Here I will be looking closely at painting clothes, large areas of cloth, different kinds of fabric effects and constructing patterns.

PAINTING LARGE AREAS OF CLOTH

1. When you are painting large areas, I recommend you use a brush one size larger the you normally would, with lots of thinner layers of paint and ink, like watercolours, for a smooth, rich and interesting finish. For this basecoat I have used German Camouflage Dark Green 979. This paint is a great colour, but has poor coverage, so I have combined it with Military Green 975 to produce a richer tone. A good place for us to start.

2. Next is the first mid-tone, Flat Green 968, thinned more than usual - like a watercolour - and applied in vertical brush strokes following the flow of the fabric, building up the colour in corners, top of the creases and bottom of the cloak. This is basic light-sourcing, providing areas for future highlights.

3. The second mid-tone - Bright Green 833 - also had a watercolour consistency. Built up in layers within the Flat Green areas, it helps to accentuate the overall colour. The more of these layers that are applied, the smoother the blend to the highlights.
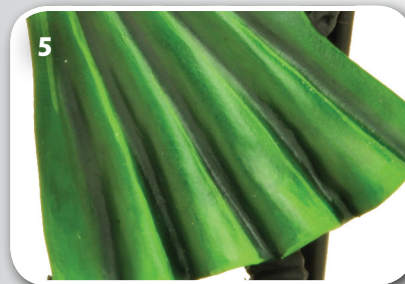

4. With quite a few layers of paint applied, the cloak started to look a little dry and the overall tone had wandered from the one I originally wanted. So, to inject some richness, I gave the cloak a couple of ink washes.

An important bonus with using inks is that you can be quite heavy-handed with them in the extreme shadows and they are great at producing slightly different tones, which is important with large areas to make them more interesting and not flat.

5. Inks can contain shellac and this tends to make them dry unevenly, sometimes leaving glossy patches where there is any build-up. It can be a good idea to give the model a quick matt varnish to even everything out and really bring out the colours before you carry on painting.

The highlight is Bright Green 833. As this is the same colour as the second mid-tone, I knew that it would be the correct tone. This final stage was a normal paint/water mix for a strong pigment for all the edges and extreme surfaces of the cloak.

For this personal project, I have paused to show you how I tackle large, complicated areas of fabric. This is the first mid-tone, and what I have done is paint construction lines where I want the basic lightsourcing to be. I then blend up to that line, leaving shadows as I go. I will probably repeat this process with gradually lighter tones about four times.

WARGAMES STANDARD - THREE-STAGE LIVERY COAT

For this example, I am using the Perry Miniatures' Wars of the Roses plastic box with Edward IV livery, as they are quite simple figures with a good amount of cloth showing to see what is going on. This is a bright colour scheme, so I have chosen mid-range tones of the red, blue and yellow.

- *Hull Red 985*
- *Dark Prussian Blue 899*
- *Goldbrown 877 over a black outline*

- *Flat Red 957*
- *Prussian Blue 965*
- *Goldbrown 877 + Deep Yellow 915* **50/50 mix**

- *Red/Pink highlight mix - Flat Red 957 + Medium Flesh 860 + Old Rose 944* **85/10/5 mix**
- *Prussian Blue 965 + Pastel Blue 901* **60/40 mix**
- *Deep Yellow 915*

This is my standard way of painting any uniform or clothes. Depending on the sculpting of the creases, I try and keep things simple and leave as much of the midtone showing as I can, as this is the intended colour, the more the miniature is highlighted, the more the overall tone is lightened.

Note: The red/pink highlight mix is my regular highlight for red. It is explained in more depth in the *Painting Redcoats - Faded Uniforms* sidebar on the next spread.

This livery requires a small and large sun device on the front and back of the miniature respectively. I opted for a simplified version of the sun for the front as any more detail would have ended a mess. Whenever I am painting details or patterns on fabric, inevitably there are going to be mistakes. To make things a little easier, I painted the device after the mid-coat and then did any corrections followed by the highlights as usual. With the larger device, I had a little more room to play with. I added another mid-tone for richness, a highlight colour for a little more sharpness and the face details.

This shows the construction of the sun icon, starting with a circle placed in the split of the mid-tone red and blue underneath. The red and blue have not been highlighted yet, making it easier to correct any mistakes. In this example, I always kept the red and blue colours mixed and ready to go on my palette.

The circle was then divided into eight equal parts "pizza style" and lines were painted outside the circle, forming thin triangles. This was then neatened up with the red and blue mid-tones.

The circle was divided again into another eight parts. This time the "spikes" were curved in an alternate pattern. Because of the tricky nature of these shapes, I was glad that I could tidy everything up easily. This shape formed the external border used to frame the yellow sun device.

The Goldbrown 877 basecoat was carefully painted inside the black border.

The first mid-tone (Goldbrown 877 + Deep Yellow 915 **50/50 mix**) was painted on, leaving some of the basecoat showing at the bottom of the sun.

The second mid-tone (Deep Yellow 915) was applied from the top of the device down to the middle. This gradually built up the tone to a bright yellow, creating more depth of colour.

For the final highlight I used Golden Yellow 948. I have kept the light-sourcing in the middle of the shape, which means the highlights are concentrated on the top spike and the upper edges of the others. Any final corrections of the shape of the sun are done at this stage.

When the sun was finished, the face was painted in starting with the eyes - as these provide the datum point for the rest of the features. With the device finished and tidy, the red and blue mid-tones were highlighted with the colours described in the basic highlighting chart at the top of the page.

SIMPLE BORDERS

Now that you have mastered painting large areas of cloth, it is time to add some details, starting with simple borders and moving to more advanced "overlay" patterns.

When tackling any border, it is easier to use the edge of the fabric as a base line and paint around the shapes, in parallel lines. Try and keep the construction line wider than the brush allows, to give yourself a little wiggle room, otherwise you are totally dependent on how heavily

you are handling the brush, which is hard to manage. Any mistakes should be addressed after each colour, giving you a clean start for the next paint.

Keeping within the construction lines, the mid-tone is applied in the areas where the highlights will be.

The highlights are applied with a small brush to accentuate the creases. Any final tidy up is done now and the highlights for the dress are painted on.

Using these same techniques, painting a thick border is a good way of adding another colour to the miniature and a good place to add decoration.
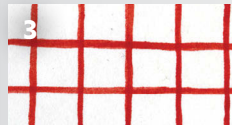
BASIC AND ADVANCED OVERLAYS

I call these overlays, as you paint the basecoat and mid-tone as usual, then the pattern is applied in layers, and finally any highlights. I have tried painting the overlay last, but the highlights disappear underneath. This large check pattern is the basis for a few of these overlays and can really make a model stand out on the table. Once you are comfortable with this technique, it is not much more work to add a few more layers to produce a tartan/plaid overlay pattern.
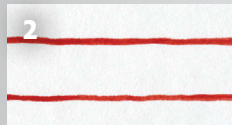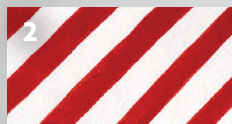

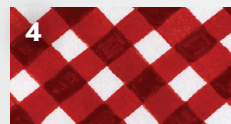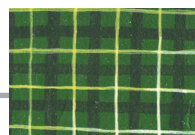Basecoat — Horizontal lines — Vertical lines — Filled squares
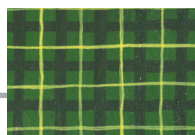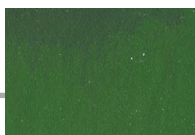
Basecoat — Diagonal lines — Opposite diagonal lines — Filled squares darkened
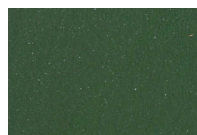
STUART TARTAN STEP-BY-STEP

I recently painted Bonnie Prince Charlie, and the Stuart tartan, for the magazine. After researching the pattern, it was clear that it had to be slightly simplified to fit on a 28mm figure, so I concentrated on the main colours of the

tartan to give an effective representation of it.

1. Over a black undercoat, I have painted a solid basecoat of Hull Red 985, to provide the shadows.

2. The main underlying colour for the coat is Flat Red 957, leaving the usual shading areas under the arms and groin.

3. This is the most important set of lines that the rest of the pattern is based upon. It is a triple thickness line so the last stage of yellow can fit neatly in the middle. I have used Flat Green 968 for this.

4. A single thickness parallel line Black 950 or Hull Red 985 + Black

950 **50/50 mix**, between the green base lines. This gives the impression of a more complicated pattern than is actually there.
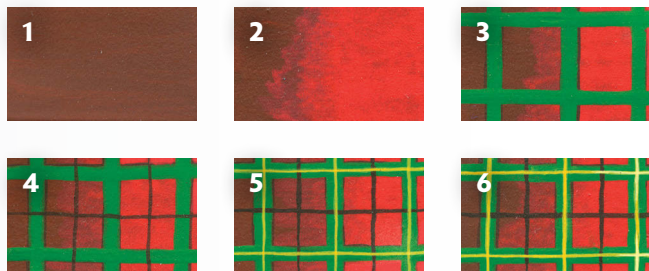
5. The yellow is painted in the middle of the wide green line using Dark Yellow

978 + Deep Yellow 915 **50/50 mix**.

6. Just for the final touch, highlight the extreme edges with Dark Sand 847. This differentiates the details on the jacket, such as a pocket.

PAINTING REDCOATS - FADED UNIFORMS

Finding the right colours for a red shade and midtone is easy, there are many good ones about, we all have our favourites. It is the highlight colour that is difficult to find. As red can be highlighted in three ways - orange, peach and pink - I have different colours or mixes for each way. I tend to make a mix pot of a highlight colour if I have to use it a lot, so I have collected a few useful mixes over the years. In this article, I have highlighted a few figures my favoured red/pink highlight mix - Flat Red 957 + Medium Flesh 860 + Old Rose 944 in an 85/10/5 mix. This mix has a warm tone and has great coverage.

NEW UNIFORM

For this example I have chosn to paint the British 33rd Regiment of Foot as they were at Waterloo. This is because there are more red areas on the uniform, with the regiment sporting red collars and cuffs. For this "brand new" uniform, I have opted for an orange highlight tone.

1. Basecoat painted in an even coat with Black Red 859.

2. The mid-tone is a 50/50 mix of Red 947+Scarlet 817 for a stronger pigment of red.

3. For the highlights, Amarantha Red 829 + Light Brown 929 50/50 mix, together are a good orange mix.

A thinned mix of Vermillion ink is washed over the jacket to calm things down and even the colours out.

USED UNIFORM

To re-create a more used and sun-bleached uniform, I have kept the same basecoat and mid-tone and moved the highlighting colours up one tone to a light brown, leaving a more faded look.

1. The basecoat and mid-coat are the same as above; Black Red 859 then Red 947 + Scarlet 817 50/ 50 mix.

2. This stage is to start the fading process by using a watercolour-thin mix of Amarantha Red 829, concentrating on the shoulders, elbows and areas of wear.

3. Just to blend in the Amarantha Red a little, a very thin wash of Windsor & Newton Vermillion ink was applied.

Re-highlight the extreme edges and any details with Medium Flesh 860.

CAMPAIGN UNIFORM

As this little distraction is about faded redcoat colours, I have resisted and not done any weathering. I wanted this uniform to have a different feel about it, when looking at a unit together; I like to see minor variations in the uniforms so I have opted for a peach highlight palette. For an even greater difference in the colour, I have mixed Vallejo and Foundry together.

1. For the variation I wanted, I have kept the original basecoat colour, just made it lighter with Black Red 859 + Red 947.

2. Foundry Madder Red 60B is the mid-tone.

3. Highlight mix Madder Red 60B + Terracotta 37C. I have not used any ink, I wanted the uniform to look dry and dusty.

PAINTING WHITE: Painting white is different from any other colour because there are not any highlights as such, but you do need two or three coats for an even, clean finish. As a figure painter you can use these many layers to your advantage.

1. To start with, I use a mid-grey basecoat, either London Grey 836 or Neutral Grey 992.

2. Next stage is to differentiate between the areas. I have used Sky Grey 989 in a smooth coat of paint.

3. Thinned white 951 40/60 mix with water is applied. This stage looks messy, but what you are producing is a subtle shade to break up an otherwise solid coat.

4. Re-paint the white in the raised areas, leaving its own natural shadows. Sometimes this stage is repeated if necessary.

It is only after these stages that I paint any weathering on the model, not during, as I prefer a clean colour to start the next process with.

OTHER OVERLAY PATTERNS AND FABRIC TEXTURES

With these Kiss Kiss, Bang Bang figures on my desk from last month, I couldn't resist showing you a few more examples.

PINSTRIPE

After a black basecoat, a single base-line of Field Blue 964 was painted down the suit jacket and all other parallel lines are based around that. To change direction of the lines on the arm, I have tried to hide them inside the elbow creases and in the armpits. Each line was then highlighted with Dark Blue Grey 904 and any mistakes sorted out with black paint.

GOLFER PLAID

The same technique as the tartan can be altered into awesome golfing plaid. This eye-catching number has a Luftwaffe Blue 816 basecoat, followed by Dark Sea Blue 898 and Ivory 918 overlay patterns.

CORDUROYS

A Flat Brown 984 basecoat was applied, followed by close vertical lines painted in Beige Brown 875. The highlights are carefully painted inside these lines with Desert Yellow 977, concentrating on the knees and bottom edge.

LINEN

This technique is similar to Hessian, but only the highlights are painted on in a cross-hatch pattern leaving some of the mid-coat showing. I have used Brown Sand 976 basecoat, Vallejo Panzer Aces British Tank crew 321 for the mid-coat and Pale Sand 837 for the cross-hatch. With a thin sepia ink wash and a re-highlight with Pale Sand to finish it off.

I have applied the Linen technique here to represent canvas on this bedroll. Just by changing the palette and being careful, it can create interesting effects in an otherwise dull area.

HESSIAN or BURLAP

This is a great texture to use on your peasants and serfs. A Beige Brown 875 basecoat was painted, followed by Brown Sand 876 leaving the basic shadows and holes. A cross-hatch pattern, using Buff 976 was painted all over the area and washed with thinned black and chestnut ink, for a grim look. I have left off a lot of the highlights for a grubbier look.

HERRINGBONE

This pattern does look very complicated, but it is not that bad, it's just a matter of holding your nerve.

A flat coat of Black Grey 862 basecoat is painted over black primer. I have used Neutral Grey 992 for the overlay pattern, it has really good coverage. Using a "00" brush, or smaller, paint very thin lines at roughly 45°.

Tidy up the" textured band" with Black Grey 862. You can make the line as thin as you want at this point.

Repeat in the other direction and tidy up.

Because this texture is very heavy, all the shadows and highlights have to be added afterwards. Starting with a thin black ink wash to bring out the creases and details, I have used Medium Sea Grey 870 for the highlights, Black Grey and Black for the shadows.

WELL-WORN LEATHER

With these gruff KGB officers, a beaten-up leather jacket would suit them perfectly.

The basecoat of Black Brown 822 is applied. I wanted an extra layer of richness to represent the uneven quality of leather, so I have used two mid-tones of Flat Brown 984 and Flat Earth 983 to represent this.

I have used Medium Flesh 860 to highlight the jacket with scratches and weathering.

Just to calm things down a little, a couple of thin Windsor& Newton Peat Brown ink washes were applied.

Re-highlight with Med Flesh 860 on the extreme edges i.e. shoulder, cuffs and details.

WOOL, FELT, AND VELVET

These three fabrics are quite heavy and their texture soaks up the light. To represent this, I use a natural sponge to apply the mid-tones and highlights. If any of the rest of the model is painted, I recommend protecting the parts with a Maskol or tape, as this is a little messy.

1. An even basecoat of Dark Sea blue 898 was painted on.

2. Dark Sea Blue 898 + Neutral Grey 992 50/50 mix is the first mid-tone to be the first textured layer. It was gently dabbed on with a fine textured natural sponge.

3. The second mid-coat of Neutral Grey 992 is "watercolour "thin (40/60 paint to water). Concentrating on the natural highlight areas.

4. All the colours are now evened out with a thin black ink wash.

5. I did a little experimentation and found this technique works better with a lighter contrast for the highlight paint. For this I used Medium Sea Grey 870 and it was very lightly applied with a sponge.

6. Edge highlight of Pale Grey Blue 907, just to bring out the detail of the suit.

By using the same sponge techniques with a different colour palette of Violet Red 812, Magenta 945 and highlighted with a small amount of Pale Grey Blue 945, I created this funky suit jacket.

OVERLAY SYMBOLS AND HERALDRY

It's tempting to avoid heraldry or detailed overlaid symbols on your figure's clothes or shields, but that would be a shame as these can look great and be achieved fairly painlessly if you follow the techniques shown in this section and are prepared for a bit of trial and error.

CELTIC STYLE KNOTS

On the figure above, the knot-work design has been applied to a shield, but it will work equally well on clothing or banners.
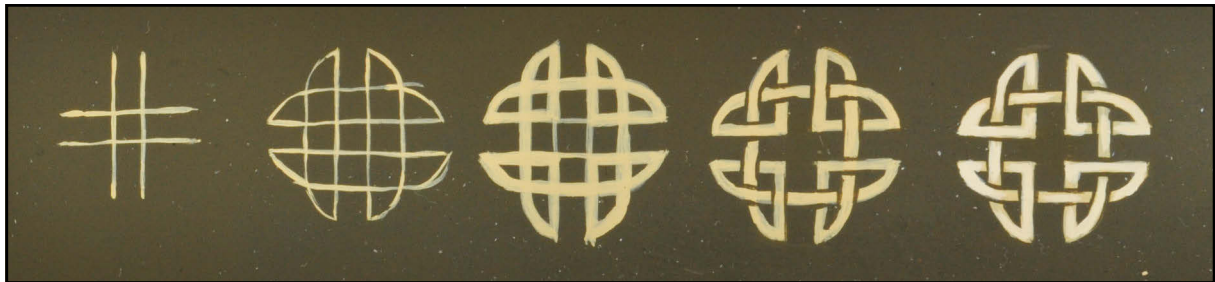
Painting Celtic-style knots can at first, appear quite daunting. If you break it down into a few simple steps, however, it can be well worth it. A thin brush and smooth flowing paint (not too thick, not too thin) are essential.

The first step I use for the Celtic knots is to paint two vertical and two horizontal lines.

The second step is to lengthen the lines a little and carefully join the ends of these lines with bow-like lines.

This is followed by carefully thickening each of the lines. Symmetry is the key in this step.

The next stage is where the classic look of the knot really starts to develop. Using your base color,

carefully paint thin lines back across the lines you have already painted. These need to be in "alternating pairs", so that you can follow the over and under of the imaginary rope that is forming the knot. Without a doubt this is the trickiest part.

Finally, you can carefully highlight your Celtic-style knot!

FLEUR DE LIS

Ever present on French (and other) medieval heraldry is the fleur de lis, which I was keen to use by way of a 'painting heraldry' example. After looking through the usual Osprey books and Google Images, I found this coat of arms, a royal blue background with gold/yellow fleur de lys and a red cross overlaying everything. When painting any sort of pattern, there are a few things that can really help you. Breakdown any complicated bits into easier smaller stages; they won't seem so daunting.

The blue background is a simple shade with Vallejo 'Dark Prussian Blue 899' and a mid-coat of 'Intense Blue 925' straight out of the bottle.

With things kept simple, any mistakes with the fleur de lys (and there were quite a few!) can be corrected without too much hassle. As you can see from the photo, I paint construction lines which are then "built on" in small stages.

NEUTRAL COLOURS

If you have spent all this time on splendid livery, then the rest of the figure needs to compliment the main colour scheme and not overpower it. The general rule with neutral tones is nothing should be brighter than the main colour.

After a little research, I found that these War of the Roses archers generally wore lots of red, ochre, off-white (dyed with urine apparently!) and beige trunk hose, making my job easier to choose any neutral tones. With a unit that is not a tightly regulated uniform, you can put a lot of variety into these areas, making the miniatures stand out on the table.

I have used a dark red palette to compliment the livery with a Black Red 859/Carmine Red 908/Red-Pink highlight mix.

Here are a few combinations I use:

• Beige Brown 875/Desert Yellow 977/Buff 976

• Flat Earth 983/Brown Sand 876/Iraqi Sand 819

• Black Brown 822/Chocolate 872/Leather Brown 817

• Neutral Grey 992/Stone Grey 884/Deck Tan 986

METALLICS

By Matt Parkes

In this section I will cover the tricky subject of metallic paint. Whilst history shows there are a lot of different metals used in various forms, I've split this article into the two metallics most commonly used by the wargamer - silver and gold. With so many different products available on the market, I've further divided these into three more sections: 'wargames standard', advanced painting, and other effects.

> **TOP TIP - PREPARATION**
> All metallic paints work more effectively over a black primer. This is because the metallic flakes in the paint become more prominent against the darker background.

WARGAMES STANDARD - SILVER

Because of the nature of miniature painting, there are many ways to the same thing, depending on your own preference. Here are the four main methods used by most painters:

1. Drybrush - Highlight - Ink wash

2. Dark basecoat - Midtones - Highlights

3. Midtone basecoat- Highlight - Ink wash

4. Silver spray - Highlight - Wash

DRYBRUSH - This is the quickest method of painting silver, but needs a coat of black afterwards to tidy everything up. When drybrushing, make sure you wipe off as much of your paint as possible before applying the brush to the model.

ADVANCED PAINTING - SILVER

Now your metallics are painted to a good wargames standard, you could choose to leave it there or add another shade layer, for extra depth and richness, followed by a bright silver highlight. There are now many products available which offer different shading effects.

1. Inks - I added a blue/black wash, which gives a blue steel effect.

2. Thinned Paint - The paint should be thinned down enough so you can see through the wash.

3. Tamiya Smoke Wash (X-19) - As with all heavier washes, they should always be thinned down with the appropriate thinners, in this case with Tamiya x-20a acrylic thinner.

4. Oil paints - Before using oils, gloss varnish the figure. This allows the oil to be blended smoothly.

5. Oil Filters - Filters are pre-thinned oils which again, work best over gloss varnish.

6. Army Painter Quickshade - This produces a great effect, but needs to be thinned with turpentine to a thin wash consistency. It is safer to do two thin coats than a single thicker one.

1

DARK BASECOAT - I use these three stages the most when I paint units as it is quick, and easy to adjust the colours used.

MIDTONE BASECOAT - This method is good for representing brighter types of armor or more polished weapons.

SILVER SPRAY - The Tamiya Silver Leaf spray (see can on final page) is the best I have used. It is very bright, with a really smooth finish. Because of this, it needs a couple of coats of ink to really show the detail. This method does not truly need any highlights, which is a great time-saver.

2   3   4   5   6

ADDITIONAL EFFECTS FOR YOUR METALLIC SURFACES

Not all of the metal surfaces you'll want to paint will be highly polished (or even vaguely polished) Fir this section I've created a number of "sample bases" using a diamond-plate plasticard and added different effects using some of the products pictured here.
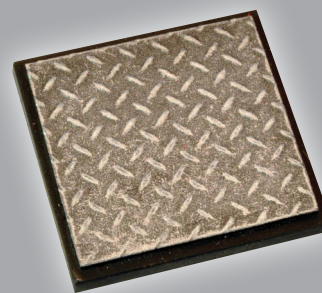
ADVANCED PAINTING - SILVER, IT'S FOR MORE THAN JUST PLATE ARMOUR!

CHAINMAIL

Care must be taken when drybrushing, as it is easy to build up a layer of paint which is too thick, as shown on the example tile below.

Always thin paint down and have a minimal amount on your brush when applying. Another thing to remember is that a drybrushed paint is quite a lot darker when dry (1). Once dry you can hit the chainmail with a thin black/brown wash.

Enhanced drybrushing is a technique using thinner paint and a slower drag over the surface with the brush, with the same colour as the initial drybrush stage (2). This serves to highlight particular areas of the chainmail after the wash is dry.
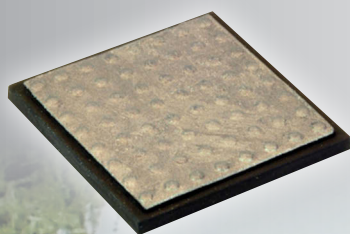
GUN BARRELS

An alternative to painting your gun barrels is to use an HB pencil. The graphite of the pencil gives a really rich metallic sheen, which is hard to produce with paint.
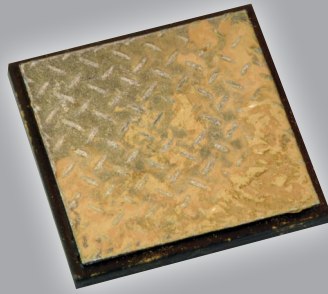
Simply 'colour in' the barrel, apply a coat of varnish to hold the graphite in place, then highlight with the pencil again.

This technique can be used for scratches and paint chips on tanks and other AFVs.
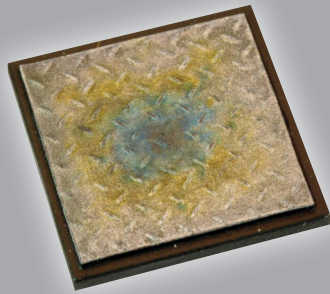
HEAT EFFECTS - Tamiya clear paints are best used for chromatic heat effects in thin layers. I have used blue, orange and yellow in roughly painted rings.

DUST, DIRT, AND MUD - Pigments can be applied in three ways; by mixing them with thinners for a hard-wearing coat, or with water for lighter coverage, or mixed with PVA glue (white glue)to produce a thick paste for mud. For this example above, I started with a very thin coat mixed with water. When dry, I rubbed off the top layer with my finger and added another layer mixed with thinners.
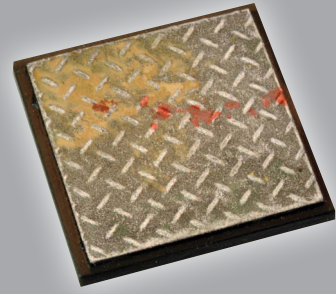
BATTLEWORN - This idea is a few techniques put together. The dirt is pigments applied mixed with thinners and for the blood trail I used the quite popular Tamiya Clear Red.
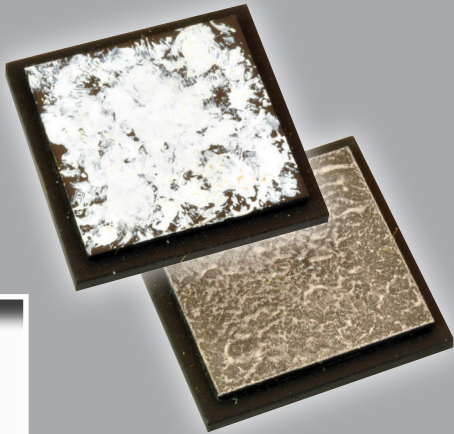
CAST IRON TEXTURE - When simulating cast iron, the texture is applied before painting. I used Tamiya putty thinned with poly cement.
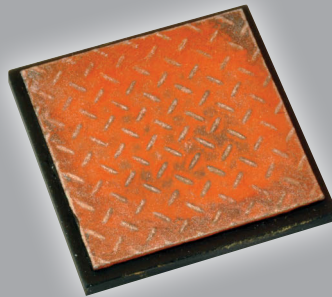
CORROSION - I treated the rust exactly as I did in the *Dust, Dirt, and Mud* example above - a water mix followed by a thicker 'thinner's' mix.
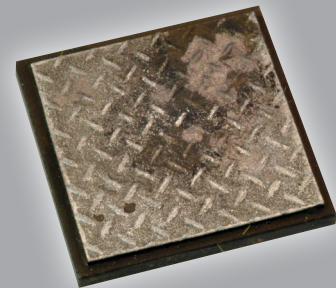
OIL STAINS - To simulate oil stains I used black ink to thin down some black paint and added a tiny bit of gloss varnish for an extra rich finish.

SWORDS

Instead of doing a stage-by-stage for weapons (which is the same as the armour examples), here are three ideas that you can use for swords.

(1) shows a simple 'three-stage' higlighted sword, starting at the base with a dark silver, and highlighted with progressively lighter silvers. (2) shows a feathered blade effect that is really good for depicting roughly made weapons.

Although time consuming, the blending of (3) is the most satisfying. It is very thin layers of paint built up within a smaller area each time (like example 1, but with a few more layers), to a dot highlight at the end.

This photo shows you just how cool an army can look with attention paid to the metallics. Miniatures painted by Jim Bowen from Michael Perry's collection.

WARGAMES STANDARD - GOLD

Essentially these three methods are the same as those previously described for 'Wargames Standard - Silver'.

1. Dark basecoat - Midtones - Highlights
2. Midtone basecoat- Highlight - Ink wash
3. Drybrush - Highlight - Ink wash

DARK BASECOAT - I use these three stages the most when I paint units as it is quick, and easy to adjust the colours used.

MIDTONE BASECOAT - This method is good for achieving an overall more defined look to your armour plates.

DRYBRUSH - This is the quickest method of painting gold, but needs a coat of black afterwards to tidy everything up.

ADVANCED PAINTING - GOLD

Using a similar approach to the advanced silver, I added another wash and a gold/silver mix (50/50) highlight, for extra depth and richness.

1. Using acrylic inks, I added another layer of dark brown wash.

2. An Oil filter was used, just as as with the silver example.

3. Army Painter Quickshade produces a great effect, but needs to be thinned with turpentine to a thin wash consistency. It is safer to do two thin coats than a single thick one.

1   **2**   **3**

# ADVANCED PAINTING - GOLD, ADDING A LITTLE VARIETY

POLISHED BRONZE - There are a couple of paints available which can be polished to a realistic shine.

1. Gold basecoat.
2. Basecoat that has been polished up.
3. Add a thin layer of Tamiya Smoke.
4. Higlighted with a gold/sliver mix.

1 **2** **3** **4**
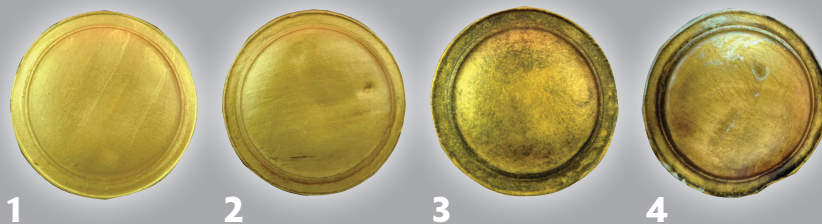
WORN BRONZE -
1. Start with a dark base colour - mix your bronze with a little black.
2. Stipple on your bronze highlights with an old brush for more texture.
3. Highlight with a thin bronze/gold mix.
4. Shade with a thinned Tamiya Smoke

1 **2** **3** **4**
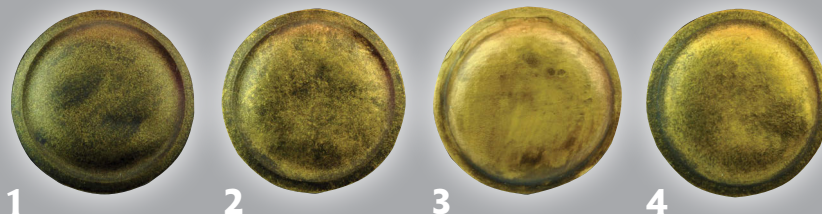
DECORATED TUDOR ARMOUR - This relatively quick technique looks really effective on the gaming table. Paint on you gold trim and broad gold stripes, then paint a fine black line down the center of your gold stripes. Follow this with fine gold dots and marks on the black lines and a coat of gloss varnish over the lot.

Matt enjoys trying out various paint products. Here are a few he mentioned in this article.

PERSONAL PROJECTS

When I'm not working on painting projects for *Wargames Illustrated* I enjoy tackling projects that typically fall outside of the historical wargaming field. I felt this model (Lord Baron Mantes from the Smart Max Miniatures, SMOG line) was a great example of just how you can get your metallic painting to shine!

PAINTING
WOOD

By Dave Taylor

As we go through childhood, we are taught that the sky is blue, leaves are green, and trees are brown. This idea that trees are brown (when they primarily appear grey) is then transferred to wooden items, thanks to wooden furniture in our houses.

As wargamers, we are often required to paint many wooden things on our soldiers or the terrain they fight over. We become used to seeing the same shade of brown throughout our (and others) armies and we think nothing of it.

Well, wood can actually take on many appearances: the yellowish hue of fresh-cut timber, the reddish-browns of stained and oiled woods, and the greys of weathered fencing or structures. This article will offer a few ways to tackle these different looks.

Veteran painter Dave Taylor talks about painting wood on wargaming miniatures and terrain.
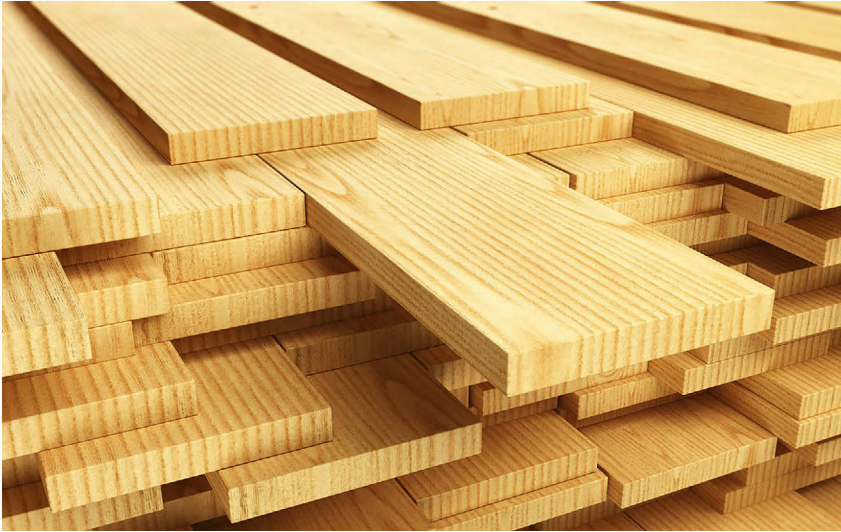
FRESH-CUT WOOD

Most wood that will be used for construction of some kind, and has been freshly cut/ sawn/hewn, generally has a light tone and a desaturated, yellowish hue. Woods like the pine (shown above) can have a very prominent grain showing, while others (like birch) have a much more subtle grain. Accordingly, it can be important to determine what kind of wood you are trying to represent on your model(s).

From an early age we are taught that wood (and wooden things) will have an irregular, organic grain pattern/texture to them. This becomes a *visual signifier* for us, meaning that when we see a "wood grain" on a thing our mind instantly tells us the thing is wooden. Sometimes manufacturers of miniatures and terrain will include a wood grain texture on these objects for us (these examples are from Hinchliffe Models).

1. Over a white undercoat, paint German Camo Orange Ochre.
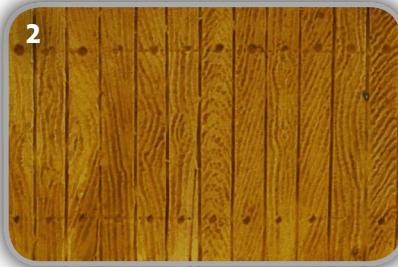
2. Wash the wood with Army Painter Soft Tone.
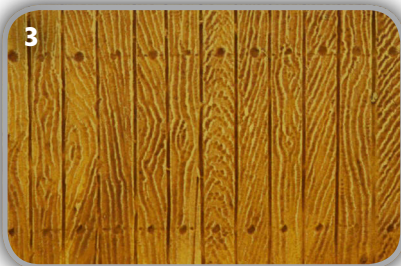
3. Drybrush the wood lightly with German Camo Orange Ochre.

4. Drybrush the upper areas of the wood lightly with Dark Sand.
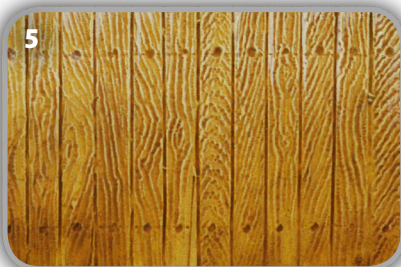
5. Wash the lower (or shaded) areas of the wood with Army Painter Strong Tone.

Example: This gabion has been recently woven and brought to the battlefield.

PAINTING IT ON

When we are building terrain or painting our miniatures, and we want to give the impression of wood grain where none exists on the model's texture, we can simply paint it on using lots of long, thin lines of paint.

1. Paint with German Camo Orange Ochre.

2. Paint wood grain in with a mix of German Camo Orange Ochre and Charred Brown.

3. Highlight with a mix of German Camo Orange Ochre and Dark Sand.

PAINTING IT ON

There are two schools of thought when it comes to painting wood grain on musket or rifle stocks or spear hafts. The first (and no doubt technically correct) group say that there's no need to paint it because if the grain was scaled down correctly, it would be indistinguishable. The second group (that I belong to) suggests it can look better because it acts as as that visual signifier.
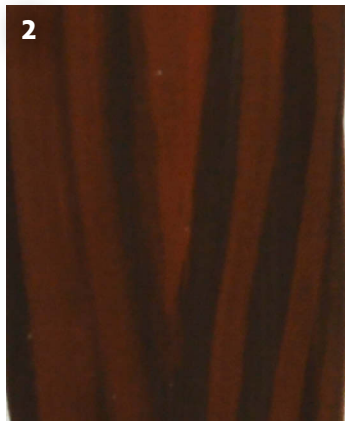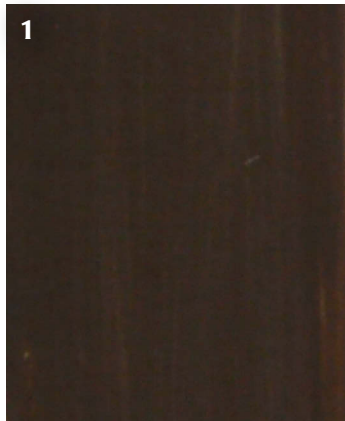
1. Paint with Charred Brown.

2. Paint wood grain in with a mix of Charred Brown and Red Leather.

3. Highlight with a mix of Red Leather and Dark Sand.

DARK, STAINED, OR OILED WOOD

There are a number of woods (mostly hardwoods) that are darker when freshly cut, and might have a reddish hue to them. Woods can also be stained with various colours, or even protected by rubbing them with penetrating oils, to give them a darker appearance.

There are a number of different places you can expect to see this kind of colouration when painting woods. Flooring in more oppulent homes, most wooden furniture, and most commonly in the oiled hafts of hand weapons or the stocks of muskets and rifles. Often, as weapons see more handling over time, their hafts/stocks will darken as oils from the body penetrate the wood. There are countless examples of rifles used during WW2 darkening, particularly at the points where they were held.
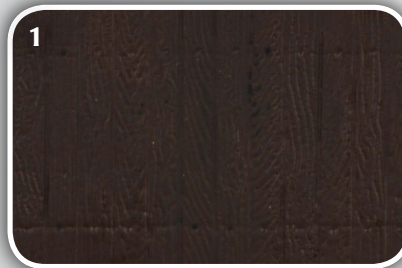
1. Over a black undercoat, paint Charred Brown.
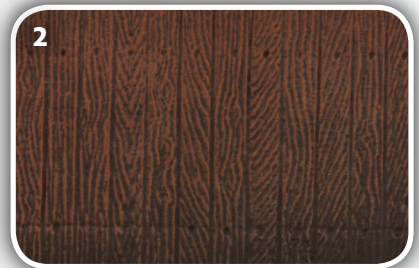
2. Drybrush the wood with a mix of Charred Brown & Red Leather.
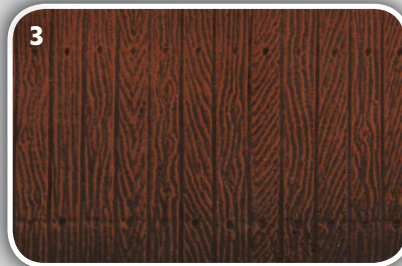
3. Drybrush the upper areas of the wood lightly with Red Leather.
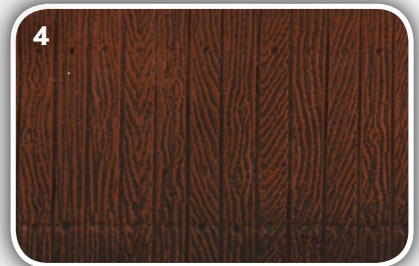
4. Wash the wood with Army Painter Strong Tone.
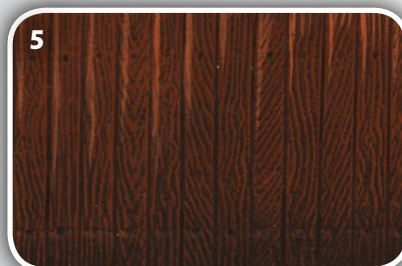
5. Highlight the top and leading edges of the boards with a mix of Red Leather & Dark Sand.

Example: This British Rifleman shows off his rifle's wood grain.

WEATHERED WOOD

As fresh-cut wood sits out in the elements over time, it starts to "silver" or basically darken, crack, and turn grey. Temperature changes, UV rays, and the rain all act on the surface of the wood, starting to break it down. For some woods (like rainforest hardwoods) it can take a long time for this decay to happen, and for softer woods it may take less than a month. But rest assured, that fresh-cut look on your log palisade, drawbridge, or weatherboard farmhouse will not last too long if left out in the open. To create a nice contrast to represent the cracking wood grain and sun-bleached highlights, I like to start with a dark brown basecoat, before I drybrush up with lighter greys.

Top Tip: When painting models with a wood texture, always drybrush across the grain and wash with the grain.
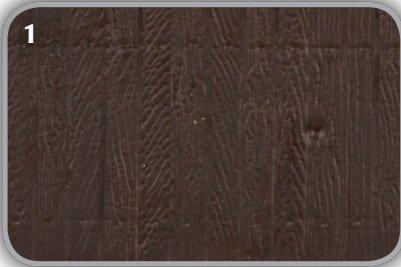
1. Over a black undercoat, paint the wood with Charred Brown.

2. Drybrush the wood with Basalt Grey.

3. Drybrush the upper areas of the wood lightly with London Grey.
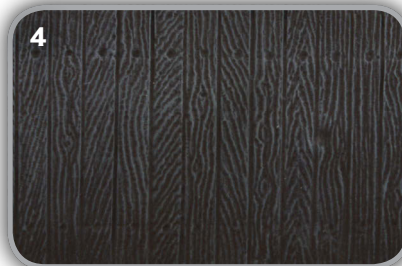
4. Wash the lower areas of the wood with Army Painter Strong Tone.

5. Highlight the top and leading edges of the boards with Pale Grey.

Example: This gabion has been on the battlefield for quite some time.

PAINTING IT ON

As you will generally find the weathered wood look being used on larger, textured terrain pieces, you might not need to paint on the weathered wood grain look that is described below. Prime candidates for painting this way would include small pieces of scatter terrain like barrels or tables and chairs left out in the rain.

1. Paint with Basalt Grey.

2. Paint wood grain in with a mix of Basalt Grey & Charred Brown.

3. Highlight with London Grey.
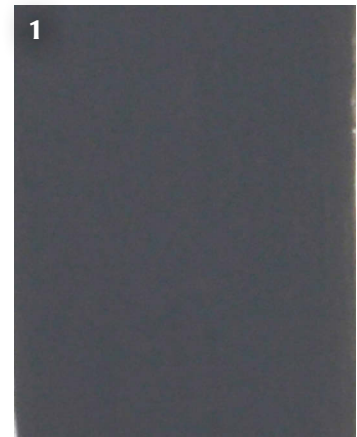
WHITEWASHED

Quite often we create terrain to represent painted wood, or even whitewashed wood. Whitewashing was a cheaper alternative to paint, so used primarily used by the poor.

1. Prime the model with a white undercoat.

2. Wash the boards with Pale Wash.

3. Wash in the shadows with a thinned mix of Pale Wash & Army Painter Soft Tone.

4. Highlight with White along the bottom edge of each board.
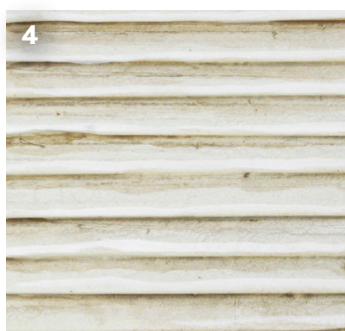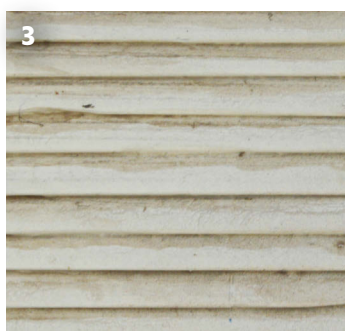
PALE WEATHERED WOOD

When lighter woods are exposed to the elements for a long time (or darker woods for even longer) the sun will keep bleaching the colours from then. If the wood is in a drier climate, this bleaching will be accelerated. Both the highlights and shadows are typically lighter than we've already shown.

This kind of look is also perfect for buildings constructed using cedar (boards, shakes, or shingles). This paler weathered approach would also be ideal if you are creating a lot of snake- or split-rail fencing, or even the buildings in an Old West ghost town.
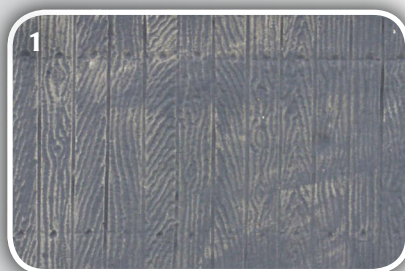
1. Over a white undercoat, paint the wood with Basalt Grey.
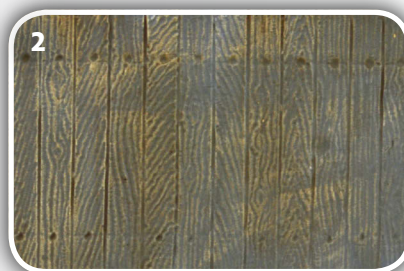
2. Wash the wood with Army Painter Soft Tone.
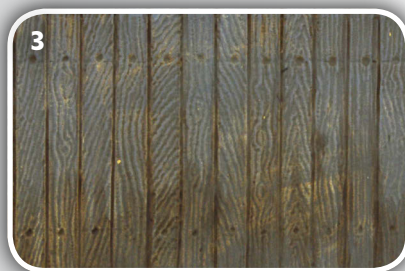
3. Wash the lower areas of the wood with Army Painter Strong tone.

4. Drybrush the upper areas of the wood with London Grey.

5. Drybrush (and highlight) the upper areas of the wood with Pale Grey.
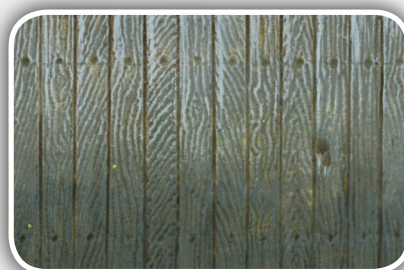
6. For a piece of wood that doesn't get direct sunlight, replace the Strong Tone in Step 3 with Army Painter Green Tone.

WOODEN EXAMPLES

Here are a few examples of the approaches to painting wood found in this article as they might appear on the tabletop.

Siege engines, like this catapult, were typically constructed on the site of a siege. That's why we decided to paint this one as if built from fresh-cut lumber.

The British infantryman at the top holds his Brown Bess, with the wood grain picked out on his oiled and well-used stock. The same can be said of the rifle carried by the British Rifleman, but sadly not of the weather-beaten fence he is leaping over.

The wood on this Etruscan chariot looks as though it was oiled when it was built, but is now starting to show signs of weathering as the wood starts to pale.

This ox-drawn water cart has been painted as though the wood was painted grey, as the British army did for many years to protect the wood from wear and tear. It looks quite a bit like the "weathered wood" but is smoother and more evenly applied.

This baggage wagon is painted to represent green-painted wood, marking it out as part of a French army. The texture on the model itself is picked out to show the wood grain that one expects to see on wooden elements.

BASING
GROUNDWORK

By Matt Parkes

Here, I am looking at different kinds of groundwork for bases, from standard sand effects to more detailed realistic mud ones, using the latest products and techniques. As I mentioned in the painting faces section, the base on a unit or figure is one of the first things you notice when it is on the table. This is how a competition judge quickly decides what needs a closer look, when he has 500 miniatures in front of him on a table, so it is an important area to look at.

WHAT KIND OF BASE TO USE

With so many kinds available, there are bases for every situation and purpose.

1. Two-pence piece - I know it is a bit naughty to use them, but 2p's make great skirmish bases. They are hard wearing and have a small lip around them, which provides a subtle frame. In the US, the quarter is a little more expensive to use.

2. Plastic bases (round, square, and unit) - available in many shapes and sizes and are always perfectly round or straight.

3. MDF bases - Very cheap to buy and available in all sizes.

4. Plastic slottabases - If your figures have base tags, these are the bases to use.

5. Plastic bases with recesses - One of my favourite bases. You can fill the recess from ground-work to water, making these very flexible and producing a very neat frame around the miniature.
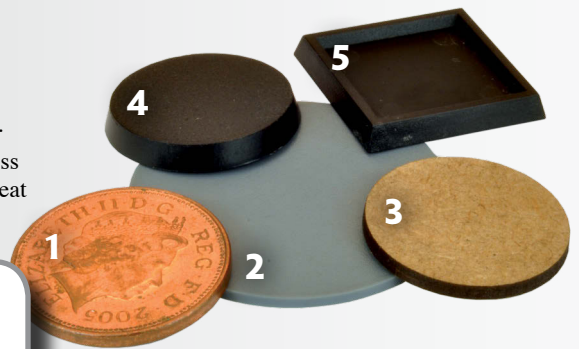
TOP TIP - GRIT

Grinding your basing sand up in a mortar and pestle can add more variety to your groundwork, creating a more natural effect with different sizes.

ATTACHING MINIATURES TO A BASE

Left: Glue the figure to the base and blend the base-tag with a thick bead of superglue and give it a quick blast of rapid cure, then glue your groundwork on, as usual. This is a quick and reliable way of basing up many figures at a time.

Right: With more decorative bases for a unit leader or champion, pinning the figure to the base can provide additional strength.

A MORE DETAILED WARGAMES BASE - HIGHLAND/MOOR THEME

The main difference between a quick wargames base and a more detailed one comes down to two things: more stages of paint - which gives a smoother finish - and adding more details, such as stones, debris, or vegetation. On this example, I have kept the natural theme, just choosing small clumps of pre-made heather and some dried flowers from my bits box.

1. Basecoat of Flat Brown (984). I use this for a darker tone, which allows me to build the colour up gradually.

2. First drybrush of Beige Brown (875), keeping the paint thin to avoid the powdery finish.

3. Second drybrush with Brown Sand (876).

THE STANDARD WARGAMES BASE

This is the basing technique I use for most of my work. It is quick and it is easy to add more details and bits to it. The figure can be stuck to the base before any sand is glued on, which is the quickest method when building large units. You can glue the sand down before the model is undercoated, making the base a lot stronger and more resilient when handled.

This is my standard paint scheme I use for most of my bases, except if I need to cover a specific country or battlefield.

1. A thin coat of English Uniform (921) is applied and dried with a hairdryer on a high heat. This bakes the paint making it very durable. A solid coat of paint is a good place to start.

2. Using a half-inch flat brush (the older the better, as drybrushing will quickly ruin a good quality brush) rub off all the excess paint onto a tissue, until no paint is visible, and begin drybrushing across the base. What you are trying to avoid is any marks or build-up of paint, which will make for a powdery finish. For this first drybrush stage, I use Brown Sand (876); it has excellent coverage and a really matt finish. One thing to remember when drydrushing is, the colour of the paint always appears a tone darker than it would be if you painted with it, so you have to adjust your mixes accordingly.

3. The final drybrush stage provides the highlights for any larger stones and features. I tend to concentrate the lighter colour at the base edges to "frame" the base.

4. With static grass, the temptation is to cover the base with the stuff in large patches (see example to the right). I tend to avoid this and go with lots of small clumps instead, building up the overall effect. This method means you can still see the groundwork texture underneath, giving the base more character and depth.

5. Just to finish things off, I then drybrush the grass with Buff (976) for a couple of reasons; straight out of the packet, the colour of the flock is often too bright and unrealistic, the paint helps tone things down and pick out the individual blades, which you would otherwise miss. As a bonus, the layer of paint also protects it, making it more durable.

Examples of excessive drybrushing and clumping static flock.

4. Finally, very light drybrush with Iraqi Sand (819) and pick out any larger stones with the same paint. Here you can see the difference in colour tone between drydrushing and painting. When the basic groundwork is dry, now is a good time to paint the border of the base. For this I generally always use black, I know the colour clashes a little on the gaming table, but it is consistent, black is always black. There is nothing worse than looking at an army with three different border colours on the bases, it just looks messy and doesn't show off all your hard work at its best.

5. Add the static grass in small patches, with Army Painter grass tufts for some different height and variation. These are drybrushed with Buff (976).
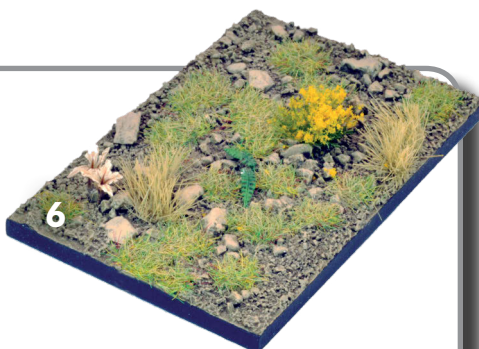
6. For a quick flower effect, I have glued yellow flock on top of a grass tuft. This gives the flowers more height, making them stand out with the minimum of effort. The single dried flowers are painted with thinned white paint, to make them stand out.

USING DIFFERENT BASING MATERIALS

CELLUCLAY

This is pre-shredded papier mâché, available from most good hobby stores and has a variety of uses.

Because it sets in a lumpy texture, it looks like very convincing groundwork. Colour pigments can be added when mixing with water to pre-colour it. It is easy to add larger stones or other features before it has set. While drying, however, it does shrink a little; you can compensate for this by adding more on the base or applying two layers. Adding large stones also helps mitigate the effects of the shrinkage (ahem...)

TAMIYA DIORAMA TEXTURE PAINT

This product is relatively new and behaves in a similar way to celluclay, without the shrinkage. At first glance it is not very sticky and has trouble adhering to anything. After a little coaxing with a sculpting tool, it can be manipulated well on the base. It dries in a slightly sandy texture and quite quickly becomes very hard. It is pre-coloured, which is a good time saver and other items can be added while drying. I use this product a lot for vignettes and dioramas.

SMALL STONES/ BROKEN SLATE

I must confess; I am a geek when it comes to new products that save time and produce good results. One of the problems with bases is placing the larger stones so they look natural; this was done traditionally with tweezers and a lot of time.

I have found a product from those ingenious fellows at AK Interactive called Gravel & Sand Fixer, which allows you to sprinkle on the stones and, using a pipette, drip this special adhesive on top and it sticks everything down without having to touch it, drying very hard. It does not harm paint and just needs a quick spray of matt varnish as this fixer dries with a slightly satin finish. A brilliant product, as far as I'm concerned!

1. Building up a beach base only takes a couple of minutes with good results.

2. Once dry, I glued barbed wire down as normal and added another layer of sand and fixer.

3. For a different texture, small smashed slate pieces and the fine dust it creates, is a cheap and effective alternative for basing.
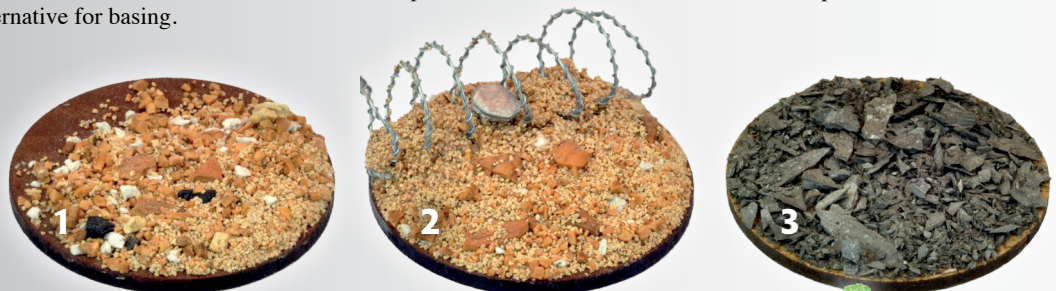
MAGNETISED MULTI-BASES

WI Editor Dan wanted some Ila figures (African tribesmen by North Star Military figures) converting, painting and basing for use with both Chris Peers' *Death in the Dark Continent* rules and for use as single figures - always handy for the magazine.

I came up with the idea of using Warbases (www.warbases.co.uk) mini-movement trays, which accommodate 3 x two-pence size bases, thus allowing the figures to be used individually when required. However when in their mini trays the figures were far too prone to falling over and getting damaged in transit, so I employed Gale Force Nine (www.gf9.com) Rare Earth Magnets (code: XX105) and Rubber Steel Sheets (code: GFB010) to solve the problem.

I drilled a small hole in each of the three tray indents and inserted a magnet (as indicated by the arrow), and then cut a small piece of rubber steel sheet and glued that to the bottom of each figure's base.

ADDING HEIGHT TO YOUR GROUNDWORK

If you want to add some height to your model (a good way of showing off an army leader) a quick way of achieving this is to use plasticene and a layer of superglue over the top to form a hard shell, before the groundwork is applied. This method is quite strong, but can break or squash if dropped or handled badly. As we all take very good care of our models, it won't be a problem.

1

2

3

1. Basic plasticene former. Just to make the figure more secure and ridgid, I have glued a small square of plastic where the foot if the model will be pinned. The plasticene follows afterwards and can be built up into small lumps and bumps.

2. Superglue is poured over the plasticene and sprayed with rapid cure.

3. Groundwork applied as normal.

USING SLATE AND STONES TO ADD HEIGHT

An alternative to using plasticene is to use larger flat pieces of slate, filling the gaps with either glue or a filler. You can hide any messy bits with sand.

TEXTURED PLASTIC FOR RECESSED BASES

Depending on how you want to theme your army, using recessed bases with textured plastic is a relatively quick and tidy way of doing this. The recess offers a pleasing looking frame to the base and there is a vast selection of textures available from the model railway hobby. The hardest thing to do is cut out the disc to fit the base.

To get an idea of which basing approach you'd like to take for your next wargaming project you need look no further than the pages of *Wargames Illustrated*, where each month we feature models from the armies of wargamers just like you!

Here are a few examples of basing work that Matt has done over the years (from left to right): Napoleon at Borodino, the Austrian De Ligne regiment and The Death of Nelson

BASING
THEMING

By Matt Parkes

This section focuses on moving up from the groundwork to the vegetation and weather effects; looking closely at themed bases from example battlefields ranging from Ancient Greece to modern Mogadishu and their own distinct characteristics transformed into wargames bases. As we travel through each battlefield, I will describe any specialist materials you will need and how to achieve great looking themed army bases.

DESERT AND SCRUB - THE BATTLE OF AMPHIPOLIS 422 BC

On the battlefields of ancient Greece, the ground was rugged and sun-baked, yet fertile. To represent this desert scrub, the groundwork is a fine sand texture with small stones, hardy berry bushes, and small clumps of bleached grass.
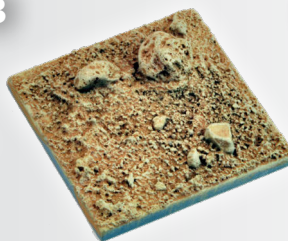
1   **2**   **3**   **4**

1. The first step was to generously cover the base with Tamiya Textured Diorama Paint (TTP). While it was drying, I picked out the largest rocks I planned to use and, with a dab of superglue, pushed them into the TTP so they were a little buried. I then sprinkled sand over the top, just to add a little variety to the sand texture and fixed it with AK Interactive Gravel & Sand Fixer.

2. Primer does two things here; it helps hold all the materials together (making the base more rugged) and seals any porous stones. To prepare for the drybrushing, I heat the bases with a hairdryer for a final bake.

3. I have opted for light sand colours to represent the desert. With light drybrushing, this adds to the dusty effect. I have used Brown Sand (876), Iraqi Sand (819), and Pale Sand (837).

4. Small clumps of static grass are stuck down and drybrushed with Buff (976).

5. A bush adds character and a visual point to the base.

5A. GF9 (or model railway) 'clump foliage' is ideal and when glued together with superglue, becomes easier to paint.

5B. To add some flair, I have painted the bush in watered down PVA and fixed small lead shot. Once dry, painted in green or a vibrant red.

5   **5A**   **5B**

TOP TIP - LIGHTER GRASS IS BETTER
Most of the static grass and grass tufts available are typically quite dark or uniform in tone. I always recommend a quick, very light drybrush over the grass with Pale Sand (837).

THE GREEN FIELDS ENGLAND - THE BATTLE OF HASTINGS 1066

This technique can be used for many battlefields. The key to good looking grassland is variety; with height and slightly different grass colours and tones.

1. Because you are not really going to see much of the groundwork, I have opted for the "wargaming standard" sand and PVA glue base, drybrushed with Flat Brown (984), Beige Brown (875) and Brown Sand (876).

2. Larger tufts of grass (from various sources including railway supply stores) are glued to the base and gently drybrushed with Buff (976) to highlight each strand.

3. Some of the larger tufts are quartered and trimmed. These are then added leaving some random gaps, and drybrushed with Flat Green (968) and Light Green (942).

4. Standard static grass is then placed in the spaces left and drybrushed with Pale Sand (837).

ROAD/URBAN - THE BATTLE OF MOGADISHU 1993

This iconic urban battle was played out on the streets of a large city, ravaged by civil war.
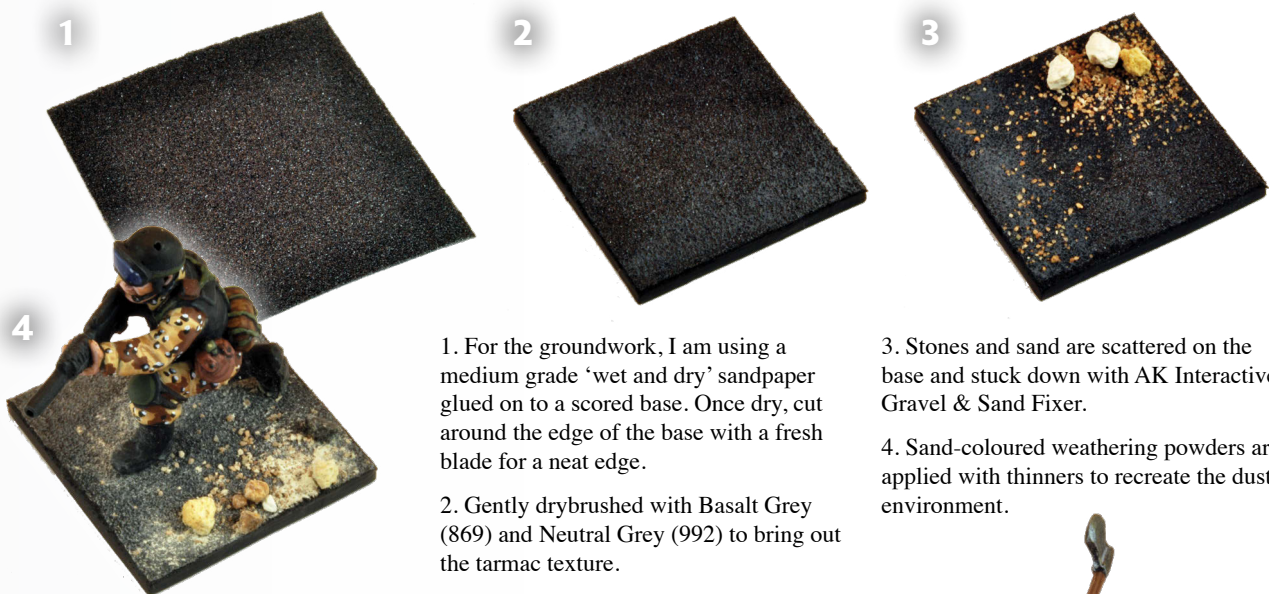
1. For the groundwork, I am using a medium grade 'wet and dry' sandpaper glued on to a scored base. Once dry, cut around the edge of the base with a fresh blade for a neat edge.

2. Gently drybrushed with Basalt Grey (869) and Neutral Grey (992) to bring out the tarmac texture.

3. Stones and sand are scattered on the base and stuck down with AK Interactive Gravel & Sand Fixer.

4. Sand-coloured weathering powders are applied with thinners to recreate the dusty environment.

BATTLEFIELD DEBRIS - MAKING ARROWS

I use arrows quite a lot on my bases, as they look great and are fairly easy to make. I periodically make batches of them.

1. I normally use plastic rod for the shafts, as you can use poly cement to attach the fletching, giving you a few seconds for final adjustments. You can use brass wire for more sturdy arrows, but you have to use superglue, which is very unforgiving with adjustments and mistakes at this size.

You'll notice I have cut the fletching into diamond shapes. If you are feeling ambitious you can cut out heart shapes and slice them in half, leaving you with an attractive looking curved fletch.

2. Here are examples of both fletchings before being attached to the base with a small hole in the ground and a dab of glue.

3. And here's one in place, with a lucky warrior barely dodging this arrow as he closes in for the kill.

MUD! - THE BATTLE OF AGINCOURT 1415

Agincourt is famous for being fought on a muddy battlefield, so this is a great chance to take a close look at some pigments/pastels/weathering powders. For this example (and a few others) I've used a type of base I call a "tray base", to better give the impression of deep, wet mud, churned up by local ploughing and charging cavalry.
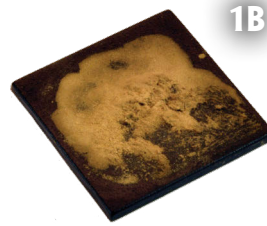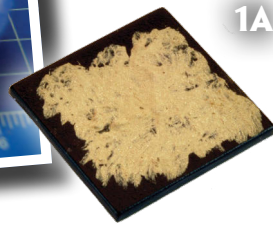

1. Weathering powders are very versatile and can be mixed with many mediums to produce great effects. Here you can see a shot of my "mud mix", ready to go, on my desk.

1A. Weathering powders are not very adhesive, especially if only mixed with water and will have a tendency to fall off objects, be rubbed off and blown away if mistreated. Just by adding very thin PVA glue and plaster to the powder

mix, you reduce that negative and give the mixture bulk. The one downside to this is that you have to clean up any excess before the mix dries, as it is difficult to remove cleanly later.

1B. For a hard wearing and long drying mix, which is suitable for dioramas and larger areas, I use an acrylic medium. You have time to add extra detail and final adjustments while drying, and the mix dries rock hard.

1C. Using thinners mixed with weathering powders provides more flexibility, as you can remove any excess with a cotton bud with thinners on, almost like blending paints. This mix also dries very hard.
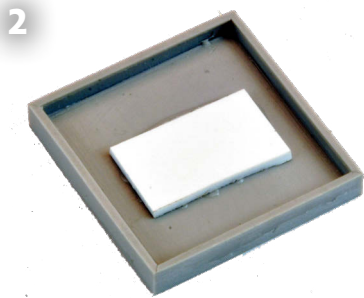
2. For a firm footing for the pin under the shoe heel of the figure, I have glue a small square of plasticard on the base and given it a spray of black primer as weathering powders are pre-coloured, so there is minimal painting afterwards on the groundwork.

3. Using the acrylic medium mix (later refered to as the "Agincourt 1B" mud mix), I have added some small stones for variety and applied the mud to the base in an uneven texture.

4. Small tufts of grass are glued on to the base sparsely, just for a little detail and colour, and then drybrushed with Pale Sand (837).

UNEVEN, WATER-LOGGED MUD - THE BATTLE OF MALDON 991

To represent uneven ground, I am using a tray base for some depth and creating an undulating (uneven) groundwork with dried peas or lentils.

1. I filled up the tray with peas and glued them down with PVA glue.

2. For this ground work I am using celluclay mixed with thinned PVA, as I want it to shrink and conform to the seed texture.

3. Once the groundwork was dry, I gave the base a quick coat of primer to seal the celluclay. For the earth tones, I have drybrushed the base with Flat Brown (984), Flat Earth (983), and Beige Brown (875). This really picks out the uneven texture.

4. To finish off the base, I added a couple of small puddles with gloss varnish, and a few tufts of grass.
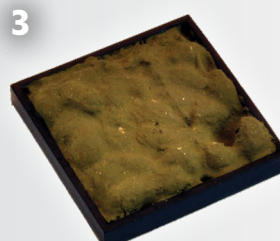
MUD AND PUDDLES - THE BATTLE OF CULLODEN 1746

With the Culloden battlefield so drenched and sodden, it gives us an opportunity to look at shallow water effects on top of wet mud. For this example I am using the previous wet mud groundwork in a tray base.

1. Using the "Agincourt 1B" mud mix, I sculpted divots in to the surface and left it to dry.

2. There are quite a few products available to replicate water. For the example above I have used gloss varnish, using a hairdryer to speed up the drying time in between layers.

• Acrylic gloss varnish - quick drying but prone to shrinkage, needs multiple coats.

• Vallejo Water Effects - this is a PVA that dries clear, but needs a couple of coats.

• Crystal Clear 5-minute Araldite - fast drying and does not shrink, but gets hot while curing which can warp thin plastic.

3. With the miniature attached to the base, I have weathered his shoes and legs with the same mud mix. At this stage, it is easy to go overboard; the rule here is less is more.

DUCKBOARDS - THE TRENCHES OF WW1 1914-1918

Using the "Agincourt" example, I have added a duckboard to move the theme to WW1.
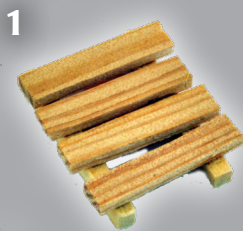
1. I made a duckboard with small scraps of balsa wood and then painted it up with dark browns and greys to represent it being soaked.
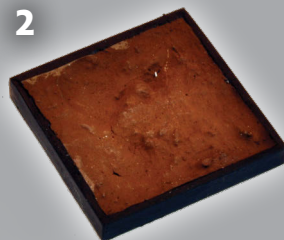
2. I used the "Agincourt 1B" mud mix in a tray base. While the mud mix was drying, I embedded the duckboard in the groundwork.

3. I then applied a lighter mud mix all over the boards with an old paint brush, building up from the shadows and adding colour and texture.

SNOW - THE BATTLE OF WABASH 1791

Snow can lay on the ground in many different ways, but this is a look that will get you by in most battlefield situations.

1. Starting with the "wargames standard" approach of sand and PVA, I added tufts of grass, foliage, and leaf scatter (I used tea leaves from a tea bag, for a cheap alternative for forest floor debris) and dried catkin seeds, available online.

2. For a substantial snow fall, I have used Vallejo 'Snow Foam' in small patches. This product has a glitter to it and is very realistic. It can be built up in layers to represent deeper snow.

3. I have painted on another coat of 'Snow Foam' for a little more height and coverage.

PAINTING HORSES

By Dave Taylor with help from Christin Sciulli.

When it comes to painting miniature horses for wargaming there tends to be two camps: those who tackle the task begrudgingly and those who simpy refuse to paint horses. Perhaps it's the collection of unfamiliar terms that are associated with horses (withers, docks, fetlocks) or their colours (bays, duns, sorrels, roans) that confuse some people? Perhaps it's that as well as painting the rider, there's another great mass of metal or plastic to paint before the model is finished?

I've never been sure why this is the case as, with a little knowledge under your belt, it is incredibly easy to select your colours and get to painting your equine mounts. In this article we'll cover quick step-by-steps for painting your horses along with simple colour selections.

Let's begin by defining a few terms:

• Fur - the coat of short hair that covers the bulk of a horse's body.

• Points - the extremities of a horse's body, including the lower legs, tail, mane, and muzzle.

We'll look at the more common colourations of your steeds. For all intents and purposes, the colours you'll most often paint are: Bays, Chestnuts, Blacks, Browns, Greys, and Whites. We've even included too "classic Wild West" colourations too - the Palomino and the Appaloosa.

Hopefully by the end of this article, you'll feel better equipped to make strong choices about the colours of your cavalry mounts and won't baulk at the rails when it comes time to get paint on them!

Miniatures supplied by Hinchliffe and by Gorgon Studios. Paints are primarily from the Vallejo Model Color range, unless noted with a VGC - Vallejo Game Color range.

BASIC HORSE ANATOMY

Mane
Withers
Flank
Dock
Tail
Muzzle
Shoulder
Hooves

The Scots Greys and the Household Guard during the 100 Days Campaign. Models from Barry Hilton's collection.

BAYS

Bays are one of the most common colourations that occurs across many breeds of horse. There can be a wide variety of tones in the bay colouration, but typically it is characterized as a reddish-brown coat with black points. The "black points" do not preclude any other kind of white markings on the face or legs that can occur as with other colourations.

1. Over a black undercoat, paint VGC Charred Brown.

2. Highlight with a mix of VGC Charred Brown & Flat Brown.

3. Highlight with Flat Brown.

4. Highlight with a mix of Flat Brown & Red Leather.

Our Bay horse, with a reddish-brown coat and black points (mane, tail, feet, etc)

CHESTNUTS

Chestnuts are the other most common colouration for horses of all breeds. Like bays, chestnuts can appear in a variety of tones, but are usually characterized as a reddish-brown coat with points that are the same tone or lighter. Chestnuts can range from a dark auburn through to a champagne colour. In the Western US, chestnuts are sometimes referred to as sorrels.

1. Over a black undercoat, paint Flat Brown.

2. Highlight with a mix of Flat Brown & Red Leather.

3. Highlight with Red Leather.

4. Highlight with a mix of Red Leather & Desert Yellow.

Our Chestnut horse, with a reddish-brown coat (tending towards orange) and the same (or lighter) coloured points.

BLACKS

Black horses are born with black skin and fur. This fur loses its colour over time, and when exposed to a lot of sunlight. The fur can fade to a tan or grey colour, and older black horses can be confused for browns.

1. Over a black undercoat, higlight with a mix of Black & Flat Earth.

2. Add some more Flat Earth into the original mix for the final highlight.

Our Black horse, with a dark brown coat and black points.

BROWNS

While the term "brown" is used by some as a catch-all term that encompasses bays, chestnuts, duns, roans, etc., it is most typically used to describe horses that don't have any black pigmentation. For our purposes we'll use "brown" to describe a horse with a tan-brown coloured coat and the same or lighter-coloured points.

1. Over a black undercoat, paint German Camo Black Brown.

2. Highlight with a mix of German Camo Black Brown & Beige Brown.

3. Highlight with Beige Brown.

Our Brown horse, with a tan-brown coat and tan-brown points.

MARKINGS

All horses can have facial markings of some kind, areas of skin and fur that lack pigmentation, but these areas are more easily visible on bays, chestnuts, blacks, and browns. From left to right we have: 1) a stripe, 2) a blaze, 3) a diamond-shaped star, and 4) a thin stripe and star, with a snip on the muzzle.
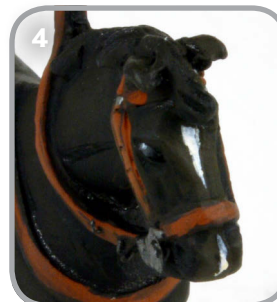
WHITES

True whites are a very rare colouration. The combination of pink skin and white fur is not found in all breeds, and may also lead to light brown or blue eye colouring.

1. Over a white undercoat, paint Pale Sand.

2. Shade with a mix of Pale Sand & Desert Yellow.

3. Highlight with White.

Our White horse, with a warm white coat and white points.

EYES

Horses have large irises so very little (if any) white shows. We suggest you paint the eyeball black (1) or very dark brown, then put a tiny dab of white in the corner (2), followed by a layer of gloss varnish over the eyeball (3).

GREYS

When people talk about a "white" horse, they are typically referring to an older grey horse. These horses are born with black skin and grey fur that turns white with age. Sometimes this change in fur colour occurs unevenly, creating dappled patterns across the horse.

1. Over a white undercoat, paint a wash of London Grey.

2. Highlight with Pale Grey.

3. Highlight with a mix of Pale Grey & White.

4. Highlight with White

Our Grey horse, with light grey coat (tending towards white) and grey points.

PALOMINOS

Palominos are recognized as a colouration rather than a distinct breed of horse. Their colour can range from cream through to a dark gold, and they almost always have white/cream points. Their colours make them stand out and they are regularly sought out as parade horses. They are a horse that is often associated with the Wild West, perhaps thanks to Roy Rogers' horse Trigger - the most famous palomino.

1. Over a white undercoat, paint Desert Yellow.

2. Highlight with a mix of Desert Yellow & Dark Sand.

3. Highlight with Dark Sand.

4. Paint in the shadows with a thinned AP Soft Tone.

Our Palomino horse, with a creamy gold-coloured coat and white points

APPALOOSAS

Unlike the palomino, an Appaloosa is a distinct American horse breed (one of the most popular today). Appaloosas are known for a variety of colourations, with distinctive spotting patterns (these also vary widely). Here we have chosen to represent a bay-coloured Appaloosa with a "blanket with spots" patterning.

1. Paint up a Bay horse.

2. Paint on a "blanket" and a few spots using Pale Sand.

3. Highlight the "blanket" and spots with White.

4. Paint spots on the "blanket with Flat Brown.

Our Appaloosa horse, with the colouring of a Bay, and a white "blanket with spots"

CAVALRY EXAMPLES

Here are a few examples of the horses painted for cavalry and chariot uses in wargaming

John Spiess entered this Gallic heavy cavalry into the 2015 HISTORICON Painting Competition. The horse on the left is a chestnut, while the one on the right is a bay.

This 40mm British Light Dragoon is riding a very dark bay horse. In ideal situations, cavalry units of the Napoleonic era tried to get the same horse colouration throughout.

Another Historicon entry, John Miller painted this French Curassier and took second place in Historical Single. The uniform colours pop wonderfully against the grey horse.

These young horses, one grey and the other chestnut, need a lot of energy to pull this early Etruscan chariot from Gorgon Studios.

This unit of Union Cavalry (the 6th Pennsylvania Volunteers) was painted by Dave Taylor and features a variety of horse colours - bays, chestnuts, browns, and even a grey for the bugler.

SHIELDS, BANNERS AND
DECALS

By Matt Parkes

We take a look at the different types of decals and transfers available, and how best to apply them to your wargaming figures.

DECALS

Decals can really enhance your models, by adding a level of detail which is hard to replicate with just a brush. Once you have mastered the basic application techniques, they can be quick to apply in large numbers, saving hours of painting. Once they are set and properly dry, they can be used as a template to paint over, adding your own shades and highlights. I will be looking at that technique later on.

Before we really dig into the subject of decals, I recommend you have these useful things close to hand:

- A clean bowl of warm water
- Tweezers and paintbrushes
- Scalpel/hobby knife with spare blades
- Cotton buds
- Gloss and matt varnish
- Decal softener
- Masking tape and pencil
- A hair dryer

Just a quick note on decal storage, try to keep them in a very dark and dry place - adding silica gel packets (the ones from new shoe boxes) will help keep any unwanted moisture out of your decals.

BASIC APPLICATION

Before you can start applying decals you have to make sure the surface is painted and prepared properly.

Matt varnish under a microscope can look like sandpaper, whereas gloss varnish is very smooth. For an even coat, I use spray gloss varnish over the whole model, unless it is a very small area, otherwise you start to get a patchy finish.

Begin by first trimming the decal from the backing sheet, getting as close as you can to the detail. This makes the carrier film border very small, so you are not left with a visible border.

TOP TIP - DECALS WORK BEST OVER A GLOSS FINISH

Decals work best when they are applied over a gloss surface as this allows the air to escape with gentle coaxing and does not leave the dreaded silvering. Silvering happens when there is air trapped underneath, leaving an almost white border to the decal. If this does happen there is a troubleshooting section later on. You can see an example of silvering to the right.

The decal is then placed into a bowl with warm clean water in. This speeds up the soaking process, allowing the decal to detach slightly from the backing sheet.

Place the decal where you want it to be. Then, using two pairs of tweezers, hold the decal in place with one pair, whilst gently sliding the backing sheet away with the other.

ADJUSTMENTS WITH WATER ON A FLAT SURFACE
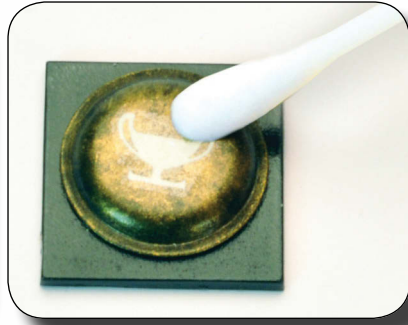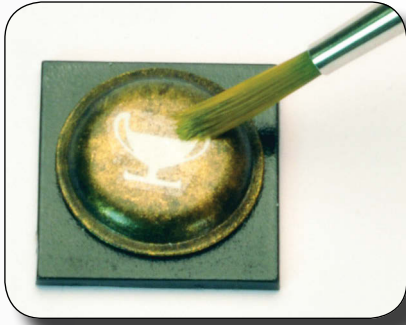
For those small adjustments, I use a moist brush to move the decal around, until I am happy with its position. If the decal starts sticking to the surface before it is in the correct position, you can use more water to rehydrate it for further adjustments.

If this is on a flat surface, I use a cotton bud right on the decal's edge to absorb the excess water. If the decal is looking right, I let it dry for a few hours. You can speed this process with a hairdryer, if you have a lot of decals to fix.

USING LARGE OR COMPLEX DECALS OVER CURVED SURFACES

The decal is applied in the same way and positioned on to the surface. For awkward, curved areas, a little decal softener is applied with a paint brush and carefully combed over the decal. This makes the decal's surface soft and malleable, allowing for more adjustments. If too much softener is added, the decal will shrink - this product should be applied only to given points. To counterbalance this, water can be added to the softener to dilute it.
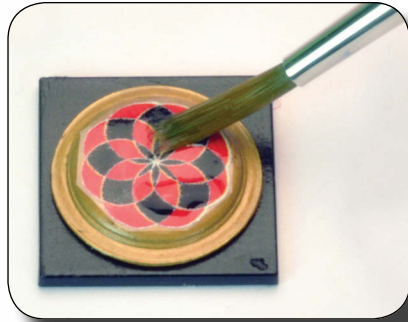
If you have positioned the decal and you can see air bubbles underneath, you will end up with silvering. Instead of a risky removal and possible damage, using a fresh scalpel blade, you can carefully pierce the decal in the problem areas, allowing the air pockets to escape, followed by a light coat of decal-softener to shrink the decal back to the surface.

Now the decal is in its final position and has set, a 'mist coat' of a good quality matt varnish all over the model will begin to hide the decal edges (a mist coat is achieved by spraying further away). Once fully dry, another coat is applied until the decal edge has disappeared. This process may take a few more passes, depending on the thickness of the manufacturer's carrier film.

USING GLOSS VARNISH TO BURY THE DECAL

As the nature of decals is to sit on the model's surface cleanly, they will "stand out" if left alone without any treatment. All the techniques with varnishes are to hide the decal's edge and effectively bury it under the layers, therefore hiding "the evidence". If you are using small decals and you are confident that the surface is smooth, you can use gloss varnish instead of water to provide an airtight seal. This speeds up the process by not having the wait for the decal to dry. As I said before, it only works with small decals as anything too large becomes cumbersome to place on a model.

One word of caution with this method is that you have to be confident with the position of the decal, as the gloss varnish dries, it cannot be touched or adjusted.
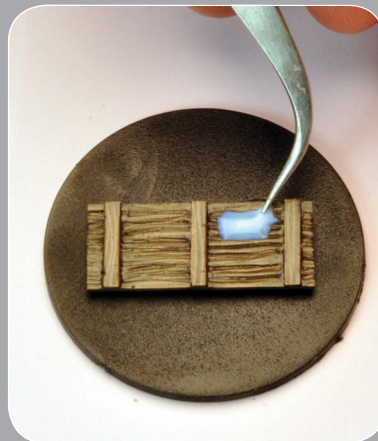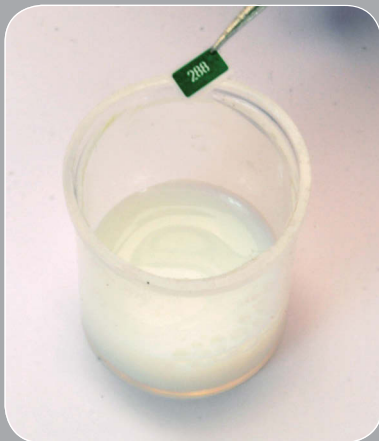
MAKING YOUR OWN DECALS

There are quite a lot of companies that make decal paper for computer printers. With a few hours and a decent art program, you can make sheets of useful patterns, borders and lettering. Anything that you find difficult to paint can be re-produced in decal form e.g. straight lines, circles, the list is endless. My bugbear is lettering, which always takes me a long time to produce, so I have made a sheet of different sized alphabets and symbols, which I cut out and apply as normal.

Follow the manufacturer's instructions on what decal paper to buy, to match your printer. From my experience, a laser printer produces the best results as it fixes the pigments with heat, allowing the colour coat to be thinner.

There is only one drawback with making your own decals: the printed surface is very fragile and may scratch off if handled carelessly, see inset for our scratched banner.

OVERLAYING DECALS

It is possible to add many layers of decals to produce stunning effects. All you have to ensure is that every layer is dry and sealed with more gloss varnish, before you continue. I have just made this shield design up for demonstration purposes.

1. The red quarter is painted on at this stage. It is easier to apply any background colours at this stage, instead of painting around decals later.

2. The main cross decal is applied and sealed with matt varnish. Notice how this old decal has a yellow carrier film, I have used it to my advantage and left a thin border to represent a shadow effect.

3. The shield is re-glossed and the small decals are added and sealed with matt varnish.
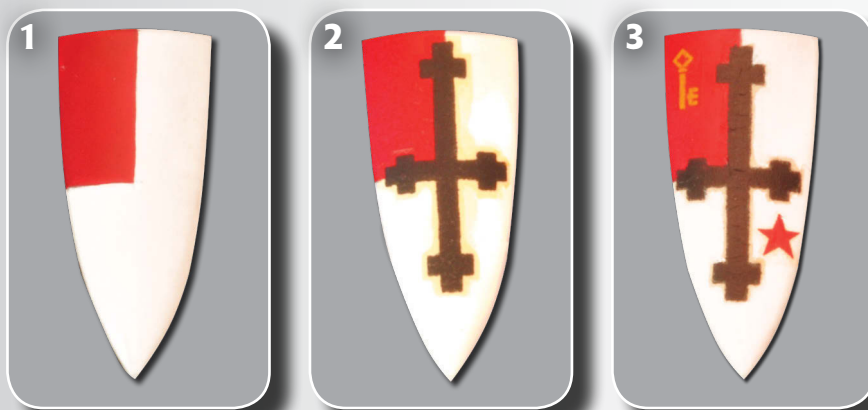
USING DECALS AS A PAINTING GUIDE

After applying the decal as normal, you can use this as a template to paint within; you just have to be careful to paint inside the lines. I keep the background paint colour plain, so any corrections are made easier and complete the shade and highlights once the decal is finished.

1. Border decal set in place.

2. Basecoat carefully applied within the decal.

3. Building up the mid-tone.

4. Final highlights. This is useful for separating the different details of the

pattern and to give a light sourced highlight around the decal, for a more 3D effect.

5. Any corrections are made at this point and a small highlight is added around the decal. This give the appearance of thick paint used for the numeral.

DIFFERENT KINDS OF DECALS

Many wargames companies now provide pre-printed stickers or paper designs as part of their box contents, so it is a good reason to mention them here.

LETRASET-STYLE
(AKA DRY-RUB TRANSFERS)

If you can remember that far back, Letraset used to be one of the main companies for 'dry-rub transfers'. They are still available, in very high quality, from companies like Archer - Dry Transfers, which have an almost endless catalogue of choices.

The main differences with dry-rub are their application and finish. You simply cut around the carrier film as normal and once in position, gently rub down with a stylus of some kind; this detaches itself from the backing sheet onto the model's surface. You have to be sure with the position, as there is no option for adjustments. Once this technique is mastered, it can be a quick alternative to waterslide decals.

Leave the area where the design is going white, as this will make all the colours really stand out and not appear murky. You can always apply weathering to the shield design later on.

As you can see above, there is a matt finish to the decal, which helps with the final appearance as you only need to give the surface a couple of mist coats and you are finished.

SELF-ADHESIVE PAPER DECALS

This product is slightly different than the regular, waterslide decals because it has a sticky side.

1. Cut out the design leaving the smallest border possible, which includes any holes for shield bosses etc.

2. Carefully remove the clear backing paper and place in position, pattern-side facing down and smooth over to allow the decal to attach itself to the shield.
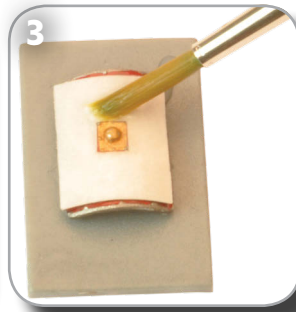
3. Moisten the white backing sheet with water. This allows the decal to detach from the backing sheet.

4. Finish off as normal with removal of water and then varnish.
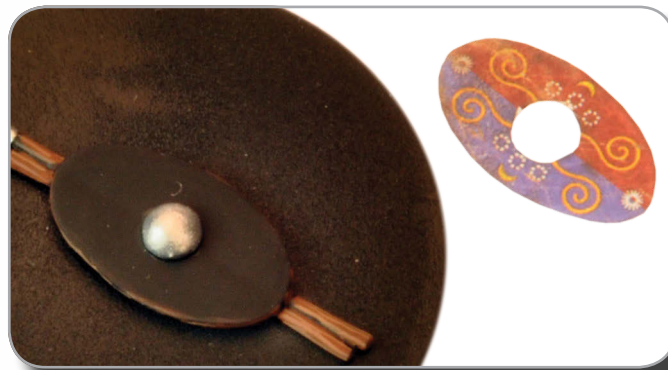
PAPER DECALS/STICKERS

There is another type of self-adhesive paper decal which is basically a sticker. These have to be carefully cut out and positioned.

The only disadvantage to this product is, where you have cut out the design, it leaves a white edge which will need touching up with paint later on after the varnish.

CONVERSIONS

By Matt Parkes

In this article I will be looking at converting figures, from simple weapon and head swaps to pose changes and adding extra details. I generally think of conversions as fitting into two broad types - appearance changes and pose changes.

I know a lot of gamers and modellers who spend many enjoyable hours chopping up miniatures and making that perfect character model from their bits box. To be honest, I am more of an "out of the box" painter, as I really appreciate the sculpture for what it is. I generally don't convert miniatures unless there is a reason to do so, but that's just my thing.

TOOLS AND MATERIALS

When converting figures, there are a few essential tools you will need: a scalpel with fresh blades, side cutters, files and wet and dry paper, a razor saw or an Exacto knife with a saw blade in, fine permanent marker pen, pin vice and wire, a sculpting tool (the professionals prefer something called a "Wax 5" dental sculpting tool), a little patience, and some good music in the background.

When it comes to the materials you'll find yourself regularly using to convert your miniatures, here's a handy list: superglue, rapid cure, green stuff (or other filler/putty), thick foil, (wine bottle foil is really useful), and various thicknesses of plasticard.
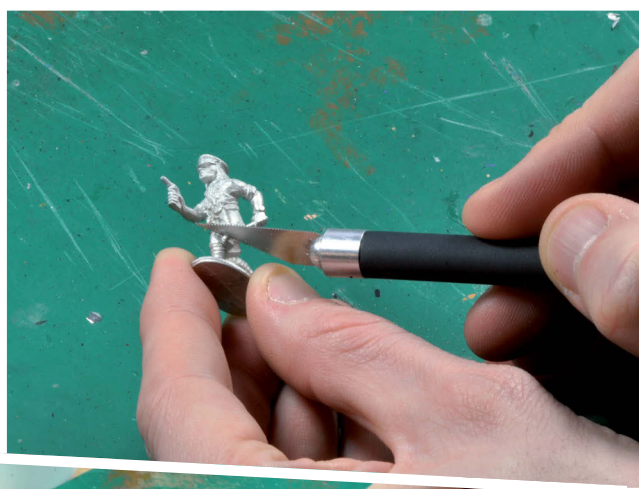
TOP TIP - QUICK DRYING PUTTY

Use Tamiya Putty mixed with liquid poly to the consistency you want and applied with an old paint brush. Don't forget to mix it on a metal or glass surface as it will melt plastic!

APPEARANCE CONVERSION - WEAPON SWAPS

Sometimes the model in front of you is not quite what you need for a certain battle or specific situation. A weapon swap is often the first thing to change the appearance of the miniature. For this example, I am using two methods of attaching weapons: pinning into the hand (A) and drilling through the hand (B).

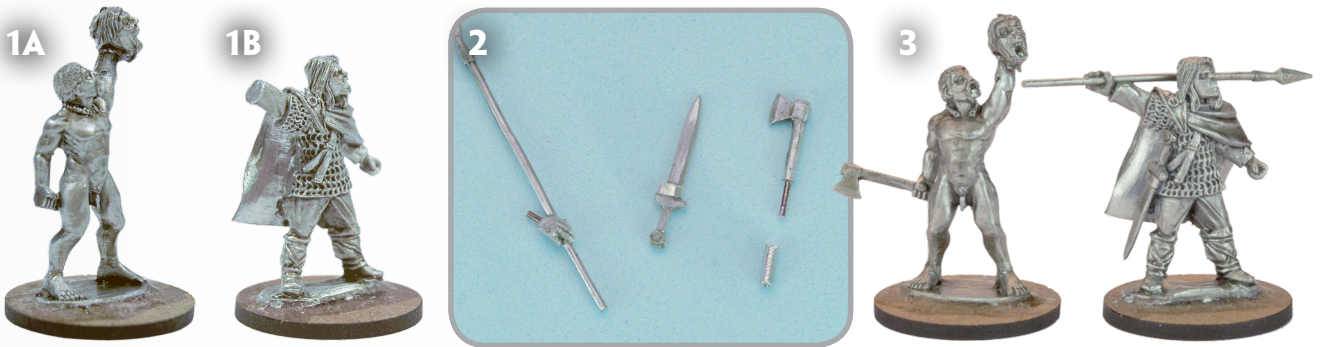1. (A) The original sword is cut off at the hilt and cleaned up. Then drilled all the way through the hand. (B) The entire hand is removed to the sleeve, cleaned up and drilled ready for the pin.

2. These are the weapons ready for attaching. You can see on the axe where the hand is going to be.

3. Finished weapon swaps.

APPEARANCE CONVERSION - HEAD SWAPS

These are a fairly quick and easy way of introducing different characters to your units, especially for sergeants and unit leaders or anyone you want to stand out from the crowd. For this example, I am using a ball-join as the plastic head already has one. This method does not use any pinning as the fitting is strong and also allows for flexible positioning of the head.
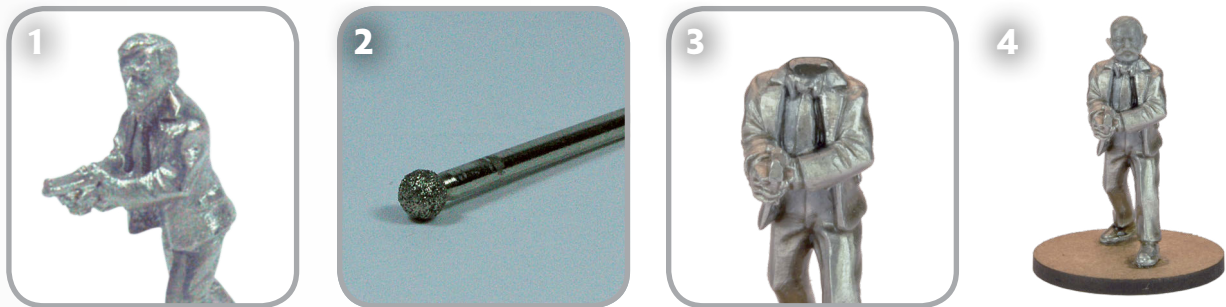
1. Original figure.

2. This is the diamond ball grinder I have used to make the fitting.

3. The model with the head removed and the depression made.

4. The converted miniature.

APPEARANCE CONVERSION - FACIAL HAIR

Not always strictly a conversion - often more a painting option - but a useful tool none the less. One of the quickest ways to add some variety to a similar looking unit is to add a moustache, "5 o' clock shadow", sideburns or beard.

1. Just painting a moustache on a face can dramatically change the appearance. I have used paint washes with a tiny dot of dark blue in, for the "5 o' clock shadow". For the moustache the paint mix was slightly thicker.

2. For a really bushy moustache to match the heavily textured hair style and sideburns, I have sculpted on a rough hair texture with green stuff. This can be carefully textured whilst it is drying.

3. If you want to really go for it, there is a product from those industrious fellows at *thesmallshop.com* called Hair Coat which is scale hair or fur. This is a very short length, brown static grass and adhesive, which can be adjusted into position while drying.

4. Here is the finished effect after a quick drybrush to bring out the details. As you can see, it is quite realistic.

ROLLING OUT A SHEET OF PUTTY

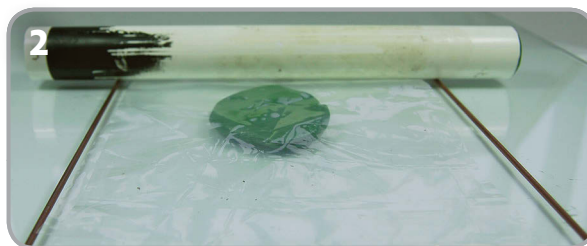Things you need for this technique are: a zip-lock bag cut open - the thicker plastic helps reduce creases,
1.5mm wire to use as a roller guide, you can change the grades of wire to vary the thickness of the sheet of putty.

1. Using 1.5mm wire as a guide on top of a cut open zip-lock bag.

2. Lay your ball of mixed putty in the middle and place another sheet of plastic on top.

3. Using a roller (anything round and rigid will do, like a glass jar or a PVC tube as in picture 2), flatten out the putty and leave till it is almost cured, around 30 minutes.

4. When nearly dry, remove top layer of plastic sheet. I have used a paper template as a basic former and cut out the required shape with a razor blade.

APPEARANCE CONVERSION - NORMAN HORSE

Whilst working on a project for *Wargames Illustrated* I was asked to convert a plain horse to a "Norman" horse. This gave me an opportunity to show you how to make an even sheet of putty, as a horse blanket and how to make the saddle and stirrups.

Using a sheet of green stuff allows you to have an organic shape, as the putty stays flexible even when dry; you can adjust the position of the item, to fit the miniature.
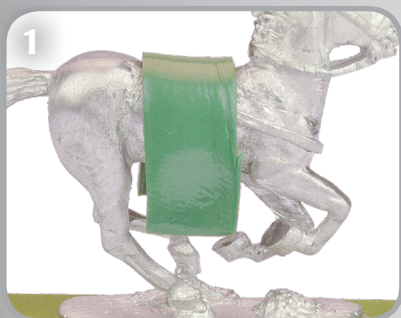
1. While the cut out putty is still slightly wet, I have draped the sheet over the back of the horse. Notice how the sheet is too long.
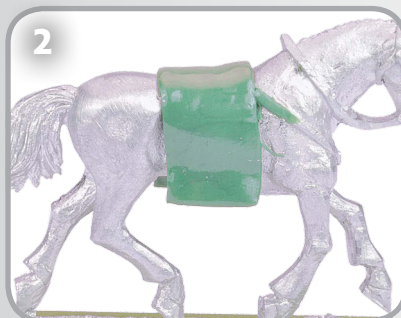
2. Working quickly, the sheet is smoothed over the contour of the horse's back. Creases in the blanket are sculpted in at this stage and the whole thing is left to dry completely.

3. With a fresh mix of putty, I rolled out another sheet using the same technique as above, only thinner (1mm) and cut into a lozenge shape, draped over the horse blanket.

4. The stirrups are made from plasticard stock and thick foil straps.

5. I have carved out the saddle supports from plasticard to match the silhouette of the horse, and attached the stirrups.

APPEARANCE CONVERSION - ADDING DETAILS

Sometimes there are no miniatures available for the exact year that you need for a certain themed game (or not enough variety). Converting what you need is sometimes the quickest and easiest way. Here I've converted French soldiers from 1914 to 1915 kit.

1. This 1914 uniform had red trousers, which were a big target in the field and are missing certain details, which are added later with putty.

2. The major changes of the 1915 uniform were the addition of a bedroll, anti-gas sachet around the neck, goggles and a larger coat collar. The basic formers were sculpted like other examples and the details added when the putty has cured a little. I started with the collar, and gas sachet.

3. For the goggles, small plasticard discs were cut out and glued on to the kepi and a strap of green stuff added. Note the trimmed down boots ready to have puttees added.

4. The final conversion with all the 1915 equipment on the miniature.

APPEARANCE CONVERSION - SCULPTING A SLING BAG

Sculpting a sling-bag - making a simple bag is a useful skill to have, for a fairly quick conversion. The only extra material I have used is some thick foil for the strap.

1. This is the miniature before converting it.

2. To start the bag, small balls are placed in the right place as a rough former.

3. The putty is then manipulated into the right shape with the flap of the bag added.

4. A small strap of foil is cut out and glued underneath the gun, hidden from view. The foil is bent into shape and finally glued onto the bag.

APPEARANCE CONVERSION - 15MM VEHICLE STOWAGE

When sculpting in 15mm, to get a good effect you have to slightly simplify the object, as too much detail can look out of place at this scale.

1. The former is made into baguette shapes in sensible stowage positions.

2. After the putty has dried for 10 minutes, to make it less soft and to hold its edge better, it is manipulated into shape, with flaps and depressions for the rope tie-downs, while the putty is drying. I have used a rectangle of plasticard to represent a box, keeping the details to a minimum. These can be quickly made into all types of stowage.

3. Finished converted campaign tank.
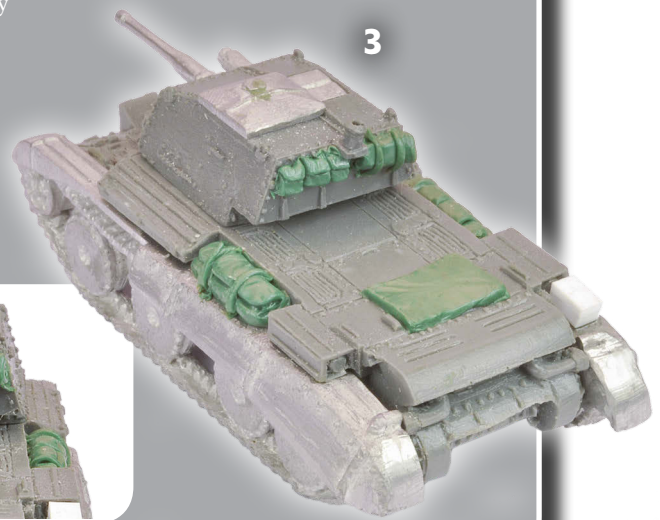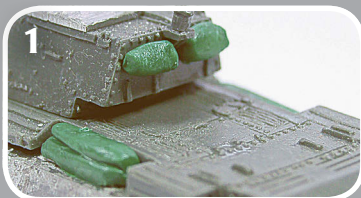
POSE CHANGES - SIMPLE

Simple pose changes are all about making the model look natural on top of your groundwork. When working on scenic bases and vignettes, I organically build the groundwork and any structures first, and then fit the figures on top, for more realism.

1. Here is the base I want the figure to be standing on. This example has not been adjusted properly to fit on the base and has an awkward appearance on top of another stone. I have measured the height, so I have an idea of how much I have to move the leg.

2. Here I have carefully cut off the leg, leaving as much detail as I can. With a "V" cut in the back of the kneecap, this is the natural pivot point, try and hide any cuts if possible from the front view of the figure. I can adjust the position of its leg so it fits on the base and then carefully glue it in place. Any large gaps can be filled with green stuff.

Using a 'V' cut means the length of the leg is correct, as the sculptor has done all the work for you. This method of cutting out wedges can be applied to arms, fingers and necks for pose changes.

POSE CHANGES - SIMPLE CHANGES ACROSS A UNIT

Unlike myself, who likes to keep conversions to a minimum, Dave Taylor, really enjoys chopping up his miniatures and repositioning them. For his recent Napoleonic project, Dave wanted a battalion of British riflemen built primarily from the Perry Miniatures plastics. As there are only two poses and two sets of arms, the amount of variety available from the stock models is limited (to four variants). By using many of the simple techniques described in this article, he was able to combine pieces from both the Victrix and Perry Miniatures Napoleonic British Infantry sets with the riflemen, some greenstuff and plasticard to create a unique unit.
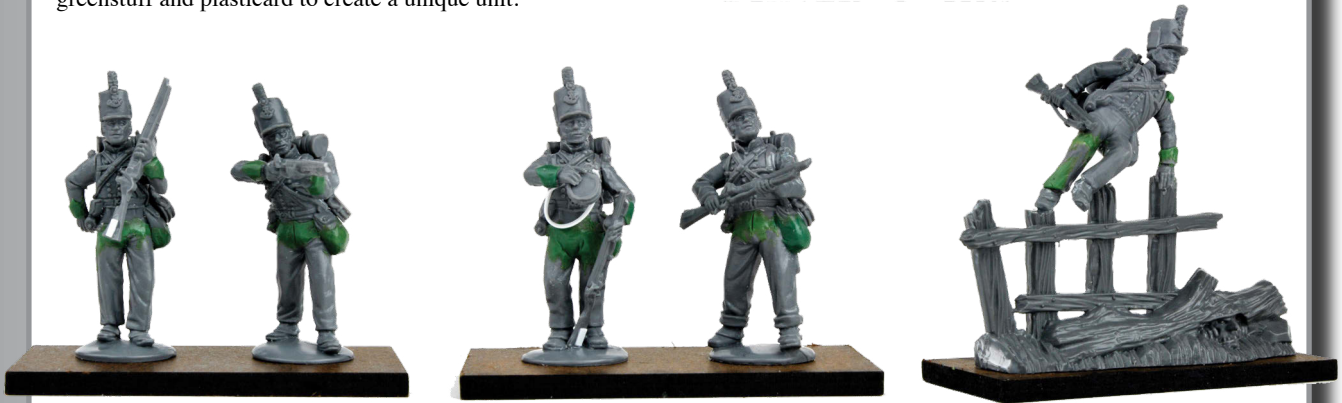
The 60th (Royal American) Rifles on campaign in the Peninsular War

POSE CHANGES - ADVANCED

Sometimes you are bitten by the inspiration bug, and when we were looking at running an article titled *Wargaming the Roman Army* (published in *WI272*) I was inspired to create a handful of early Italian hoplites based on a piece of art from an Osprey book (shown below). You can also see below the small yellow containers I use to keep my "bits" in when working on more complex or involved conversions. This way I can keep track of everything and don't end up attaching the wrong spear arm to the wrong body.

Above: Horatius at the Bridge, 508 BC, Illustration by Richard Hook from MAA 283
Early Roman Armies, *© Osprey Publishing Ltd. www.ospreypublishing.com*

PAINTING WITH AN AIRBRUSH

By Matt Parkes

Using the airbrush allows you to cover a lot of area in fast, smooth coats and is very good at producing flawless blending, especially when light sourcing miniatures and scenery. This can be a time consuming task that is otherwise only achieved with many layers of thinned down paint. I use this tool occasionally to achieve quick results although sometimes it takes longer to clean the gun afterwards than to paint the layers on.

EQUIPMENT

Before you start turning on the compressor, you need a few things in front of you.

• Airbrush gun. Same as paintbrushes, I recommend that you buy the highest quality that you can afford, as this will improve the quality of your work and save you money in the long run. I use an Iwata HP-TR1 with an underslung trigger, which is comfortable for those long sessions.

• A clear desk covered with a sheet of cardboard. This is for any overspray or to test the paint flow before committing to a miniature.

• Latex gloves, no-one likes blue hands!

• A roll of kitchen paper.

• A bottle of cheap car screenwash. I use this to thin down paint to a 50/50 mix and it helps atomise the paint before it hits the target, causing it to dry almost instantaneously, unlike using water, which causes the paint to run and collect in pools. You can buy premixed airbrush paint from all major paint suppliers, Vallejo, AK Interactive, Scale 75 and Zero Paints, which are all very high quality, but I keep coming back to the £1 screenwash and my normal paints.

• Air brush cleaner. Essential for cleaning afterwards and on the spot nozzle cleaning.

• Cotton buds. Really useful for removing unwanted paint and applying cleaning fluid where needed.

• Compressor. It really doesn't matter which brand you choose as long as it has a moisture trap, to stop unwanted water droplets entering the gun and ruining your work. It is worth experimenting with the pressure to find the right airflow; I normally work with 2 psi.

• A block of wood or something similar to attach the figure onto, as a holding tool. I use double-sided tape or blu-tac.

• Ventilation. The airbrush produces a lot of fine particles in the air which settle like dust.

When airbrushing, my work area is cleaned down, free of dust, with everything close to hand.

TOP TIP

Keep a pot full of cleaning fluid to hand, if the nozzle starts to get blocked with paint, apply the cleaning fluid to the nozzle with a cotton bud and keep the flow consistent.

Object Source Lighting

Painting a lightsource on a miniature can really add character and visual interest, whether it is from a flaming torch or a magical effect. In this stage-by-stage example, I have used a wall section, mainly because it's a large area so you can see what is going on. These techniques are easily transferable to any miniature. Also the beauty of using the airbrush for this technique is the gaps between the different tones can be quite large. The feathered edge of the airbrushed paint stroke gives the effect without having to use several thinned layers of paints or oils.

1. The light sourcing begins with Tamiya clear yellow (X-24) mixed with Tamiya X-20A thinner, in a very thin wash. The theory behind this is to build up the more intense colour layers nearer the source, which is the top right corner. These layers gradually change the wall colour from grey to yellow in a smooth transition

2. Remember to clean out your airbrush between each differnt colour. This time I have added more clear yellow to the paint mix and sprayed it inside the existing weak yellow tone.

3. The yellow tone is starting to build up to a substantial yellow colour, and the feathered spray gives a subtle blend to the natural colur of the wall.

4. This final layer of clear yellow is loaded into the airbrush straight from the pot, without any thinner added, for a concentrated colour.

5. The first stage of the light source highlights are now applied with the trusty paint brush, using a mid-tone yellow (Gold Yellow 007), following the direction of the arrow.

Highlights are also painted further out than the clear yellow paint, giving a subtle effect on the top of the bricks

6. The edges of the bricks are now highlighted with a bright yellow (Moon Yellow 005), concentrating on the top right corner of the brick.

Finally a dot highlight is applied in the top right of each brick. The whole wall is then varnished; notice how the whole effect is slightly toned down.

THE FOUR 'Cs' OF PAINTING

By Joe Sleboda

Hello, fellow hobby-friends! I am here today to talk to you about a way to cure what ails you, help you get a date, and put hair on your chest. Follow my advice for a brighter, better tomorrow that will include a better job, a faster car, and more money in your pocket. What I have for you is new, it's great, and it can be yours today!

Ok, not really. Of all that baloney in the preceding paragraph, the only thing that is true is that what we're going to cover in this article can be yours to use today.

This hobby of ours, that of using paint to depict little representations of warriors and conflicts, has been around for a long time. From the cave paintings in Lascaux to the basements, garages, and work rooms of our homes and apartments, people like us have been putting finger or brush to stone/metal/plastic for thousands of years. For a long time there was not much change other than the jump off of the canvas (or stone wall) to a physical model. Somewhat recently, geologically speaking, refinement to the hobby of painting toy soldiers for war games has seen a bit of a revolution. Just like how

Egyptian art took thousands of years to change appreciably, and then suddenly we had Picasso, Pollock, and Warhol, so too has miniature painting undergone a revolution. We used to use enamel paints, rough blocks of color, and a bit of dirt to bring our little armies to life. That worked for a very long time. Now we see new-fangled techniques like non-metallic metallics, object source lighting, and zenithal highlighting. Companies sell us paints with a higher pigment density, paints in color-grouped sets to speed up highlighting and shading, jars of ink, cans of furniture wax re-branded as something called "dip," and all sorts of other products aimed at making us better (or in some cases, simply faster) painters.

Well, I'm here to say that you don't really need to latch on to the newest fashionable trend to be a better painter. Throughout

the evolution of our hobby, right up to today, with old materials and new, there are some basic concepts that have remained true. That's what I am writing about today. These are things I have been asked about, talked about, and written about for years. I've been painting toy soldiers for more than 26 years now, and these things are as true today as they were when I started. I refer to this set of ideas as the Four Cs.

We'll explore each "C" in detail, but here's a summary:

COLOR - Choosing the wrong colors can destroy an otherwise well-executed paint job.

COMPOSITION - Deciding where to place those colors on a model will have a huge impact on how viewers take in the overall effect of your work.

COLOR

Blue and purple are very close to each other on the color wheel, making for a slightly jarring result, particularly with these saturated examples.

Red and green, however, work well together as they are opposite each other on the color wheel. The use of a muted tone for one of the colors helps too.

This lone splash of bright red "blood" draws the eye away from the rest of the model. These muted "blood" splashes, meanwhile, form a triangle that frames the model's face

🔍 **200%**

🔍 **200%**

Poor composition choice has resulted in a big mass of yellow: the right boot, pants, and belt.

Good choices mean that large areas are broken up, but linked to other areas of the model: yellow detailing links the pants and tunic, bone detailing links the pants and shield, blue detailing links the shield and the arm.
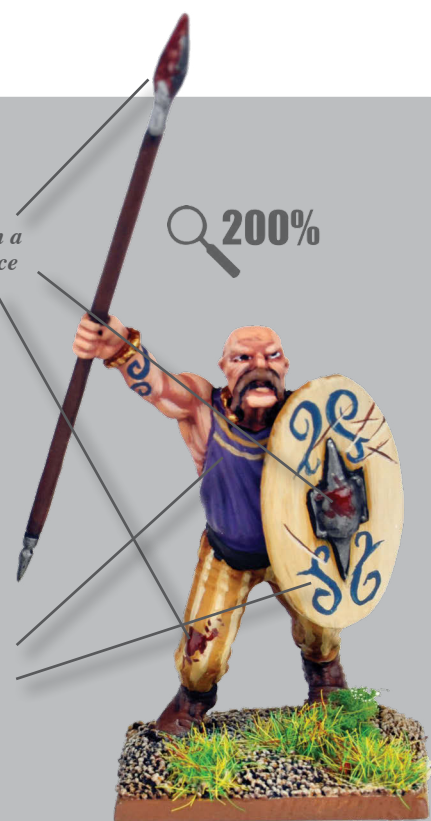
CONTRAST - Even within simple color selection, finding just the right interplay between light and dark, highlight and shadow, peanut butter and jelly (ok, not really) can create a striking effect. Get this wrong and see an otherwise remarkable paint job turn into...blah.

CORRECTION - I refer to miniature painting as "the fine art of correction" for a reason. Even the best of us will make the occasional (or not so occasional as we age and our hands start to shake) mistake. The only real, unforgivable, mistake is to not correct them.

Those are the general ideas. Now it's time to go through each one and put some flesh on those bones. In collaboration with miniature painter Dave Taylor (also the U.S. Editor of this august rag), I will explain each of my Four Cs through the use of painted examples. Each example will show what happens when one of the Four Cs gets ignored. Think of it as our version of "What Not To Wear" (What Not To Paint) only with a subject we actually care about, way less advertising, and (marginally) less arrogance.

Here we go....

Thanks to the good people at **Warlord Games**, **Gripping Beast**, and **Perry Miniatures** we have a nice variety of models as the subjects of our painting attentions. One photo in each case is what that model should look like when painted with all the correct decisions made. There's something about him that just looks right. The colors don't make you want to avert your gaze. Your eye does not wander off the model. You are able to pick out the distinct areas of the

model and are not distracted by smears, runs, and other flaws in the work. Again, he just looks right. The other photo in each section was deliberately painted ignoring one of our "Cs" (very much on purpose - Dave is much better than these abominations show, as you can see in the good versions).

So, what if we messed with our first "C" - the color choices - using one of the Celts from **Warlord Games**? Instead of the sensible colors Dave chose for the good example, what if his pants were purple and his tunic slapped our faces with a nice light blue? Can you imagine the things his fellow warriors would say about him? "Ha! Bran spent too much time in Gaul, I think!" That might be the kindest thing. Take a look for yourself.

Color choices generally go wrong in two ways. The painter either uses colors that do not work well together or he uses too many colors.

I recommend a limit of three main colors for a model. You can do bits and bobs like belts and ropes in neutral colors and not think of these as additional color choices. I'm talking about things like shields, shirts, kilts and other major 'block' areas. Don't make each of these a different color and then introduce more colors with brightly-dyed hair, tattoos, pouches, scabbards, or whatever else. Give your viewer two or three main colors to process. These models are quite small. Using too many colors will have only one effect - scattering the focus of the viewer. If your goal is to camouflage your warrior so he or she can blend into a circus diorama, then great. Otherwise, keep it under control.

Once you limit your number of colors, you are left choosing which colors to use. For many historical periods, the choices are already made for you in the form of uniforms and the like. For the times when you can choose, such as with our Celt, you get to be creative. Now, I know that not everyone has a keen artistic eye. The good news is that you don't have to have one to pull off a great scheme. Two things can guide you in your selection: the color wheel and big-business marketing.

There are books on color theory out there, most of which are written by learned men and women with letters after their names and huge student loan payments. If you want to understand the science of color theory, check some of those out. For our purposes, all we have to know is that colors opposite each other on a color wheel generally look good together. Yes, this is why Christmas is so successful - it has good colors (nothing to do with tradition, family, consumerism, and whatnot, noooo...). Red and green are great together. So are blue/orange and yellow/purple pairings (dark chocolate and a fine red zin are another great pairing). Once you expand beyond a basic six-color version of the color wheel you start to see more great combinations. Colors next to each other on the wheel are too similar (in fact, they share the same pigments - sort of like kissing-cousins), which makes them stand out against each other less and just kind of mush together. Mush is for orphans. Art is for wargamers. Make art, not mush.

There is, as previously mentioned, another way to pick colors other than a color wheel. This other way is by taking

advantage of the vast marketing budgets of corporations around the world.

Products that look better than others sell better than others. Comic book characters, video game models, and sports teams are often given uniforms that have stunning visual appeal. It's not a surefire method of color selection, to be sure, but it is a good guide. There's a good chance that the character or team that you think looks fantastic has had its look influenced by color selections that will appeal to viewers. Let those marketing dollars work for you!

Alright then, you've got your colors, but what do you do with them? It's not enough to randomly splash your choices around and hope for a good result. Never hope. Plan. You have to pay attention to where your colors run. This is where "C" number two comes in - Composition.

Take a look at Dave's crazy, messed up, freak - creatively named Celt #2. Mr Taylor had to work really hard to mess up a guy this badly. The main two problems with the color placement choices on this model are: grouping, and the "Ooh, ooh, over there" effect.

Grouping refers to the distribution of colors over the model. It does little good to pick good colors, say yellow and purple, and then arrange them poorly. In Dave's nasty, nasty, nasty version of this Celt, he has put the colors on the model seemingly at random. One boot, his belt and his pants are yellow and the tunic is purple*. The sections of the model are at the same time broken up too clearly and not interesting at all. There's no cohesion, no plan - nothing to keep the

eye interested. This is not the case in the well-painted model. Not only are the boots and belt a sensible neutral color, but the yellow of the pants is carried up into the purple of the shirt by a bit of freehand work. This is really great technique on Dave's part. Even models without several distinct components can spread the color-love around with a bit of freehand. Having yellow up high and down low on the model, balanced by a 'heavier' color in the center, the eye is less inclined to wander or to settle on just one area. The viewer (you!) takes in the work as a whole. Much better.

The other problem with the sad little Celt is the bright, garish blood on his spear tip. Yes, we get it. It can be fun to add some flair that says "Grr! I'm a fierce and bloodthirsty warrior!" In this case, all it does is say "Ooo! Look! Up here! No, no, don't look at me, look at my spear tip... waaaay up there!" Since there is no other red on the model, and red is a particularly eye-catching color, sticking a single splash of red far away from the center mass of the model draws the viewer's eye to that single point and off of the model as a whole. By contrast, the good Celt has no such distraction and is consequently a much more successful paint job.

The Saxon from **Gripping Beast** is a great model to use for the Contrast example. He has chainmail, a metal helmet, straps - all sorts of generally 'greyish' sections that don't usually get a lot of colors. In order to create visual appeal, careful use of contrast is a must.

Begin by looking at Wulstan the Saxon. In addition to his metal sections and

straps, he has had his tunic painted a basic grey. The wood of his spear is a weathered grey-brown. This scabbard is non-descript. The leggings look like twenty year old hospital gauze. This model just seems flat.

However, standing next to him we see what can be done, even with limited areas for color application, to make a model really stand out. See how Dave has opted for a lighter wood for the spear, a lighter leather for the scabbard, and more depth in his leggings (by adding highlights). These alone would be enough to help, but Dave has not stopped there. By going with a dark color for the moustache, he has not only tied in the darker tones of the pants and the boots, but he has broken up the face/neckline and torso/hips, creating more sections of the model that gain individual attention. Do note, though, that his color choice and his composition with those colors keep your eye on the complete model rather than each of the sections. It's not easy to make models that are mostly wood, leather, and armor have some visual pop, but Dave's done it by keeping the Cs in mind. You can as well.

Finally, we come to a personal favorite - Correction. I meant what I wrote earlier about shaking hands. I have been painting for more than 26 years. My eyes and hands are not what they used to be, but I love my hobby far too much to give up on it. Despite my love, I make lots of mistakes. As easy as it would be to ignore them and move on to my next figure, it is my dedication to Correction that keeps my models looking even remotely passable as I meander off into my dotage.

CONTRAST

🔍 200%

Contrast is one of the easiest things to "mess up". Darker colors are generally quicker to paint as they usually have better coverage. Neutral colors (browns and greys mostly) can also tend to have very similar tonal qualities.

🔍 200%

As you can see, most of the colors chosen for the model on the right were used on the model on the left. The model on the right, however, has had contrasting tones applied alternately across the model. There is a deliberate effort to put light next to dark or mid-tones, and dark tones next to mid- or light tones, etc.

CORRECTION

Perhaps the most important C to practice, particularly if your chosen period leaves you with little freedom for painting uniforms (ie. the colors are assigned by history).

As Joe says in the article, he refers to miniature painting as "the fine art of correction". Initially Correction will seem like the most time-consuming aspect of painting. With more and more practice and attention paid to where you brush is going, you can cut down on the number of "mistakes" you make, therefore reducing the number of corrections you need to make. Over time (and an army project) this will increase not only your painting speed but, more importantly, also the quality of your finished models.

Dave has been kind enough to make a great number of obvious mistakes while painting the Napoleonic French soldier from **Perry Miniatures**. Hopefully you can easily spot most of them. From the running mascara of the eyes, to the completely missing the pom-pom on the fellow's shako, the mistakes on this model are easy to spot.

If you can get past the flak-storm of mistakes on the model, you will see that it is otherwise the same as the soldier who knows that pride in uniform is part of a soldier's duty. The color selection is the same, as you would expect from a toy soldier selected from a uniformed historical force. The composition and contrast displayed in the execution of the painting are both virtually identical. The only difference is the time spent correcting.

The well-painted soldier has no running makeup, no smears of shading washes that were not covered by mid-tones and highlights, no highlights (speaking of which) that missed and hit a shadow area, and so on. It also has no areas which were just plain missed. Though technically not "correction" as such, I count missed areas as things to be corrected just the same.

Honestly, there's not much to say here. It's not about an artistic eye, color theory or hard to pronounce terms like *chiaroscuro*. It's just taking the time while painting to be neat and having enough pride in one's work to go back and fix the things that got messed up along the way.

I think the key is to not get discouraged when you make a mistake in painting. Know that you can go back and fix it.

Have a plan. Some people like to paint darker colors first, some last. Some like to start with areas closer to the naked flesh, others...not so much. Find a method that works for you and be willing suffer minor setbacks, knowing that you plan to fix them later. It's better to expect the little mistakes and be ready to fix them than to expect perfection and be put off when the smallest of things goes wrong (and make no mistake - or do, I suppose! - these little guys are small, so you will miss your mark now and then).

As you can see, "The Four Cs of Painting Toy Soldiers" are pretty basic. It's not hard to keep them in mind while working on your armies. Whether you plan to just play in your basement or to take your force to a tournament where painting might be scored as part of determining who wins, if you apply the Four Cs your results will set you apart.

I'm always glad to talk to fellow figure painters. This little hobby of ours is like the Force - it surrounds us, penetrates us and combines us. It's the shared wisdom and experiences of our fellows that keeps us growing and having fun. None of us has all the answers, but we should all be willing to listen to others. To that end, if you have input or questions, I'd love to hear them. You can reach me at:

sayhellotojoe@withtheaveragejoe.com

* A note on muted tones. While I refer to colors by common names like purple and yellow, keep in mind that this does not have to mean highly saturated, pure tones. In fact, with many historical eras or cultures, colors will be significantly less brilliant than one might find in the looms during the Age of Chivalry. Just because we call a color "purple" it doesn't mean it has to scream "Look at me! I'm a Barney the Dinosaur!"

...and there you have it! Through the use of a variety of miniatures we've shown you the four most important aspects when it comes to planning out and executing any painting project you are about to embark on. Please remember too, that the techniques can be applied to any period, color scheme, uniform, or miniature range you might want to tackle. Have fun!