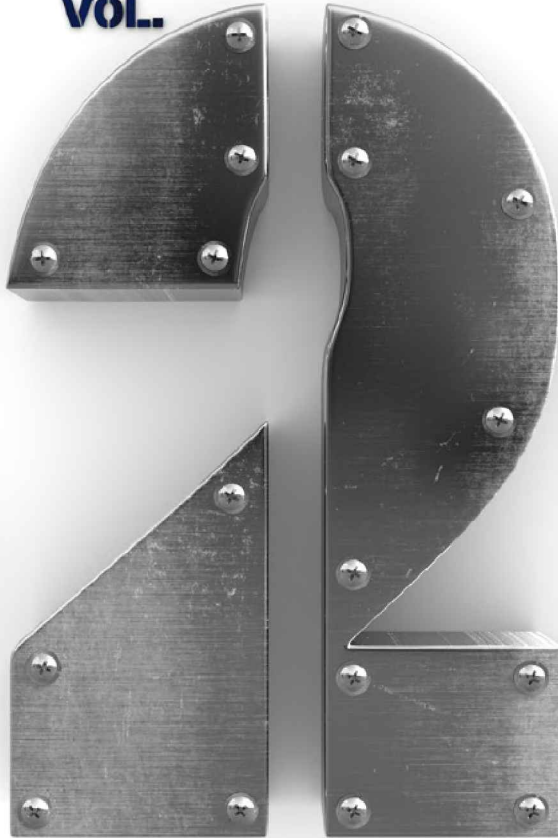


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VOL.



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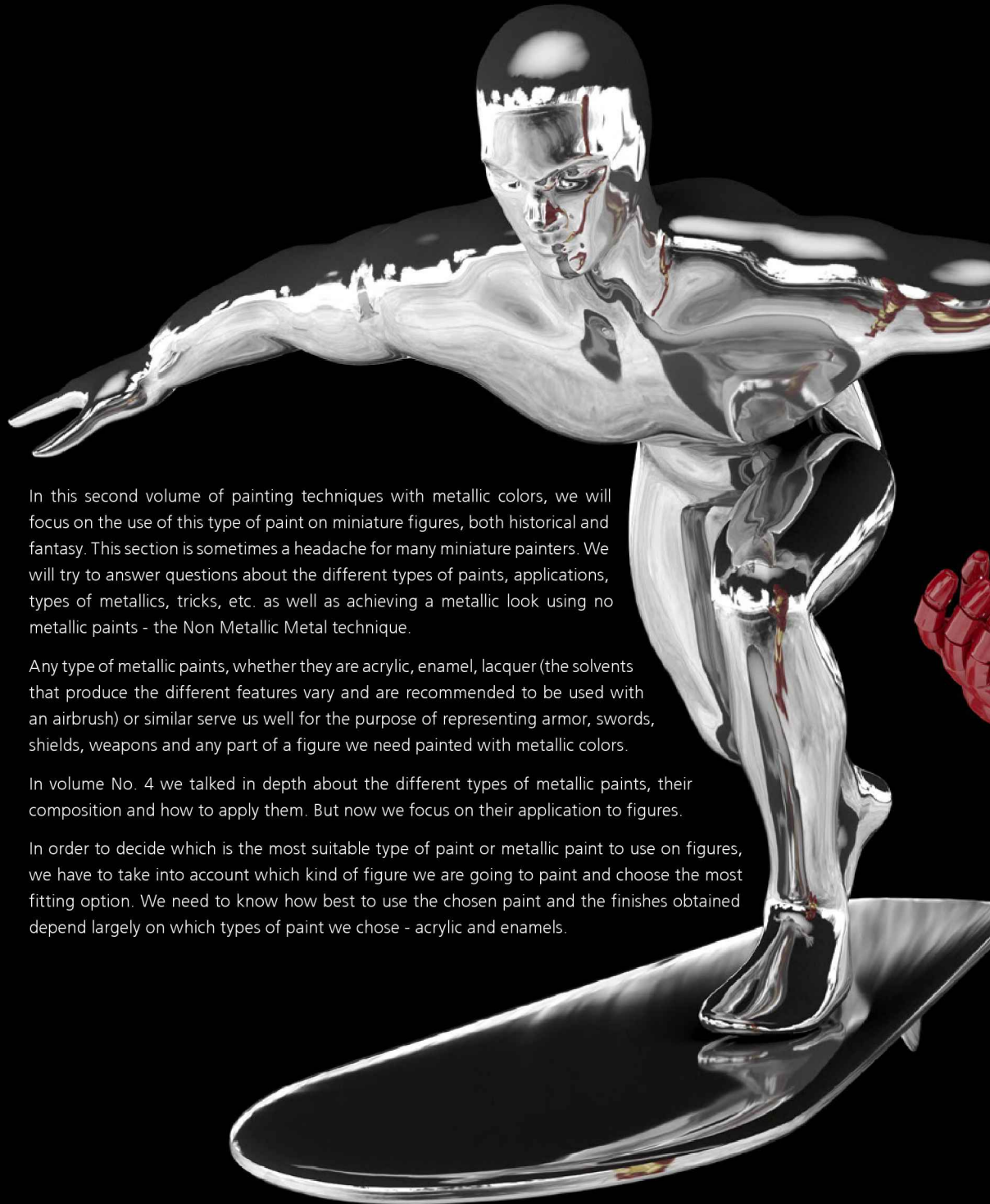
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1. INTRODUCTION



In this second volume of painting techniques with metallic colors, we will focus on the use of this type of paint on miniature figures, both historical and fantasy. This section is sometimes a headache for many miniature painters. We will try to answer questions about the different types of paints, applications, types of metallics, tricks, etc. as well as achieving a metallic look using no metallic paints - the Non Metallic Metal technique.

Any type of metallic paints, whether they are acrylic, enamel, lacquer (the solvents that produce the different features vary and are recommended to be used with an airbrush) or similar serve us well for the purpose of representing armor, swords, shields, weapons and any part of a figure we need painted with metallic colors.

In volume No. 4 we talked in depth about the different types of metallic paints, their composition and how to apply them. But now we focus on their application to figures.

In order to decide which is the most suitable type of paint or metallic paint to use on figures, we have to take into account which kind of figure we are going to paint and choose the most fitting option. We need to know how best to use the chosen paint and the finishes obtained depend largely on which types of paint we chose - acrylic and enamels.



2. PAINT TYPES

2.1. ACRYLIC METALLIC PAINTS:

Let us remember that these are paints with an acrylic base, so water can be added if needed or they can be used directly from the container. Our accessories and brushes can easily be cleaned with water and they are ideal for small areas, such as swords, guns, medals, water bottles, etc. Their downside is, with the exception of some brands on the market, that this type of paint, due to its composition, doesn't give us a realistic enough finish on large surfaces or on figures with large armor plates. In some cases applying this paint may be tedious and slow when adding too much water and the metallic pigment may even separate from the aqueous medium.

2.2. ENAMEL METALLIC PAINTS:

Unlike acrylic paints, these enamel-based paints are ideal for all types of surfaces, especially large areas of armor, helmets, etc. This suitability is due to the composition of the paint itself. The fine pigment used in their manufacturing produces a great quality metallic finish with realism and smoothness. The downside in this case is that we will need to dilute them to use and will need to clean our tools and brushes with solvents like White Spirit or Turpentine. These solvents produce annoying odors, however there are several odorless solvent-based products available in the market like AK's 'Odorless Thinner', that make this process less unpleasant both for the modelers and the environment in which they are used.

In general these are the main types of metallic paints that are available in the market: metallic paints with an alcohol base (Adithes, Vallejo, etc) and the pure metallic pigments, both in powder or agglutinated in a pencil-like bar in you can find in the market, also used to perform certain tasks, such as polishing weapons, buttons enhancement, wires, wedges, chips, etc.

Note that these paints can be applied by brush and airbrush, by thinning with solvents. It is necessary to find the right ratio in case we need to use the airbrush. These tools must be perfectly cleaned before undertaking any other work with any other non-metallic paint, as some deposits of metallic pigment may stay and ruin the next model. It would be ideal to have a separate set of brushes, and airbrushes if possible, devoted only for painting these metallic surfaces.

All of these paints, both acrylic and enamel, can be mixed with colors of the same type to achieve different shades and thus expand the chromatic possibilities of metallic finishes in figures.

Further, in figure painting with a metallic finish, there is a technique explained in the later pages. This entails the polishing of the metallic part of the figure itself (if there are metal areas) and afterwards treating it with inks, colors or weathering tones for a more realistic finish.

By using metallic paints, we can achieve a realistic metallic look. Also, we will see a very special technique on the use of non-metallic paints to achieve a very convincing metallic outcome.

Hopefully this second volume is helpful for you and resolves any doubts about using metallic paints in miniature painting.



Comparison between acrylic paint and lacquer applied with airbrush. The acrylic paint texture is coarser and less realistic than lacquer. In addition, the brightness of the lacquer finish is not achieved on large areas. Acrylic paint is more suitable for working with brush or for small details.



The pigments, graphite pencils, or alcohol-based paints can be used for certain works. On the top left side of the chip we can see the graphite pencil used to highlight the edge and at the bottom right we can see pigment applied with a finger.

3. TECHNIQUES

PAINTING METALS

The treatment for metallic surfaces (such as armor, for example) on miniatures can be achieved, generally, in two different ways:

- Using paints which contain metallic pigment, which is the most common way.
- Using standard pictures and trying to simulate the finish of the metal (Non Metallic Metal or NMM).

It is also possible to use both techniques together, to obtain a "mixed" system.



3.1. PAINTS WITH METALLIC PIGMENT (PMP)



In this first part of this article, we will explain the basic use of paints with metallic pigments.

Painting metals with PMP is, on the one hand, easy and intuitive to perform, getting acceptable results with little experience and work. Moreover, it is an indispensable part of miniature painting and so is useful to master.

Thus, the main problem we must solve to paint metallics realistically, as too with other painting techniques, is how to work on such a small scale compared to the reality of the subject. To do this, we must artificially enhance the volume and detail of our miniature. In this regard, only the brightness of the metallic pigment paint will not get a credible result, so we have to utilize good contrast also.

3.1.1. PRIMER

The primer generally tends to be black base or a dark color, but if the metallic paint is of good quality, we should have no problem in using it over a gray or even white primer. It will cover well and not let any hint of the primer layer, be it clear or dark, show through.



3.1.2. BASE LAYER

When working with metallic colors, we will use the same general method as with non-metallic colors. That is, using a mid-tone base onto which we apply the first highlight and then shade progressively. However, keep in mind that the margin to illuminate the metallic paint is more restricted than in normal painting, so it is advisable to start from a dark base color.

To this base color, and always depending on the type of metal you wish to simulate (gold, bronze, silver, etc.), we will choose a suitable metallic paint tone and can even supplement it by adding small portions of normal paint. In this case, the extra mixture serves both to enhance the appearance of metal (red tones to copper and bronze, blue or silver, yellow for gold, etc.) and to obtain more original or "custom" colors (purples, green, etc.), but this is always done in a very small amount.



3.1.3. HIGHLIGHT

As in any process of highlighting, we should define the planes of the model in terms of light and shadow, as well as the areas of maximum illumination. Thanks to the shiny nature of the metal, both the identification of such planes and the transition of the blending, are simpler to perform than with non-metallic paint.

Taking as an example the paints from Citadel, this table can summarize roughly the work scheme for different metallic tones and highlight:

METAL	BASECOAT	1° HIGHLIGHT	2° HIGHLIGHT	3° HIGHLIGHT
Gold 	Steel + Gold	Gold	Gold + Silver	Silver
Silver 	Steel + Black	Steel	Steel + Silver	Silver
Steel 	Dark Steel + Black	Dark Steel + Steel	Steel	Steel + Silver
Bronze 	Dark Steel + Bronze	Steel + Bronze	Bronze	Bronze + Silver
Copper 	Dark Steel + Bronze	Steel + Bronze	Bronze + Gold	Gold + Silver

(Scale of darkness: Dark Steel > Steel > Silver)





By using the usual highlighting method, we see in the two images the successive layers of highlights blending very well with each other, showing a pair of successive layers in each stage. For the first highlight (1), I used a mix of Boltgun Metal + Chainmail + a bit of Bronze, to achieve reddish tone. For the second highlight (2), I only applied Chainmail.

3.1.4. SHADING

The work for the shading will vary from highlighting in two important respects:

- Will not use metallic paints, just non-metallic paints. With this we remove the brightness of the metallic paint, helping to create a better contrast. If we wish to keep that shine, we can use inks instead of paints, since inks have a satin finish.
- We will work with very diluted paint layers (glazes), covering little and remaining transparent for the tones that are below them. Shading is the part that must give us the true definition of the work in metals, and as such we will use glazes, to get many layers: the darkest of which are almost black (hiding the layers of paint below) and the lighter glazes are almost transparent.

The main color we use will be black (of course, very diluted), applying numerous layers. However, while we shade the main tone of the metal can be reinforced by adding to the black the appropriate colors in each case (blue for silver or steel, red for bronze, etc).

The glazes should be concentrated progressively in the deepest areas, reaching almost pure black in those parts where the light does not reach.

In this sample the first shadowing (1) was done with several (maybe 3 or 4) layers of diluted black, always ensuring that each one is dry before applying the next. For the second shadow layer (2), a dark tone of brown was applied, repeating the same process as for black. And finally (3), I applied some general shadowing with a mix of black and Blood Red (very diluted, as always), to reinforce the reddish tone.



Tone to get variation in each metal like in the case of our simple red. This proces can be done without this step.

3.1.5. DEFINITION AND FINAL HIGHLIGHTS

In this final step, we try to give our miniature the highest definition: will outline the edges, place points of maximum light and will paint small details like studs, spikes etc. For this step, the color used most is pure Silver, but we can also use the base color with a bit of pure white (1). To homogenize the whole surface, we can use a final wash (in this case Blood Red + Black) (2), which is a bit less diluted than in the shadowing stage.



We can see the contrast in this armour.



3.1.6. EFFECTS AND ATMOSPHERE

So far, we have followed the process to paint a metal surface in perfect condition, but we can go further and give it different effects to represent other states of use. The most common of these are oxides (reddish or orange for iron, greenish for copper or bronze, etc.) or stains (mud, blood, oil). But we can also integrate the miniature in the atmosphere of the rest of the scene, with filters of appropriate colors. In this example, I opted for a blood stain and some oxide in greenish tones.

All these effects are independent of the previous painting, and can be done with different techniques like glazes, washes, dotting or blending, as shown in the following examples.





IRON

Oxidation tends to be a dark brown color, so the products indicated for the weathering here are washes and rust effects.



STEEL

As well as Iron, Steel tends towards reddish brown colors, thus washes and rust effects can again be used.



ALUMINUM

This special alloy avoids corrosion but tends to darken and loses shine through time. Using filters and dull, grey tone washes are advised



COPPER

Copper is affected by corrosion creating a green and blueish surface that can be achieved with the same color effects.



BRONZE

Due to its special nature and resistance to corrosion, when Bronze ages it tends to light black or blue tones depending on degradation.



BRASS

Like other corrosion resistant metals, Brass suffers primarily from alterations in the brightness and thus darkening filters with sepia tones or smoke colors are appropriate.



CHROME

The main characteristic of Chrome is that it changes to brown under high temperatures. But if constantly exposed, it loses brightness in the long term and darkened areas appear. The smoke color inks are very suitable for weathering these parts.



SILVER

Silver goes from being a very shiny metal to red and brownish when the first oxidation effects appear.



GOLD

Gold goes from being a very shiny metal to red and brownish when the first oxidation effects appear.

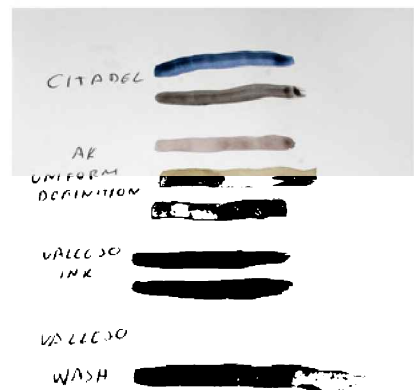
3.2. NON METALLIC METAL

Non Metallic Metal (NMM) is a technique by which we want to represent the metallic aspect or finish, but through the use of matte paints. For this, it is necessary to represent the shine, reflections and shadows that would appear on the materials of a metallic nature, in the different and specific angles.

If done correctly, this is a very attractive and appealing visual effect, which works especially well on scale models. However, its main drawback is that (unlike the real metal which reflects light depending on where you look), this just works well only when viewing the miniature on the angle in which it was originally painted. If seen from other angles, the optical effect created is broken.

The main factors we must take into account when correctly using NMM are:

- First of all, it is essential to obtain clean and smooth transition and it is necessary to blend very well or/and use many glazes.



- It is also important to use with caution, and precision pure, (or nearly pure) black and white tones to mark the volumes and shapes correctly.



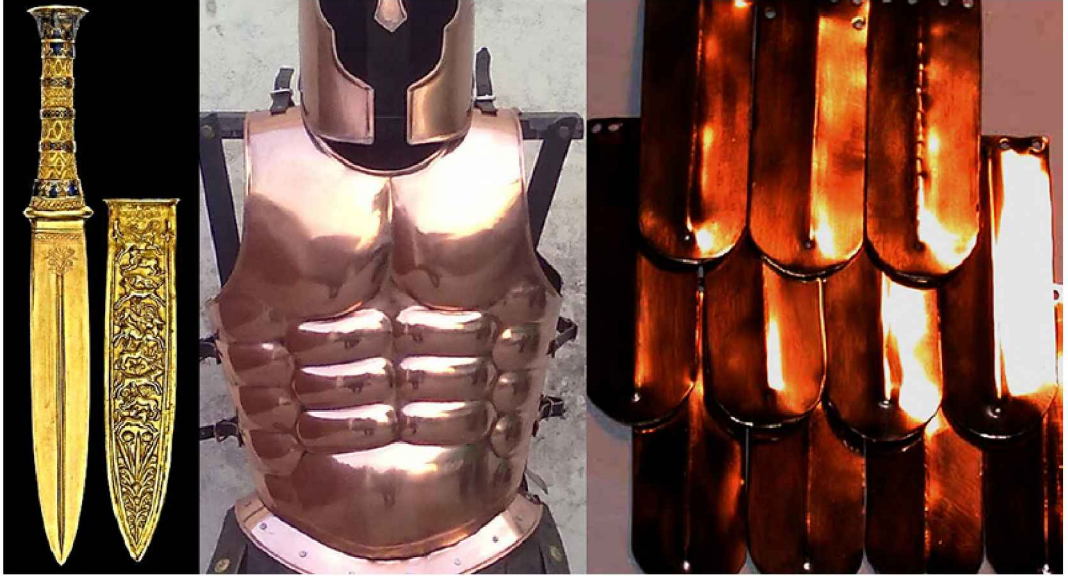
- We must clearly define the planes of light and shadow, illuminating each one in the opposite way for maximum contrast between them. It is very important to define the different planes of the piece well, with fine, precise lines on the one hand and with fine, soft blending on the other.
- Finally, adding points of light will add to the final brightness of the surface.



In Fantasy, metallic colors can be colored to give more eye candy to the figures. In this case we will apply the same technique but with the chosen color tones.

As you can see, it is a technique that requires an accurate interpretation of the angles of light and shadows as well as the volumes of paint surfaces. So, until we gain experience and understand these processes well and how to use them properly, it is usually a better idea to copy the effect we want to reproduce off any source (photographs, other miniatures, etc.). The best way is getting real images and photographs, to observe the actual effect.

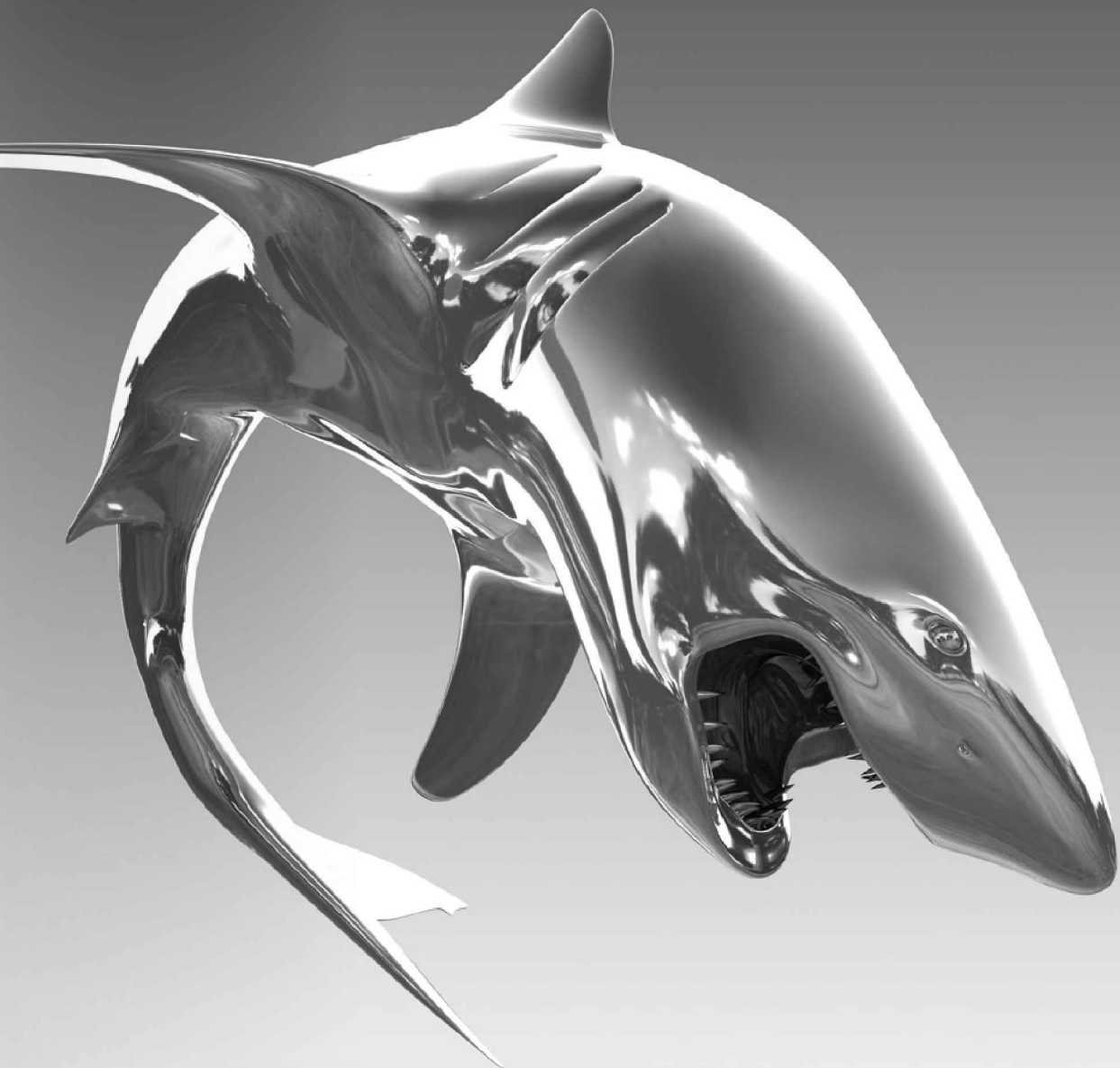




Using NMM on a small or basic part of the miniature is quite simple (for example, a sword or shoulder pad), but as the surface to paint becomes more complex, there are other factors we must take into account and the process too becomes more complicated: different angles and orientations in the same piece, different degrees of light and shadow, etc.

Of course, once we finish the NMM, we can give it different effects: damage, oxide, dirt, etc., as explained in section paint with metallic pigments (page 15).





3.2.1. THE NON METALLIC METAL TECHNIQUE

This technique was initially used in both illustration and picture painting for many years, this concept has also been adapted to 3D painting and for this reason the NMM technique must be understood. To perform it properly, without haste or impatience, by focusing on the main area of the figure and to get this whole painting process uniform starting with the main plane.

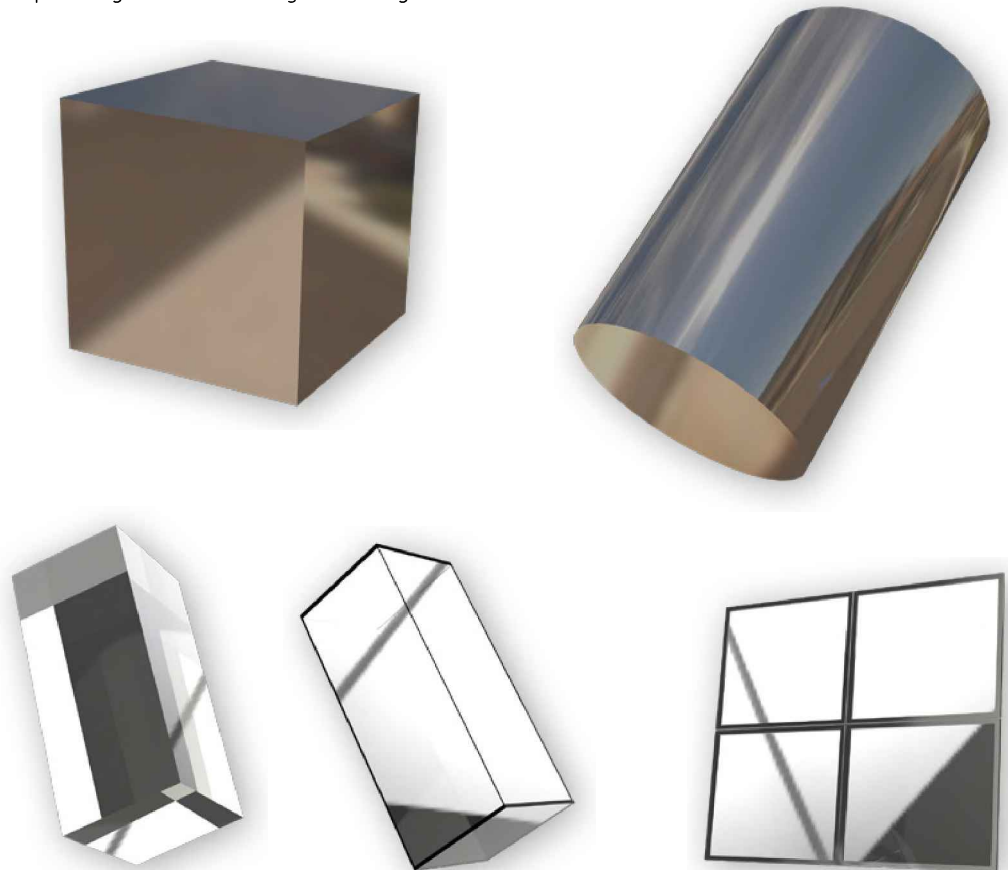
There are three very important things that are key for a figure or miniature to look good with this technique: the incidence of light, contrast and placement of lights/shadows.

3.2.2. LIGHT INCIDENCE

This point is perhaps the most boring, and is the more theoretical or scientific in theme, but is indispensable in understanding this technique.

It is understood as light strikes each material to represent, observe and identify and then pass it to the figure with certain guarantees of success. Thus, a flat rectangular surface is not the same lighting another cylindrical or conical, so it is advisable to study how light behaves in these geometric shapes reality or actual sources consult charts to facilitate this process and to facilitate their understanding the maximum possible.

Examples of light incidence over geometric figures.



3.2.3. CONTRAST

This concept is important because the metal has certain peculiarities not possessed by other materials such as skin, leather or fabric. The metal itself tends to look lighter in an area, leaving the rest of the piece virtually in complete darkness. If we want to imitate this behavior we have to get that maximum contrast to make it look like metal, but it can also occur that the material we wanted to imitate looks like stone instead, as in the case of white or brown metallic golden garments. With colored metals in fantasy, the contrast can be accentuated even more.



3.2.4. LIGHTS/SHADOWS WHERE TO PLACE THEM

Once we understand the previous point, with the mindset and the technique of NMM along with the capabilities of each, we can attempt the premises that will make our NMM scheme applied on figures more satisfactory and producing a more convincing metallic effect.



3.2.5 BASIC GRAPHIC SAMPLE ON AN AXE

NON METALLIC METAL IN EIGHT STEPS

In this short section, we will show, using photos, how to paint an axe with the technique of Non Metallic Metal, quickly and convincingly by using colors and simple mixtures.

First, apply a quality gray primer, in this case, AK175 'Gray Primer'.

We apply a German Gray base (VC), which is perfect to imitate a dark metal.

We start adding highlights to the base color using Gray Dark Blue (VC), keeping in mind the lighting and volumes that we want to highlight to achieve the final effect.

In this case, we want to highlight the the blade of the axe from its middle towards the upper vertex, the middle part of the axe from the center downwards and the central coupling upwards and the rear downwards. Notice how the initial outline corresponds to the theory of the NMM technique.

In this step, we continue lighting with the same color added in bigger proportion to the base, and keep directing the strokes towards the areas of maximum light, which we have sketched in the previous step.





5

In this last highlighting step, we start from the pure Dark Blue Gray and add Gray Light Blue (VC) and we finish off the light area, but without actually making the highest outlines and shines.



6

Now we turn to shade the zones opposite to the light, adding to the base color a little Matte Black.



7

Finally, for the shadows with highly diluted black and, using glazes, we will finish giving the final shade to the set. Focusing these last shades in the areas where there are more shadows creating the desired contrast making the axe have a very convincing metallic appearance.



8

Finally, we use black and white to mark the edges, outlines, give more volume and the final highlights. We will use white on the edge of the axe and areas of highlighting. Pure black will delimit the areas which will be outlined and the light joints.

3.2.6 BASIC GRAPHIC SAMPLE ON A MASK

NMM: STEP BY STEP

In this example, I will try to represent an iron or steel shield. I start with a black primer (1) and a very dark blue basecoat (2).



Now, I highlight with lot of layers, in 3 main phases:

1. Starting with the Black and Blue mix used in the basecoat, and progressively eliminating the black in each layer. The pictures represent the first (3) and last (4) layers of this highlight stage, of a total of 3-4.



2. Now highlight adding a small amount of Bleached Bone to the blue. As before, (5) is the first layer adding the brighter color and (6) the last.



3. In the last phase, I start to add white to the mix. (7) first layer and (8) the last.



At this point, I started the process of shadowing. Unlike when using paints with metallic pigments, in NMM it is much more important that the highlighting work, against which we have created the main contrasts. Shading will be used primarily to serve two functions:

- To blend some transitions and contrasting a bit more towards the shadows. This I have done with a few blue and black glazes (9).
- To give the highest definition possible to the miniature and create the characteristic extreme contrasts of metal reflections. I do this in outlining aggressively with pure black (carefully to get very fine lines), in the deepest wrinkles and gaps (10)



And finally, to complement the work outlining in black, I outline with almost pure white the most external and exposed points and edges, and add some points of light and bright spots (to simulate reflections) (11). One last step, though optional, is giving the piece some different tone. I decided to do this with a complementary color to the dominant blue - a reddish brown, given in the shadow zones, with gentle glazes again (12).



3.2.7. COLORS AND KINDS OF METAL

Depending on the material we want to represent in NMM, different colors are used. For silver, steel or iron we will use a range of blues and grays, for gold - brown and yellow, for bronze - red and brown. Of course, in all cases we will end up working with almost white (at the highlights) and black (in the shadows).

SILVERED METAL

To represent this type of metal using the NMM technique, the colors chosen are basically a wide range of greys, white and black, including some shades of blue.

To the base we can always add different tones depending on the finish we wish to achieve. As a rule for such metals, we will paint over a neutral gray (Neutral Gray, Anthracite, Black Gray, etc.).

For highlighting, we use lighter tones of gray depending on the final shade of the metal we want to represent (Gray Blue, Light Gray, Pale Gray, Blue Arctic, etc.) leaving until last the outlines and final highlights with lighter colors or pure white.

To make the shadows we can apply a darker gray and keep adding black successively, finishing if necessary with a pure black tone. We can also finish the metallic effect by applying glazes with blue and green, depending on the finish and the whole scene.



GOLDEN METAL

To imitate this metal, the color range used is varied but focused on different shades of brown such as English Uniform, Brown Leather, New Wood, etc., which always reminds us of golden metal.

Highlighting these colors is the most important part and here can be used a wide range of shades from yellow (Yellow Gold, Japanese Standard, Vivid Amarillo...), through ocher or sand (Ocher brown, Yellow Desert, Iraqi Sand...) getting to the final stage where white or very light colors such as bone, Beige, light Yellow, Yellow Lazur, etc. will give the final shine.

For the shadows use dark brown (Brown Black, Umber...) with the option of black to darken. In this case you should not apply pure black as the contrast may be too marked and you will lose the effect on the final result.

Here we can also use red tones to give more chromatic richness and realism to the metal such as deep orange, scarlet red, red leather, etc.



COPPER

This type of metal is the least used in this NMM technique, but it is doable keeping in mind the real world tones and transferring them to the paint. Beginning with red and copper colors, the most perfect red leather can get similar colors or mixtures producing this initial tone. To highlight do not add too many yellow colors, focusing on trying to maintain the initial coppery hue, for example Brown Orange, Red Amaranth, light brown etc., finishing with Neat Gold or Yellow Gold.

Do not use pure white in the mix or it will become too pastel like and bleach the color saturation. For the shadows follow the pattern of keeping the initial tone, for example Cadmium Red Tan or Red Black, adding small amounts of black in case the area requires it.



GOLD AND SILVER THREADS

As we mentioned at the beginning, there is a material that can be represented with acrylic colors simulating Non Metallic Metal, but with it's own certain characteristics that are the gold and silver thread for gallons, blairs and laces mostly seen historical figures. These cords and gallons have their own specifications, but in reality are embroidered or manufactured with normal thread with inserts of metallic threads. Therefore, we should treat them as a normal color, ie. illuminate and shade them as we would any type of material, except that in its application we must make tiny stripes or dots to simulate the seam of the fabric. In the case of gold thread or silver, we will use NMM mixtures of these tones. This is the choice of each painter whether to make them metallic or not. If we want this scale to have that same glitter of metal, it is enough to give a very diluted wash with metallic colors over the surface so that once dry the metallic pigment, adhering to the area and producing the particular effects of this material. In this case, it is best to use acrylic metallic paint because, as we mentioned at the beginning, the pigment is thicker than the enamel and makes it ideal to simulate this effect.



3.3. TECHNIQUE OVER METALLIC THREADS

When we approach the imitation of gold thread on a figure, we must bear in mind a few simple questions. You have to be very sharp and clean in their execution so that the result has the quality and accuracy we seek.

In terms of mixtures and paints, we should not lose time in mixtures that prove too complicated. Since this can be a slow and tedious process, it is better to have colors directly from the jar; to retrieve tones anytime and continue where we left on subsequent days.

It is recommended that you seek graphic or actual documentation of these elements because normally we find smooth surfaces and these threads are twisted. By applying paint with a brush, we simulate that twisted aspect, painting small separate segments each other, which will help represent the final appearance of these threads or gallons.





1 2



1 First we create a base mixture with English Uniform mahogany (Trans.) Brown Gold - all from Vallejo.

2 With the resulting mixture, which is slightly reddish, carefully paint the separated parts: threads, braids, etc. Trying to cover perfectly and without going over the area as the surrounding parts will be already completed.

3 By eliminating the Mahogany from the initial mixture, make another mixture in a different well, keeping the original in case we need retouching or repainting.



3

4



5 6



6 We started to make the first pass on volumes, painting small segments separated from each other.

8 As in the previous step, we make a new mixture with only Brown Gold and Yellow Gold.

9 And we repeat the process on the parts painted before and reducing the highlighted space. We've chosen to use a zenithal highlighting in the gallons of arms, according to the lighting we want to give to the figure.



7

12 As last part of the lighting, do a final mix with more Golden Yellow adding Ice Yellow. If we had to make some more highlights, we would only use the Ice Yellow.



8 9



13 This is the final look of the process of lighting. Noting the change between the initial and final colors, there is a significant jump, which visually gives the gold thread a more realistic look.



10

11



16 The process of shading is influenced by the modeling quality of the figure a lot, since if it is very good (as in the case shown), one will make repetitive washes over the model. In this way, we're repeating the process over and over again, insisting that the areas of greatest shadow remains contrasted according to the lighting. If you do not have a figure of high quality relief, the painting process is repeated like the highlighting, but with the shading. We can use the initial mixture, adding dark brown and black in small doses to do the shading.
 Photo: Color shading, in this case of having to simulate painting shadows.



17 We complete the shading with a mix of Sepia Ink and Metal Gold (AK3036), by mixing a metallic color (always acrylic) with matte acrylic. In this way we reinforce the actual appearance since these materials are usually made of cotton yarn with metal inserts.

18 In this sequence of
24 photos, we can see the remaining details of the surrounding areas of the figure all help to give an appearance of gold yarn that is very convincing and realistic.

25 If we have to imitate a silver thread, the technique and application is the same, but using gray colors for the process.

Colors used to paint silver thread. From left to right. German Gray (Base), Sea Gray, Gray Sky & Silver Gray (lighting). Black and Silver Metal from AK Interactive (metallic Shadowing).

I hope that with these simple parameters, you may be able to provide higher quality and realism to your figures with gallons, threads, etc.



3.4. NON METALLIC METAL TECHNIQUE WITH ACRYLICS ON WARHAMMER FIGURES

To begin, the goal we should look for on a typical wargaming figure to represent the metal is a good gradient/blend, gentle and effective, to imitate the real effects in terms of light and contrast which metallic surfaces produce - so you have to be patient, methodical and do it slowly. This technique is much slower than a normal metallic technique as we have to use matte paints for the shininess the metallic pigments give.

Getting to work, first we need a proper base and tone color for each type of metal that once applied and dried allow us to work with lights and shadows without losing the metallic tone color, either typical (silver, copper, etc.) or colored (red armor, green, etc.).

From here painting the successive layers must be more diluted than usual. The lighter color parts will be repeated 2 or 3 times with the same tone to overlap pigments and in this way we get the color blending needed. We will always leave white for the last highlight such as light spots and light outlines.

In these photographs, we graphically explain the result of the process of applying successive layers with the same color.

First apply the base color in successive passes until we can see the solid color.

With a little diluted paint, we will be giving passes over the areas to be highlighted.

By the overlapping layers of the same color, we cover the area. The more layers we use the more solid or opaque, going back to base the color previously applied. In general, 3 passes is usually enough.

- After this step, we can keep adding to the mixture, lighter colors, to continue to highlight, but always taking into account the color overlaying process.



Shadows work the same way as the lights. Even more diluted than the highlights, almost like glazes, and go with the precaution of applying them and letting dry well to see the intensity of darkness and contrast produced. We can repeat the process as many times as necessary to achieve the desired effect.

The light outlines or end point lights are important because they help to finish defining the different surfaces or metallic areas. Normally they match the upper edges or surface points of light taking into account the reflection of light and the placement of the piece.



The best way to learn this technique is to imitate the examples and repeat over and over, so that lights and shadows are almost automatically revealed.







3.5. TRUE METAL AND NMM MIXED SYSTEM

Finally, I want to say a couple of basic things about this type of 'mixed' technique. We start with metallic paints for the base layer and the first highlights, and from there, continue using conventional paints to the final highlights, shading and additional effects.

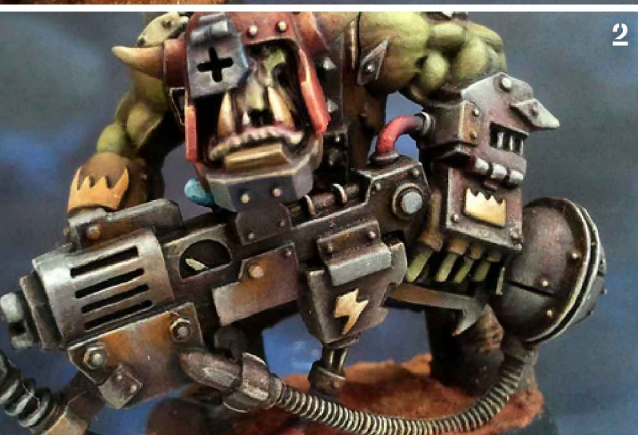
So, we get a result where the light and the contrast are very effective and striking, as we have done with matte paint, but still retains some of the metallic nature of the pigment that lies at its base. That is, we can play with the two main characteristics of both techniques.

The way to do this is very similar to the NMM, using many thin layers of paint and giving more prominence to highlighting stages than shadowing ones.

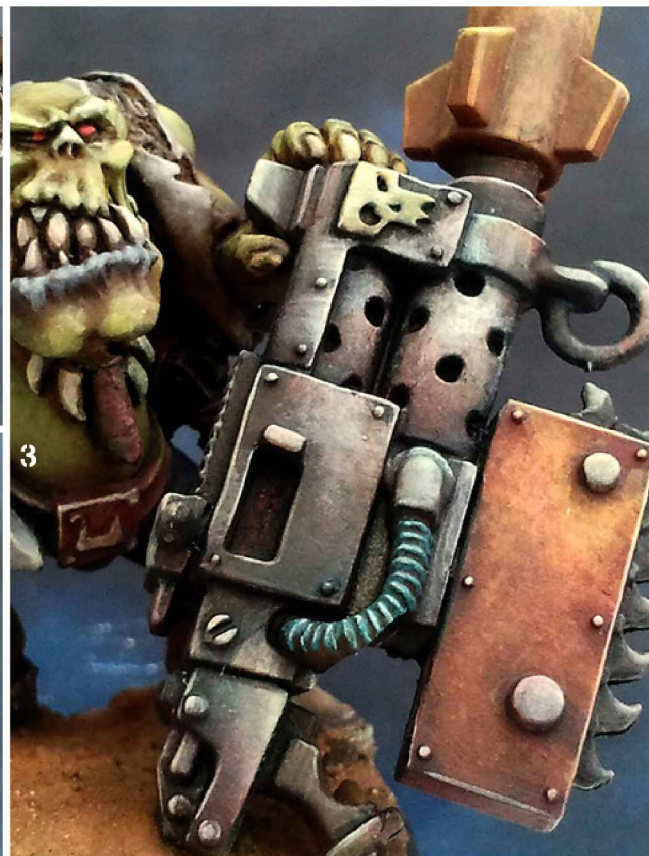
Here are some examples of this technique, ranging from very close to NMM effects, until just a few touches on the true metal.



1



2



3

The combination of techniques makes this figure spectacular.



7

3.6. METALLICS WITHOUT METALLIC PAINTS

TAKING ADVANTAGE OF THE METAL OF THE FIGURE

Another technique to represent the metal in modeling is to use the metal available on some figures, polishing it and working it with inks and smoke varnish.

1-2: The metal as it comes from the kit.

3: The tools we are going to use. From top to bottom: watchmaker brush, crevice burnisher and a homemade burnisher.

4: After using the watchmaker brush over the piece.

5-7: After honing, a natural shine appears on the model.

8-12: We apply the smoke varnish from Tamiya to bring out shadows while protecting the natural shine of the piece.

13-15: Extreme finish after four coats of smoke varnish.

16: Final look of the piece.

17-19: Completed figure.





3.7. DOTTING OR STIPPLING



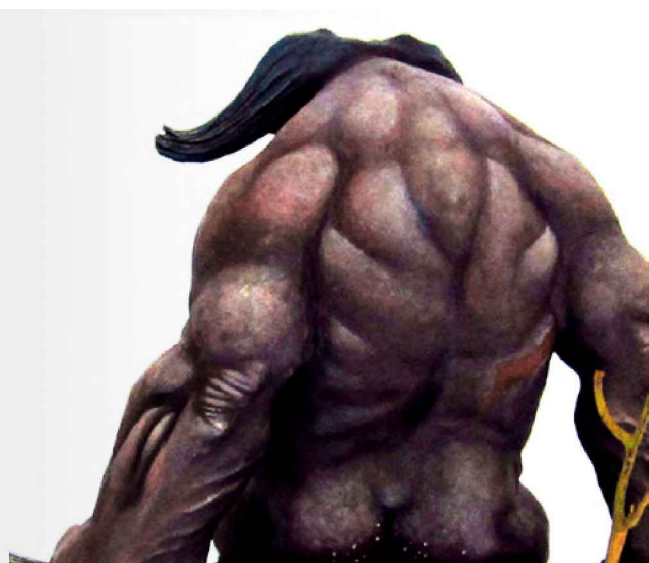
The finish on the armor is very aggressive and evident (to also enhance the effects of sculpted damage details).

The dotting or stippling technique allows us to simulate different effects and textures on a miniature, unlike the traditional highlighting or airbrushing, where the finish is very smooth and uniform. These effects range from wear, chips and textures (leather or fur) to very subtle and imperceptible finishes, but that give a very characteristic appearance to the surface.

In the following pictures we can see different degrees of softness in the stippling technique, for achieving different visual effects:



The dotted effect is smoother and softer, but also simulates a high wear armor.



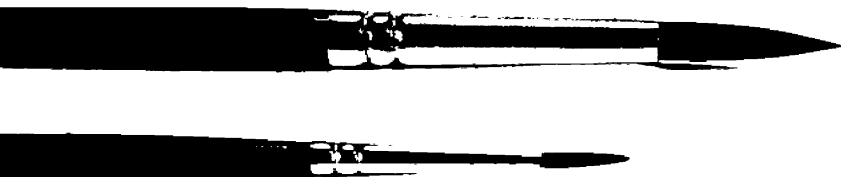
The skin has been painted with an almost imperceptible stipple, but it gives a very interesting and distinctive finish.

When dotting, which is basically a technique to highlight, we will follow the same pattern of illumination we do when we degrade or dry-brush (for example), except that in place, we will deposit the paint by dotting with the paintbrush on the surface we want to illuminate, usually an irregular shape. That is, the theory and work method is the same and what changes is the form of applying the paint.

USING PAINTBRUSHES

First of all, keep in mind that this technique is very aggressive on the paintbrush (especially in the tip) and although we take as much care as possible to clean and reshape after each use, it shortens the brush's useful life.

So, it is therefore advisable to use cheap paintbrushes (not of poor quality, do not confuse the terms!) or old and used ones. Of course, using a good paintbrush will provide us with a better finish and softness, but for the most part the work of stippling has few drawbacks. I usually work with a n° 2 paintbrush, since smaller ones do not charge paint well enough (and also wear out much faster). For big surfaces, like robes or capes, armor, shields or even vehicles, I employ a n° 10 or even bigger.



DOTTING PROCESS

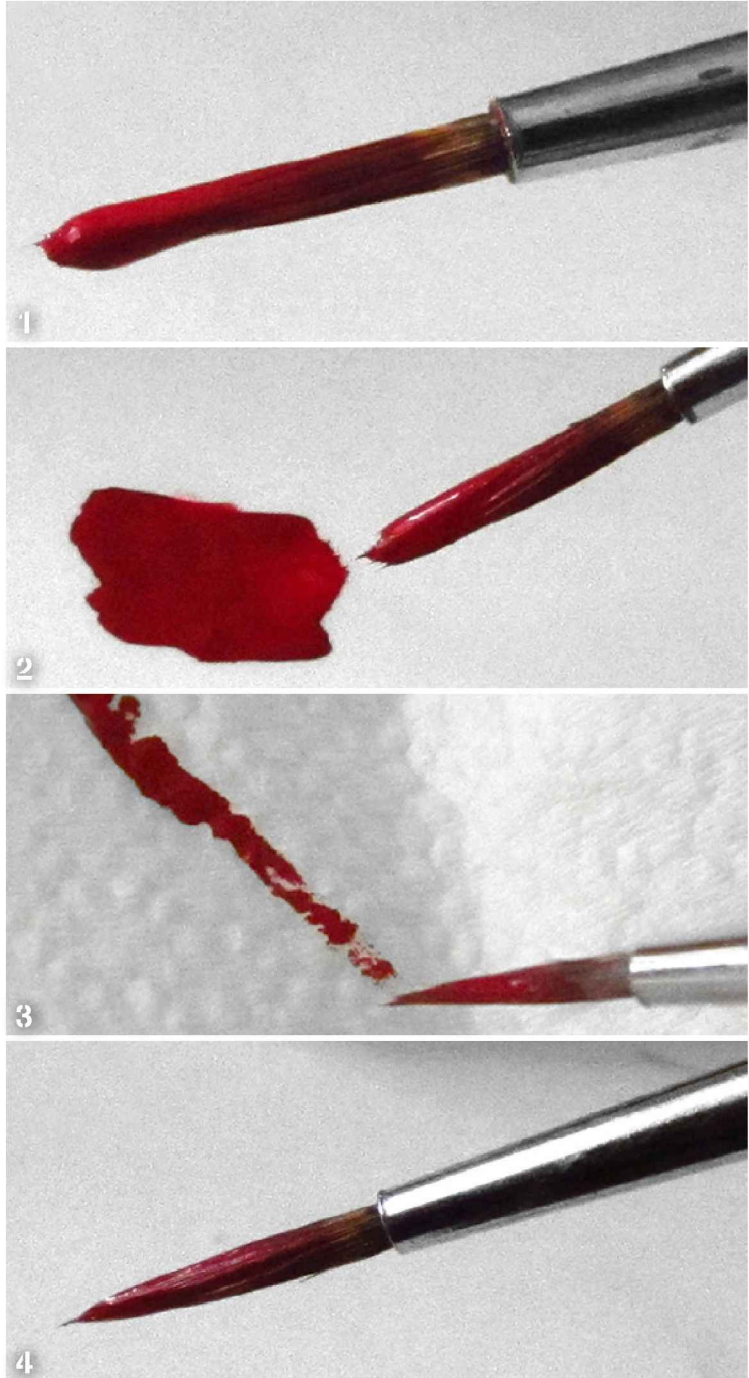
About the paint, we'll use it dense, almost directly from the pot (add, at most, 10% of water to the mixture), to have the paintbrush well charged. Of course, it has been mixed well beforehand.

Then, we have to unload a bit of the paint on a napkin (not much, 3 or 4 soft passes), not to "smudge" the miniature in the early stages. In the picture 3 you can see all the steps: charge of the paintbrush (1), homogenize the paint (2), unloading of some paint (3) and paintbrush ready to dot (4).

Then, very carefully (there is still lot of paint on the paintbrush) we start dotting or "pecking" gently on the surface, using the tip of the paintbrush. As we keep dotting, (and the paintbrush applies the paint on the miniature), we have to use more energy and less softness to the paintbrush, as less paint is getting applied.

Another thing to consider along the process, is slowly rotating the paintbrush as we do the dotting, so that the mark left by the bristles will be varying and irregular (this will give more credibility to textured effect).

As I mentioned before, the highlighting method remains the same: the first layers of dotting will occupy a large area of the miniature and and, as the paint we use is lighter, the dotting will cover a progressively smaller surface.





Here are some pictures of the process of dotting:

You can use any brand paint with similar tones. In this case we are going to refer to the Citadel range.

Basecoat with a mixture of Necromancer Purple mixed with Fenris Grey (30/70).

1



First highlight with a mixture of Blood Red and Mechrith Red (60/40), dotting over the whole surface.

2

Highlight with a mix of Blood Red and Bubonic Brown (70/30), dotting this time on almost the same areas than before, except those zones with maximum shade (80-90% of the area, at least).

3



The paint now is 50% Blood Red and Bubonic Brown, and here I already restrict a lot of the highlighting areas.

4

I finally use a mix of Blood Red and Bubonic Brown (30/70) and highlight small areas only, just where I want to enhance the lighting.

5

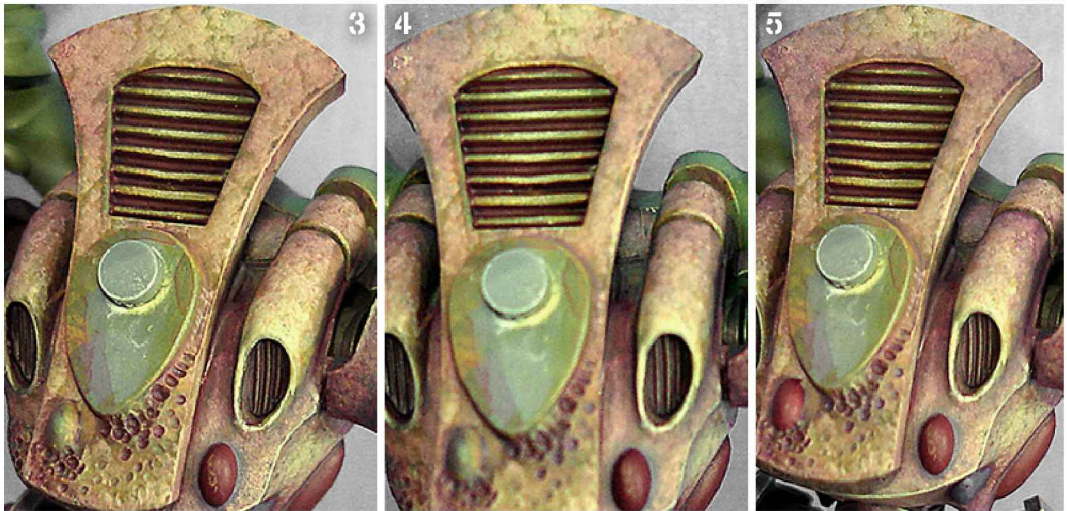
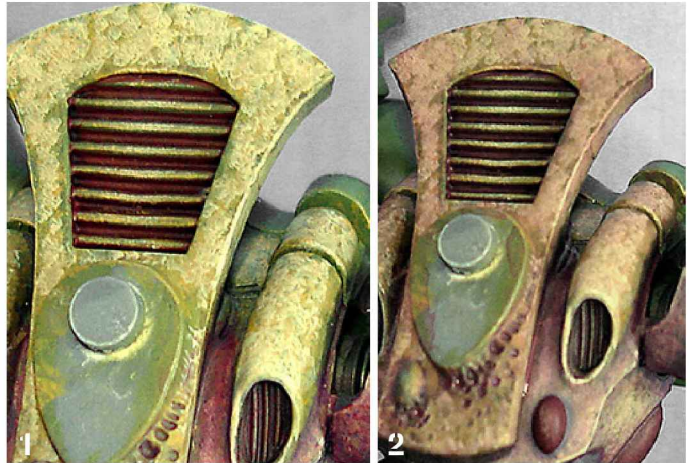


Having reached this stage, the lighting work is, more or less, completed and the model should be shaded. As you can see, the overall finish of this technique is dirty and not very defined, so we have to complement and soften it.

And this we will do with soft and controlled glazes, getting two effects simultaneously:

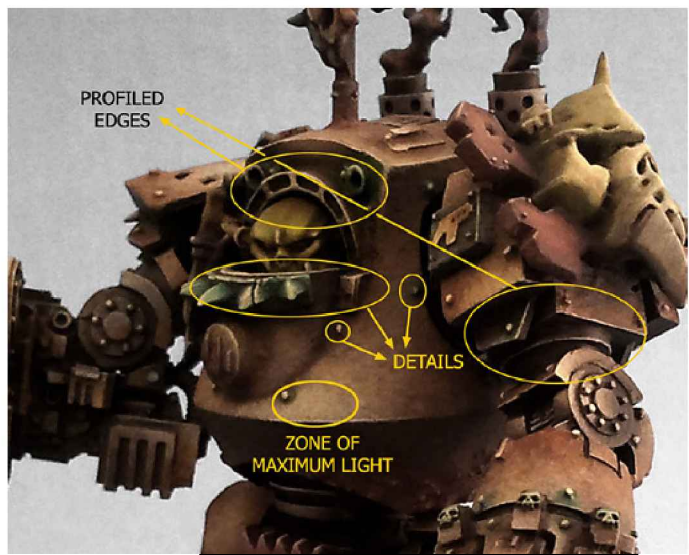
1. Use good shading to get enough contrast.
2. Soften and integrate successive layers of stippling.

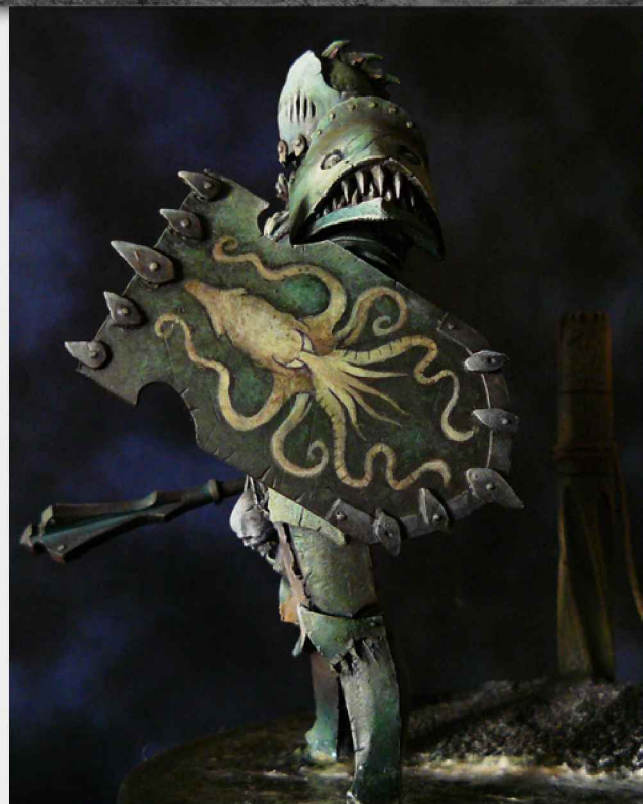
Of course, be careful not to cover all the textures created before with the glazes. Picture 5 shows a gradual process of shading onto the texture created.



Finally, as the work with the glazes darkens the miniature, we have to reapply highlights giving some light again to any remarkable part of the model: placing points of maximum light, profiled edges and repainting some important details (picture 6).

As a final summary, with the stippling technique we achieve a very distinctive finish (damage, wear and textures), but it must be supplemented with other techniques to achieve its maximum effectiveness.

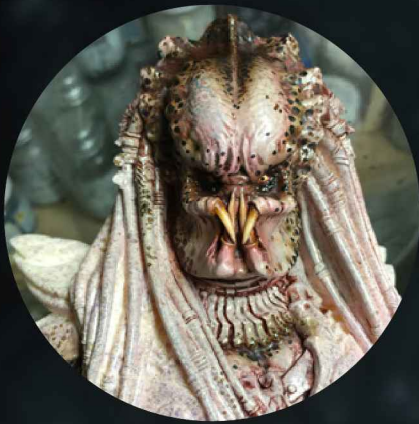




3.8. THE BLUING TECHNIQUE

This process generates a superficial layer of magnetite (Fe_3O_4) on the steel surface which improves its look/appearance and avoids corrosion.

We are going to see technique applied on figures.

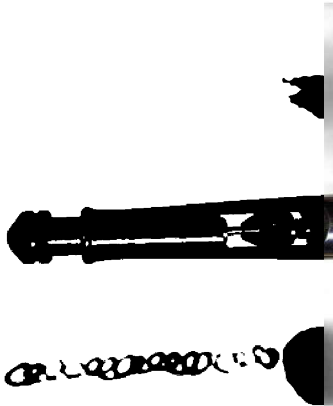




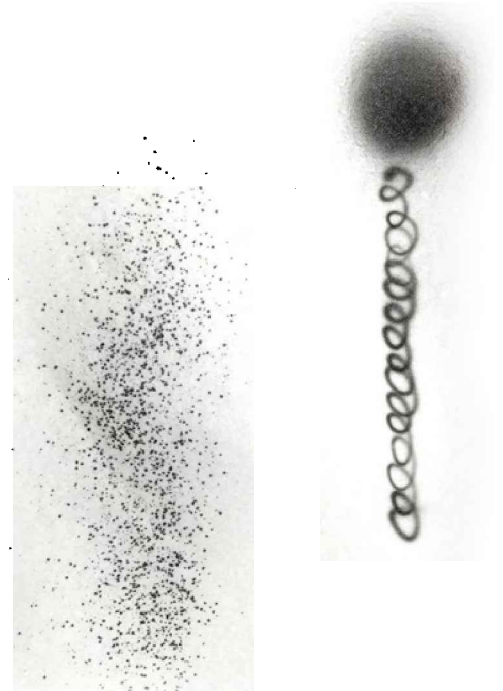
The first step is to prime the piece in black.



For this technique, we need to rely on something which would be a mistake of paint application in other processes. First, with a double action airbrush we unscrew on the outermost collar to paint without it.



The next step is to lock the needle so you do not get to completely close the exit of the paint. With this we will make the airbrush spit paint at very low pressure. It's always best to try first on paper.

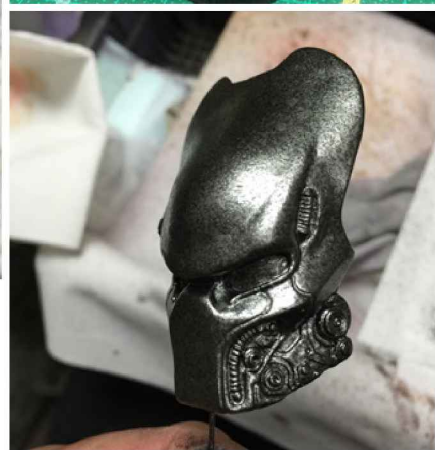


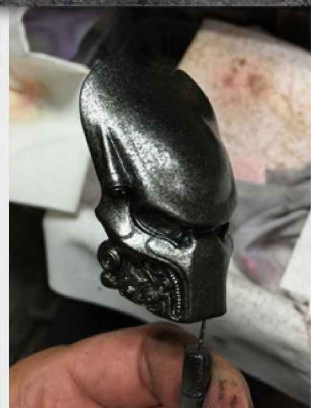


Now, we prepare a suitable mixture of black with silver (in this case Gaya) in a very diluted proportion of a 2/1 ratio.



In the second phase, we change the proportions of black and silver, in this case 1/2, and repeat the process.





The last step is to use silver paint directly on the piece. The process is very simple and the result is random and unique.



SPECIAL DECORATIONS

Several materials such, as plant matter sponges, can do a multitude of effects and decoration on metallic shades or any other color, as shown in this example.



4. EXAMPLES

4.1 C-3PO COMBAT VERSION "LAST DAYS OF THE DEATHSTAR"



Originally designed as a protocol droid in the service of humans, C-3PO was able to master six million forms of communication and to help in any task in which his skills were required.

Yes, that's the story as we know it and where we have the luxury of interacting to change this robot to a battle droid in the imaginary fight for control of the Death Star. It is just a matter of imagination!

The way we came to decorate this particular C-3PO, and to 'mek' it in what we have called the "combat version", was to paint it with hard impact marks, the result of the harsh conditions he faced on the battlefield.

FIGURE

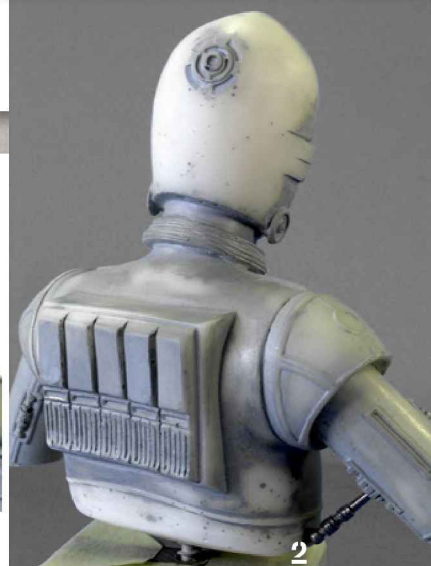
ASSEMBLY

This resin figure, or more correctly this bust, is at 1:5 scale, and came to Rubén from his friend Freddie.

After cleaning and assembling, I placed it on a pedestal and after a few years we decided release it and transform it in this combat droid for the publication of this book.



1 Like all resin, this piece required some preparation - mostly in covering possible bubbles, sanding and refining the surface.



2 After a generous layer of putty, I used blocks and sandpaper of different grains to achieve a smooth surface without bubbles.

SHOTS

I have used AK175 'Gray Primer' applied with an airbrush and slightly diluted it with Acrylic AK712 'Thinner' - perfect for all kinds of defects and as a base layer for subsequent processes.



3 With the wheel in horizontal position, we create the shape of direct impacts.



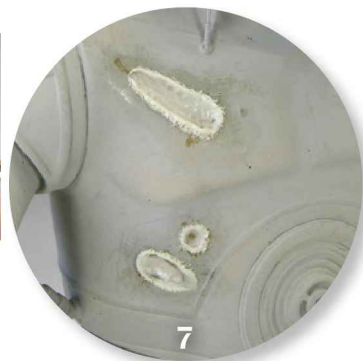
4 For this I have used a mini drill and a conical shaped grindstone. Carefully, and in successive passes, shape in the most correct way.



5 To represent impact edges, two part Magic Sculpt putty has been used.



6 After mixing, a ball is placed in the center of the impact and with rubber brushes I shape it until I get a rounded edge. Then mark the lines and cuts on the edge to represent the characteristic shape of the metal as a result of the heat from the explosion.



7 Look of the work on the edge of impacts without the required priming layer.

PAINTING PROCESS

BASE LAYER



8

Once the primer layer is dry, we should apply a generous layer of metallic paint as a base. Airbrush AK471 'Black Base' as base layer directly from the jar and clean the airbrush with AK470 'Xtreme Cleaner'.



9

Now, airbrush with AK475 'Brass', also directly from the jar, on the desired areas. To this droid the head, shoulder and arm have been replaced after combat with parts from a protocol unit with its characteristic golden color.



10

Once dry these parts are masked with tape to protect its final color.



Now airbrush with AK480 'Dark Aluminium', which is the original base color of the combat unit.

CHIPPING



The distinctive color of this unit was red so the other areas were masked off. To create the chipping effect apply a layer of AK088 'Worn Effects'.



Apply the red color over the chipping liquid and let it dry to the touch.



After wetting the surface with water and selecting the tools for chipping, begin scratching and rubbing the surface in selected areas.

WASHES



AK066 'Afrika Korps Wash' is applied in all the nooks and crevices with a fine brush.

Remove the excess with a clean brush and AK049 'Thinner', ensuring that the surface is clean.

ACRYLICS



For the base of the eye I have used AK092 'RAL Cremeweiss', diluted with water.

For the lights I have used AK738 'White' and for the shadows and shades mix AK739 'Yellow', AK740 'Red' and different orange colors from the rust set.

To give the glassy appearance I used AK777 'Gloss Varnish'.

OILS



19

Before starting with the oil paints on such a polished surface, we need to prepare it a little. For this, there have been various mapping patterns made with brown and orange acrylics.



20

The oranges are applied to the silver and help to recreate the effect of rust in certain areas.



21

The brown is applied around the impacts and the armpits to reinforce the shadows.



22

The mapping should be applied highly diluted and will leave unwanted stains, but subsequent processes will remove them or cover completely.

Materials and colors used for the mapping technique.

To accentuate the effect of the battle on the metal I have applied dark brown acrylic AK711 'Chipping Colour' with a sponge, achieving a smoky effect on the area. The result will assist in further processes.



24

56 METALLICSVOL.2



23

STENCILS AND NUMERALS



25

To add a military look to the figure, I have added a numeral on the back of the head. For this we have fixed the FG mask with masking tape.



26

Airbrush with white acrylic, diluted a little and with a low pressure, because the mask does not adapt perfectly to the curved surface. After removing the mask if we have to refine the number we will do it with a brush.



27

For the oils phase there have been used several kinds of brushes. Rounded and pointed to apply, outline details and get streaks. Flat brushes to filter and clean the surface. Finally soft and rounded to smooth.

The colors used, all from Titan are No. 74 Earth Natural Shadow, No. 75 Transparent Rust Orange, No. 78 Burnt Umber and No. 94 Transparent Golden Ocher.



28

The shape, tone and where to apply the oils are varied. Notice how to add the shade of the neck using dark oil, diluted a little.



29

We apply an almost black and very diluted oil paint around the impact...



30

...to blur the surroundings pecking the surface with a soft, dry brush.



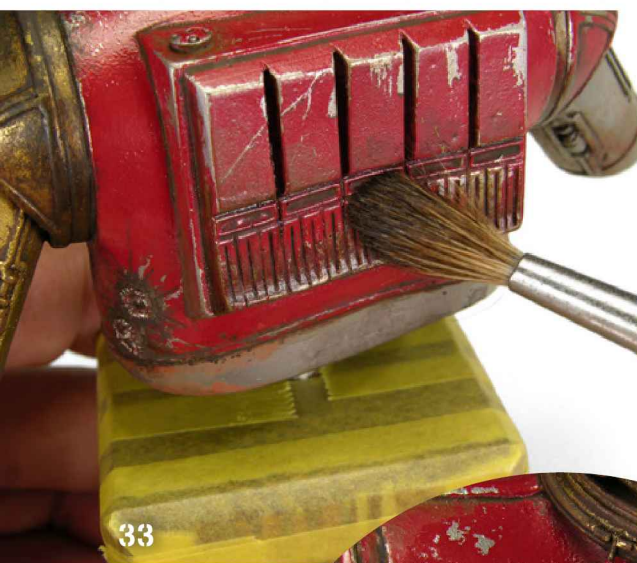
31

Outline with a fine brush...



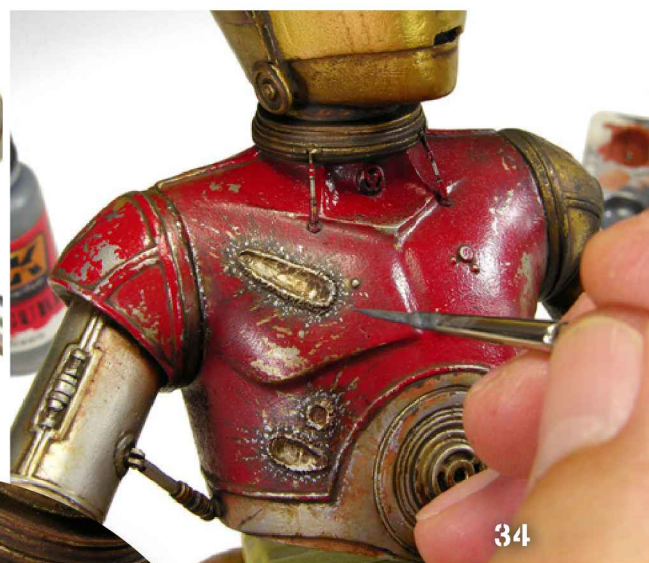
32

...transparent rust brown oil diluted a little.



33

Again soften the shadows with a fan shaped brush.



34

Paint back with acrylics for some metal chipping around the impacts and in some other effected areas. When painted over the other effects, it will highlight a lot more but will also provide an interesting effect.



35

Around some impacts may be added fine lines with an acrylic brown to simulate the explosion.

SHADOWS WITH INKS

36

Airbrushing the transparent inks over the metal we achieve an effect similar to what we get when using filters over a normal surface. The metal acquires brightness and color depending on the viewpoint and the colors used.



37



38

Detail of the neck and left arm achieved with red and orange inks.

ENAMELS

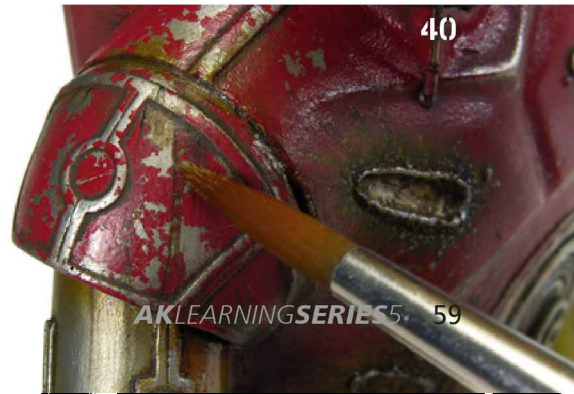
39

To imitate the most extreme weathering, we make streaks and several stains with AK012 'Streaking Grime' and AK014 'Winter Streaking Grime'. Apply directly from the jar with a fine brush.

To complete the effect the surface is swept with a clean brush soaked in white spirit.



40



OIL AND GREASE

- 41 To make several stains and spills of the hydraulic fluids I have used oils n° 77 Sepia and n° 80 Asphalt also from Titan. Mix them and apply with a fine brush diluting the mix with white spirit at the same time.



Select carefully where to place this spill effects.



42



BURNT EFFECTS

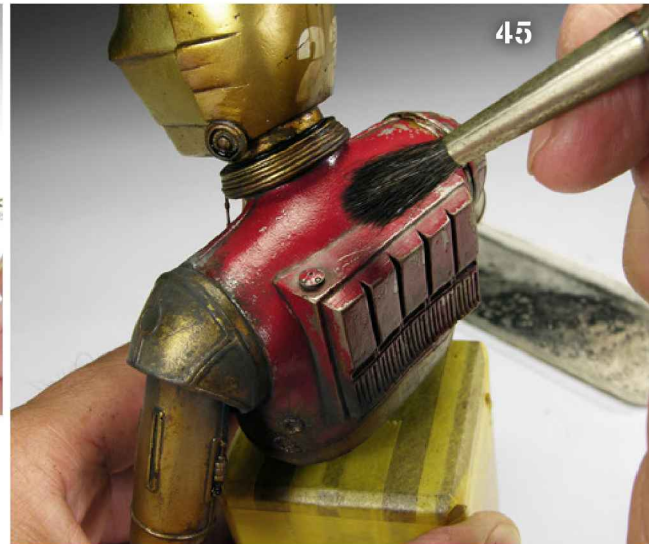
To imitate an area affected by fire we can use black pigments, gray and light brown applied dry and blended on the chosen area itself, in this case the left shoulder.

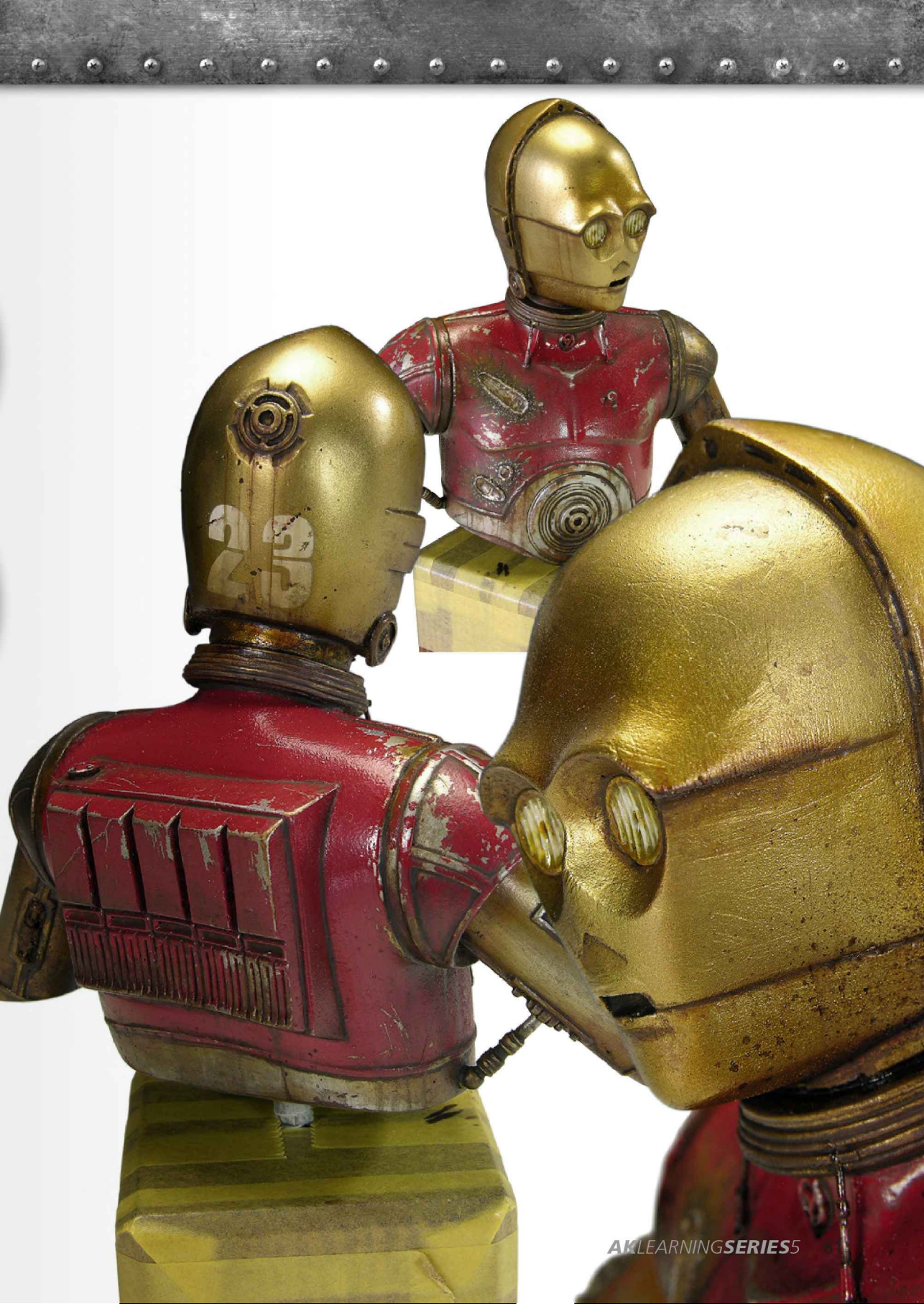
Once deposited with the fine brush, proceed to soften them with a round brush. This also helps to fix them.

44



45





4. EXAMPLES

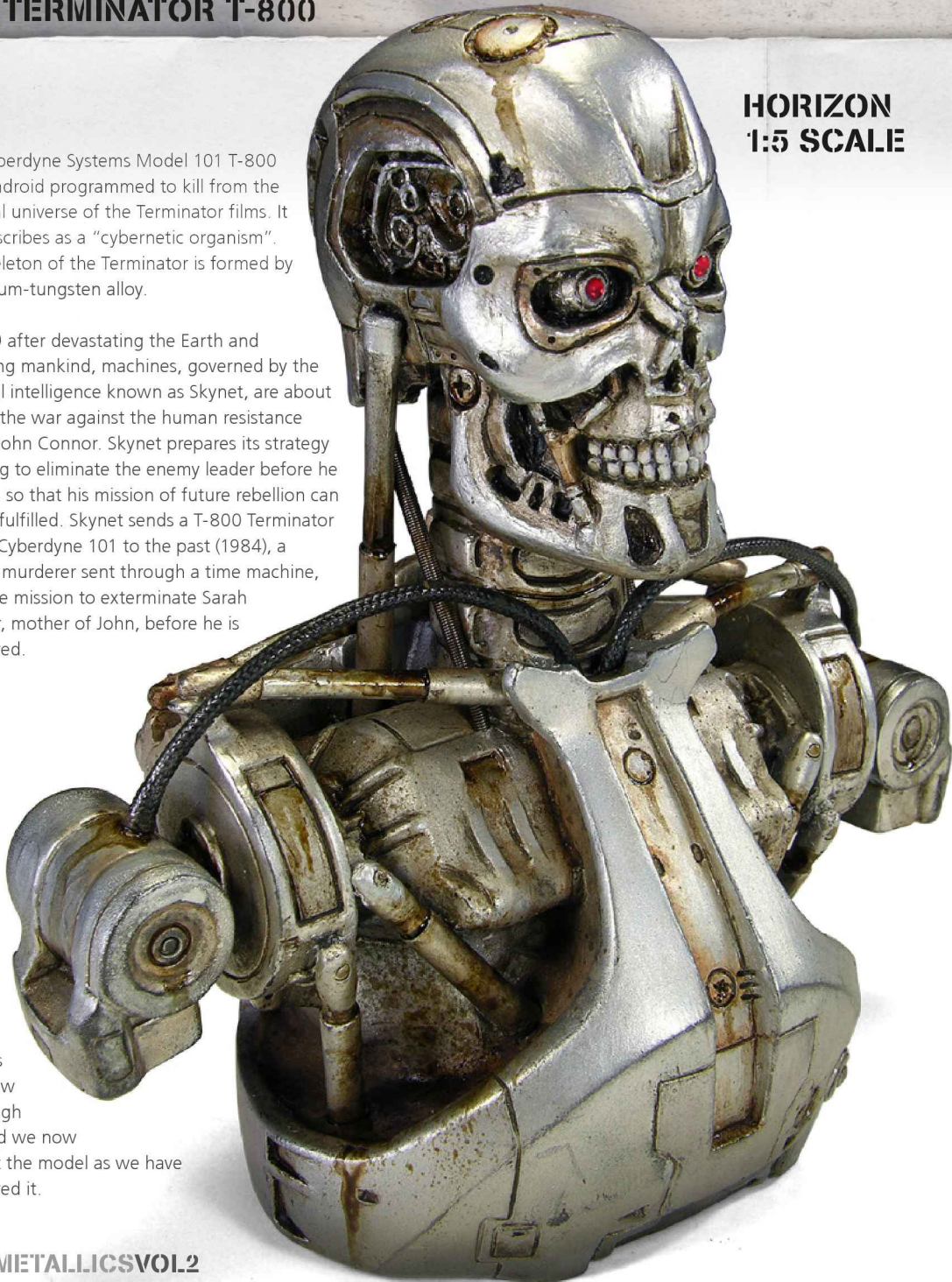
4.2. WEATHERED CHROME TERMINATOR T-800

The Cyberdyne Systems Model 101 T-800 is an android programmed to kill from the fictional universe of the Terminator films. It self-describes as a "cybernetic organism". The skeleton of the Terminator is formed by a titanium-tungsten alloy.

In 2029 after devastating the Earth and enslaving mankind, machines, governed by the artificial intelligence known as Skynet, are about to lose the war against the human resistance led by John Connor. Skynet prepares its strategy deciding to eliminate the enemy leader before he is born, so that his mission of future rebellion can not be fulfilled. Skynet sends a T-800 Terminator model Cyberdyne 101 to the past (1984), a cyborg murderer sent through a time machine, with the mission to exterminate Sarah Connor, mother of John, before he is conceived.

This is the story as we know it through film and we now present the model as we have conceived it.

**HORIZON
1:5 SCALE**



ASSEMBLY

The model is from the brand Horizon, at 1:5 scale, and has already been out for a few years.

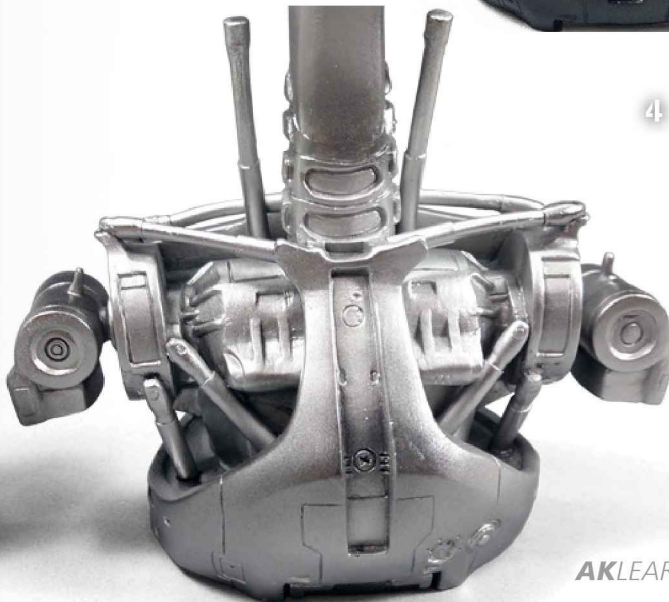
This is a vinyl mode, which is hard for sanding and gluing. To join the different pieces we used a product similar to white glue and the help of small bolts.



To make my model, I've only used the parts that construct the torso.

BASE

We started painting the bust by airbrushing with a base of AK471 'Xtreme Metal Black Base', indispensable for a chrome finish. With the subsequent effects we will lose shininess and the mirror effect but we will gain realism.

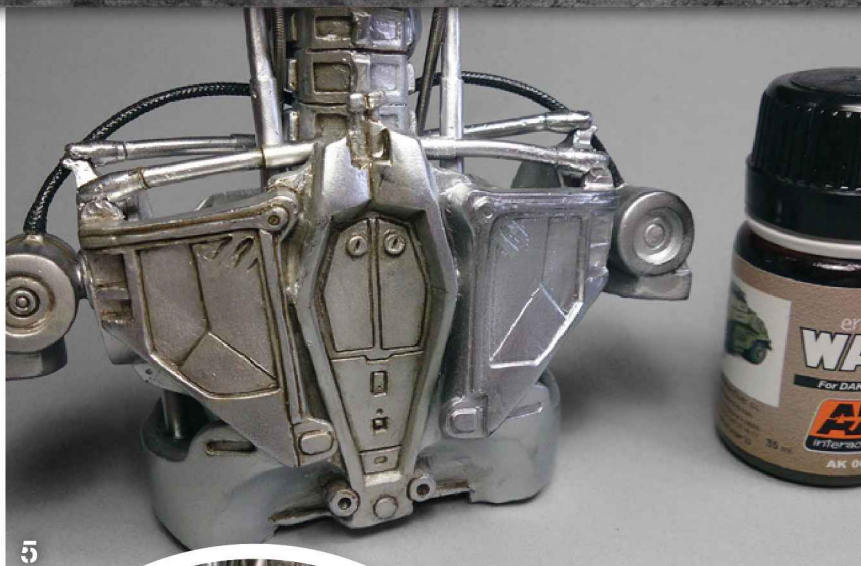


4 Airbrush AK477 'Xtreme Metal Chrome', in thin layers, necessary for the subsequent processes of weathering. Cleaning the tools with AK470 'Xtreme Cleaner' will ensure its perfect conservation.

WASHES

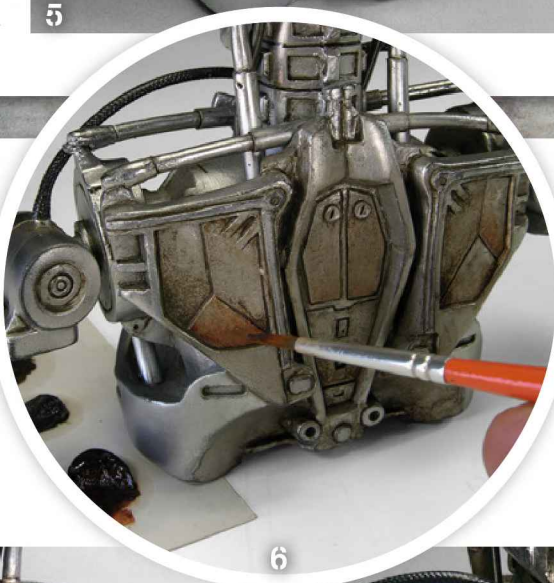
Now we apply a general wash over all the panels and crevices with AK066 'Wash for DAK Vehicles'. It is recommended you use a fine brush. Note the difference between the left side washed and the right side which is unwashed.

After leaving to dry for a few minutes, remove the excess wash with white spirit and a clean brush. The shiny base of these paints is perfect for this kind of weathering processes.

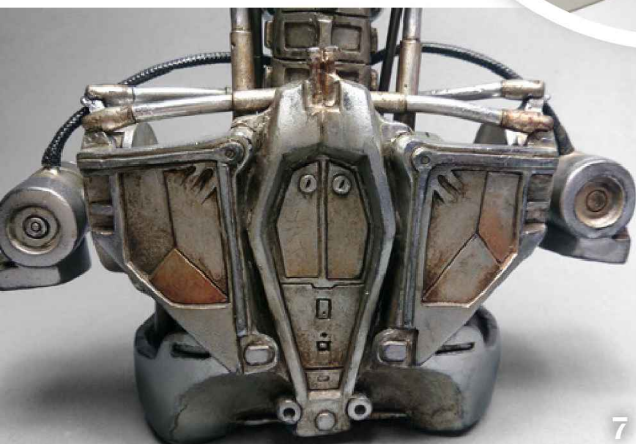


OILS

With them we try to apply a general layer of dirt. We use oils from the brand 502 Abteilung. The colors used were Wash Brown, Brown Shadow and Transparent Red Oxide, using this last one carefully as it provides a very extreme rust effect.



For the rear panels we use these three colors, alternating them. A small amount of oil is placed on each panel and with a fine brush soaked in white spirit we drag the color to the areas in which we are interested.



On the shoulder, apply the most diluted oil only in the deeper areas to enhance the metal parts around it.

In this photo, and you begin to appreciate the weathering between the two sides.



9 10



11 12



13

For the neck area, place small amounts of Shadow Brown in the top and with a small flat brush dipped in white spirit we will drag down the color. This way you leave in the upper left the darkest color and when we reach the base of the neck the color is much more diluted and, therefore, lighter.

In the clavicles we used the Wash Brown but only at the ends, diluting the color in some places more and others less so they were not all alike.

In the face we used Shadow Brown for the shadows of the front of the skull, above the eyes, under the cheekbones and under the nose and chin.

Use highly diluted Transparent Red Oxide in the hydraulics of the cheek and around the eyes also to get more contrast.

In the hollows of the eyes, nose, chin and jaw we used Titan # 80 Bitumen oil, almost undiluted. So we also get the deep feeling of grease and dirt.

For the chest and the upper areas, use Transparent Red Oxide highly diluted, as it is a very extreme color and what I want is to create some contrast to lose monotony.

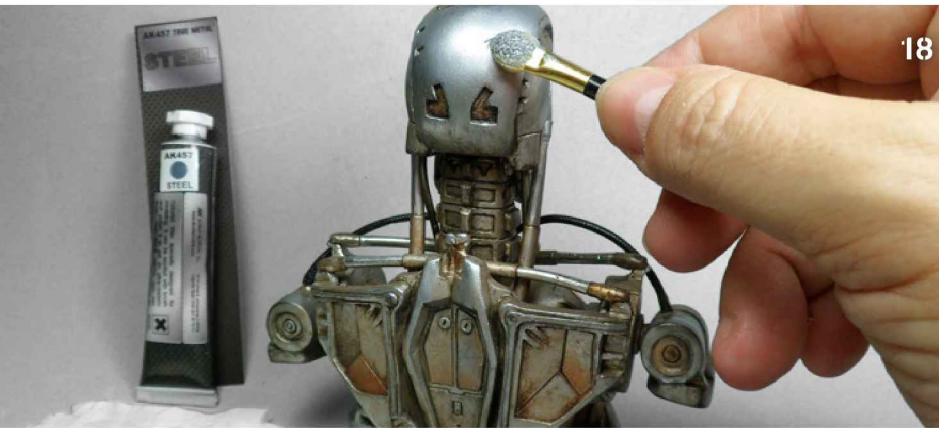
For the sides of the skull use the three oil colors, alternating them to get to get color variety.

14 15



METALS

After the washes and oils, we get overly pronounced shadows and strong effects which need to be softened. With the idea of polishing the most dirty and prominent areas we used the new waxes with metallic effect.

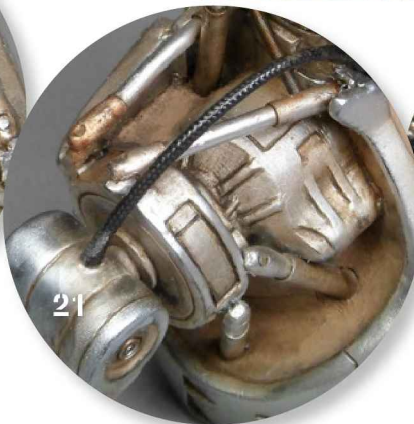
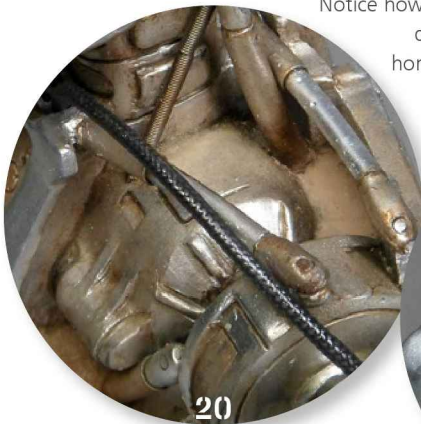


We used the reference AK457 'Steel' applied with a foam makeup swab. Take a little wax with the swab and clean it with absorbent paper. Then rub it directly onto the surface to be treated.

PIGMENTS

In order to represent the accumulated dust and dirt and have a good working base for streaks and stains made of several liquids, I used the pigments AK081 'Dark Earth' and AK041 'North Africa Dust'. After mixing they are applied with a fine brush in the desired areas and then fixed with clean white spirit.

Notice how they have been deposited on the horizontal surfaces.



STAINS AND STREAKS

23

To represent different types of stains and spills caused by the leakage of hydraulic fluid, oil, etc., I used AK025 'Fuel Stains', AK084 'Engine Oil' and Bitumen # 80 from the brand Titan.



24

In all hydraulic parts, we used a mixture of AK025 'Fuel Stains', AK084 'Engine Oil' and Oil Bitumen Titan # 80, with a little more of this last color trying to leave it a little thicker at the base.



25

Note the effect on the many joints forming neck.

SPLASHES

To make the splashes use a somewhat diluted mixture of AK084 'Engine Oil' with a little Bitumen Oil, which we apply a brush with the help of a stick or old brush, gently splashing on the area of interest.



26

Repeat the process until we get the desired look.



27

To perform the streaks, apply the mixture with a fine brush and in successive layers.

In this photo you can see the oil streak coming out of the rounded head plate and also the rear holes in the skull. Also note the flooding of oil in the gear base of the head and the shoulder fluid leakage .



28

In these two photos, we can see how the model is nearing completion with the techniques described above.

With a fine brush apply between the vertebrae a mix of oils and paint the two areas at the skull base, plus I added some extra streaks.

With AK457 'Steel', wax slightly diluted in white spirit and using a fine brush, apply within the inner parts of the skull gear to get some highlights and some other color on the edges we want to highlight.



28



29

EYES



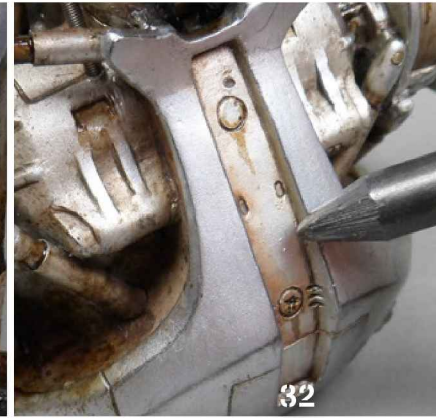
For the eyes, we used the reference AK207. These are 2mm red lenses and are ideal and perfectly fit the figure. They are fixed to the eye socket with some white glue deposited with a thin wire.

TEETH

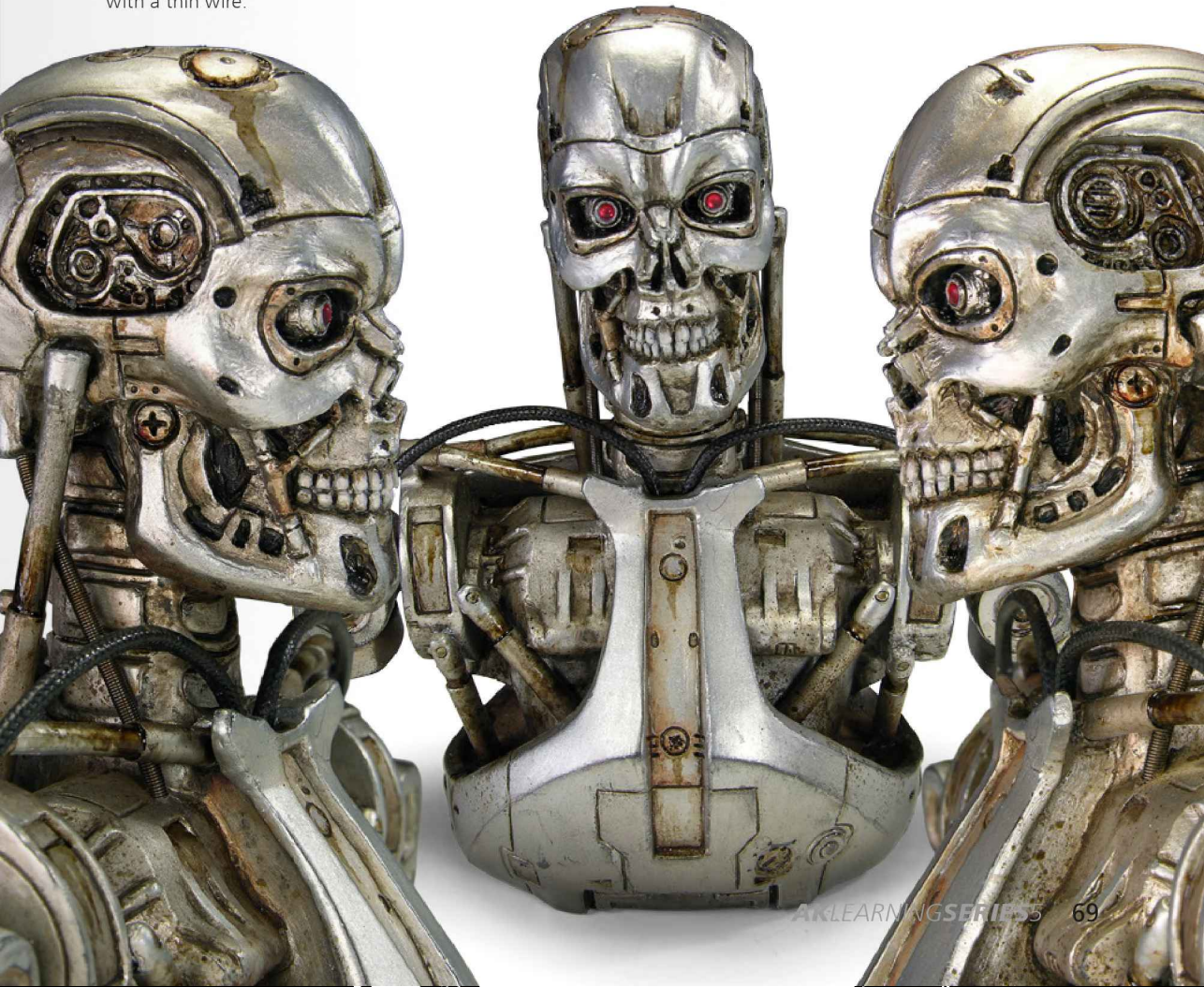


For the teeth we use acrylic applied with a brush, starting with a medium gray and adding lighter tones until we reach white. We used umber and black paints.

EDGES



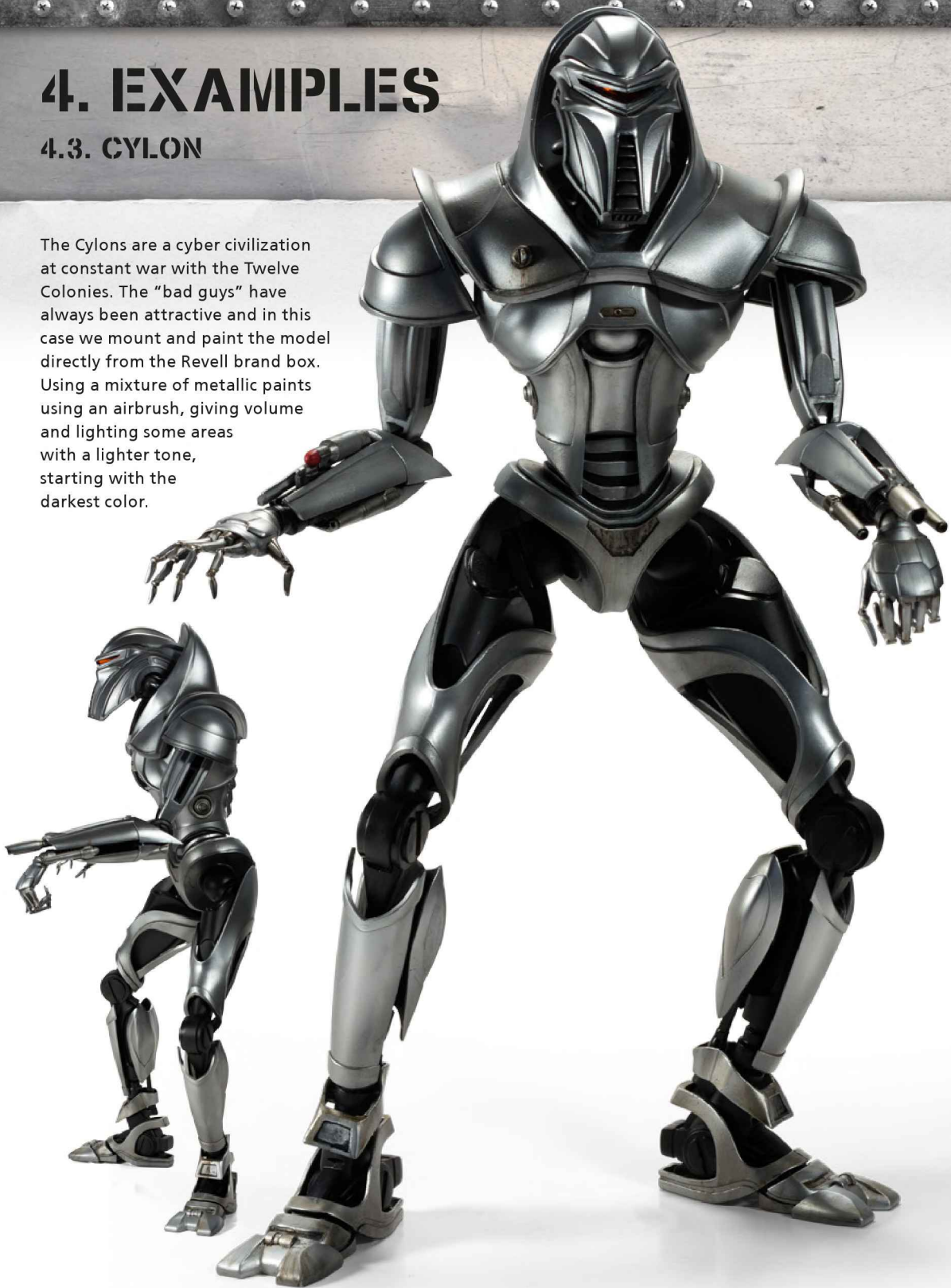
To highlight the edges, apply with a brush, starting with a medium gray and adding lighter tones until we reach white. We used umber and black paints.



4. EXAMPLES

4.3. CYLON

The Cylons are a cyber civilization at constant war with the Twelve Colonies. The "bad guys" have always been attractive and in this case we mount and paint the model directly from the Revell brand box. Using a mixture of metallic paints using an airbrush, giving volume and lighting some areas with a lighter tone, starting with the darkest color.





The moulding of the model is complicated and requires caulking and sanding work, but once assembled, the base is perfect for our purpose of working with metallic shades.



With a black primer, start covering the surface of the figure. In the inner parts, we will see the black color once the process has finished.



The next step is the one that requires more patience in the process, but it is an easy step to achieve good results. With Tamiya tape of different widths, slowly we mask all areas not to be painted with aluminum.



For this figure we have selected three shades of aluminum to get different light shade, 'Gun Metal' as dark tone, 'Aluminum' which would be the base and a shade for the lighter parts, 'White Aluminum'. We have used them directly because they confer a subtle rise in tone but also could have blended to make an even smoother transition.





We use the darker 'Gun Metal' first.



Then with the 'Aluminum' color, paint in the areas with more relief without fully covering the previous color.



Finally the color 'White Aluminum' as a highlight without covering earlier colors.



Carefully we unmask all parts of the figure that had previously covered with Tamiya tape, again this will take longer than the painting process itself.



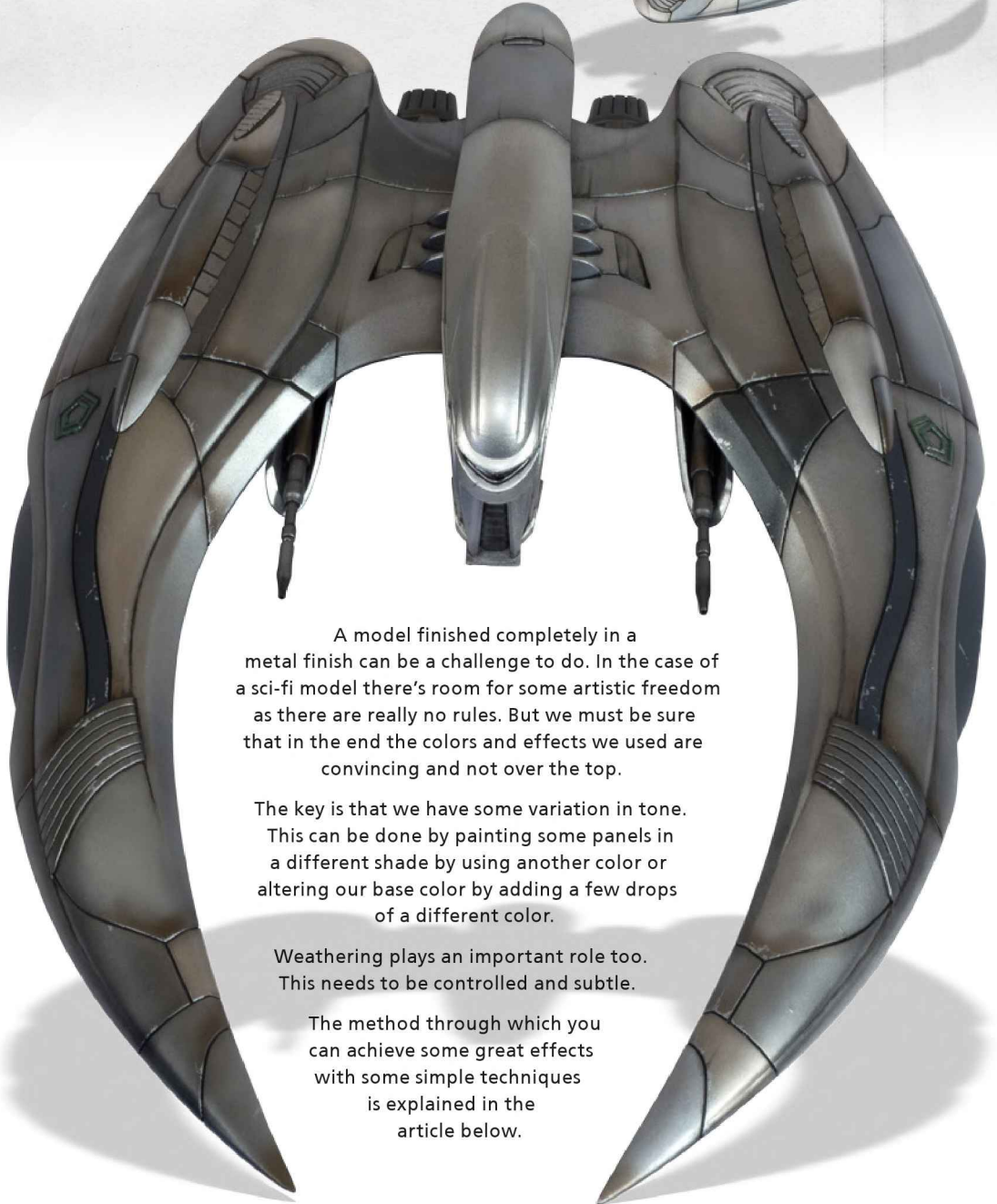
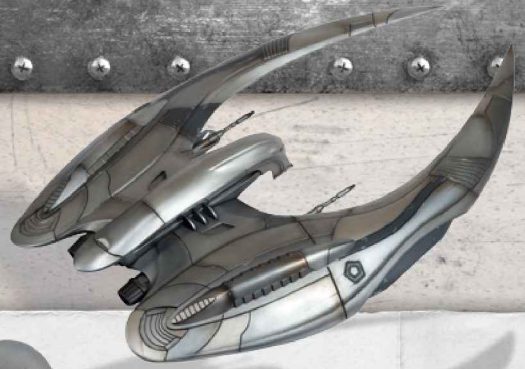
We perform selective color washes with AK677 'Neutral Gray Wash', which is suitable for painting metallic shades. The paint does not show any problem in the process of weathering and does not lose its original shine. We wanted a cleaner finish than in the previous examples, but through weathering we tone this down as much as we wanted.





4. EXAMPLES

4.4 CYLON RAIDER



A model finished completely in a metal finish can be a challenge to do. In the case of a sci-fi model there's room for some artistic freedom as there are really no rules. But we must be sure that in the end the colors and effects we used are convincing and not over the top.

The key is that we have some variation in tone. This can be done by painting some panels in a different shade by using another color or altering our base color by adding a few drops of a different color.

Weathering plays an important role too. This needs to be controlled and subtle.

The method through which you can achieve some great effects with some simple techniques is explained in the article below.



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- 1 Construction also plays an important role in the flawless finish of a model, not just the painting. Every part must be cleaned up perfectly and you have to make sure you have a good fit of the parts as, especially with metallic paints, even the smallest flaws will be visible.
- 2-3 For more realism we drilled out the guns and thrusters. This will have an effect once the model is finished.
- 4 Seams can be filled with liquid putty such as Mr Surfacer.
- 5 After 10-15 minutes you can easily clean off the excess putty with a cloth or tissue moist with 'Xtreme Cleaner'. The putty will only remain in the seams. An easy and straightforward way of dealing with seams.

- 6 When the model is ready for the painting stage, make sure you clean it well with soapy water to get rid of greasy finger prints and dust particles, which can have a negative influence on the finished paint job.

The model is first base coated with 'Black Base', this is needed to achieve a smooth finish.

- 7 Next an overall layer of 'Polished Aluminum' is applied over the whole model.
- 8 Several panels are masked with low tack tape and sprayed in slightly lighter or darker tones, sometimes mixed from several different colors to obtain some variation.
- 9 In the end we used six different metal colors with a wide variety of tones to finish the Cylon Raider.



10



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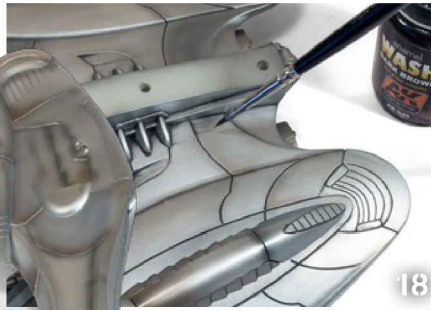
14



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The exhaust are sprayed with 'Jet Exhaust'. 11

And the guns are sprayed with 'Gun Metal'. 12

In some corners, 'Burnt Metal' is sprayed to create a worn effect. It is important is to not overdo this to keep the effect convincing. 13

The logo is carefully hand-painted prior to the weathering. 14

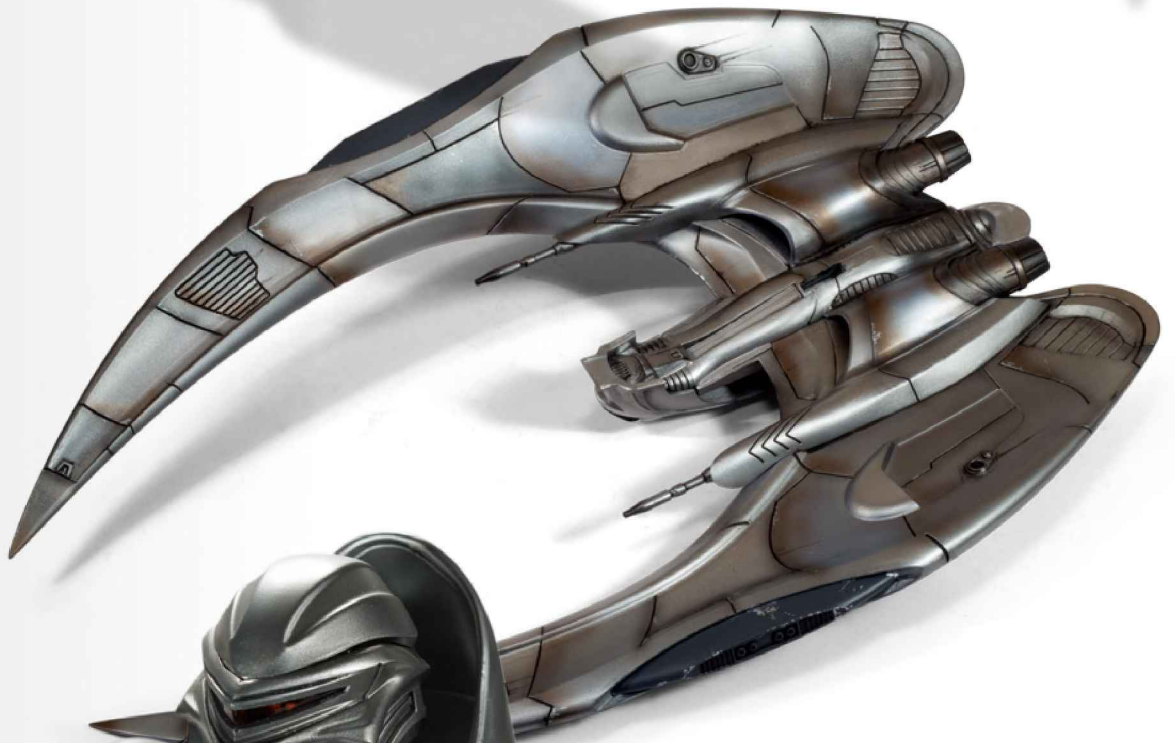
The panel-lines are painted with AK's Panel-Liner to create maximum contrast. 15

After a couple of minutes, the excess paint is wiped away with a soft cloth. 16

Clearly visible is the treated part on the left-hand side and the untreated part on the right. The left-hand part looks way more realistic and less like a toy.

Subtle streaks are hand-painted with a dark brown almost black color. 18

For a final touch here and there some small chipping in the darker panels was carried out with silver acrylic paint. 19



4. EXAMPLES

4.5. ABYSSAL. WEATHERED ARMOR AND DARK FIGURES

In fantasy we have more freedom to create metallic tones. In this example we will see how different tones are applied and how to get a fantasy metal tone.



PREPARATION AND ASSEMBLY

1 To get an idea of the size of the bust, we pre-assemble with Blu-Tack - it's huge!!!

2 After cleaning the pieces, use putty for the joints and to retouch any imperfections that may have appeared. With Magic Sculpt, in this case we retouched the edge of the shoulder, and let dry for 12 hours.

3 With 800 grit sandpaper, make the surfaces uniform and leave them ready for further painting processes.

4 To glue the pieces we spend time scratching the surfaces for better adhesion, as a fast alternative to using bolts.

5 For gluing, use a two component glue more resistant than cyanoacrylate. It will take about five minutes to be hard enough and we can apply it with a toothpick.

6
7 Once the glue has dried we will strengthen the joints with Magic Sculpt. The interior is hollow in this case, it is also possible to reinforce with putty.



9 To make the fur and other details, use a finer putty such as Milliput.



10 The best tools to work with this kind of putty are: rubber brushes, needles, blades, normal brushes, water and alcohol to correctly handle our putty.



11 With the putty ready, rebuild and add detail to the areas with any imperfections.



12 Once the putty is dry wash the set with water to remove any debris that may react with the paint.



13 Let's prime in two phases. First the dark shades (black with a little of white) on all metals and on the fur, then a white coat with some black (very light gray) in the fleshy areas. The flesh zone is primed directly in light gray using a mixture of black and white. For the interior zones of the bust, prime with the dark mixture.



15 Protect the face with a mask.



16 The figure is ready for the next phase.





17 Over the primer layer, draw the veins with blue and turquoise in a random way, which we will then later soften.

18 For the skin we will use Iraqi Sand + Sea Blue, Violet Red and Scarlet Red.

20 Over this mix we will glaze the flesh color - the aim is to get a pale pinkish color.

21 With soft layers applied with airbrush, start highlighting the large areas, for the details use the brush.

23 One trick to make a wet palette is to wet a paper towel and place on an absorbent paper to mix colors and keep them fresh longer.

25 The sponges that come from the set are handy to support the figure on the table and allow better access to certain areas during the painting process without handling the paint.



26 To paint the metal parts and the shell area, we have painted with black matte and Boltgun Metal, then added blue tones as filters and inks.

27 To get bronze with many shades that contrast with the rest of the shell, start with a mix of reddish ocher-orange (Snakebite Leather plus Mechrite Red, adding Dwarf Bronze all from Citadel). All this painting should be blended while wet with a clean brush to create a proper texture.



28 We use blues, purples and turquoises to add zones with different shades looking for an attractive result in a fantasy figure without worrying too much if it is bronze or any other specific material.



4. EXAMPLES

4.6 PAINT STRIPPING AND BASIC PAINTING

Equipped with armor and a drill, they are humans mutated by Ryan Industries. This example is not to display an ultra-detailed or ultra-realistic paint job, but to show how to take advantage of a toy, enjoying painting and showing some techniques.





The figure is not a model kit, but rather is a limited edition Big Daddy doll from Bio-Shock that came with the video game and what appears to have been painted production line style in a toy factory. First we have faded most of the base coat of paint. The figure is slightly coarse in its lines and lacks the details to which we are used but with the help of paint stripper we remove all the paint and check how easy it is to 'unpaint' something, either acrylic or enamel, and prepare it as our next project.



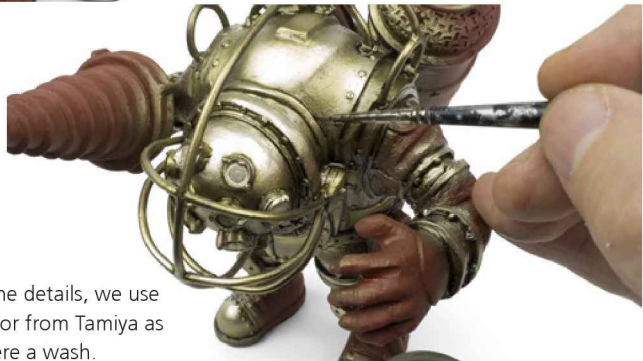
Once we have stripped the paint, prime it with a layer of polyurethane - in this case red - to help us settle the paint on the surface of this figure, made of a material that we dare not say what it is! We have not lost time in improving the figure or its parts to be able to focus primarily on the following process.



With 'Xtreme Bronze', apply the base coat. Then with a mixture of colors: 'Xtreme Brass', 'Xtreme Burnt Metal' and 'Xtreme Pale Burnt Metal', create volumes on the figure.



To enhance the details, we use the smoke color from Tamiya as if it were a wash.



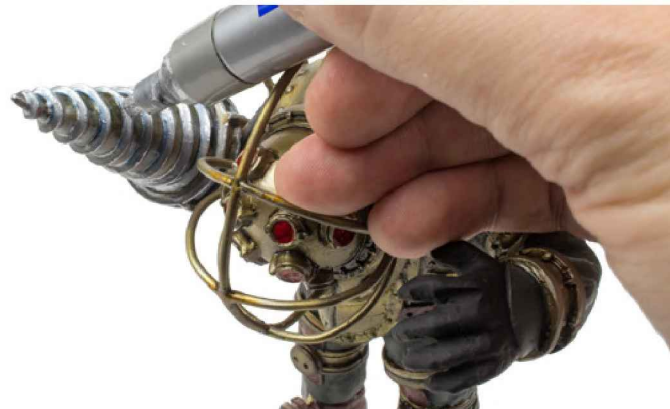
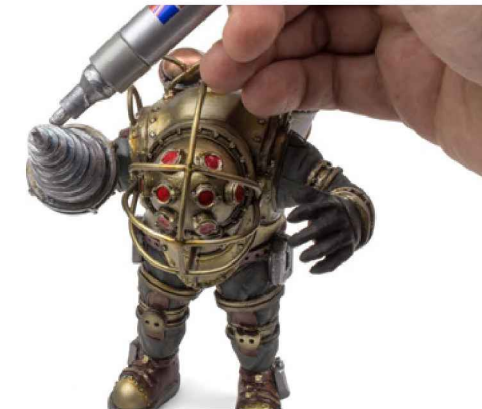
Use masking tape to mask the parts that we are going to paint with other colors.



The Xtreme Metal paints are ready to paint directly with the airbrush and for this task a suitable PSI is 1.5 kg.



The last equipment bottle we have painted with a copper color and have applied a sepia color wash.



With a permanent marker from Edding, we again go over some areas to show how we can make use of these tools in modeling.



Using a brush, add the last details.

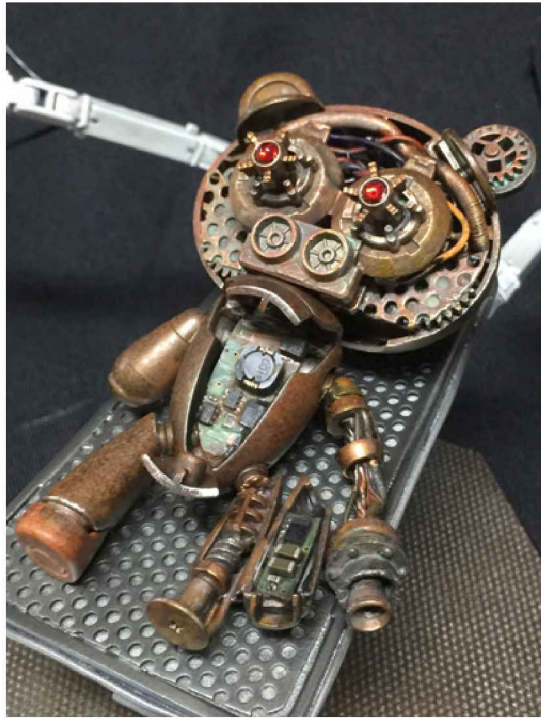


A few drops of blood gives a more brutal result.



The result of the figure is much more attractive than at the beginning and now we can add it to our collection.





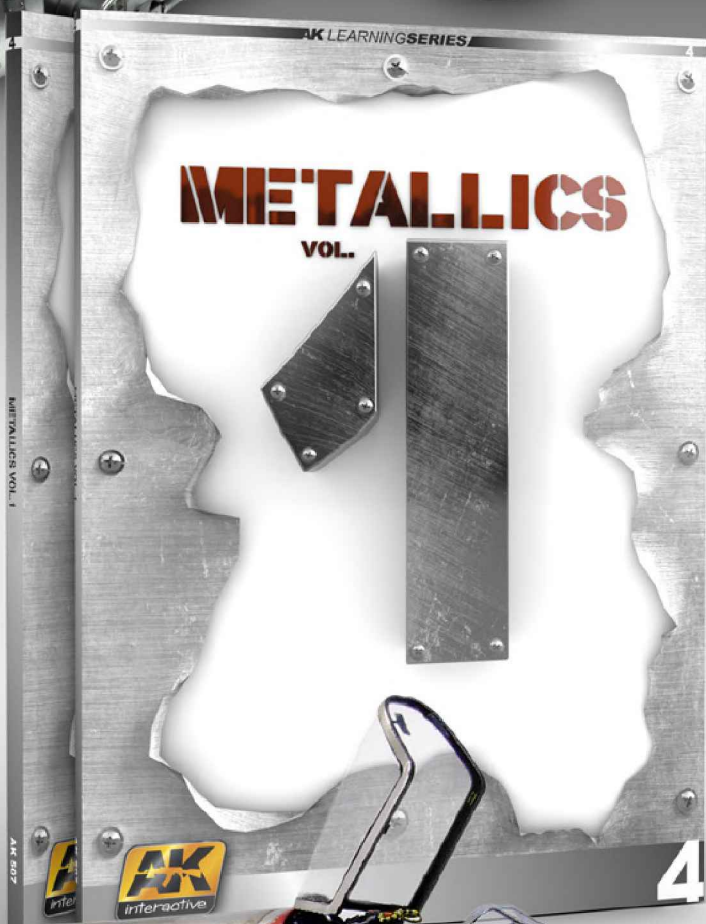


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