Future

FANTASY & SCI-FI DIGITAL ART
ImagineFX
PRESENTS

PHOTOSHOP ⚜ PAINTER ⚜ ARTRAGE ⚜ AND MORE!

THE DIGITAL ARTIST'S SURVIVAL GUIDE

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Learn to create amazing digital art, including characters, creatures, environments and vehicles!

Inside!
117
TUTORIALS

"Hair can have almost any shape, so
when it comes to painting it, think of it as
an ace up your sleeve."

FANTASY & SCI-FI DIGITAL ART

ImagineFX

PRESENTS

THE DIGITAL ARTIST'S SURVIVAL GUIDE

Welcome…

If you're new to digital art or just want a resource close to hand when you're in need of some advice, then The Digital Artist's Survival Guide will become your new best friend. It's packed with informed and unique advice, and our team of artists from video games, comics, the film industry and book publishing have an answer for everything, almost. Want to learn how to paint feathers on a dragon? Done. Want to understand how to use perspective? It's all in here.

More so, we've looked at some of the most popular software used by digital artists and compiled our starter guides to using the apps. Whether you're using Photoshop, Painter, ArtRage or even budget software like PaintTool Sai, there are bite-sized tut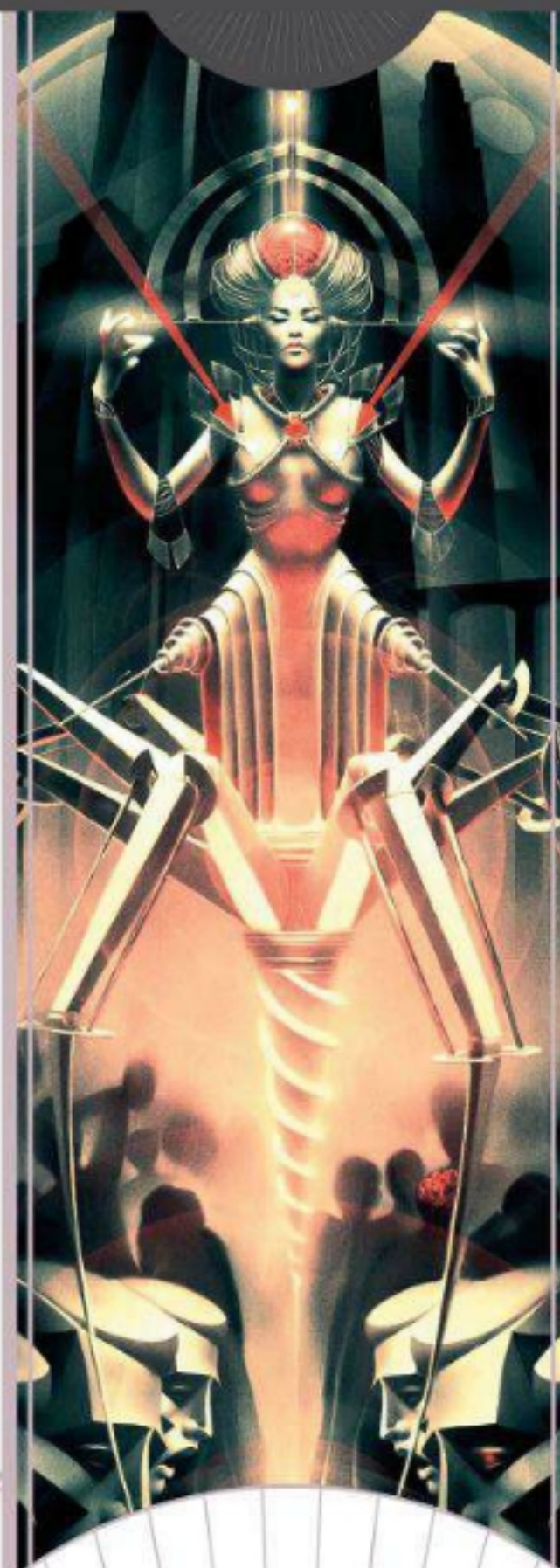orials to walk you through the software's tools. Inside you'll learn to use layers, create custom brushes and navigate the apps.

In total there are 117 chunks of easy-to-follow tutorials that will aid you in improving your digital art or help you get to grips with the core skills needed to enjoy this art form!

Ian

Ian Dean, Editor
ian.dean@futurenet.com

The Digital Artist's Survival Guide is a special edition of ImagineFX, the only magazine dedicated to fantasy and sci-fi art. Our aim is to help artists to improve both their traditional and digital art skills.

Visit *www.imaginefx.com* to find out more!

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ACCESS YOUR FILES & VIDEO

VIDEO LESSONS
Learn from our artists' video tutorials…

• CONTROL THE VIEWER'S GAZE See Nick Harris use ArtRage to paint a scene that guides the viewer.

• PAINT A SNOWY MOUNTAIN Watch Tony Foti compose and paint a snow covered mountain.

• PAINT A CTHULHU CREATURE Manon draws inspiration from HP Lovecraft.

RESOURCE FILES
Follow our artists' workshops using their own sketches, thumbnails and many process photos.

USE LINK

WHEN YOU SEE THIS…
Click or copy and paste the links into a browser to download the files to a desktop PC. Use links to stream video.
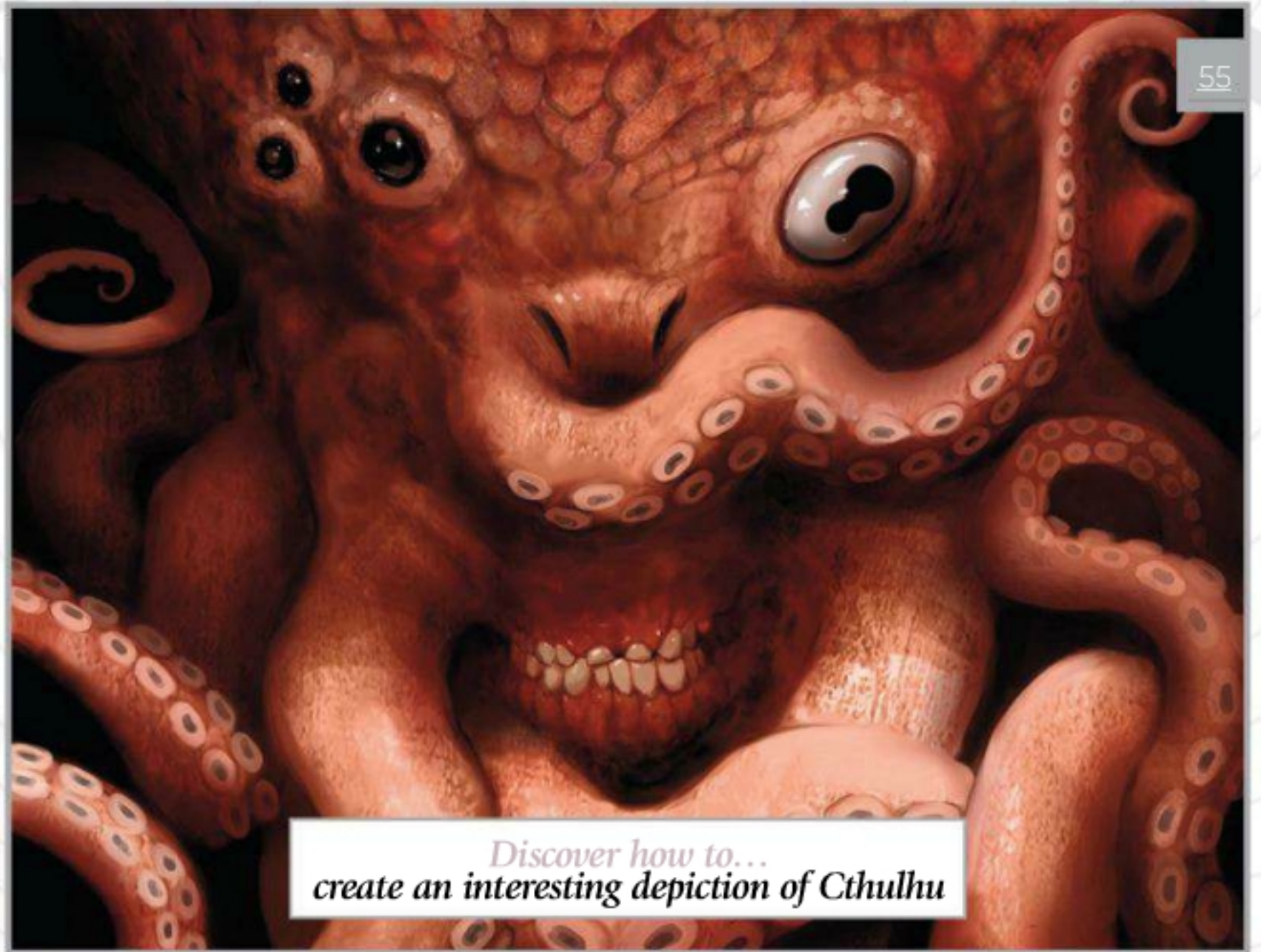
FINAL LAYERED ART
Some of the tutorials feature the final layered PSD files. Open and explore the layers to learn new skills.

Contents

DOWNLOAD YOUR FILES

LINK

www.bit.ly/ifz12-ps

ACCESSING YOUR FILES

Click or copy and paste the link above into a browser to download the files to a desktop PC or Mac.

THE DIGITAL ARTIST'S SURVIVAL · GUIDE

Ps

Software guide

PHOTOSHOP

Explore the tools of the leading professional app, including using grids, clipping masks, texture brushes and much more.

Tom Garden

Tom is a freelance artist who, for the most part, creates concept art for the video games industry. Developing a game project of his own is his long-term goal.

www.tomgarden.co.uk

DOCUMENT DECISIONS

Setting up your Photoshop document correctly is very important – especially if your work is going to be printed. There are a few basic rules to remember that are fairly standard across the art world regarding file formats, size, colour and print specifications. You need to know how to deliver the final artwork properly, and how to make sure your image looks great when it's printed. Hopefully these tips will help you out!

"Print your work out before sending it to print. You may see errors that aren't obvious on a monitor"

TOP SET-UP TIPS

Follow these guidelines to present your artwork in the correct format and make sure it looks its best when printed...

UPSCALING/DOWNSCALING

It's always good to paint on a larger file size than you need, so you will be able to downscale the original. It's easier to paint on a larger canvas to enable you to work on the details more easily.

PRINT AND CHECK

If possible, print your work out before sending it to print. You may see errors that aren't obvious on a monitor, or you may need to tweak the saturation or levels to make the image richer.

FILE FORMATS

If you are sending to print, always check with the printer what format they would require. A typical delivery format is a TIFF, which is a lossless file format that delivers great quality. JPGs are not normally a good format for print as the quality is not as high.

BLEED MARGIN

Bleed is an area around your image that allows for some of the image being lost in cropping and trimming, without destroying your main image. Make sure important parts of your image don't run over these lines.

GUIDES AND RULERS SHORTCUTS

To hide the guides you can use the shortcut Cmd/Ctrl+H. For hiding the rulers use Cmd/Ctrl+R.

GET TO GRIPS WITH TEXTURE BRUSHES

Using textures can make your digital art look fantastic and save you time. For production artwork employing the right texture is crucial because other artists will need to know what material or feel you're trying to get across.

Setting up a few basic textures means you won't have to search for texture photos each time you need to paint a piece. Here, I'll show you how to set up a texture, create a custom brush and then use it to apply texture to your artwork.

TEXTURING TIPS

TEXTURE EFFECTS

I recommend that you spend some time having a play with the different brush settings for various texturing effects. The dual brush and texture feature can make some great brushes.

TILING

If you need a texture to tile, click Filters>Other>Offset and then you can use the Healing Brush tool or the Clone Tool to cover the seams.

RESOURCES

Use your own photos, rather than a stock library's, to ensure your work is your own.

SHARPENING

Create a clearer brush texture by sharpening the texture first.

CLASHING EDGES

Use a previous texture brush to mask the edges of a new one. This breaks up the edges nicely.

RESOURCE LIGHTING

When you are photographing a texture try to ensure that the lighting is as flat as possible. This will avoid giving too much form to the texture.

BASIC TEXTURES

Above are some of my ideas for the type of texture brushes that you might want to set up in your palette. Metal, organic, paint, bricks, grating and stone are all good, all-purpose textures.

Step-by-step: How to set up your Photoshop document for the best printed results
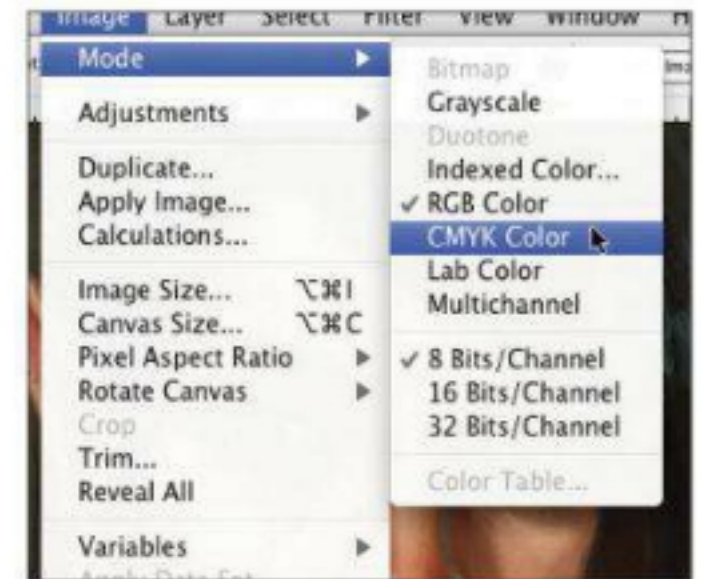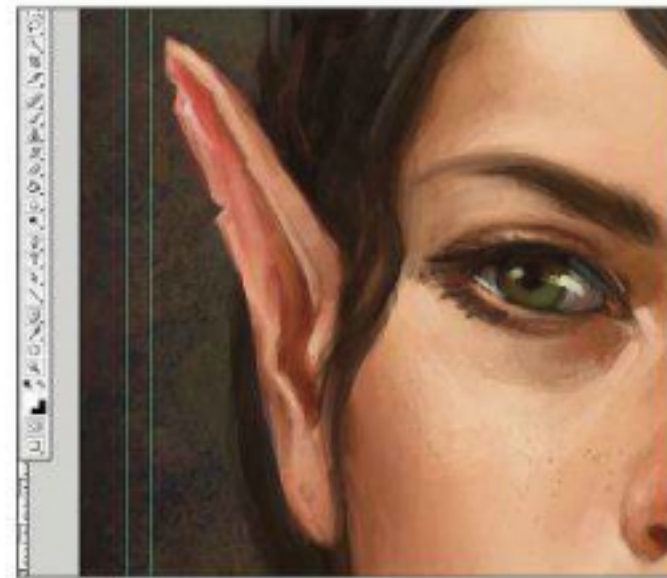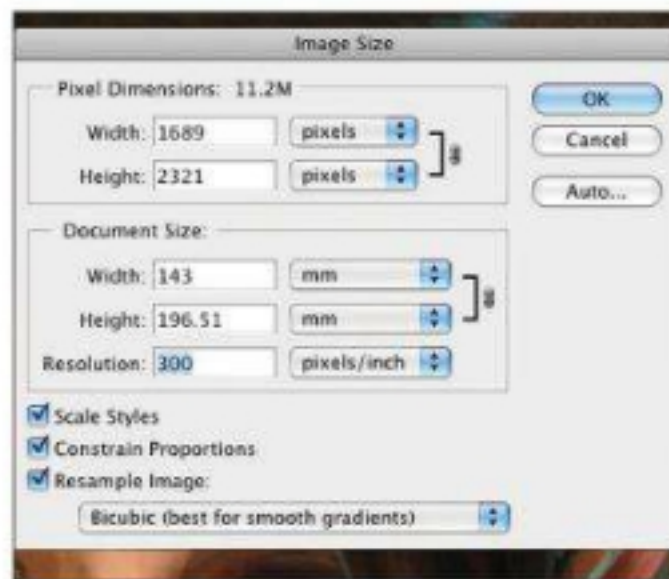
1 Resolution

You can set your PPI in Image>Image Size>Resolution. PPI means Pixels Per Inch, and this tells your printer how many pixels to print within one square inch. The higher the PPI, the better the quality of the images. Of the common resolutions, 72ppi is good for web images around 500-1000px. 300ppi is a standard for print and is good for anything around 2000 – 4000px. 600ppi is rarely used.

2 Rulers and Guides

These are vital for correctly setting up a document for print measurements where cropping and bleed might occur. Turn on the rulers with View>Rulers, then click and drag from inside the ruler area to create a guide. Now, drag the guides out to the bleed or the crop specifications. Right-click inside the ruler area to specify the measurement format. To remove a guide, just drag it back.

3 RGB and CMYK

These are the two types of colour formats in Photoshop. RGB (Red, Green, Blue) is more suitable for the computer or television media presentation of your image. CMYK (Cyan, Magenta, Yellow, Key Black) is the standard for most printers. It's advisable to do a test print on a CMYK printer for yourself before sending the work off to be printed; most home photo printers are now CMYK.

Step-by-step: Capture a texture and create a custom brush
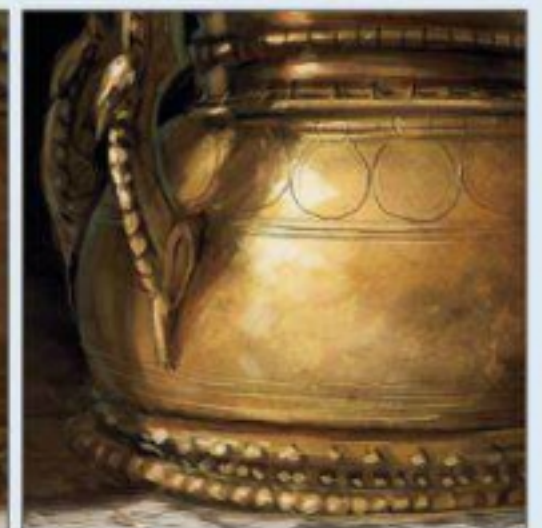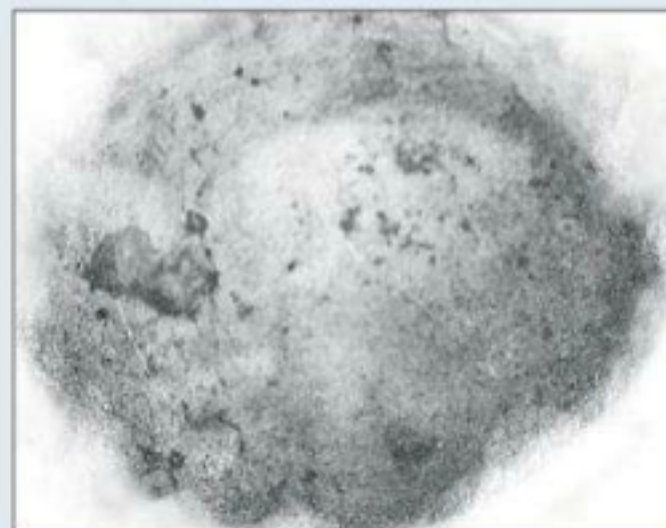
1 Capture your texture

Either photograph a real-life reference or go to www.cgtextures.com for lots of free textures. Then desaturate the photo by going to Image>Mode> Greyscale. This only works with greyscale images for custom brushes. Increase the contrast of the values in Image>Adjustments>Brightness/ Contrast. For a texture stamp brush make sure it's high resolution – at least 2,000 pixels wide.

2 Create the brush

To create the brush, use the Lasso tool to select an area in the texture and copy it to a new layer, on a white background. The brush must have white surrounding it, as white will eventually end up becoming transparent. Try to make the edges of the brush coherent with the texture. Click Select>All and then press Edit>Define Brush Preset. You now have a custom brush!

3 Apply some texture

Now we can experiment with the brush. Click the texture brush on a new layer. This stamps the texture onto your piece. Different layer blending modes will achieve various effects; Overlay usually gives good results. You can stamp it like this or, by changing the brush settings such as Angle and Opacity Jitter, you can randomise your brush, enabling you to paint across the whole canvas for unique results.

UNDERSTAND CLIPPING MASKS

Clipping Masks are masks based on the transparent data from layers. They're commonly used for graphic design tasks, for example adding a picture to text or vectors, but they can be very effective in artistic work too.

Clipping Masks are one of the many ways to mask in Photoshop, and while they may not be the most straightforward to use, they have interesting benefits. Here, I'll show you one method of using Clipping Masks to create character thumbnails.

TIPS FOR MASKING

Understanding how Clipping Masks work is key to getting the most from them.

BE SELECTIVE
By using a Clipping Mask, you only adjust the layer that it corresponds to, without affecting the rest of the piece.

NON-DESTRUCTIVE
While you could use the Lock Transparent Pixels feature, Clipping Masks enable you to work non-destructively. Your Clipping Mask will recognise regular masks that you've used on other layers.

TRANSPARENCY
Clipping Masks don't work on black and white data like typical masks, but on the transparent data. To check what's transparent in your image, simply hide the lowest layer in the stack.

ALTERNATIVES
You can use Adjustment Layers as Clipping Masks, but these will only affect the layer that they're attached to. It's also possible to use Clipping Masks as an alternative to the Quick Mask feature.

TEXTURES
Try using a Clipping Mask above a vector, which enables you to get a great effect if you use a texture.

ON THE STRAIGHT AND NARROW

Grids and rulers come into their own when you start setting out compositional guides or preparing a showcase of your work for a client. Ignore them at your peril! The rulers run along the left side and top of your composition and show you the size in different units of measurement. The grid is a square overlay, which you can specify the size of, and comes in handy for reference work and proportions.

PRECISION TIPS

LAUNCH THE LINE TOOL
Use the Line tool to draw the grid on a new layer. You can also use the Line tool on guides.

OVERALL MEASUREMENTS
When using the Ruler tool, its measurement values correspond to the types of unit measurement that your rulers have.

ALTERING PREFERENCES
Changing the grid preferences will affect all of your open files, so be aware of this.

BACK TO THE START
Double-click the top-left area inside the rulers to reset the origin point back to the edge of your picture.
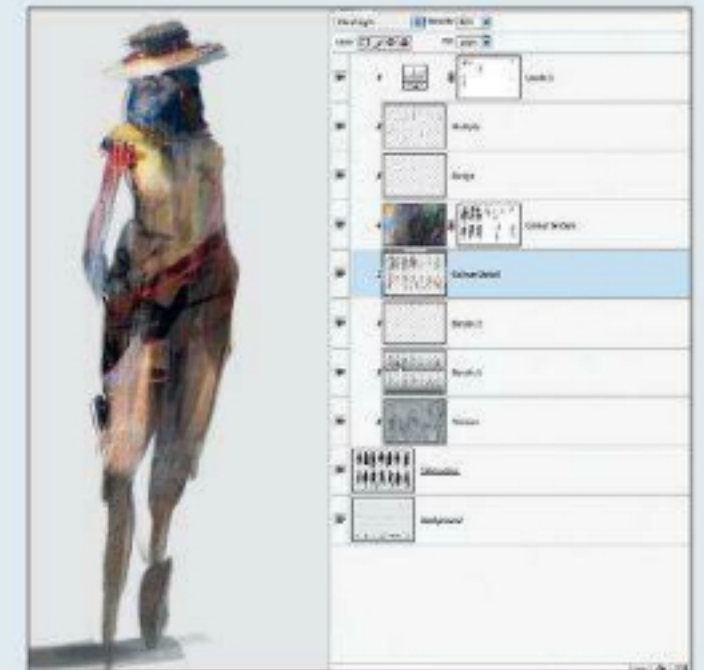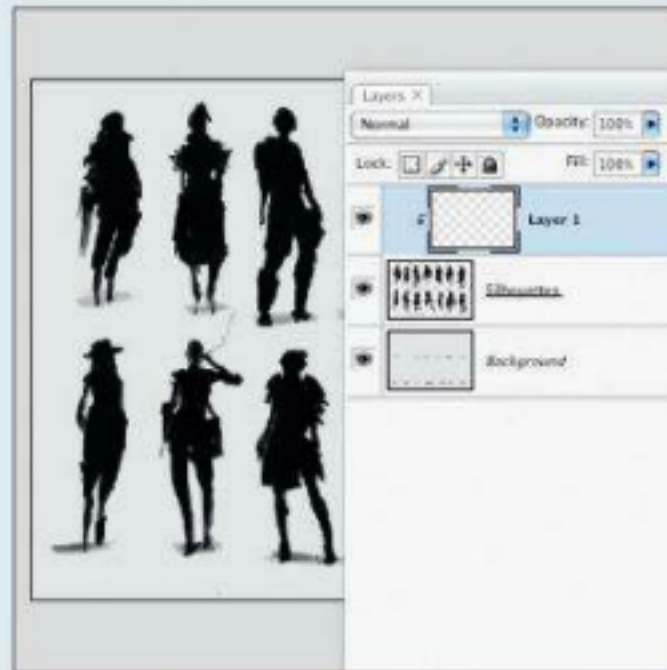
SWITCH MEASUREMENTS
To quickly change the rulers' unit measurements, right-click in the ruler area for other options.

SEE YOUR RULERS
Display rulers by clicking View>Rulers. You can pull down guides from the ruler area onto your piece with View>Snap.

"Grids and rulers come into their own when you prepare your work for a client. Ignore them at your peril!"

1 Create a Clipping Mask

Make a new layer above the one you want to use the Clipping Mask on. Now go to Layer>Create Clipping Mask. Your new layer will work as a mask, based on the transparent and solid data of the layer below, so it'll only affect that one. You can, however, have as many Clipping Masks applied to the main layer as you wish.

2 Character thumbnails

I've created some character silhouettes, which need detailing. But be careful: painting white on your silhouette to 'erase' it will actually count as solid data. If you do this, the Clipping Mask will read the areas of white paint as solid, which isn't what we're after. We want the Clipping Mask to let us paint within the boundaries of the silhouette.

3 Texture and colour

You can add more Clipping Masks to the silhouette layer, which will enable you to apply texture and colour washes. You can use some blending modes more effectively in this way too. Here, I've painted a 'hard light' layer, which normally wouldn't stay within the prescribed boundaries. But now it will be restricted to my silhouette.
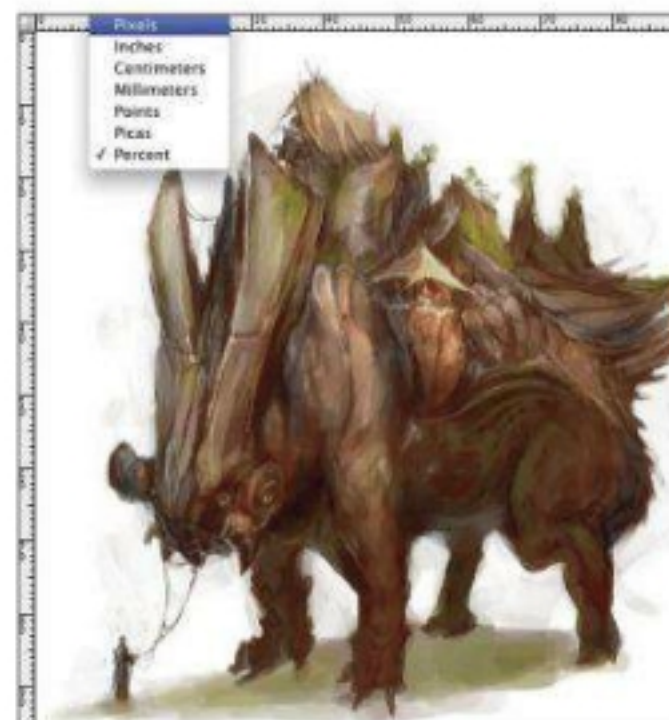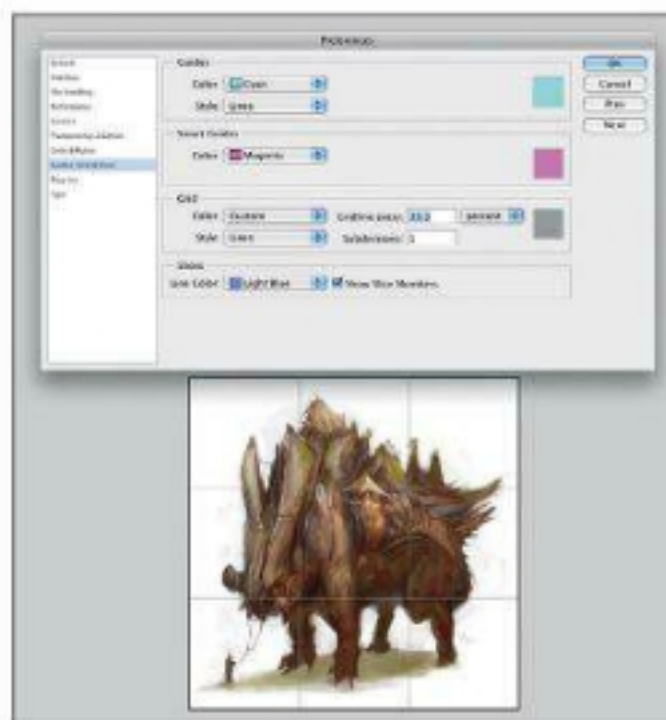
1 Apply a grid

To view the Grid Overlay go to View>Show>Grid. This displays the grid on your painting. Here, I'm setting up this grid to show the document in thirds. I click Photoshop/Edit>Preferences> Grids>Guides & Slices. In the Grid section I go to Gridline Every and set this to 33.3 per cent. I can also adjust the Subdivisions box to add or subtract subdivisions from the main grid boxes.

2 Precise placement

Rulers and Guides can also be used effectively with a grid. If I turn on View>Snap my guides will automatically snap to the grid. Clicking View>Lock Guides ensures that they won't accidentally move while I'm editing an image. I can also change the origin point of the rulers by clicking the top-left corner of the rulers area and then dragging the cursor in the composition.

3 Accurate measurements

I use the Ruler tool, which can be found in the Tools Palette, to measure something within the composition. I click and hold the Eyedropper tool icon which enables me to see the Ruler Tool. Along the top menu bar, measurements will then appear. On my picture, if I click and drag the ruler to measure something within the image the values will change accordingly.

Ps

IMAGE MODES AND COLOUR CHANNELS

Colour channels and image modes determine how colour is combined in your artwork. Understanding these two features will enable you to achieve better printing results and make key colour adjustments.

The Image Modes are under Image>Mode, and changing them enables you to display the colour information differently, using channels. The colour channels display the colour information of your piece as separate layers.

CHANNEL HELP

SEE CHANNELS IN COLOUR
To view channels in their respective colour all you need to do is go to Photoshop/File> Preferences> Interface and tick 'Show Channels In Colour'. A simple skill to learn.

BLENDING USING CHANNELS
Double-clicking a new layer displays the blending options. Here you can adjust the blending using the channels, which is useful when painting and creating solid colour, graphic art pieces.

PRINTING GREYSCALE ART
Printing Greyscale artwork with a full colour range adds more subtlety to the final printed piece. It's a useful technique to keep in mind when painting unique fantasy art.

GOING FROM RGB TO CMYK
If you paint an image in RGB that will be printed in CMYK, the values may change when you convert it, resulting in washed-out colours. Correct this with a level adjustment.

CMYK FILE SIZES
CMYK files will be a larger file size because more channels are used.

MORE CHANNEL ADJUSTMENTS
Something to remember is Adjustment modes such as Levels and Curves also enable you to adjust channels.

THINKING AHEAD
Check with your client to find out how your image will be used and how it should be supplied as a final format.

ACTING ON ART FEEDBACK

Art direction is a key process when providing feedback for art assets, but it's also a crucial method of explaining your own artwork to a client. A lot of artists are now working as freelancers and are based off-site, so clarity is vital in the presentation of your work – and so too is understanding feedback when you are not sitting in a studio.

It's good to know what tools to use, so here are three methods for annotating and adjusting your artwork.

FEEDBACK TIPS

USE COLOURS
Colour your layers to indicate a changed layer. To do this right-click/Ctrl+click the layer you want to colour and select Layer Properties. Then choose a colour.

MAKE YOUR CHANGES CLEAR
If you're overpainting a piece, use a new layer and use clear solid brushes and colours to make all the changes obvious.

ORGANISE YOUR LAYERS
Make use of the layer palettes functions, such as using Groups, layer colouring and naming the layers.
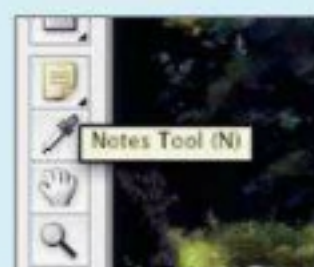
WRITE SOME NOTES
Notes are a great non-destructive way to tell a client exactly which elements you have changed. In the Tools Palette you'll find the Notes Tool. Simply click your artwork where you need to add the note and then start writing.

GET TYPING
The Text tool can be used to add notes to your artwork if you prefer. Click and drag to draw a box for your text.

MAKE YOURSELF CLEAR
When you're annotating your work, be as clear as possible so that anyone can understand your intentions.

NAME FILES LOGICALLY
When saving artwork with changes made, you should update the filename by adding number/letter increments. Ensure it'll be easy to look through the various iterations.

MAKE ROOM FOR FEEDBACK
Enlarging the canvas (Mac: Cmd+Alt+C, PC: Alt+Ctrl+C) will give you more space to add feedback, references and paint-overs.

Step-by-step: *Understanding colours and using the Channel Mixer*

1 RGB and CMYK

RGB is the standard colour range for all computer and television displays, while CMYK is a standard format for printed artwork. It's useful for digital artists to work in either RGB or CMYK because the artwork will usually end up being displayed using on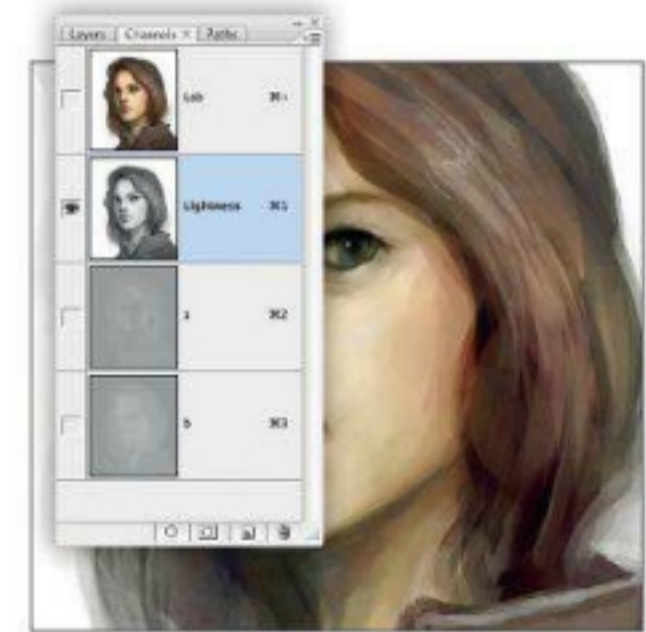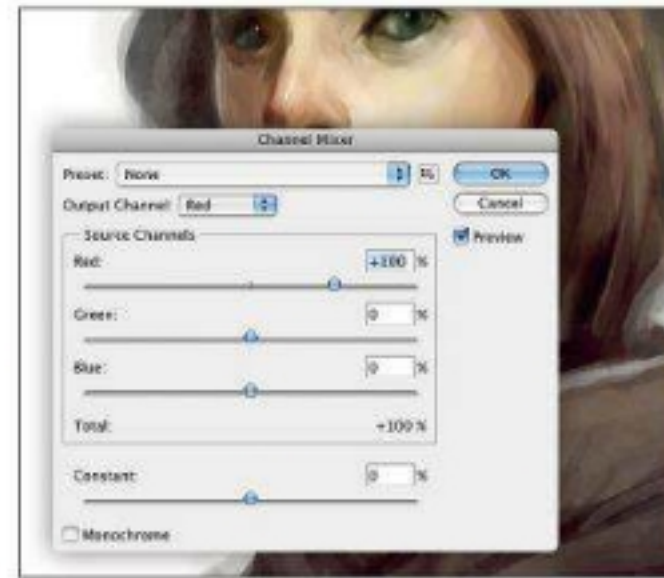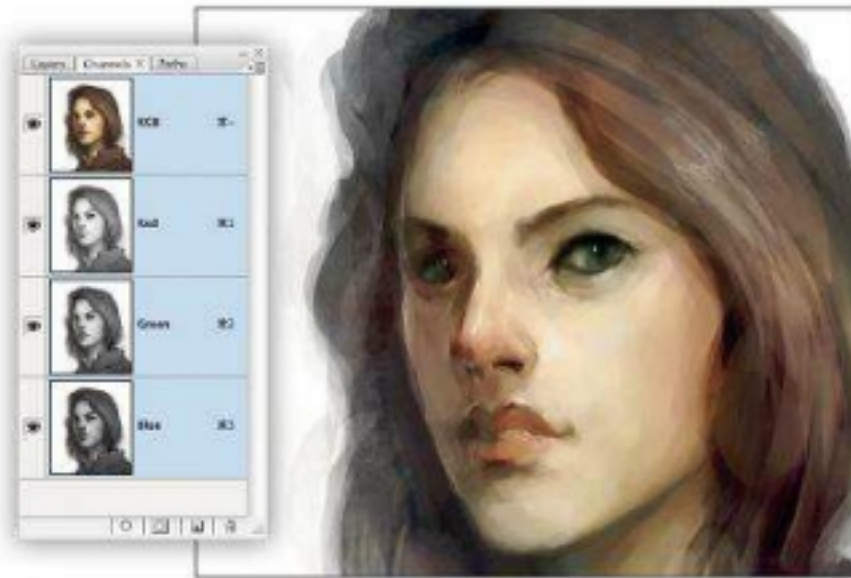e of these formats. Be aware though that professional and home printers now tend to employ CMYK inks rather than RGB inks.

2 Channel Mixer

Click Image>Adjustments> Channel Mixer to adjust the amount of colour for each channel and the brightness or darkness. So if you take the Red Channel, which by default is at 100 per cent, and decrease that to zero per cent you're removing all the red colour information in the piece. You can adjust each channel by selecting the colour from the Output Channel drop-down menu.

3 Sharpening with Lab Color

View your image in Lab Color mode and you'll see a Lightness channel, which represents the image's luminosity. Apply an Unsharp Mask filter to this channel (Filters> Sharpen>UnSharp Mask): this gives you better results and enables you to increase sharpness without distorting the image's colour. Other filters on the Lightness channel work, too.

Step-by-step: *Annotating and adjusting artwork post feedback*

1 Taking your art feedback onboard

Before diving into completing the final painting you should be able to roughly mock up the final image based on the feedback that you have received. In this process you want to make the design changes as clearly and quickly as possible, as you don't want to waste too much time at this stage. Always make sure that your intentions for the final image are obvious.

2 Transforming a character

I've enlarged the size of the character using Lasso and Free Transform and Warp. Warp is good for bending and twisting the shape of a part of your painting – I use it in collaboration with a Lasso or Quickmask. The Liquify Tool is also useful for shifting elements around, such as repositioning a hand slightly or enlarging/shrinking elements in the piece.

3 Making use of Smart Objects

If you need to quickly concentrate on one element in your image, paint a Quickmask, duplicate this into a new layer and then go to Layer>Smart Objects>Convert to Smart Object. By double-clicking this layer you can now work on it in isolation without affecting the rest of the piece. To update the main image save the Smart Object and your main piece will be updated.

ARTISTS PANEL

Cynthia Sheppard
A freelance fantasy artist with a background in traditional painting, Cynthia likes to bring classical techniques to her digital art.
www.sheppard-arts.com

Nick Harris
Gloucestershire-based Nick went digital in 2000 after 18 years working with traditional methods. He works mainly on children's book illustrations.
www.nickillius.com

Tuna Bora
A freelance artist based in L.A. via Istanbul, Turkey, Tuna has clients in the animation, video game and commercial art industries.
www.tunabora.com

Remko Troost
Remko is a seasoned video game concept artist who has recently worked on Assassin's Creed III and Far Cry 3 for Ubisoft in Canada.
www.remkotroost.com

Jonathan Standing
Jonathan Standing is a concept artist based in Toronto. He's currently working on the TV series Defiance for SyFy.
www.jonathanstanding.com

Paco Rico Torres
Paco is a freelance illustrator living in Spain who's produced art for several card games, magazines, books and roleplaying games.
www.pacorico.blogspot.com

Jace Wallace
Jace has freelanced for magazines, book publishers and has produced concept art for many video games, including The Sims 3.
www.wakkawa.cghub.com

Raymond Swanland
You'll recognise Raymond's work from the Oddworld video games. A leading concept artist, Raymond is always in demand.
www.raymondswanland.com

Sean A Murray
Sean works in the video games industry creating concept art for leading studios. He is currently senior concept artist at Harmonix.
www.seanandrewmurray.com

Kev Crossley
Long standing comic artist Kev has worked for 2000AD amongst other comic titles, drawing Judge Dredd. He's currently freelancing.
www.kevcrossley.com

Mélanie Delon
French artist and illustrator Mélanie creates art for book covers and games. She's currently working on her personal book artwork.
www.melaniedelon.com

Core skills

HOW TO PAINT CHARACTERS

Master the simple techniques and skills needed to create and paint character art, including advice on painting clothes, anatomy and poses.

DOWNLOAD YOUR FILES

LINK
www.bit.ly/ifz12-ch

ACCESSING YOUR WORKSHOP FILES
Click or copy and paste the above link into a browser to download the files to a desktop PC or Mac. Do the same to watch videos where seen.

Ninjas are merciless, cold-blooded assassins, so you should reflect that in your work.
PACO RICO TORRES

This character demonstrates the wide mouth and narrowed eyes, as well as other features such as a pinched brow, common when snarling.

The best way to…
draw a snarling facial expression

Artist's advice
Cynthia says

The snarling expression is made by exaggerating certain features of the face and adding wrinkles or creases where there's usually smooth skin. The main feature affected by a snarl or sneer is the mouth, which opens wider and exposes the teeth, sometimes at an angle. The lips pull back to create big creases from the sides of the nose down toward the chin. The muscles around the eyes also contract, causing the eyes themselves to become narrower, depending on the intensity of the expression.

However, snarling doesn't just stop at the changes in the mouth and the eyes. In an extreme snarl or scream, the muscular changes beneath the skin take shape in


Creases are formed at various points of muscle tension around the face. The arrows highlight the most affected areas, and the direction of the creases formed.

some of the following ways. Big creases form from the side of the nose, and travel down next to the mouth. Small creases emanate from the inside corner of the eye, curving upward past the brow and onto the bridge of the nose. Corrugation occurs in the forehead above the eyebrows. Small creases emanate from the outside corner of the eye (giving the appearance of crow's feet, even in young characters). Bunching of the skin occurs on the chin below the mouth.

Every facial muscle affects other areas surrounding it. When a muscle tenses in the forehead, for example, you can see a change in the cheeks and eyebrows too. Take into account what happens to every part of the face to really sell the expression.
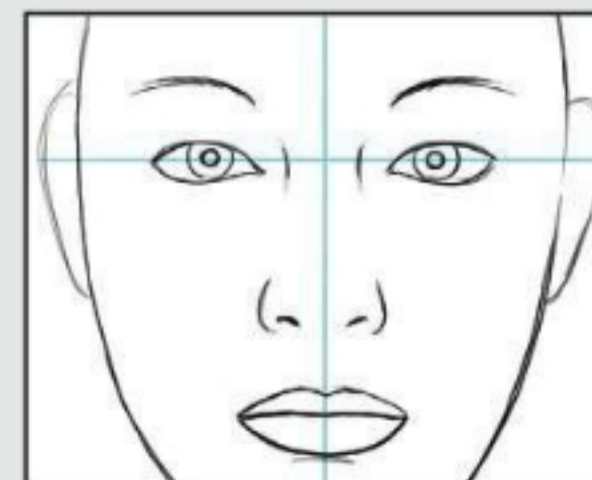
1 Draw a face. Imagine the features are made of clay; you can push them around in any direction, but where they come closer together, make a line to indicate a crease. That's what the muscles do when we make an expression.
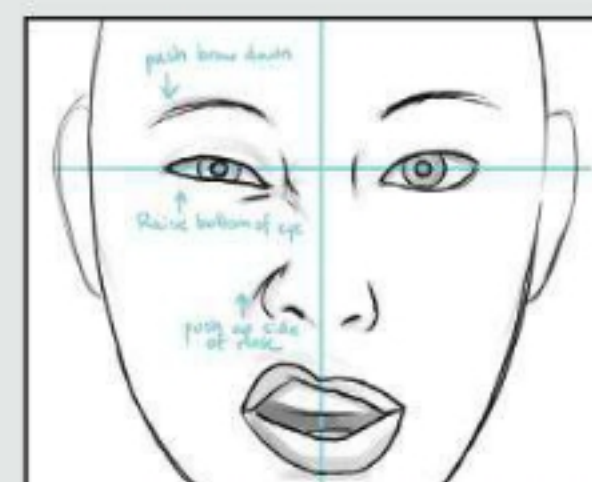
2 In a light snarl or sneer, most of the wrinkling happens on one side of the face, with the exception of a slight parting of the mouth. Think about the places where the creases are strongest and draw them in as light lines.

3 Shade the face. Don't make the creases too dark and remember they're rounded folds of skin, not just lines. Save the darkest wrinkles for around the nose, and paint the ones by the eyes, lips and brows with a value slightly darker than the skin tone.

How you can…
paint someone half-submerged in water

Consider how clothes trap air when first entering the water and how fabric behaves when wet.
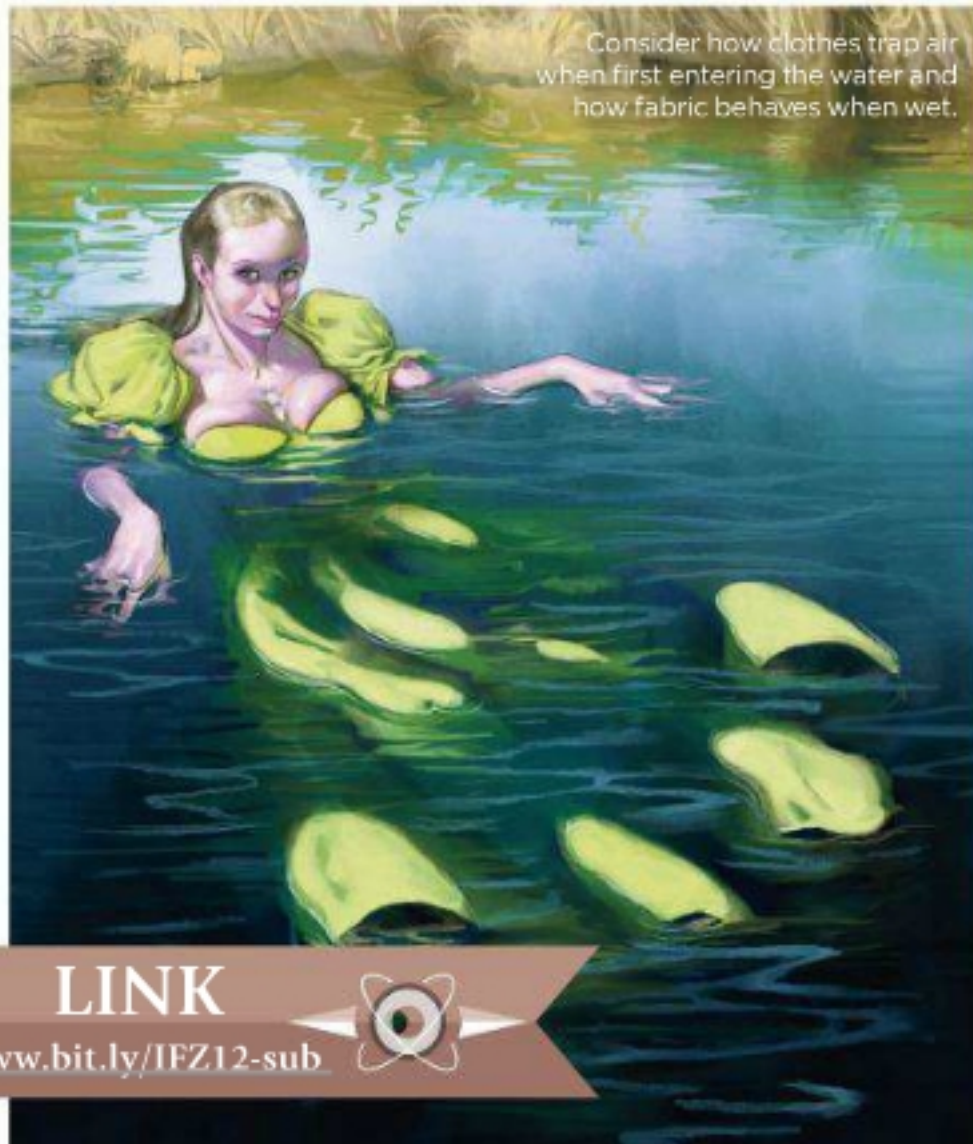
Artist's advice
Nick says

A lot depends on the scenario you choose as to how the water will look. A choppy sea has a very different surface from a placid pond – I'm going with the latter here. For a start, I choose a dress on my figure of a colour that contrasts with the dark tones of the water. I block in a dark-to-light gradient roughly with the oil brush in ArtRage on a layer beneath the one I paint the figure on. Between the two, on another layer at the top of the composition, I block in a grassy bank.

Refer to details added on this for mark making on the water layer, but don't worry too much about strict accuracy. Why? Because next I use the Smudge palette knife to drag the layer pixels left and right to create a zig-zag ripple effect. You can do the same thing for reflections of the figure, but bear in mind that its reflectivity depends on the angle you regard water surface. Hint at shapes below the surface where the figure is submerged.

The Smudge palette knife in ArtRage is great for ripple effects. Similar tools can be found in other art programs.

The best way to…
paint a character who looks soaking wet

Artist's advice
Cynthia says

The easiest way to give your character a wet or shiny look is to use small, bright highlights. Normally, when we see a face in strong light, like my example here, we expect the light to be distributed fairly evenly over the side facing the light. Instead, you can see bright white highlights on the forehead, nose and above the lip.

My second suggestion would be to give your character stringy hair. Even if your character's hair is normally curly, the water that's soaked into it would give it extra weight, and make it hang straighter. Like fabric, hair also becomes darker when wet, so your character's blonde hair might appear brown, or brown might look closer to black.

Water droplets and environmental cues help finish off the look. Add streaks of water running down a character's skin. Using a colour that's just a bit lighter than the skin gives a great effect. If your character is drenched, he or she might have drops of water falling from her nose, chin or hair. Adding hatch marks of rain or using a soft Round brush, set to low opacity to suggest dense mist, increases the believability that your character is in a wet place.

A character in the rain. Bright highlights, stringy hair and water droplets give the feeling of wetness. Raindrops around the character also help sell the illusion.

Anatomy of a droplet. As light enters at one side, it creates a point of light on the other side. The colours inside the drip should come from the environment.

Artist's secret
SKIN AS A REFLECTOR

As well as having brighter, smaller highlights, wet skin also picks up nearby colours more than dry skin does. In the main image, for example, you can see red from the cape reflected under the character's chin and on the side of her face.

Learn how to…
draw convincing eyes for portraits
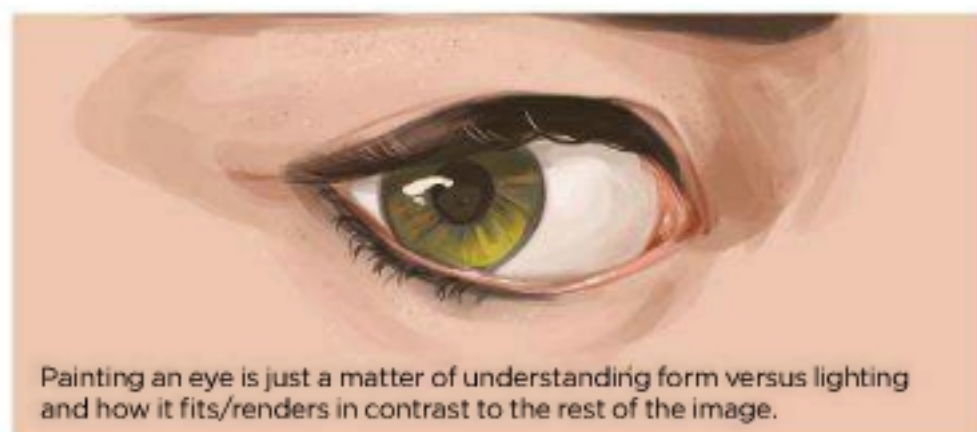
Painting an eye is just a matter of understanding form versus lighting and how it fits/renders in contrast to the rest of the image.

Artist's advice
Tuna says

I'd start with a reference. The eyes are the focus of the face in portraits, but we still have to render them suitably for the occasion. In most portraits, they are the sharpest, most rendered part. But in a painting about action or an object, they could be three fuzzy brush strokes. This is really the main trick, along with keeping to the simple painting rules of colour, temperature, form and value (for instance, understanding the white of the eye doesn't have to be white). A great way to study this is to look at the work of different art masters.

Understanding the forms is helpful, too. I remind myself that the eye is a sphere that's bigger than it seems. A contact lens-like shape extrudes out of this sphere right where we look. That's why there's a sharp highlight around the iris. The light usually filters down and hits a concave surface (that aligns with the highlight and the light source) in the iris.

I do a loose line sketch. I then make it warmer because I want to change this centred, white, flash light to a directional warm light. I give it some basic form and local tone/colour. Then it's just a matter of following the rules I explained, reminding myself of the light source and being consistent with it.

I keep any sharp edges to a minimum, and add some texture to the skin and iris. These help a lot in making things look real, although if you look closely, I did very little work there.


Here I've tried to demystify the process a bit. Holding off on the details and using them sparingly is what makes a believable image.

Artist's secret
THE BEAUTY OF RELATIVITY

I bear in mind the eye's relationship to the rest of the image. Usually I keep the image a bit softer or less rendered in comparison. The highlight of the eye will be the sharpest, brightest point on the character.

The best way to…
draw a hand holding an object
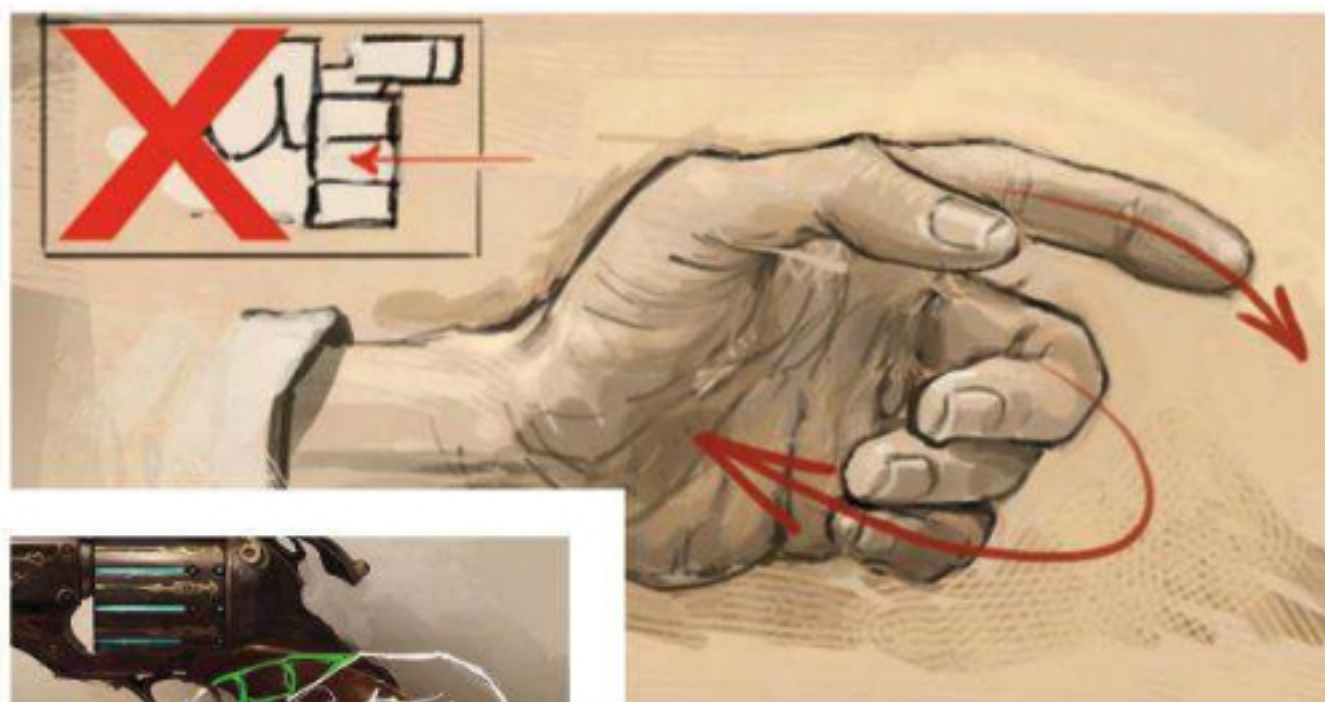
Drawing hands holding guns, without the gun, is a great anatomy lesson in itself.

Draw the hidden part of the hand on a new layer to see if the hand really works out.

Artist's advice
Remko says

Hands are complex objects. They're not easy to draw and it takes a lot of observation to understand them. Draw sketches of your own hand in several positions and observe how the hand and fingers fold and move, and the way the hand is attached to the wrist.

Don't worry about the quality of your drawings – just try to understand why the hand acts as it does. You'll soon spot some unusual traits. Fingers aren't lined up straight on the hand and this is why, if the four fingers fold inside to the hand's palm, the little finger comes closer to your wrist than your index finger.

As an example, if you draw a hand holding a gun, a great exercise to see if your hand is correct is to also draw the part behind the gun (on a new layer). Draw the part you don't see to check if it works.

Another cool exercise is drawing the hand holding a gun, without the gun. These kind of exercises, from several points of view, will slowly get you used to drawing hands and understanding their complexity.

An easy way to…
paint an image with realistic-looking shadows and lighting

Artist's advice
Jonathan says

Remember that shadows aren't physical objects, but shapes and colours created by the obstruction of light falling onto a surface. So, when thinking about shadows in your image, the most important factor is how is your scene lit? Consider the colour of the light, its intensity, diffusion, and distance from the light source to surface.

Unless you have a mono lighting scheme, most of your shadows won't be black, so avoid the urge to use it! Light bounces around us all of the time and while your primary light source may not be falling in an area of shadow, perhaps a secondary one, or 'bounce light', is. Try to retain transparency in your shadows. It's easy to let the tonal value of a shadow become so dark that it ends up opaque. Then the image usually takes on a dull or leaden quality, unless it's very graphic.

Provided you're careful with your use of very dark tones, or even black (I'd still try to avoid it if possible), why not add some occlusion shadows? These occur where two surfaces meet, effectively blocking light from falling on one or both surfaces.

A good way to…
get better at drawing human figures

If the colours give you trouble, you can create a document with various colours to use as a palette. It speeds the process up.

The key is to really look at the same time as you practise. If you just do one drawing after another without thinking, you won't progress. The point of learning about the human body is to get rid of all the preconceived ideas we have on representing it which make our work look naïve. Pay attention to the volume that's generated by the lights and the shadows, and to proportion, perspective and expression.

Besides anatomy study and life drawing, you can try an exercise that's useful for learning proportion and expression, and is also a good warm-up exercise. It consists of doing lots of quick paintings (between 30 minutes and an hour) of people, focusing on depicting the anatomy. They don't need to be highly realistic, but at least correct (don't hesitate to use references). The aim is to learn new drawing techniques, not to produce masterpieces, so don't worry if they look rough. Just focus on learning about the figure, spotting your own mistakes and then trying to get rid of them. Try to do one a day and I guarantee that you'll notice an improvement!

If you need a little motivation to practise, how about introducing a theme to your doodles to make the process more entertaining?
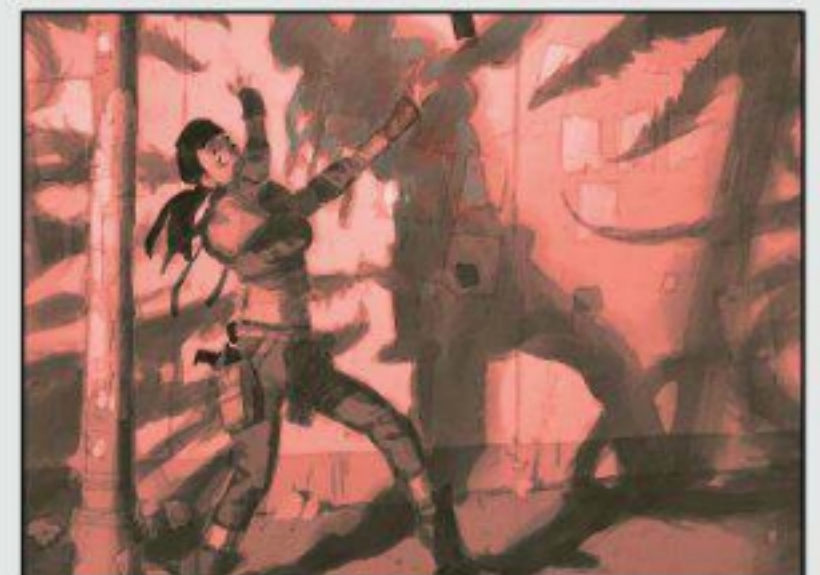
Artist's advice
Paco says

The first step in learning to properly draw or paint the human figure is to observe the human body itself. So you need to study anatomy (muscles and bones), and to do a lot of life drawing practice. If you can't draw from a model, photographic references can do the trick.

Step-by-step: Use a maquette as reference to paint a figure

1   I set up this maquette with a red Christmas light illuminating one side and a green-tinted fluorescent bulb on another. Even though this photo looks sloppy, there's plenty that I can glean from it. You can see where one light source is illuminating the shadow cast by the other.

2   I create a thumbnail, using the pose from the reference I've made, but not too much else. The danger of making a reference before a sketch is that you can become a slave to it. Always start with a thumbnail and tailor your reference to fit it, rather than the other way around!

3   Using washes of colour and then an Overlay layer to punch up the red light, I enhance the contrast between light and dark. I alternate between painting light and shade. Light and dark are relative, so building them up simultaneously helps me to balance them.

Discover the best way to…
paint a character doused in a bright white light

Artist's advice
Paco says

Painting a character surrounded by light using Photoshop is relatively easy. It's a tricky effect to recreate with traditional media, but it's one of those things that digital painting has made a lot easier to do.

The one thing that you must bear in mind is that applying these cool-looking, easy-to-achieve effects won't make a poor painting any better. If you don't put enough effort into creating your character in the first place, then the image won't work, no matter what else you do to it.

With that caveat out of the way, let's begin the process. The elements you need are an image of your character backlit (that usually means, white or almost white background, and the character in shadows with light around the edges of his/her silhouette). This is important because if the background either isn't bright enough or the character isn't lit from behind, the final result won't make much sense.

Once these elements are in place, you just need to use Low Opacity Overlay and Screen Mode layers. In these layers, paint a white outline around the character and then blur it using the Gaussian Blur. You'll achieve a decent backlighting effect without hiding the details on the figure.

If you have a solid painting then creating a backlighting glow effect using Screen and Overlay Mode Layers, and the Gaussian Blur filter is straightforward.

Artist's secret

EASY WAYS TO SELECT A FIGURE

If you've kept the edges of your character clean, the easiest way of selecting it is by Ctrl-clicking the icon of the layer that your character's on. If the edges of the figure aren't clean, you can clean them using a Selection Mask.

Step-by-step: Brighten up your character

1 First, you need to finish the painting. Here, as you can see, I've painted all the light in the background and placed the character in shadows, lit from behind. I strongly recommend painting the background and the character on two separate layers, as well as keeping the edges of the character clean. Doing this will make the following steps much easier.

2 Then, in a new layer, paint a thick white line around the character. You'll eventually blur this line and it'll become the glow that's surrounding the figure, so don't paint it randomly. Note that you'll need to paint in the areas where the light around the silhouette of the character will be stronger. Once you've done this, use the Gaussian Blur tool to blur it (around 100 pixels).
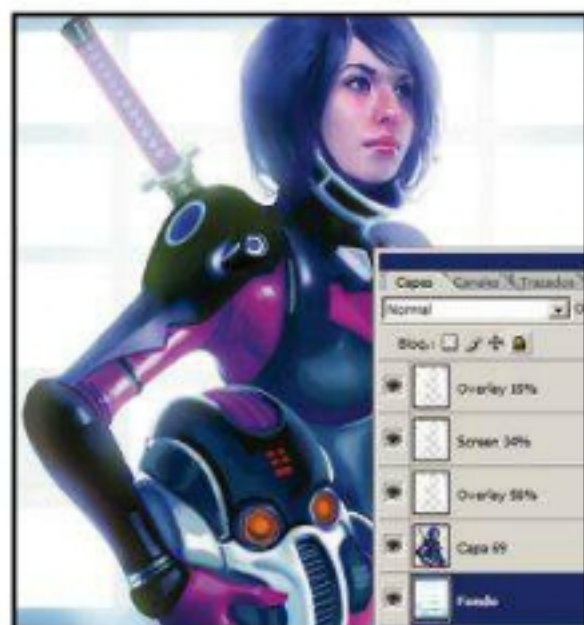
3 Next you need to copy that layer several times (or repeat Step 2 on different layers), decrease their opacity and set their mode to Overlay and/or Screen. The number, mode and opacity of the layers is up to you. For this image I use an Overlay layer with 56 per cent Opacity, a Screen layer with 34 per cent Opacity and an Overlay layer set to 15 per cent Opacity.

4 Now you just need to erase the white glow outside the edge of the character. If you've done things correctly and kept the silhouette of the character clean (so there's nothing on the character's layer) then it should be easy to select the character, invert the selection, and delete the unwanted glow. Finally, just fix whatever else needs to be fixed in the image.

Learn how to…
create a striking-looking character using texture elements

Three different texture elements come together to make a beautiful but deadly earth guardian.

These spheres illustrate how the textures play off each other. On the top there is the skin material. On the bottom is a rock-like texture. The middle sphere shows how I could mix the two together.
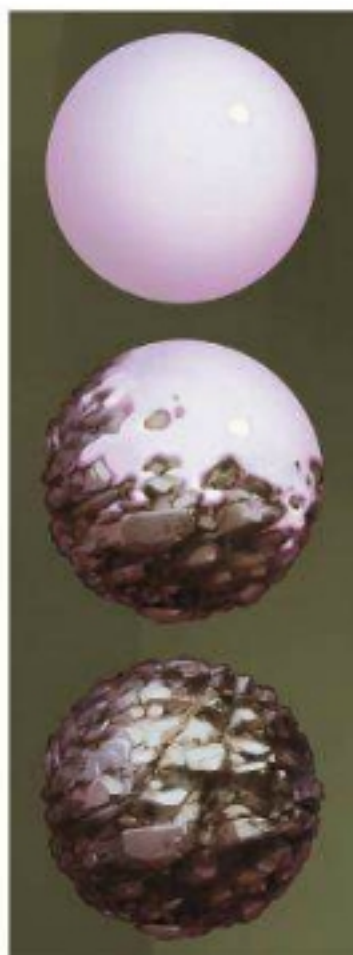
Artist's advice
Jace says

Like most things art related, there's no one single method for creating a particular look or theme. When it comes to using textures to make an engaging-looking character, I pick a couple of textures that play off each other. Textures are a lot like colour schemes. You can choose textures that are just varying shades of each other (such as a monochromatic colour scheme), or you can pick complementary textures to show contrast.

In this example I decide to go with a complementary scheme which uses a few different textures that contrast each other. The rock texture I choose is based on jagged cliff edges whereas the skin texture is smooth and soft.

I add a third textured object to complement the rock texture and break up the repetition. The spiky crystals are still part of the rock/earth theme while remaining different enough to stand out. Crystals have a transparent glow to them that gives the perfect balance between a smooth and rough surface. The jagged edges also make the silhouette more interesting.

Artist's secret

TRACK DOWN TEXTURES

Without having any solid reference it becomes much harder to make a convincing character. I'll shoot my own reference for the pose but my favourite site to get some great texture reference is www.cgtextures.com.

A good way to…
paint heavy, old, worn and used armour

Artist's advice
Raymond says

The first thing to keep in mind when creating a suit of armour is the anatomy of the person wearing it. If the shoulder pads are huge and intimidating, don't let them sit up high and defy gravity. Let them hang and sag on the character's shoulders.

Then consider the type of metal and how it corrodes: iron rusts while bronze turns a green patina. Break up any solid surfaces by creating visual noise that suggests the pitting of corrosion and dirt in the low areas. I do this with a simple 'dirt brush' that I created.

If you overlay a photographic texture of worn metal then I suggest doing it lightly and continuing to hand-paint cracks and scratches over it. The last stage is where the real storytelling happens, by painting in unique damage like the dent from a crossbow bolt or the scratches of dragon claws.

I've used a custom dirt brush to add textural noise and roughness to the clean metal which helps give it a 'realistic' corroded look.

An easy way to…
paint glowing, magical tattoos on characters

Artist's advice
Paco says

A magical glowing tattoo is just light after all. It projects light over the surfaces and casts shadows, so you have to paint it just like any other light source. To achieve a glowing effect you can use Soft Light and Overlay mode layers. First paint the tattoo with a pale colour – do it in a separate layer, because you may have to make it darker later on. Now paint over it in a Soft Light layer with the colour you want for the light of the tattoo, then blur it. Create a new Overlay layer and paint with a light colour (not pure white) and blur it again while adjusting the opacity and the colours. If your tattoo is hidden by clothing, make it less bright and use a Color layer so that it's affected by the colour of the clothes.

Make sure that the skin of the character is affected by the light of the magical tattoos.

The best way to…
apply convincing patterns to characters' clothes

I apply a pattern to this character's clothing after he's fully painted. Doing this in a convincing manner adds depth and interest to the character design.

Here I use a lot of trim patterns for the robes. It helps to show layering and is a good way to add detail without overwhelming the image.

Artist's advice
Sean says

There are three key steps to creating convincing-looking patterning. First, remember that the pattern must conform to the contours of the clothing itself. Second, make sure the pattern is affected by light and shadow in the same way the base clothing is. Third, remember that the patterns don't have to be flat – they could be embroidered sections or patches sewn into the clothing.

I usually draw clothing patterns into my pieces at the pencil sketch phase. I try to find reference of interesting patterns to use as inspiration. You can find a lot on the internet, or in copyright-free Dover Books.

Practise with simple patterns first. Visualise how the surface of the clothing undulates and folds back on to itself. Now draw a simple horizontal line pattern across the surface. This should give you an idea of how to apply more complex patterns on a similar surface. Apply trim patterns to the edges – these are easy to do and can help you work up to more complex patterning.

Be sure that you apply lighting appropriately. If your main field is blue and your pattern shapes are red, then you wouldn't want a blue highlight on the red parts of your pattern. You can use Overlay or Screen layers to achieve the right colours for your lighting.

Drawing from life is the most effective way to learn how to render clothing patterns. If you're applying a pattern using photo sources, try using the Warp or Liquify tool to make your patterns appear as if they're lying on the surface of the clothing.

Artist's secret

CREATE A CONVINCING PATTERN

Start by sketching a pattern on a new layer above the clothing. Then fill in the areas that need to be a solid colour on that same layer, changing it to a Multiply layer with 60 per cent Opacity. Adjust the colour of the pattern and then, in a new layer, render the highlights. Finally, use the Eraser on a low Opacity to fade out some areas of the solid pattern.

How to…
create a dynamic pose for a character
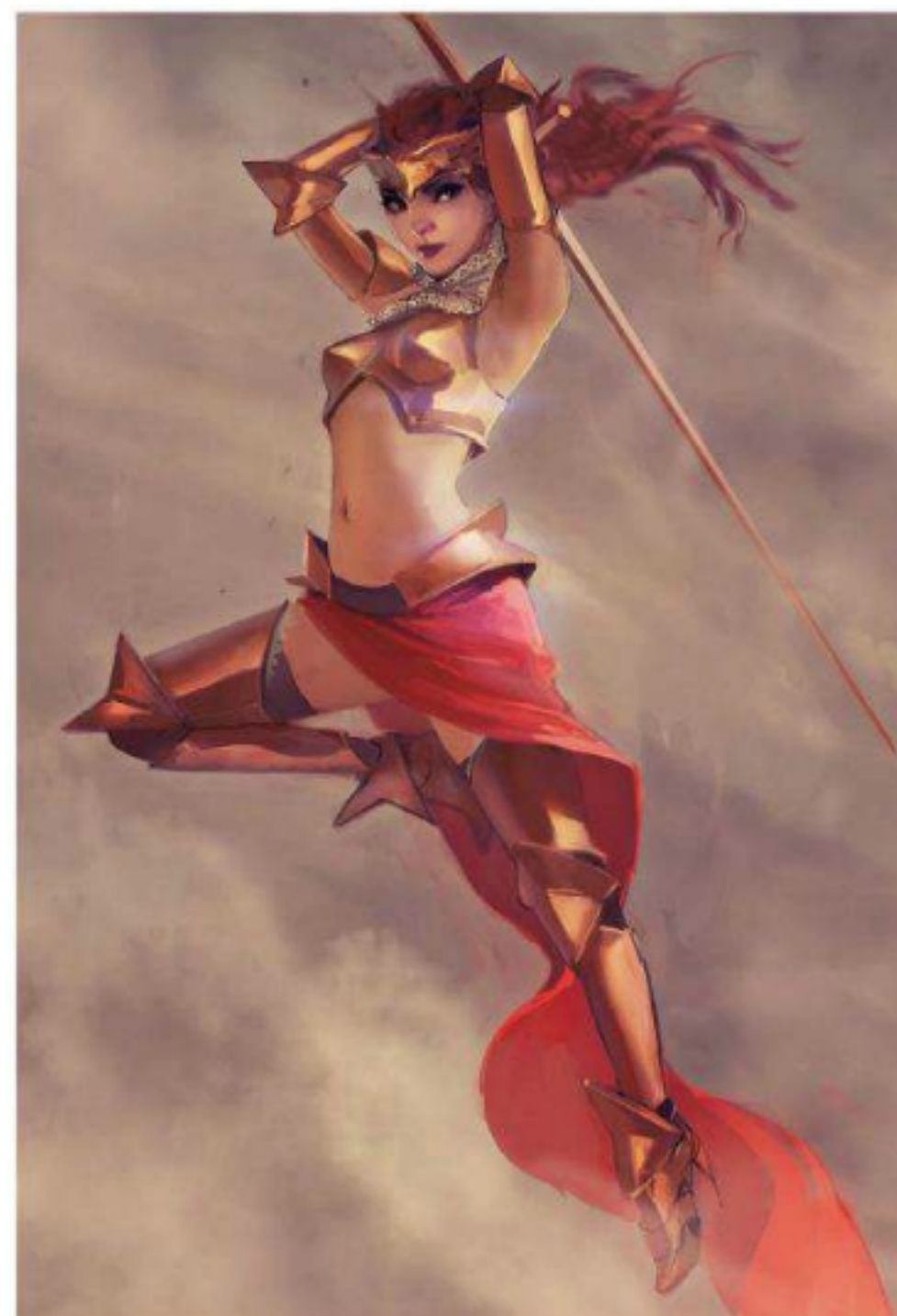
Artist's advice
Jace says

Dynamic poses, while difficult to achieve, are the most fun to paint. Using reference is always a good idea, but unless that reference follows guidelines on what makes a smooth dynamic pose work well, the reference won't be much help.

Remember not to have the figure's pose flowing in too many directions. I try to focus the character's movements as simply as possible. Furthermore, a dynamic pose needs to have a fully committed action. A pose that has followed through with its intended action reads much better than a pose that's just started a movement.

For example, if the character is throwing a punch I don't draw them starting the punch but finishing it with their limbs at the end points. Another example is a character jumping. I'll show the character flying through the air rather than preparing them to start the jump action. This way there's no confusion on what the intended pose is supposed to be portraying.

The character's skeleton shows the movement lines that I base the pose on. I use every aspect of the character to make sure the pose reads natural and smooth. Her extremities need to work together to create a cohesive, believable look.

Discover an easy way to…
achieve a clean, polished look quickly in digital art

Artist's advice
Paco says

Usually a clean, polished look means clean edges and no obvious brush strokes – easily done by utilising the tools in Photoshop and SAI Painting Tool.

Clean edges are easily achieved when working inside a selected area. If you select a part of your image, you won't be able to paint outside the selection. That means you can paint without worrying about running outside the edges of whatever you are doing.

If you use Photoshop, the most useful tools for selections are the Polygonal Lasso, which creates straight-sided polygonal selections and the Magnetic Lasso. This creates selections automatically, clinging to the edges of the figures, so you can select the silhouette of something you have previously drawn without much effort.

To get polished surfaces quickly, you can use Photoshop's Gaussian Blur filter. With it you can blur all the brush strokes on a roughly painted layer. You won't get a finished look with that trick, but it's a fast way to get a smooth base to work with.

Away from Photoshop I like to use the budget software SAI Painting Tool for my line art. This software has a unique Stabilizer feature that tidies up the lines as you sketch. I'll explain how it fits in with my workflow in the steps below…
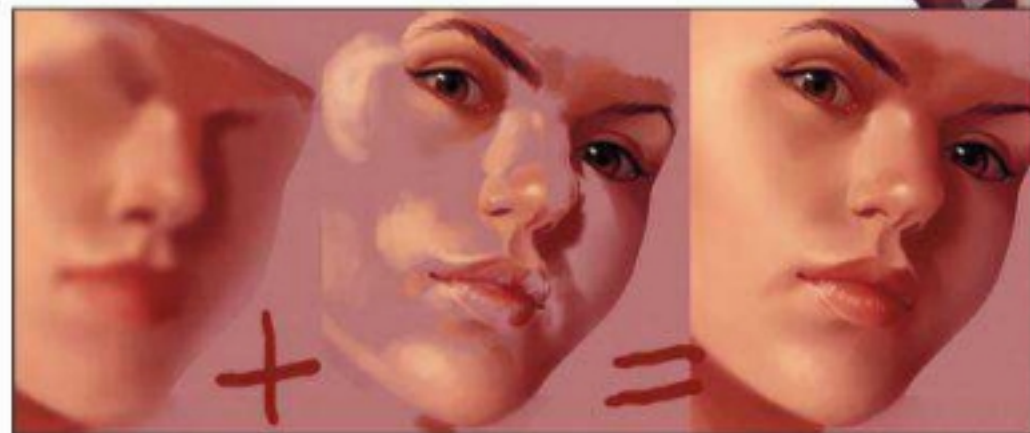
I use the Gaussian Blur to soften the brush strokes in a layer (inside a selection to keep the silhouette of the face) and add just a few details to get a finished look.

Artist's secret
VARY YOUR BRUSH USAGE

I use soft brushes to paint subtle changes in smooth surfaces and hard brushes to paint details and define shapes. If you use only one kind of brush you won't be able to blend areas effectively.

HARD

SOFT
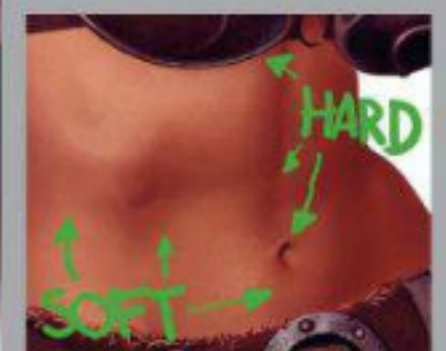
Step-by-step: Paint a character cleanly

1 First I start by doodling a sketch. Once I have something I like, I make a line drawing of it. This drawing doesn't have to look good, it just needs to be as clean and accurate as possible, to act as a guide for my painting. If you have shaky hands like me then you may want to use SAI Painting Tool. The Stabilizer feature makes this step a lot easier.
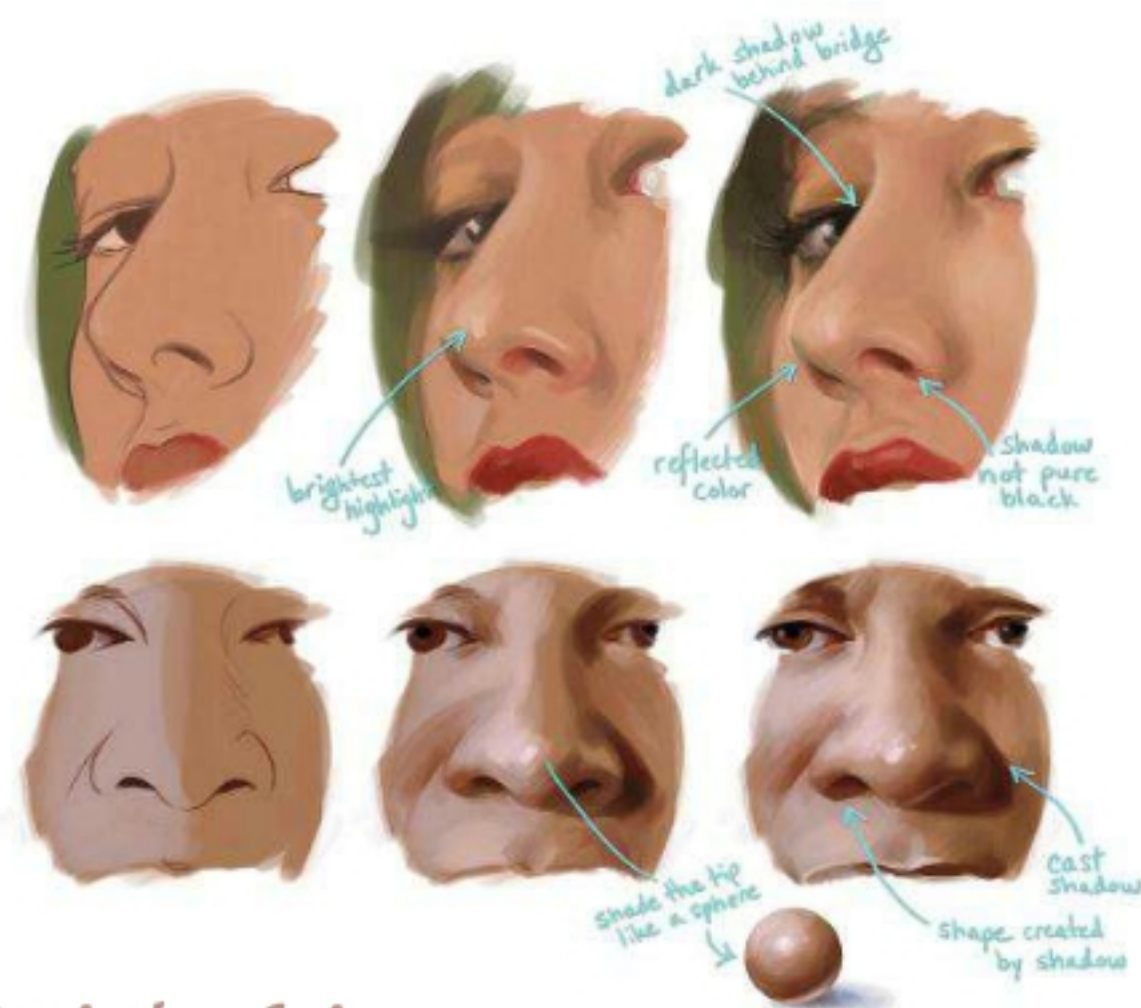
2 Next, I use the Magnetic Lasso tool in Photoshop to create a selection of the whole figure. The Lasso follows the lines automatically, so the cleaner the drawing is, the better. If you make a mistake using the Lasso, you can delete it by pressing Backspace. Once the selection is made I create a new layer and fill that selected area with a plain base colour.

3 In further layers I begin to paint the flesh, first with rough brush strokes blurred using Gaussian Blur filter to create a base, and then just painting carefully into my blocked colour. I concentrate on one area of the figure at a time, repeating the same process with the rest of the parts of the figure as I go. Finally, I just make some tweaks to ensure all the parts fit together.

The best way to…
paint noses with different angles and shapes

Thinking of a nose as a series of geometric shapes can make it easier to visualise at various angles.

Artist's advice
Cynthia says

Start by visualising the nose as a 3D object that casts shadows. As well as its anatomy, many of the shapes we think of when we imagine a nose are created by shadows that give form to the nose itself.
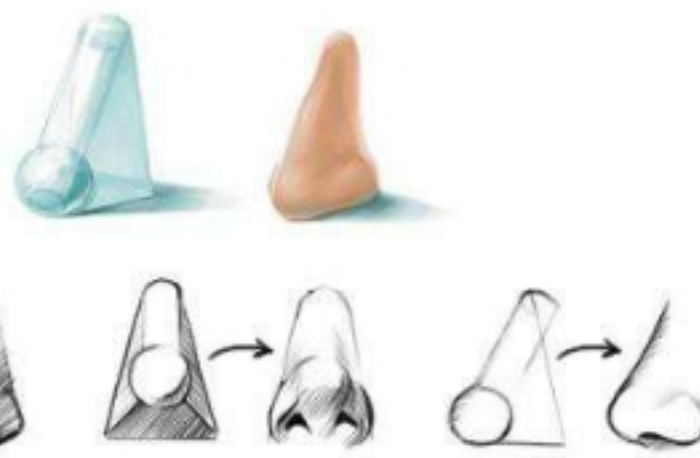
In its simplest form, the nose is a triangular block that's wide in the back and tapers towards the front. You can use a visual model to determine where the major cast shadows will fall, and see how its bridge would change shape from straight to angled as the head turns. Of course, noses don't have sharp angles, so we have to imagine the tip of the nose as being more like a sphere and the bridge like a cylinder when shading.

When painting the nose, keep these things in mind. Start with a line drawing on a flat skin tone. Bearing in mind the geometric shapes we've already discussed, apply your brushstrokes following the contours. Some noses are shiny and so they often pick up colour from the surrounding environment. Reserve the lightest colour on the skin of the face for the highlight on the nose.

Taking care over positioning shadows and highlights when shading a nose will help you to achieve a higher degree of realism.

Artist's secret
A NOSE FOR SHADING

Avoid pure black when painting nostrils. The nostril itself is an empty space with very little discernible shape of its own, so what's actually painted is the shadow cast by the surrounding nose. Instead of black, choose a dark colour that resembles the other shadows in your painting.

Learn how to…
paint multiple light sources on either side of a face

A secondary light source to the right illuminates the shaded parts of the head.

Artist's advice
Kev says

In 3D environments, light is continually bouncing around, reflected from object to object. This reflected light can illuminate objects that might ordinarily be in shadow. Reflected light thus behaves like a secondary light source, and in painting can help to create a greater depth of dramatic, 3D space within what will usually be a 2D image.

I've painted a portrait of a character from a television programme to illustrate how easily you can create depth by adding some reflected/secondary light. The first image is lit by a single light source, resulting in one side of the head being illuminated, with one side in shadow.

I then paint a blue-ish hue into the shadowed side of the head. This could either be the ambient, reflected light of a darkening sky or light reflected from a nearby wall. As a result the light is soft and painted in a subtle range of tones to add depth and detail to the shadowed areas of the character.

An easy way to…
design quick decals to add to military armour

Using gradients on the flat colours of the decal gives it volume. Without this, the armour's decal would look flat and fake.

Artist's advice
Jonathan says

First, find some references. Think what kind of military unit is it? Is it one with a rich history of pageantry, or one that's primitive or tribal in nature?

For my design, I begin by making vector design elements in Illustrator. The wings, bulldog, handprint, banner and skull are among many separate graphic elements that I create. Then, referencing what I'd seen in a book, I combine these pieces to make the Flying Bulldogs insignia.

I import the vector art into Photoshop and skew and warp it to conform to the curvature of the armour plate. To make it look less clean, I place an Overlay texture of stippled paint over the design and mirror the distress on the armour on the design. Integrating a vector graphic into a painted image can be tricky and it's often best to run a filter on it or dirty it up a bit. Finally, I add a highlight over the metal and the paint, which helps blend the images together.

paint a crumpled, shiny material

Artist's advice
Remko says

Retro-looking spacesuits are great fun to paint and good for creating these kinds of textures. I like to work using the Natural Media brushes and their endless possibilities in Photoshop.

I create most of my own brushes on a separate document that's placed alongside my main image. This enables me to create a brush as I need it in the painting process, rather than setting up a custom brush and then trying to pick up where I left off.

If you don't want to make your own custom brush, you can find plenty on the internet. Try them out to see which ones fit your process best. If you take time to study them – how they were made and how they function – then you'll better understand them once you create your own. I find that custom brushes are particularly helpful for quickly creating the kind of textures or patterns we need for crumpled material.

In this case I use brushes with basic shapes, such as hexagons or triangles, to create shiny patterns, and spackle brushes to imitate the shiny vintage sequin feeling of a retro spacesuit. I start by quickly doing a black and white sketch to nail down my values and lighting. Then it's time to add the colour, texture and detail, using my custom brushes – see my steps below.

A sci-fi character wearing a shiny futuristic spacesuit. I created multiple light sources for the suit to make it look even shinier and sparkly.
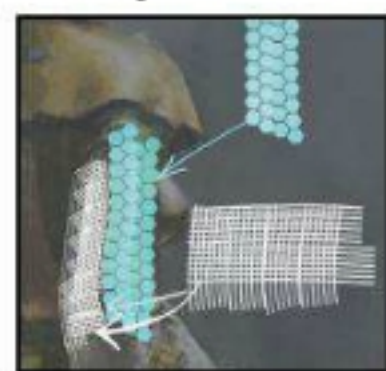
Artist's secret

CREATING CUSTOM BRUSHES

You can take a photo of shiny sequins or materials and add it as a texture inside your brush in the Natural Media brushes section. Open your photo in Photoshop, select the whole image, then click Edit> Create Pattern. Inside the Natural Media brushes click Texture and you'll find your photo inside the textures that you can use for your brush. Save it and paint!
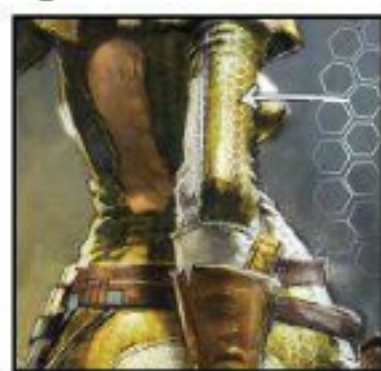
Step-by-step: Create a retro spacesuit using custom brushes

1 I create a layer above my initial sketch of the female astronaut, set it to either Overlay, Multiply or Color, and start painting in my first colours. Then on a new layer that's set to Multiply, and using a hexagonal brush with Spacing set to 45 so that it repeats itself, I paint a pattern on the suit that closely follows the form of my character.

2 The next step is to make a mask of the solid hexagons by pressing Ctrl+Alt (Ctrl+Cmd on the Mac) and clicking the layer that contains them. Then I go to Edit>Stroke and on a new layer create thin, white hexagonal outlines on the space suit. Now, using a Soft Round eraser, I remove the outlines in the shaded areas.

3 I take a spackled custom brush and begin the final stage of the painting. I use this brush to add the final highlights to the image, to create the look of the gold sequins such as those on the rear of the character's helmet and on her shoulders. I want to really boost the shiny, sparkly feel that such a retro-looking spacesuit would possess.

Learn the basic ways to…
make a sexy female ninja look deadly

SHE HAS A PRETTY FACE BUT HER EXPRESSION IS MEAN AND COLD.

SHE IS ALMOST NAKED BUT SHE DOESN'T CARE, SHE DOESN'T GET EMBARRASSED EASILY. THE SCENE IS HOT BUT SHE IS COLD AS ICE.

HER OUTFIT IS SEXY BUT PRACTICAL, SHE DOESN'T WEAR HIGH HEELS OR SHINY CLOTHES. SHE HAS TO INFILTRATE ENEMY TERRITORY, NOT A FASHION SHOW.

SHE IS A WARRIOR, SHE HAS A MUSCULAR BODY.

TATTOOS MAKE HER LOOK MORE SEXY AND DANGEROUS AT THE SAME TIME.

Artist's advice
Paco says

If you've chosen to paint a female character – in this instance a ninja – and you want to make her look both deadly and sexy at the same time, then I think it's important to maintain a balance between these two extreme characteristics.

Whenever you have to design a character, even if it's someone who you're going to paint just once, you have to come up with some background information that will, in turn, inform your art. What's their personality, their social status, their chosen career? If you want to paint a sexy ninja

then you have to consider that ninjas are merciless, cold-blooded assassins, so you should reflect that in your work. If you don't then your ninja may end up looking like a stripper wielding a katana.

A good way to maintain a balance between these contrasting qualities is to paint her as a fearsome ninja who happens to be hotter than Hell. Her expression, her attitude and her gear are those of a shinobi mercenary, because those are characteristics derived from her lifestyle. And she has a sexy body just because she was born like that.

Artist's secret

SHARP BLADES

Using Selections to paint swords is the best way to achieve hard and clean edges. when using Photoshop you can use either the Lasso or the Pen tool. Press Cmd/Ctrl+H to hide the marching ants, which can prove distracting for some people.

Step-by-step: Compose a cold-blooded killer

1 I spend some time doodling my character until I find something I like: a defiant pose with a sexy but practical outfit. Then I start to define that doodle with the aim of producing a solid base for the painting. I use Photoshop's Hard Round Basic brush, focusing on clearly depicting the design of the ninja as well as the colour, light and proportions.

2 I start to add more detail, this time using a Medium Opacity Hard brush. At this stage it looks quite rough, yet detailed. I try to define all the areas of the image before polishing it. If you want to paint a sexy-looking character then you have to pay attention to detail. Every line, every surface can mark the difference between what's sexy and what isn't.

3 I switch to PaintTool SAI and start to polish the image using different blender tools. It's not necessary to paint in a smooth and polished way to achieve a striking image, but it's perhaps the easiest way. Remember that a depiction of a sexy woman doesn't automatically become a sexy image. It's the quality of your painting that determines the impact it has on the viewer.
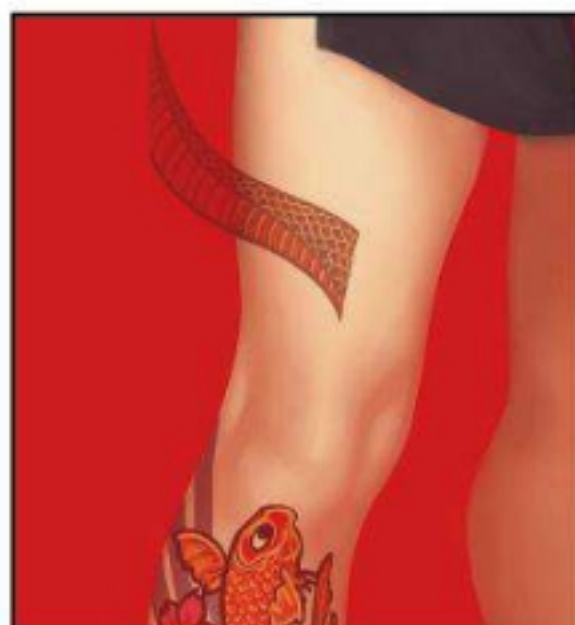
4 Switching back to Photoshop, I paint the tattoos in a Multiply layer to preserve the lights and shadows of the leg. I also end up painting some final touches in a Normal layer. A good trick to use when applying tattoos is to first paint them on a different layer over the skin, and then make the layer slightly transparent to achieve a more natural look.

The best way to…
paint a character with shiny, curly hair

When hair is shiny, and especially when it's dark, it reflects not just the light but also the colour of the surroundings – in this case, green.

Artist's advice
Paco says

If you want to paint a curly-haired character in a simple way, a bunch of well-placed brush strokes can do the trick. The challenge comes however when you're aiming to create a very elaborate piece.

A good tip to start with is to try to paint the hair as an expressive element of your painting. If a character's hair is an important element of the image, try to give it a shape that benefits the composition, or an expressive look that goes with the feeling of the image. Hair can have almost any shape, so when it comes to painting it, think of it as an ace up your sleeve.

The actual process of painting hair – especially when we're talking about

I paint a base structure for the hair to avoid getting lost later on in the process, and then I paint the hair texture and reflections over it.

complex, curly hair – is best started by painting it as a solid object. Hairs tend to group together with each other and form different shapes, so before starting to detail individual strands one by one, try to paint them in groups with all the lights and shadows. Imagine that the hair you're painting is made of clay. This will make the rest of the process easier.

How to…
paint a portrait with almost no shadows

Artist's advice
Mélanie says

Shadows define the volume and the shapes and also attract the eye to the most luminous part of a painting. Here, I'm doing the opposite, contrasting the part of the face I want the viewer drawn to, and leaving the rest in full light.

Another trick is to overuse layers. I always paint my shadows on a different layer, and once it's done I set the Opacity to 50 per cent – this way they stay light and diffuse. I also don't use any kind of hard, round-edged brushes; I prefer to work on the shading with a soft-edged one to avoid strong shadows.

The last point, of course, is to add light. I usually add it all over the painting on another layer, to blend the face with the background and attenuate the shadows. I add extra light on facial features such as the lips, the nose and the eyelids.

Once the eyes are more evident, it's important to have the same level of detail all over the face. I always add some sharp details to the features.

Learn to…
give a female character realistic, sexy lips

Lips can seem difficult to paint, but once you understand their basic structure, they're no big deal. Just try to be subtle with the detail.

Artist's advice
Paco says

First, study lips from real life using reference photos or a live model.

This is important: you can't paint anything realistically without understanding it, so if you aren't confident about your ability to depict lips then perhaps some life-painting sessions are in order.

Try to be subtle when painting the wrinkles of the lips. Use soft brushes, and don't forget where the light is coming from. If you use a Photoshop scatter brush to create a noise texture in a low opacity Multiply and Soft Light mode

layer, then you can achieve a more natural look for the skin.

About making them look sexy… well, normally, big and moist lips are sexy. Furthermore, a slightly open mouth is sexier than a closed or a wide-open one. But the true key of painting sexy lips (or any other sexy thing for that matter) is to reflect in your painting what you like about them. Think about how they make you feel, and try to paint in that mood. If you manage to put a dash of your own passion into your painting then you'll have won half the battle.

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Please note: Disc content is now available from issue 85 onwards.

THE DIGITAL ARTIST'S SURVIVAL·GUIDE

Software guide
PAINTER

Discover the tools on offer in Corel's leading software, including advice on how to use the standard editions and Painter 12.

Simon Dominic
Simon is a self-taught freelance illustrator who specialises in fantasy, sci-fi and horror. He works primarily on game art, book covers and magazines.
www.painterly.co.uk

TURN OVER TO BEGIN YOUR JOURNEY IN PAINTER ➤

MANAGE YOUR COLOUR PALETTES

Having a well thought-out colour palette is a vital part of the painting process. Choosing your colours before you start helps ensure that your hues and tones stay true to your concept, and don't become too varied. Painter provides two tools for this task: the Mixer Palette and the Color Set. The Mixer Palette is a digital version of the wooden artist's palette, while the Color Set enables you to create a collection of individual colour blocks, called Swatches.

"Choosing your colours before you start helps ensure that your hues and tones stay true to your concept"

MIXER INTERFACE

A. MENU
Load and save, plus other options.

B. BRUSH SIZES
As well as affecting Mixer brush size, this also specifies the Pick area when you're using Sample Multiple Colors.

C. SAMPLE COLOR
Use this to pick a single colour.

D. SAMPLE MULTIPLE COLORS
Use this to pick up several colours.

E. ZOOM
Click to zoom in, and right-click to zoom out.

F. SEARCH FOR COLOR
Search for nearest match, or by name.

G. ADD COLOR
Add a swatch to your Color Set.

H. REMOVE COLOR
Delete a swatch from your Color Set.

CUSTOMISE YOUR BRUSHES

Painter provides a number of ways to customise your brush textures, and personalise your brush workspace and inventory. Sometimes these methods can be slightly obscure, but a bit of experimentation can pay dividends in terms of speed and function.

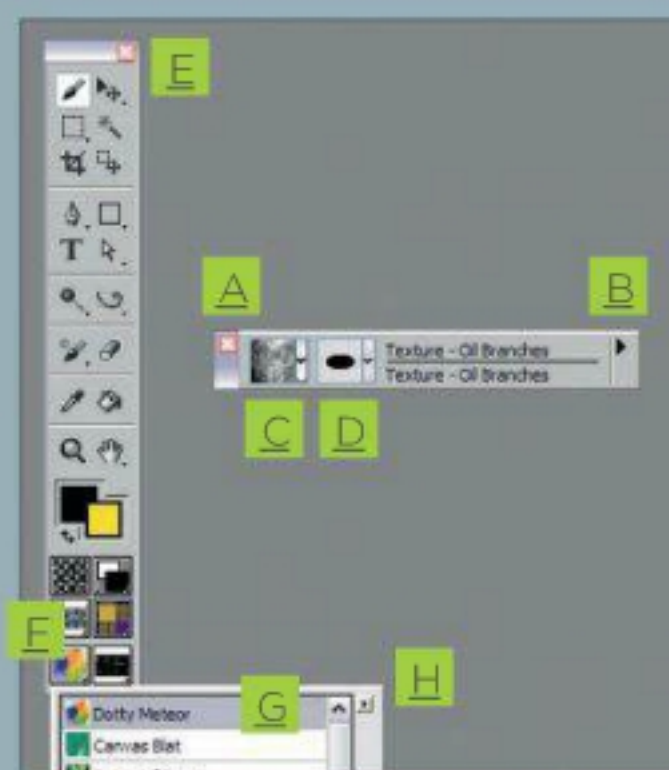In this guide I am going to show you how to define your own brush textures to give your work an individual feel. I will also explain how to give each brush its own individual custom icon, and then show you how to save multiple brush-related settings all together under a single icon, using the Look feature.

SELECT YOUR BRUSHES

Find your way around Painter's brush selector menus with our useful guide...

A. BRUSH SELECTOR
Use this to choose your brush Category and Variant from the drop-down lists.

B. BRUSH SELECTOR MENU
Create brush Categories, Variants and Textures, and organise your brushes.

C. BRUSH CATEGORY
Lists your brush groupings, such as Acrylics or Artists Oils.

D. BRUSH VARIANT
Lists all brushes that are available in the current Category.

E. TOOLBOX
This contains your basic toolset plus also enhanced brush functions such as Looks and Nozzles.

F. LOOK SELECTOR
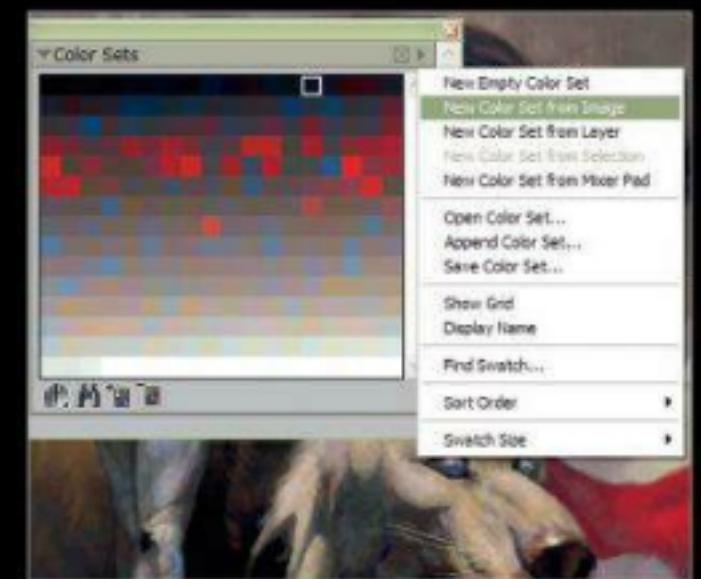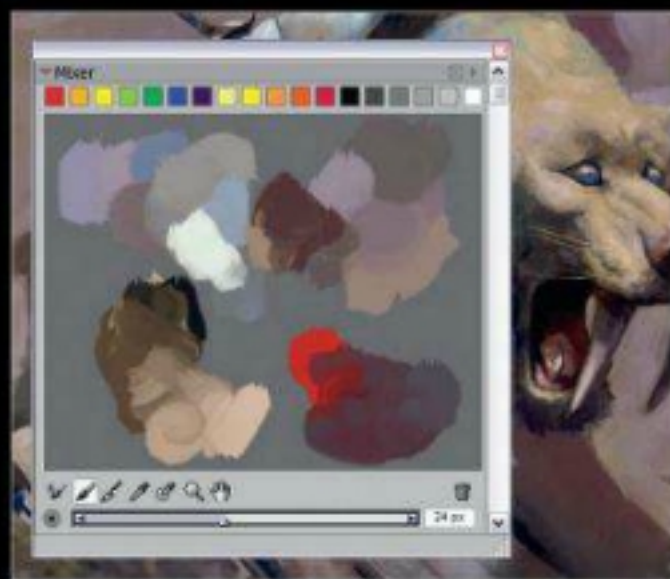For Look Selection List and Look Selector Menu.

G. LOOK SELECTION LIST
Choose a Look.

H. LOOK SELECTOR MENU
Create, save and manage your Looks.

Mixer Palette

First, display the Mixer using Windows>Color Palettes>Mixer. Click the Apply Color icon. Choose colours from the colour wheel, or from a reference image, and then apply them in the Mixer. To select a single Mixer colour, click Sample Color. If you're using an Oils or Real Bristle brush, try using Sample Multiple Colors. This option enables you to pick several colours at once.

Color Sets

If you go to Windows>Color Palettes, you can display the Color Sets. Click the Add Color icon to add the current colour. To remove a colour, select it and click the Delete Color icon. From the menu, which is accessed via the arrow in the top right corner, you can format and order your Swatches. Ordering them by LHS (level, hue, saturation) is often the most useful method to employ.

Color Set shortcuts

You don't have to build your Color Set manually. Load a reference image and choose New Color Set From Image in the Color Set menu. This creates a 256-swatch Color Set based on your image. You can then format this as necessary, adding and removing colours as your work requires. There are options for creating Color Sets from a particular layer, from a selection or even from the Mixer.
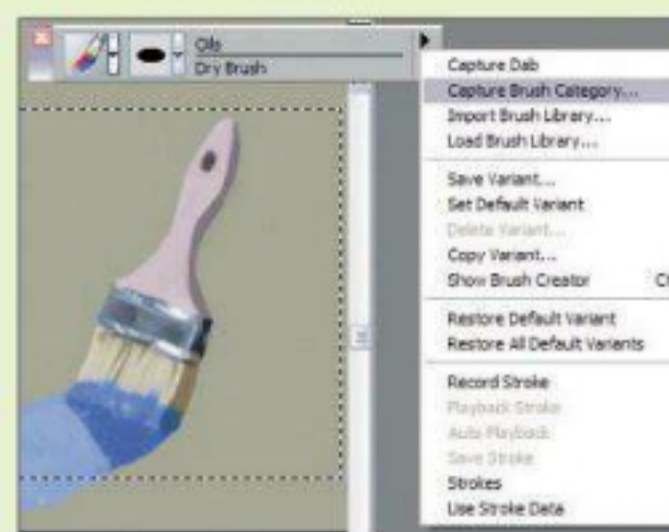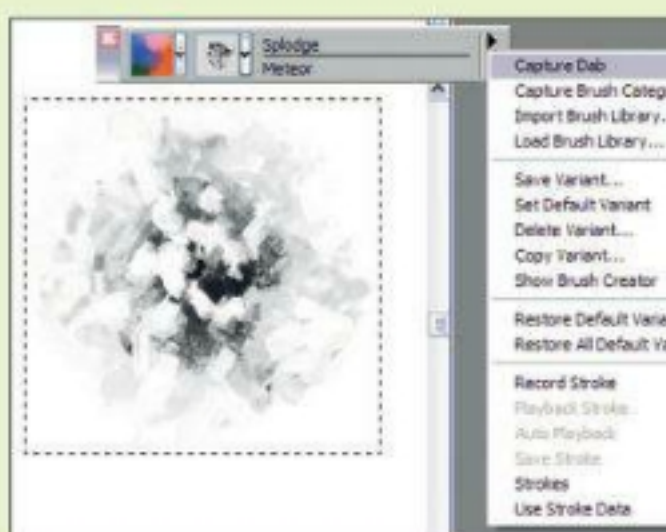
Capture a brush texture

Paint a texture onto a white background. Use shades of grey for transparency and black for solid. Now select the texture. Choose a brush that you wish to modify (or copy an existing brush using Copy Variant) and from the Brush Selector menu choose Capture Dab. You can now paint immediately with your captured brush or you can go into the Brush Creator to edit the settings.

Create a brush icon

For a unique brush icon you need to create a new Category. Configure your brush and then load or create an image. Now select your image, click the Brush Selector menu arrow and choose Capture Brush Category. Give the Category a name and click OK. Drag the Brush Category from the Brush Selector onto the workspace or custom palette to create your custom icon.

Save a brush Look

A Look enables you to group several settings under a single choice. To demonstrate, select your captured brush and give it a Paper texture (Window> Library Palettes>Papers). Dab your brush on the canvas and select the area. On the Toolbox, click the Look Selector. From the menu choose Save Look and give it a name. You can drag the Look onto the workspace to give it its own icon.

SET UP PAINTERLY BRUSH STROKES

People often ask me how to create brushes for a more painterly result. The secret lies in configuring your pen and understanding a few fundamental brush properties. Once you're confident with the basics, Painter offers an enormous range of fine-tuning options. Here, I'll reveal the most important settings for creating two painterly brush types – one for broader strokes and one for detail – which I use for almost all my colour work.

EDIT YOUR BRUSHES

A. BRUSH DEFINITION
This identifies the characteristics of the brush that you're using, such as whether it is Oils or Acrylics.

B. OPACITY
Determines how transparent your paint is. You can link Opacity with Pressure for enhanced control.

C. GRAIN
How the Canvas (Paper) pattern shows through the paint.

D. RESATURATION
Set the amount of colour output in a stroke.

E. BLEED
This determines how the paint interacts with existing paint. Linking with Inverse Pressure means
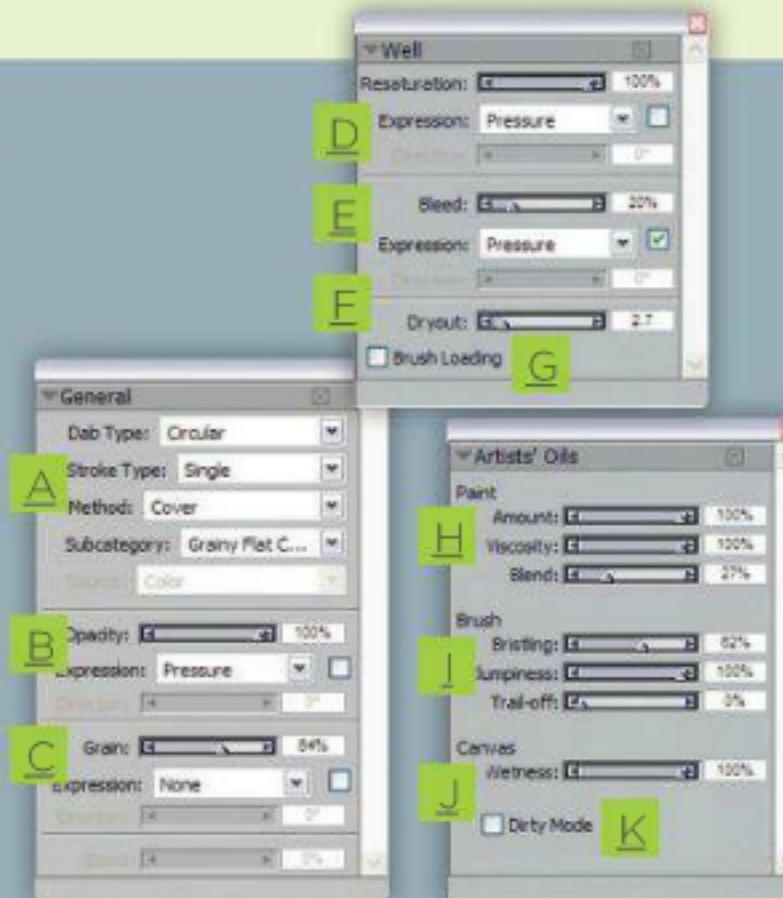
less pressure and more blending.

F. DRYOUT
How fast the paint is used up.

G. BRUSH LOADING
Pick up multiple colours with dab-based brushes and Artists' Oils.

H. PAINT CONTROLS
This enables you to set the amount,

thickness and blending of paint.

I. BRUSH CONTROLS
Set the bristle visibility and clumpiness trail-off.

J. WETNESS
Use to set how wet or dry your paint is on the brush.

K. DIRTY MODE
Uncheck to have a fresh paint colour with every stroke.

USE COMPOSITION AND LAYOUT AIDS

Composition aids, when used sparingly, can pay dividends in terms of a solid framework for your image. Beyond the standard grid and ruler tools, Painter offers additional functions to help with composition and to inspire creation. In this section I'll be demonstrating the basics of three of these tools: the Layout Grid, which is handy for implementing the rule of thirds; the Perspective Grid, which is useful for cityscapes and large structured objects; and the Divine Proportion tool, which can add harmony to your composition.

"Composition aids, when used sparingly, can pay dividends in terms of a solid framework for your image"

USE THESE TOOLS WHEN PAINTING...

DIVINE PROPORTION TOOL
This feature makes use of the Divine Triangle, which breaks features into a proportion of 1:1.618, an aesthetically pleasing ratio.

LAYOUT GRID
The Layout Grid is used to apply the rule of thirds, so that points of interest are placed on the lines and intersection points of the grid rather than in the centre of a composition. It can also be customised to other grid patterns.

PERSPECTIVE GRID
You can easily achieve depth using this useful tool, which overlays perspective guidelines on your art.

Step-by-step: *Create two painterly brush types*
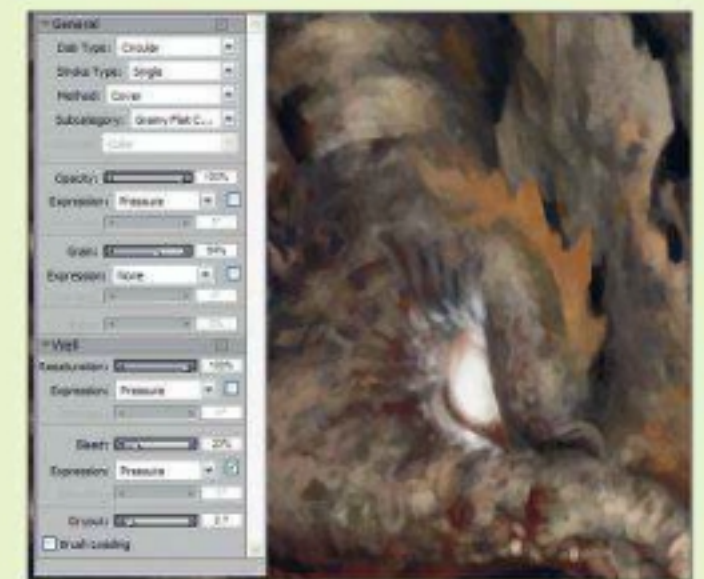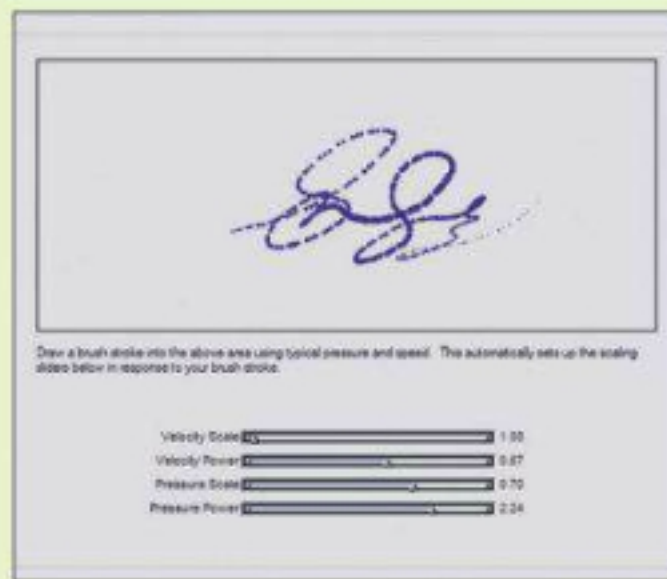
1 *Pen configuration*
It's important to make sure you configure accurate pen pressure sensitivity. To ensure the full range of pen pressure is recognised, choose Edit>Preferences>Brush Tracking and sketch a few lines as you would normally. Now click OK. Paint a little on your canvas and make sure the brush reacts to even the faintest pressure. Keep tweaking your Brush Tracking values until you're completely happy.
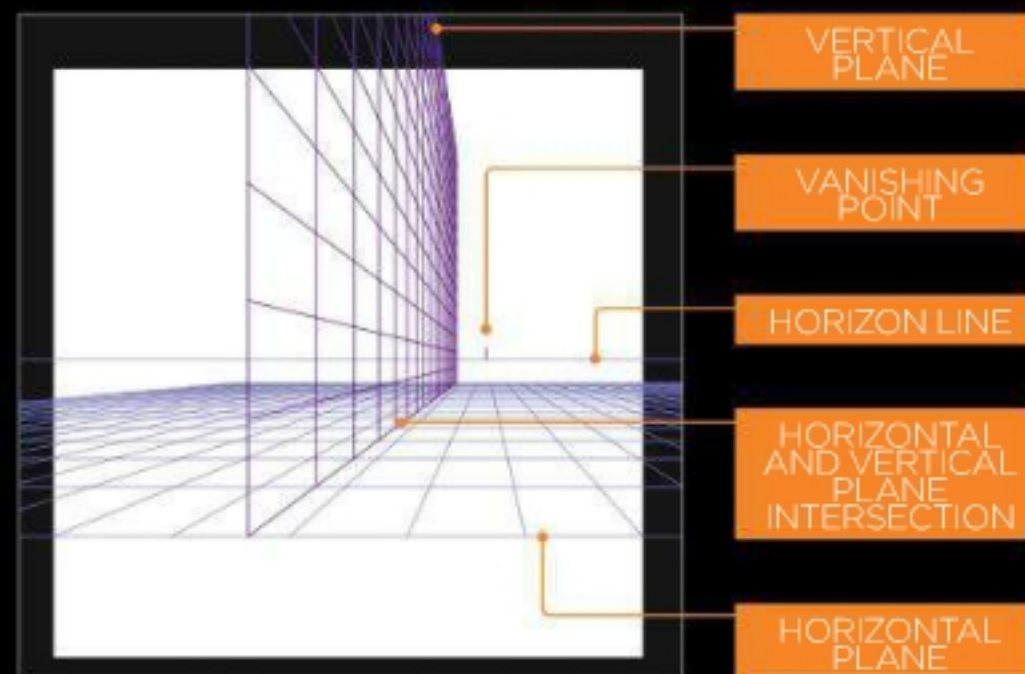
2 *Edit your Oils brush*
Select a single-stroke Artists' Oils brush as your base. Use Window>Brush Controls to view the General and Artists' Oils toolbars. Set the Opacity to 100 per cent and Expression to Pressure for pressure-dependent transparency control. Set Amount to 100 per cent, Blend to 27 per cent and Wetness to 100 per cent. This brush is great for painterly strokes at sizes of six pixels or more.

3 *A wet detail brush*
Start with a basic circular single-stroke brush. In the General toolbar, set Subcategory to Grainy Flat Cover and Opacity Expression to Pressure. Under Well, set Resaturation to 100 per cent, Expression to Pressure. Set Bleed to 20 per cent, Expression to Pressure with the tick-box checked. Set Dryout to around four. Now, the less you press, the more your brush blends the existing paint.

Step-by-step: *How to use composition aids*

VERTICAL PLANE

VANISHING POINT

HORIZON LINE

HORIZONTAL AND VERTICAL PLANE INTERSECTION

HORIZONTAL PLANE

1 *The Layout Grid*
In Painter X onwards, choose Window>Layout Grid to display the Layout Grid palette. Click Enable Layout Grid to toggle the grid on and off. Use the Type pulldown to select a preset layout – Rule of Thirds, for example. Move the sliders to control parameters, including number of divisions and colour. To move the grid, select the Layout Grid icon and drag your pointer over the image.

2 *The Perspective Grid*
To open the Perspective Grid tool select Canvas>Perspective Grids>Show Grid. Then you can use the controls that appear to select a grid or create a new custom grid. Toggle the vertical and horizontal components and change their colour and spacing. Select the Perspective Grid icon from the Toolbox and then you can drag points to adjust the grid. You can even invert your viewpoint.

3 *The Divine Proportion tool*
Choose Window>Divine Proportion to display the Divine Proportion palette (Painter X onwards). Toggle the overlay with Enable Divine Proportion. Control the attributes with the Orientation, Size, Rotation, Colour, Opacity and Levels options. Toggle the Grid, Spiral or Axis components with the Display boxes. Select Divine Proportion from the Toolbox and drag to move the overlay.

SELECTION AND MASKING TOOLS

Everyone knows about the standard copy and paste functions available in most art packages, but beyond that Painter offers a number of tools to extend this functionality. These enable you to manipulate your painting, use masks to create shapes and gradients, and produce

"Painter enables you to manipulate your painting, use masks to create shapes and gradients, and produce rapid, effective design elements"
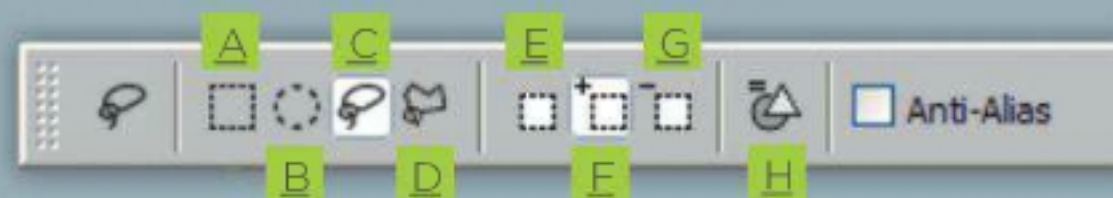
rapid, effective design elements. In this section I will cover the basics of selection definition and adjustment, how to tailor your paint area using Layer Masks, and I will also touch on more specialised features such as feathering.
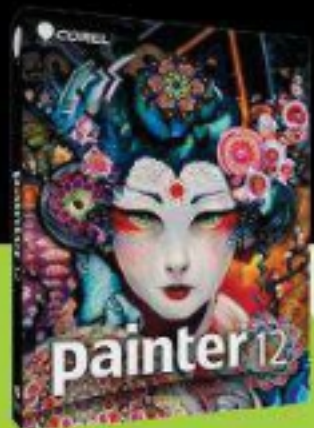
SELECTION OPTIONS

A. RECTANGULAR SELECTION
Select a rectangular area. Press and hold the Shift key during dragging for a square selection.

B. OVAL SELECTION
Select an elliptical area. Press and hold the Shift key during dragging for a circular selection.

C. LASSO SELECTION
Create an irregular outline, drawing as you would normally. Double-click to end.

D. POLYGONAL SELECTION
Use this tool to create a straight-edged

outline by clicking different points on an image and joining the dots.

E. NEW SELECTION
Each new selection replaces the one before it.

F. ADD TO SELECTION (+)
Existing selections stay active as you create new ones.

G. SUBTRACT FROM SELECTION (-)
New selections subtract from existing selections. This is useful for complex outlines.

H. CONVERT YOUR SELECTION TO A SHAPE
Create a shape object from your current outline.

NAVIGATE THE USER INTERFACE

While painting and drawing features are fundamental to an art package, workflow and customisation are also important. Painter provides a unique but detailed user interface that gives you more scope to configure your workspace.

Familiar customisation options such as user-defined key-presses are still present (Edit>Preferences>Customize Keys), while extra features have been added, such as tabbed panels, palette-based commands and custom icons. Other improvements

give the ability to anchor horizontal palettes, such as the Property Bar and Brush Selector, at the top or bottom of the screen, and the option to have the Toolbox displayed in horizontal aspect rather than vertical (Edit>Preferences>Interface).

MANAGE YOUR PALETTES

A. PALETTE
The palette acts as a holder for one or more panels. Within a palette, panels can be organised horizontally (such as Dab Profile and Brush Calibration in this example) and/or vertically. To reposition, simply drag the palette header bar to a new location.
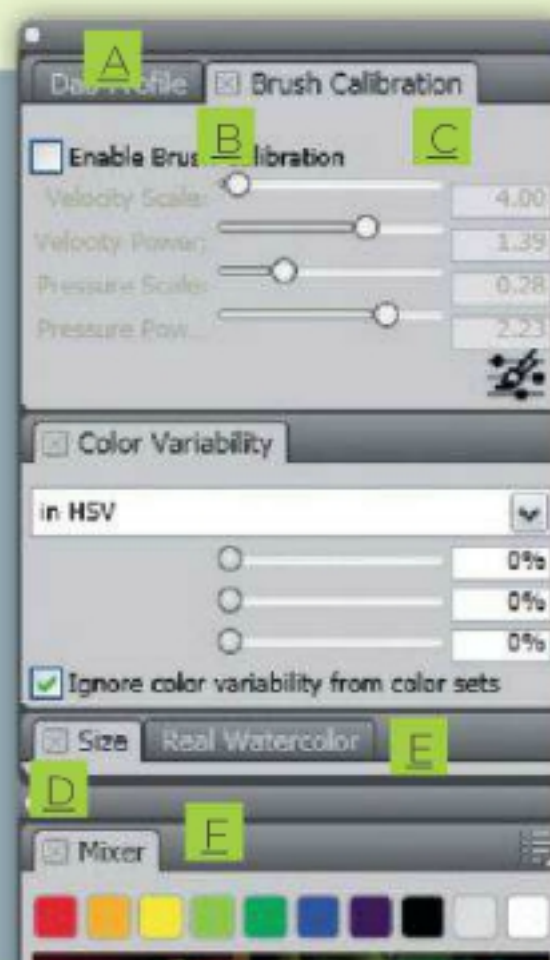
B. CLOSE PANEL
This removes an individual panel. If the palette holds no more panels then it too will disappear.

C. VISIBLE PANEL
The lighter shade of grey used to colour this panel indicates that this is an active panel. Note that only one side-by-side

panel at a time is able to be viewed.

D. MINIMISED PANEL
If all panels side-by-side are minimised then they appear as a line of tabs. Double-click an active panel tab to either minimise or expand it.

E. NON-ACTIVE PANEL
Click on a dark grey panel tab if you

want to make that panel become visible. The other panels which are in the group will be repositioned automatically.

F. SINGLE PANEL
In our example on the left, the Mixer is a single panel in a palette of its own. It's snapped to align with the first palette, but isn't part of it.

Step-by-step: *Using selection tools and Layer Masks*

LAYER CONTENTS

LAYER MASK CONTENTS

CREATE LAYER MASK

LAYER MASK VISIBILITY TOGGLE
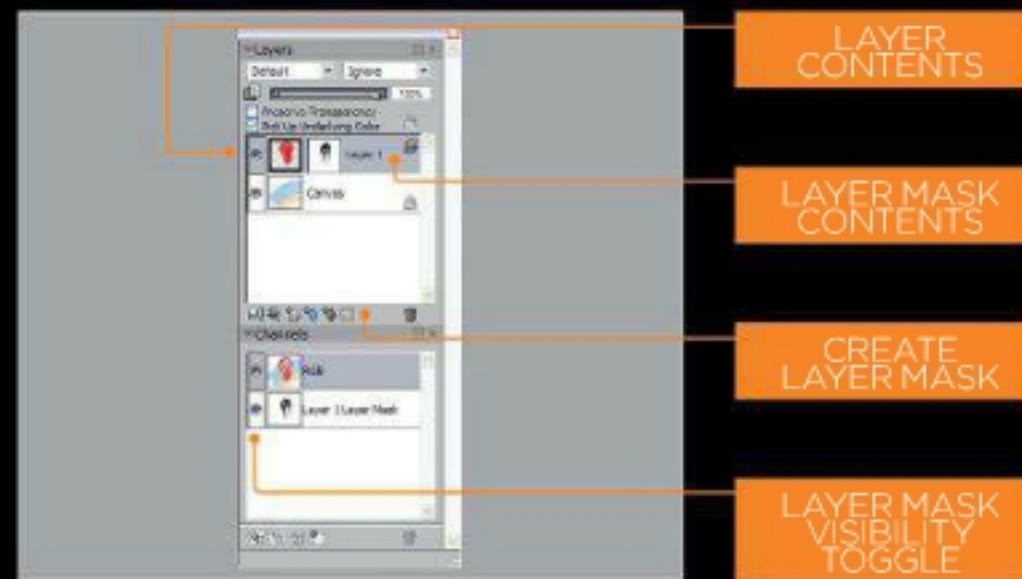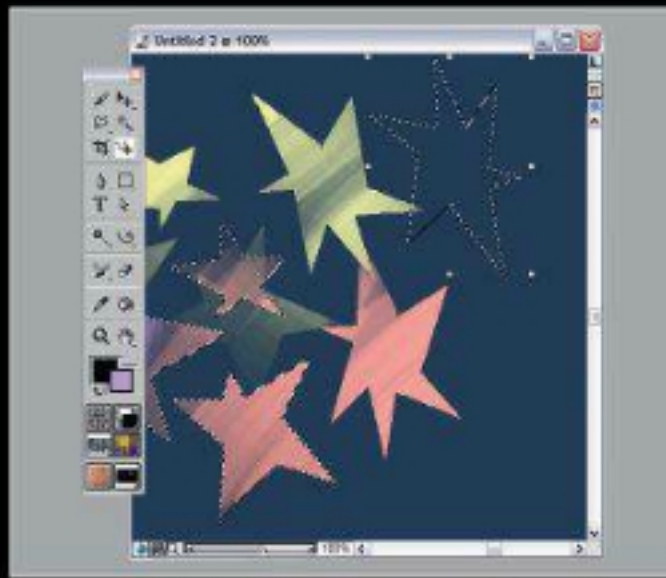
1 Basic Selection tools
Click the Selection icon on the Toolbox. Selection options and methods appear on the Property Bar. Click the Lasso icon and the + icon. Draw some shapes. Click the Selection Adjuster on the Toolbox. Move your selection around. Grab a corner to resize, hold down Ctrl/Cmd to rotate. Now paint your selection and move/rotate again. Ctrl+D (Cmd+D) removes the selection.

2 Layer Masks
First ensure that Channels and Layers are ticked in the Windows menu. In Layers, create a new layer and click the Create Layer Mask icon. In Channels, click the Layer Mask. Now paint your mask. This will show as greyscale, with black being opaque. Click the left-most layer box in Layers and paint on and around your mask. When you are finished, choose Layers>Apply Layer Mask.

3 Special effects
Experiment with special effects, such as selecting with the Magic Wand from the Toolbox, or using Select>Auto Select. As an example, I'll use the Feather tool. Draw one or more selections on your canvas as in Step 1. Choose Select> Feather, enter 12 and press OK. This will fuzz the edges of your selection. Now use the FX/Glow brush to paint your selection – great for that graffiti look!

Step-by-step: *Managing panels and palettes*
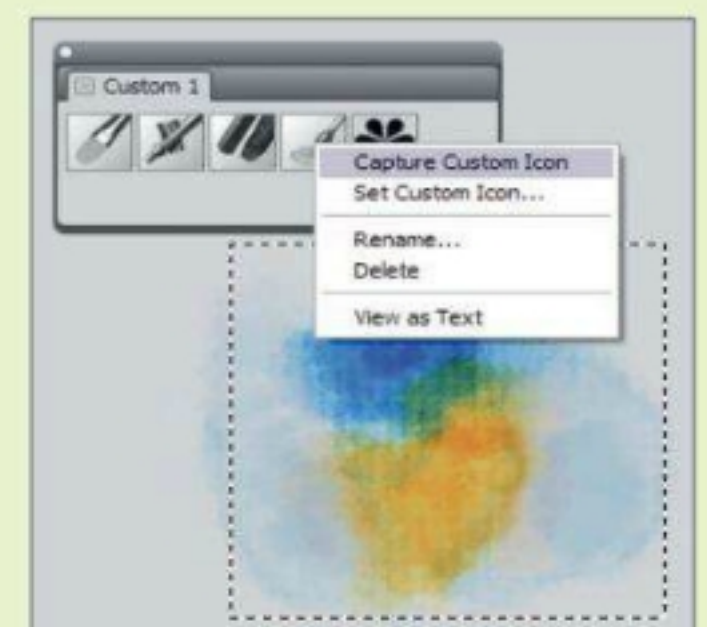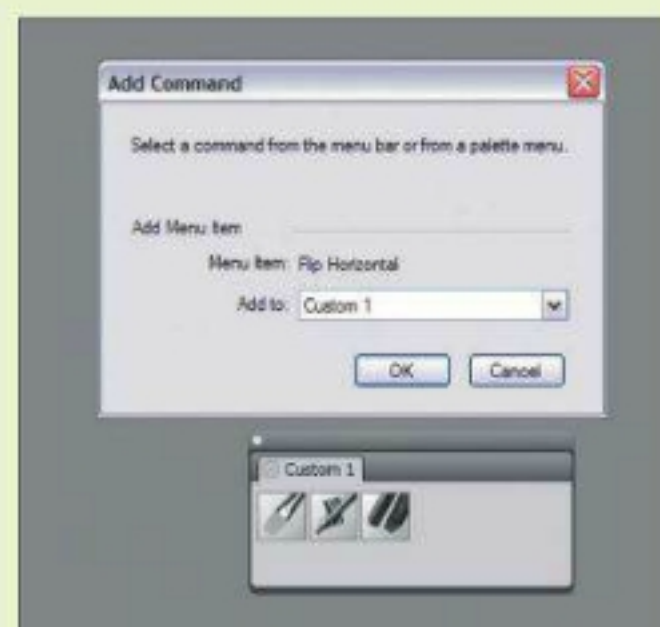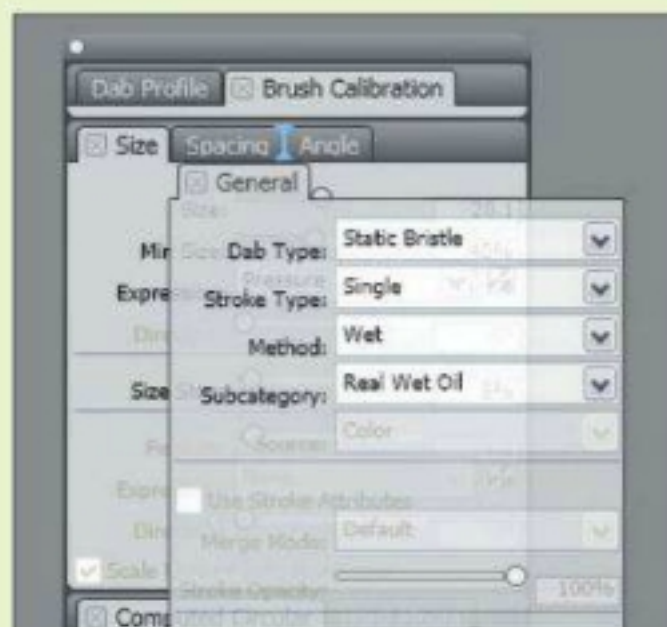
1 Panels and palettes
Panels can be grouped within palettes for convenience. Grab a panel's tab and drag it towards a palette. A faint blue line will appear showing where your panel will be inserted. If the line is vertical then your panel will appear beside the existing panel(s). If you want to insert a panel above or below another one, simply drag your panel so that a horizontal line appears in the desired location.

2 Create custom palettes
Hold Shift and drag a brush icon from the Brush Selector onto the workspace. A custom palette is created. Choose Window>Custom Palette>Add Command. Under Add to, select your new palette. Choose any menu command (for example, Edit>Flip Horizontal) then select OK. Your command appears on your palette. Right-click the command and choose View As Icon if you prefer.

3 Create custom icons
Create a new canvas, optionally with Color RGB (199,200,202), and paint an icon design. Select your painting with Rectangular Selection (hold Shift and drag for a square selection). Right-click an icon on your custom palette and choose Capture Custom Icon. Or, choosing Set Custom Icon... selects an image from file. You can move icons within and between custom palettes by Shift-dragging.

GET TO GRIPS WITH REAL WET OIL

Painter 12 offers Real Watercolor and Real Wet Oil brush categories. Both are based around similar configuration settings that deal with everything from the familiar options, such as paint quantity and wetness, to more advanced settings that include drying speed, paint settling and canvas interaction. In addition, diffusion and animation controls add authenticity to the painting process while allowing for the option of swifter stroke execution on slower machines.
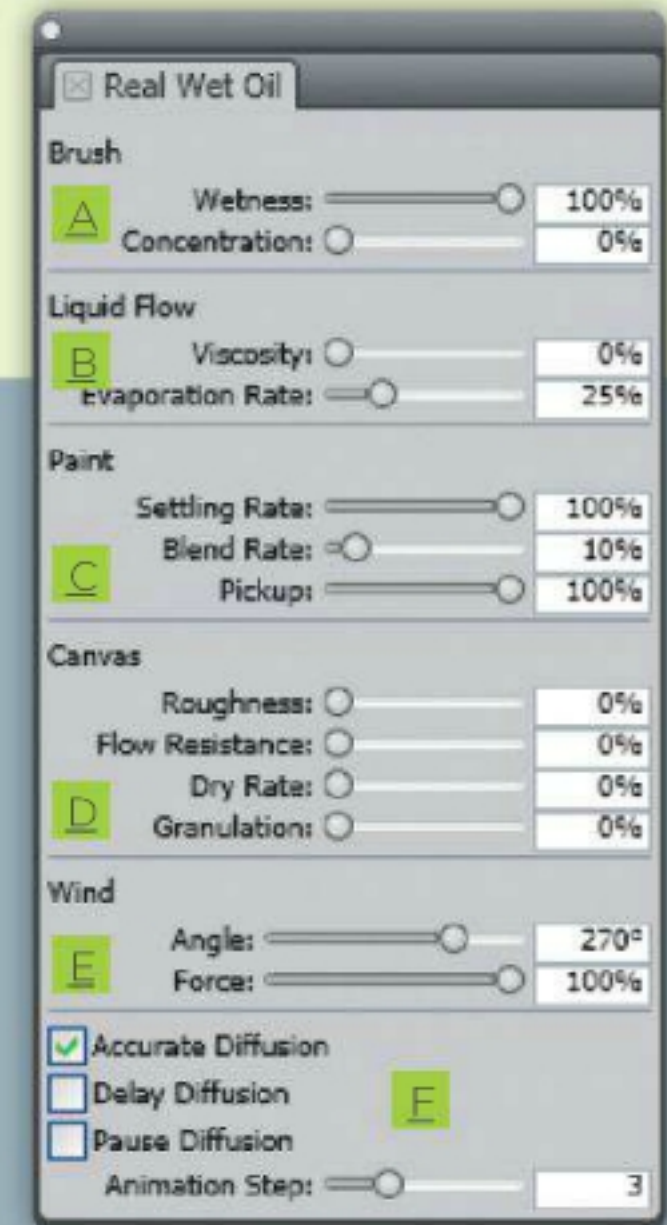
SET YOUR STROKES

A. BRUSH
Wetness controls the liquidity of the paint. Concentration sets the strength of pigment.

B. LIQUID FLOW
Increase Viscosity to simulate thicker paint. Decrease Evaporation Rate and the paint remains wet for longer.

C. PAINT
Settling Rate works in a similar way to Opacity. Increase Blend Rate for more blending and increase Pickup for more interaction with existing paint.

D. CANVAS
Roughness is the coarseness of the canvas and Flow Resistance specifies how much it impedes paint flow. Increase Dry Rate for faster absorption and increase Granulation for the paint to settle more into the canvas.

E. WIND
Angle is the direction of flow of the paint. Increase the Force setting to maximise the distance the liquid will travel.

F. DIFFUSION
Uncheck Accurate Diffusion if you want faster but less-accurate paint behaviour, and uncheck Delay Diffusion if you want to have the paint spread and dry in real time.

Real Wet Oil

|		
Brush		
A	Wetness:	100%
	Concentration:	0%
Liquid Flow		
B	Viscosity:	0%
	Evaporation Rate:	25%
Paint		
	Settling Rate:	100%
C	Blend Rate:	10%
	Pickup:	100%
Canvas		
	Roughness:	0%
	Flow Resistance:	0%
D	Dry Rate:	0%
	Granulation:	0%
Wind		
E	Angle:	270°
	Force:	100%
☑ Accurate Diffusion		
☐ Delay Diffusion F		
☐ Pause Diffusion		
	Animation Step:	3

GET MORE FROM PAINTER'S BRUSHES

Painter 12 features an advanced Multicore option, available as a tick-box at the bottom of the General panel and selectable per individual brush. Ticking this option instructs Painter to use all available CPU cores when painting with the current brush. However, it's best not to turn on Multicore

> "The Multicore option instructs Painter to use all available CPU cores when painting with the current brush"

for every brush, because applying Multicore to simple brushes can cause an overhead which may result in higher CPU usage without any added performance benefit. So try Multicore first and see if it benefits your chosen brush.

PAINTER'S BRUSH CALIBRATION

To get started, bring up the Brush Tracking window, using the Brush Tracking icon to the bottom right of the Brush Calibration panel.
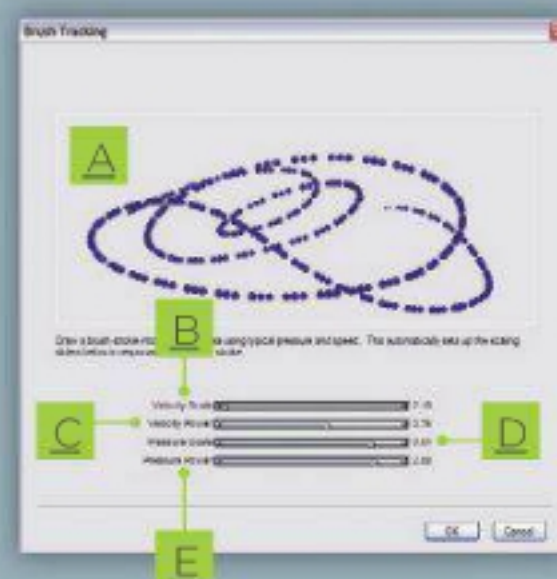
A. SCRATCHPAD
Sketch in this area with typical speed and pressure range. The values that are described below (Velocity Scale, Velocity Power, Pressure Scale and Pressure Power) will then be set automatically. If you're not happy with these values you can alter them manually, either in the Brush Tracking window or through the Brush Calibration panel. Configure these settings first using the Scratchpad and then adjust them by hand.

B. VELOCITY SCALE
Increase this value to spread the velocity response over a larger pen velocity range. You need at least one brush Expression set to Velocity to see this work.

C. VELOCITY POWER
Increase to heighten the velocity needed to achieve a certain effect. You need at least one brush Expression set to Velocity for this.

D. PRESSURE SCALE
Increase this value to spread the pressure response over a larger pen pressure range. You need at least one brush Expression set to Pressure to see this work.

E. PRESSURE POWER
Increase this value to heighten the pen pressure that's required to produce a certain effect on the canvas. You need at least one brush Expression set to Pressure to see this work.

Step-by-step: *Using Real Wet Oil brush variants*
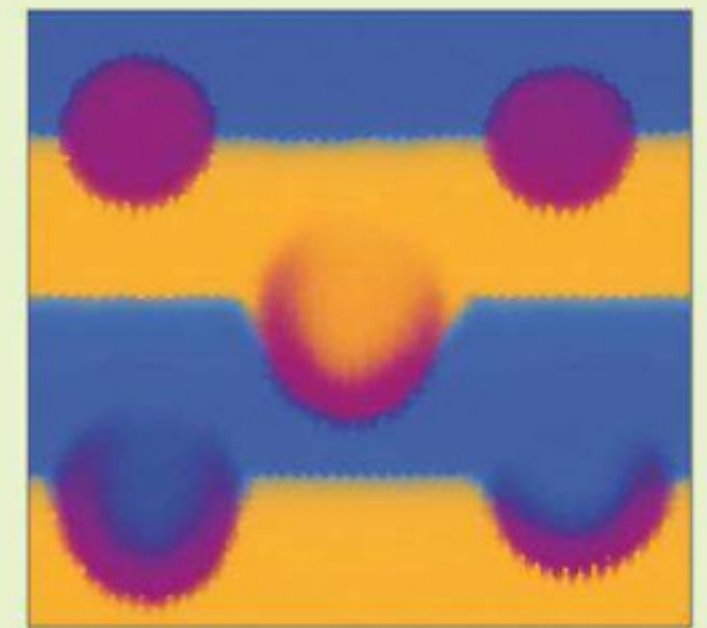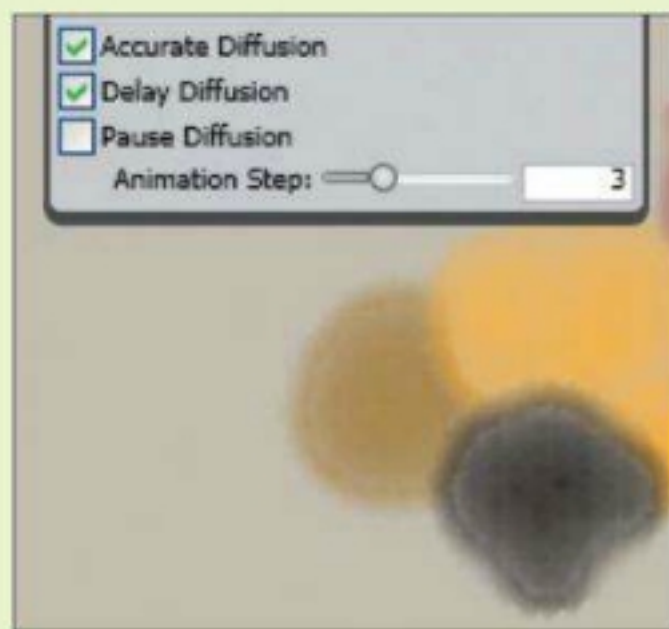

1 Diffusion controls

Select Window>Brush Control Panels>Real Wet Oil, then choose the Wet Oil variant from the Real Wet Oil category in the Brush Selector. If you have a powerful computer then at the bottom of the Real Wet Oil palette try unchecking Delay Diffusion and reducing Animation Step to 0. For extra speed, uncheck Accurate Diffusion, check Delay Diffusion and set the Animation Step slider to a higher setting.

2 Paint with Wet Oils

With the Wet Oil brush, try lowering Wetness and increasing Concentration. This produces thicker strokes, ideal for detail work. With low Wetness, reduce the Settling Rate to achieve semi-transparent washes and fringes. For added texture, increase the Roughness and Granulation settings. To achieve very soft blends increase Wetness, decrease Flow Concentration and Dry Rate and decrease Opacity.

3 Blend with Thinners

Real Wet Oils can also simulate the addition of pure turps by setting Concentration to 0 per cent and increasing Wetness and Pickup. Choose the Grainy Turps brush and dab it onto existing paint. You can control the direction and extent of the flow of paint with the Wind settings of Angle and Force. To simulate turps running down the canvas set Angle to 270 degrees and Force to 100 per cent.

Step-by-step: *How to save calibration settings for a specific brush*
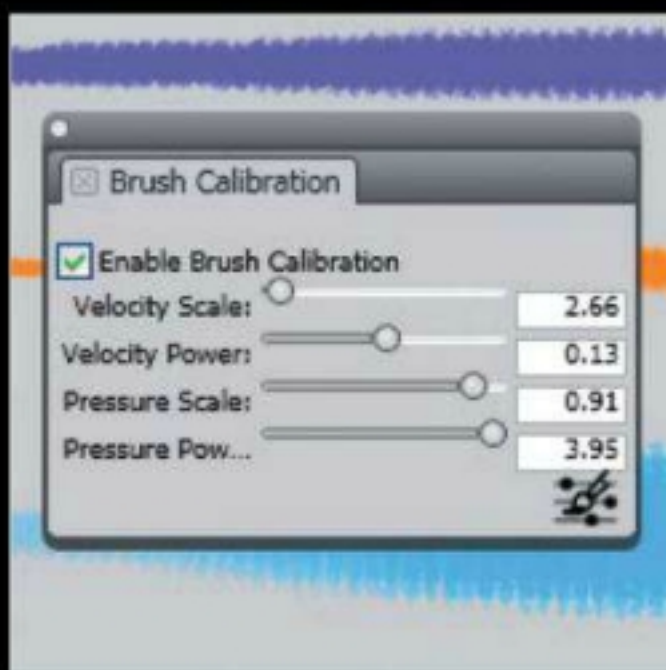
1 Brush calibration

Painter 12 enables you to save unique calibration settings against each brush. On the Brush Calibration panel, tick Enable Brush Calibration and then click the brush icon in the lower right-hand corner. On the Scratchpad that appears, draw a stroke using typical velocity and pressure range, then click OK. If the checkbox is left unticked the generic calibration preferences in Edit>Preferences>Brush Tracking are used.

2 Dab Profile

The Dab Profile functions have been expanded in Painter 12 and now include Dab and Stroke previews. In the Dab Profile panel, select a brush tip shape from the right-hand options (some are greyed out, depending on the brush type). Choose each of the three icons above the Preview Stroke to preview Size & Shape, Hard Media and Brush Dab, or click the Dab Preview pane to cycle through all three options.

3 Stroke Attributes

Halfway down the General Panel is a tick-box entitled Use Stroke Attributes. Tick this to activate the Merge Mode pull-down and Stroke Opacity slider. From Merge Mode, choose an overlay method and alter the opacity of this method using Stroke Opacity. In previous versions of Painter this effect was only available using layers but now it's saved as a config attribute against your current brush.

WORK WITH SPECIAL EFFECTS

Painter 12 incorporates a number of functions that fall outside the range of core painting tools. In this section I'll examine two of the main ones you'll come across: Clone Source, which has been enhanced from Painter 11, and the new Kaleidoscope/ Mirror mode.

Another new function that's worth mentioning is Smart Blur, which removes detail from an image while retaining the sharp outlines. Open a photograph, choose Effects>Smart Blur and alter the intensity using the slider.

One possible use of Smart Blur is as a way to produce an instant painting from your photographs. However, my preference is to apply it to reference photos so that when I look at them I'm not distracted by unnecessary detail.

"Smart Blur removes detail from an image while retaining the sharp outlines"

THE SPECIAL EFFECTS OPTIONS

very similar, except that the Segment attribute is replaced by a Vertical/ Horizontal Plane option.

D. RESET KALEIDOSCOPE MODE
This defaults the current settings. Click Toggle Kaleidoscope Mode and reselect your brush to continue.

A. KALEIDOSCOPE/MIRROR ICON IN THE TOOLBOX
Click and hold to display both options.

E. MIRROR ICON
In the Kaleidoscope property bar. This switches to Mirror mode.

B. MIRROR ICON IN PULLOUT VIEW
Displayed by holding down the icon.

F. KALEIDOSCOPE ICON
In the Kaleidoscope property bar. This switches to Kaleidoscope mode.

C. KALEIDOSCOPE ICON IN PULLOUT VIEW
The property bar layout for the Kaleidoscope tool. The Mirror layout is

G. TOGGLE KALEIDOSCOPE MODE
This returns you to normal painting mode.

ADD TEXTURES USING PAPERS

Painter 12 offers two main ways to add texture to your paintings above and beyond the paint 'flow' patterns that are inherent in some of the traditional media brushes on offer.

The quickest way to generate texture is to apply a filter to a completed image. For example, the Apply Surface Texture option,

found in Effects>Surface Control, enables you to generate a variety of textures to bake onto your canvas. You can also define multiple light sources and related attributes, such as reflection and exposure.

However, there are several drawbacks to this method. A more flexible and convincing alternative is to apply texture on a brushstroke-by-brushstroke basis, using Papers.
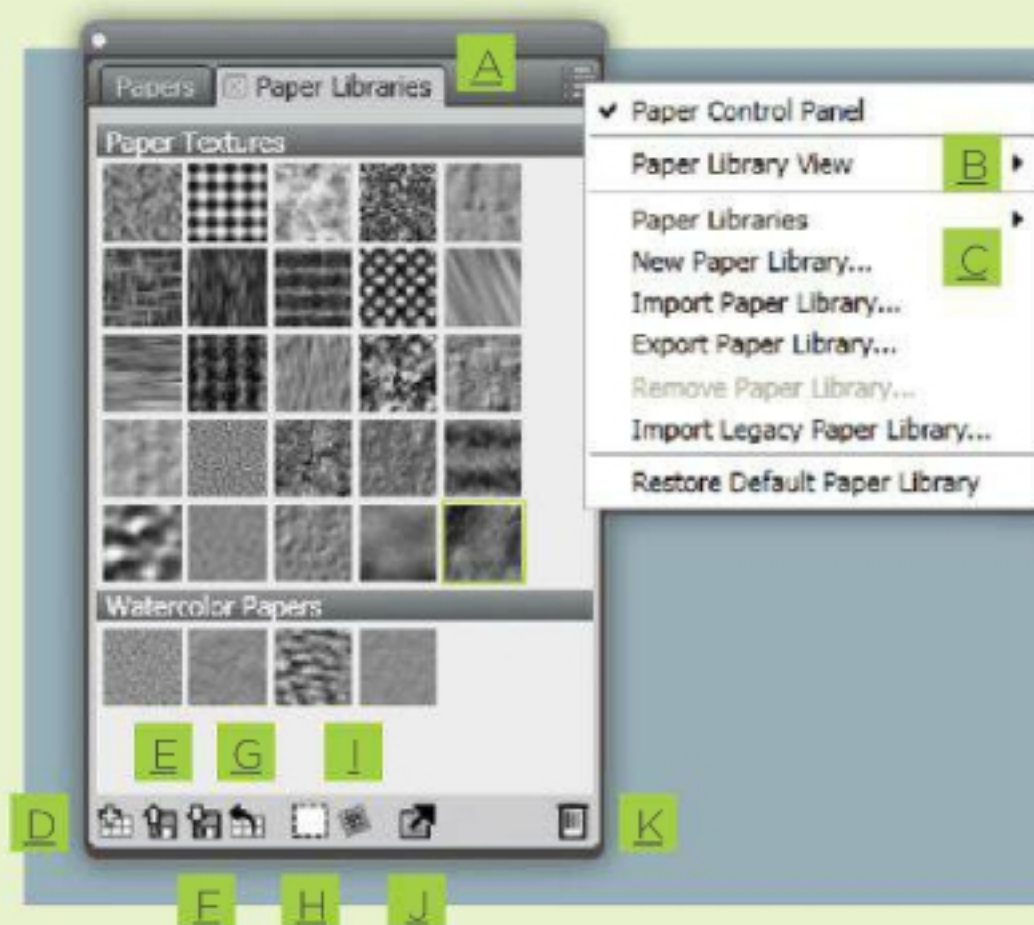
VIEW AND EDIT YOUR PAPERS

A. LIBRARIES
Multiple libraries can be displayed, each with paper preview swatches.

B. PAPER LIBRARY VIEW
Allows for Small, Medium and Large Paper swatches, plus a List option with Paper names.

C. PAPER LIBRARIES
Toggle the display of available libraries.

D. NEW PAPER LIBRARY
By default this has your current paper choice.

E. IMPORT PAPER

LIBRARY
Import a .paperlibrary file and it appears in the Paper Libraries list.

F. EXPORT PAPER LIBRARY
Choose the library to export from the menu and save it as a .paperlibrary file.

G. RESTORE DEFAULT PAPER LIBRARY
Return to a default.

H. CAPTURE PAPER
Create Paper based on an image.

I. MAKE PAPER
Create a Paper

Step-by-step: *Explore the special effect functions*

H. SEGMENT NUMBER

Type a value in the box or use the slider to set a value.

I. ROTATION ANGLE

Type a value in the box or use the slider to set a value.

**J. SYMMETRY PLANE COLOR**

Set the colour of your guidelines.

K. TOGGLE PLANES

Make the guidelines visible or invisible.

1 Discover the Clone Source tool

Clone Source helps you to duplicate an image with the paint effect of your choice. Load your source image and choose File>Clone to create a duplicate. Clear the duplicate image (Select>All, Edit>Clear, Select>None). Choose a brush, say Broad Water Brush from Digital Water Color, and paint onto the new canvas. Use the Toggle Tracing Paper icon and Opacity slider if you need to.
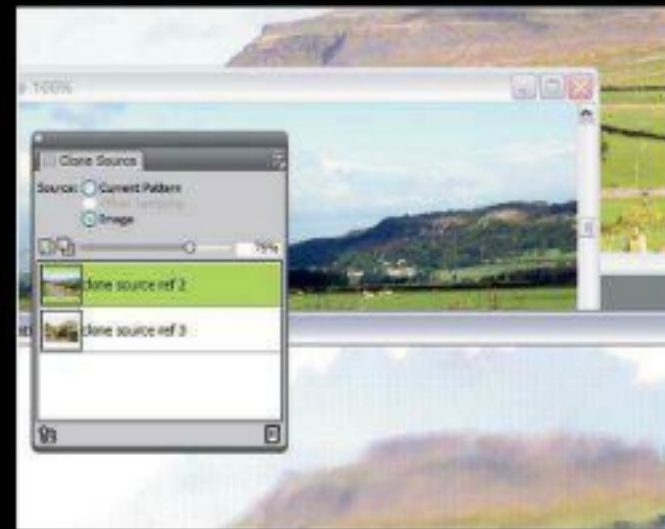
2 Clone from multiple sources

Click on the Open Source Image icon to the bottom left of the Clone Source panel and load one or more new images. By clicking on the image of your choice, you can clone from multiple images onto the same canvas. The tracing image changes to reflect the current source. To return to normal painting mode, simply click the Clone Color icon to the bottom right of the Color panel.
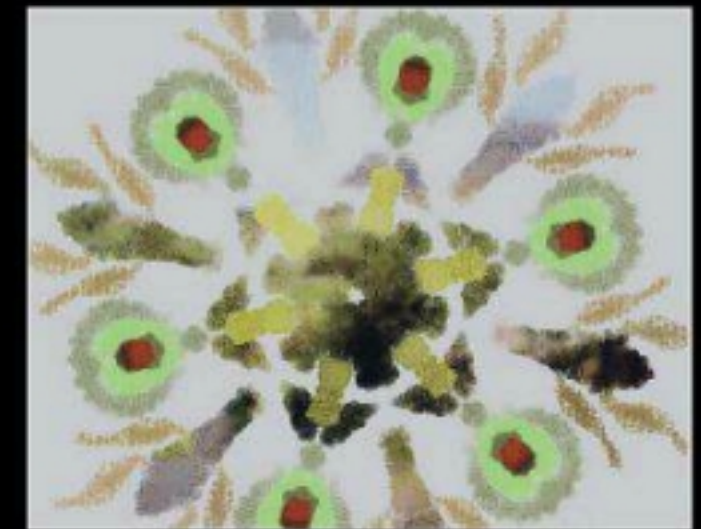
3 Kaleidoscope mode

This mode is handy for everything from painting patterns to sketching architecture. Create a new canvas and click the Kaleidoscope icon in the Toolbox (alternatively, click and hold the Mirror icon if it's not present). Adjust the Segment and Rotation sliders on the properties bar or drag a segment line for ad-hoc rotation. Drag the segment intersection to move the centre. You can even use it with Clone Source.

Step-by-step: *Apply paper textures and create your own papers and textures*
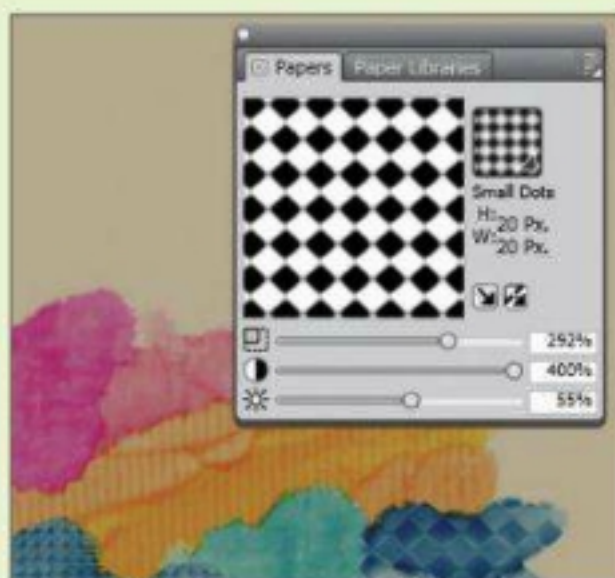

based on the procedural parameters Pattern, Spacing and Angle.

**J. SHOW PAPER CONTROLS**

Show the panel for the current Paper.

K. DELETE PAPER

Removes a Paper from a library. Hide a Paper by right-clicking>Hide Paper.

1 Applying Paper textures

Choose Real Wet Bristle brush from Real Watercolor. Set Grain in General to 50 per cent. Display the Paper panel using Window>Paper Panels> Papers. Choose a paper and use the sliders to modify Scale, Contrast and Brightness. The white areas show where the pigment will be most concentrated and a good contrast of white to black gives the best results.
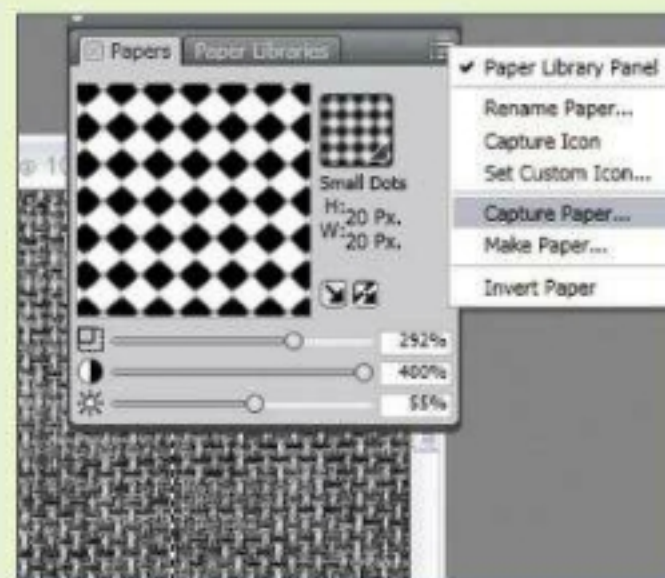
2 Create your own Papers

Load your texture image and select an area using Rectangular Selection, or press Ctrl/Cmd+A to select everything. Ensure that your texture is on the canvas (not layered!) and that your Canvas is selected in the Layers panel. Click the menu icon top right of the Papers panel and choose Capture Paper. Name your paper and set the Crossfade value, higher equating to better tile blending. Save with OK.

3 Generate your own textures

You can either source your own texture images or use Painter 12 to generate a bespoke one. Display the Patterns panel using Window>Media Control Panels>Patterns. Click the menu top-right and select Make Fractal Pattern. Adjust the settings to suit, monitor the results in the preview window and choose OK to generate. Repeat Step 2 to use this texture as a paper.

NAVIGATION AND WORKFLOW HINTS

Whatever your artistic style, you'll likely to make extensive use of Painter 12's navigation and colour selection techniques. Of course, functions such as panning, zooming and colour choice are common across all painting packages, but when you're using them hundreds of times per session it's their implementation and ease of use that makes all the difference.

In this section I'll look at how the new Navigator panel consolidates several workflow functions into one intuitive interface, and how the Temporal Colors palette can be used as a speedy alternative to the Color Wheel. Don't forget that Painter also offers customisable keys: press options for these functions, configured through Edit>Preferences>Customize Keys.

"When you're using panning, zooming and colour choice hundreds of times per session their ease of use makes all the difference"

VIEW YOUR ARTWORK

A. PREVIEW IMAGE
Change size by dragging the edges/corner of the Navigator panel.

B. NAVIGATOR FRAME
The portion of the image in view.

C. NAVIGATOR OPTIONS
Drawing modes, colour management and grid toggle.

D. RESET ZOOM
Set to 100 per cent.

E. ZOOM CONTROLS
Type a value into the Zoom Canvas box or click the drop-down and drag. Use Zoom In and Zoom Out to zoom in stages.

F. RESET ROTATION
Sets canvas rotation to 0 degrees.

G. ROTATE CANVAS
Type in a rotation value or click and drag the drop-down menu.

GETTING TO GRIPS WITH BRUSH BASICS

Painter 12 organises its brushes into Libraries, Categories and Variants. A Library can hold many Categories, such as Chalk and Oils, and a Category can hold many Variants (brush configurations). While Category and Variant operations are mostly accessed through the workspace, creating a new Library requires a visit to your computer's file system.

"Category and Variant operations are accessed through the workspace, but creating a new Library requires a visit to your computer's file system"

Get started by creating a new folder under Brushes in the Painter 12 Application area. This is your new Library folder. In this folder create another folder for your Category, plus an identically named 30x30 JPG for your Category. Into your Category folder, copy one or more Brush XML files from the Painter 12 Brushes Category folders. Close and restart Painter.

MANAGING BRUSHES
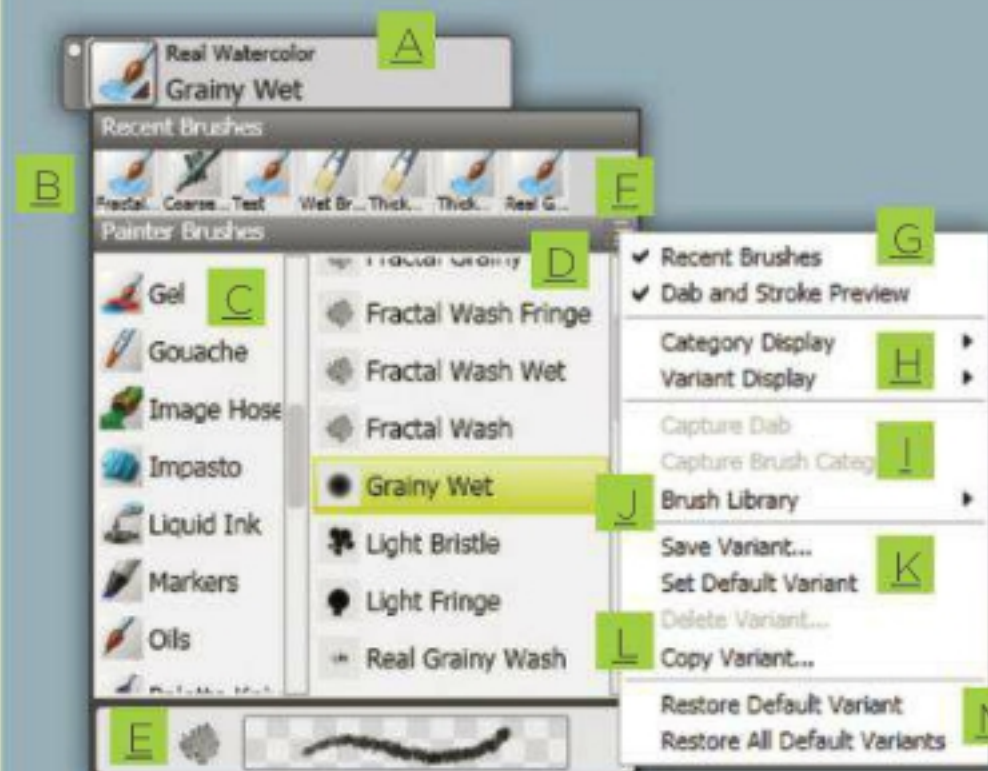
A. BRUSH SELECTOR
Click the arrowhead to expand.

B. RECENT BRUSHES

C. CATEGORIES
Displays the Brush Category list and/ or icons.

D. VARIANTS
Brush Variant list and/or icons.

E. DAB AND STROKE PREVIEW
Hover for a preview.

F. BRUSH SELECTOR MENU

G. DISPLAY TOGGLES

H. DISPLAY OPTIONS
Choose either List or Icon format.

I. CAPTURE TOOLS
Capture Dab redefines the Brush shape. Capture Brush Category creates a new Brush Category.

J. BRUSH LIBRARY MENU

K. VARIANT OPTIONS
Includes Save Variant, Set Default Variant and Delete.

L. COPY VARIANT
Copies the current Variant to a new Category.

M. RESTORE OPTIONS
Restores default Variant settings. Alternatively, right-click a Variant icon.

Step-by-step: *Using the Navigator panel and Temporal Colors palette*

H. CANVAS INFO
Displays image width and height in pixels, plus PPI (Pixels Per Inch) for printing.

I. CURSOR AND SELECTION INFO
The top section displays the cursor position when in a selection mode, and the lower section displays the size of selected area.

J. NAVIGATOR MENU
Use to toggle the visibility of the Navigator Frame.

1 Navigating the Painter canvas
Display the Navigator panel using Window>Navigator and load a large image. The red rectangle highlights the area being displayed. Drag the rectangle or click outside it to shift focus. Resize the preview image by dragging the edges or bottom right-hand corner of the panel. Experiment with the zoom and rotate controls below the preview image.

2 Zoom quality and performance
Click the Magnifier tool on the Toolbar. To the right of the Property bar appear two new icons. Click Area Averaging (right) to speed up drawing when zoomed out. Click High Quality Display (left) to soften pixels when zoomed in, which gives an indication of how your image might look when printed. Neither of these affect your actual image, only how you view it.
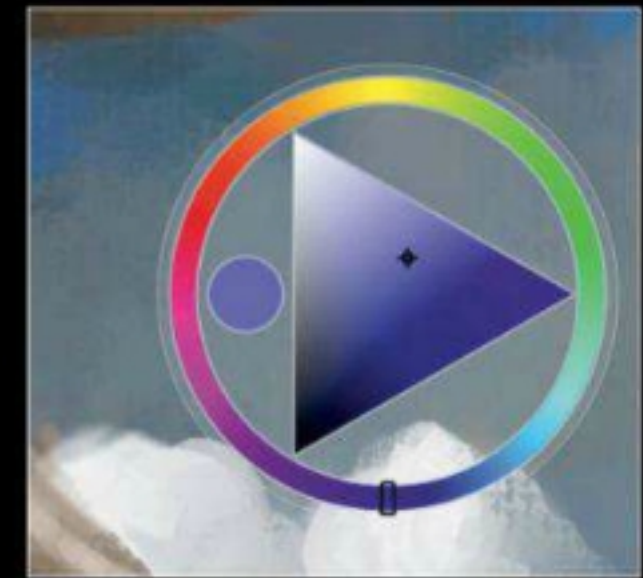
3 Temporal Colors palette
Display the Temporal Colors palette using Ctrl+Alt+1 (Cmd+Opt+1 on the Mac). Resize the palette by dragging on the very edge of the circle and move it by dragging the inner transparent area. Select Saturation and Value from the inner triangle and Hue from the outer ring. Press the same key(s) to make the palette disappear, or just resume painting.

Step-by-step: *How to create Variants and Categories*
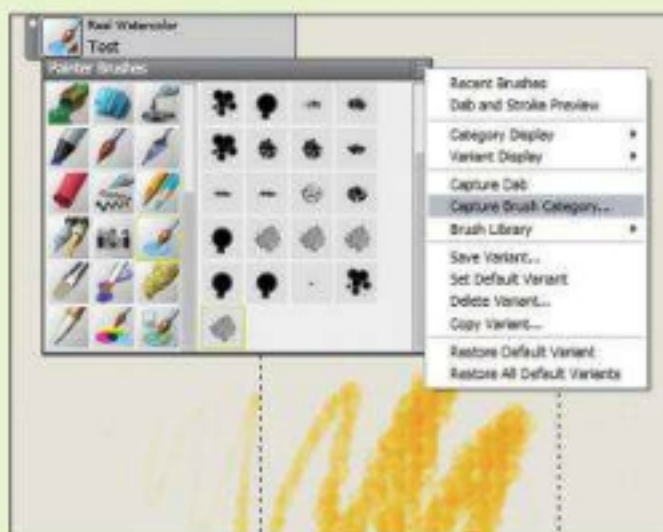
1 Creating Variants and Categories
There's no New Brush function in Painter so instead select Save Variant from the Brush Selector menu. This saves your current Brush configuration to a new Variant, which you can now name and configure. To create a new Category, paint something and select it using the Rectangular Selection tool (Shift+drag to constrain). Then choose Capture Brush Category from the Brush Selector menu.

2 Remembering your brushes
At the top of the Brush Selector menu you'll find Recent Brushes and Dab and Stroke Preview. Recent Brushes keeps a record of the brushes you've already used, in reverse chronological order, across the top of the Brush Selector. You can also access them using Window>Recent Brushes. Dab and Stroke Preview displays brushstroke previews as you hover over each Brush Variant.

3 Using Dynamic Brush Attributes
Press and hold Ctrl+Alt (Cmd+Opt on the Mac) and drag the cursor to alter the Size of your brush. Maintain pen pressure but release the keys. Now press Ctrl (Cmd) and drag the cursor to alter Opacity. Press Ctrl (Cmd) again to control Squeeze and press a fourth time to control Angle, all the while maintaining pen pressure and dragging as necessary. Release pen pressure to start painting.

ARTISTS
PANEL

Brynn Metheney
Raised in the High Desert of California, Brynn has a passion for creature and world design. Her clients include Dark Horse and Wizards of the Coast.
www.brynnart.com

Jon Hodgson
An experienced artist who has over 50 book covers to his name, Jon has an enviable CV. He is currently the art director on the Dr Who card game.
www.jonhodgson.com

Paco Rico Torres
Paco is a freelance illustrator living in Spain who's produced art for several card games, magazines, books and roleplaying games.
www.pacorico.blogspot.com

Francesco Lorenzetti
A freelance video game concept artist living in the North of England, Francesco loves painting creatures and emotive environments.
francescolorenzetti.blogspot.com

Kev Crossley
Long standing comic artist Kev has worked for 2000AD amongst other titles, drawing Judge Dredd. He's currently freelancing.
www.kevcrossley.com

Elizabeth Torque
An illustrator and concept artist residing in Spain, Elizabeth has worked for many American publishers such as DC, Image and IDW.
elizabethtorqueart.blogspot.com

Cynthia Sheppard
A freelance fantasy artist with a background in traditional painting, Cynthia likes to bring classical techniques to her digital art.
www.sheppard-arts.com

Jonathan Standing
Jonathan Standing is a concept artist based in Toronto. He's currently working on the TV series Defiance for SyFy.
www.jonathanstanding.com

Manon Delacroix
Manon is a busy freelance illustrator who specialises in high fantasy, horror and portraiture. Werewolves are her personal favourite.
www.artbymanon.com

Mark Molnar
Mark is a concept and visual development artist. He's busy doing freelance work for international film, game and animation companies.
www.markmolnar.com

Nick Harris
Gloucestershire-based Nick went digital in 2000 after 18 years working with traditional methods. He works mainly on children's book illustrations.
www.nickillius.com

Kinman Chan
Kinman studied at Gnomon School of Visual Effects, and has worked for Disney and Lucasfilm. He also owns Kincept Co.
www.sparetimer.blogspot.com

Jace Wallace
Jace has freelanced for magazines, book publishers and has produced concept art for many video games, including The Sims 3.
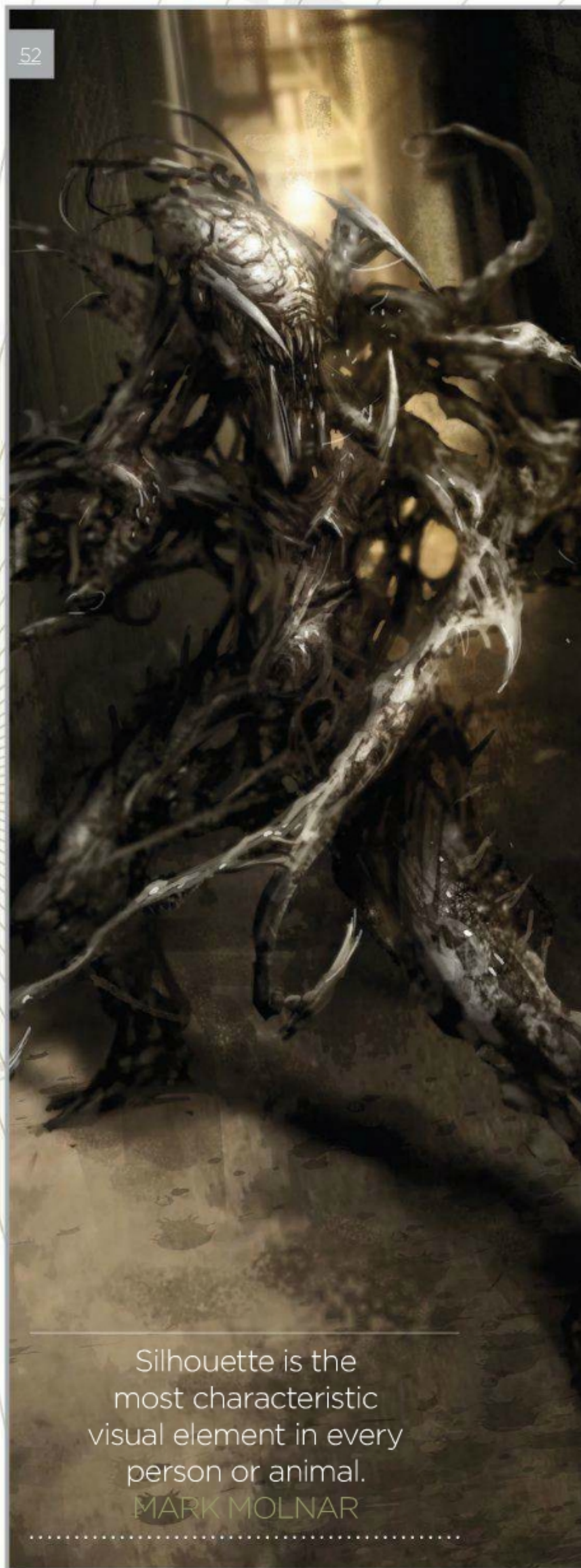www.wakkawa.cghub.com

Raymond Swanland
You'll recognise Raymond's work from the Oddworld video games. A leading concept artist, Raymond is always in demand.
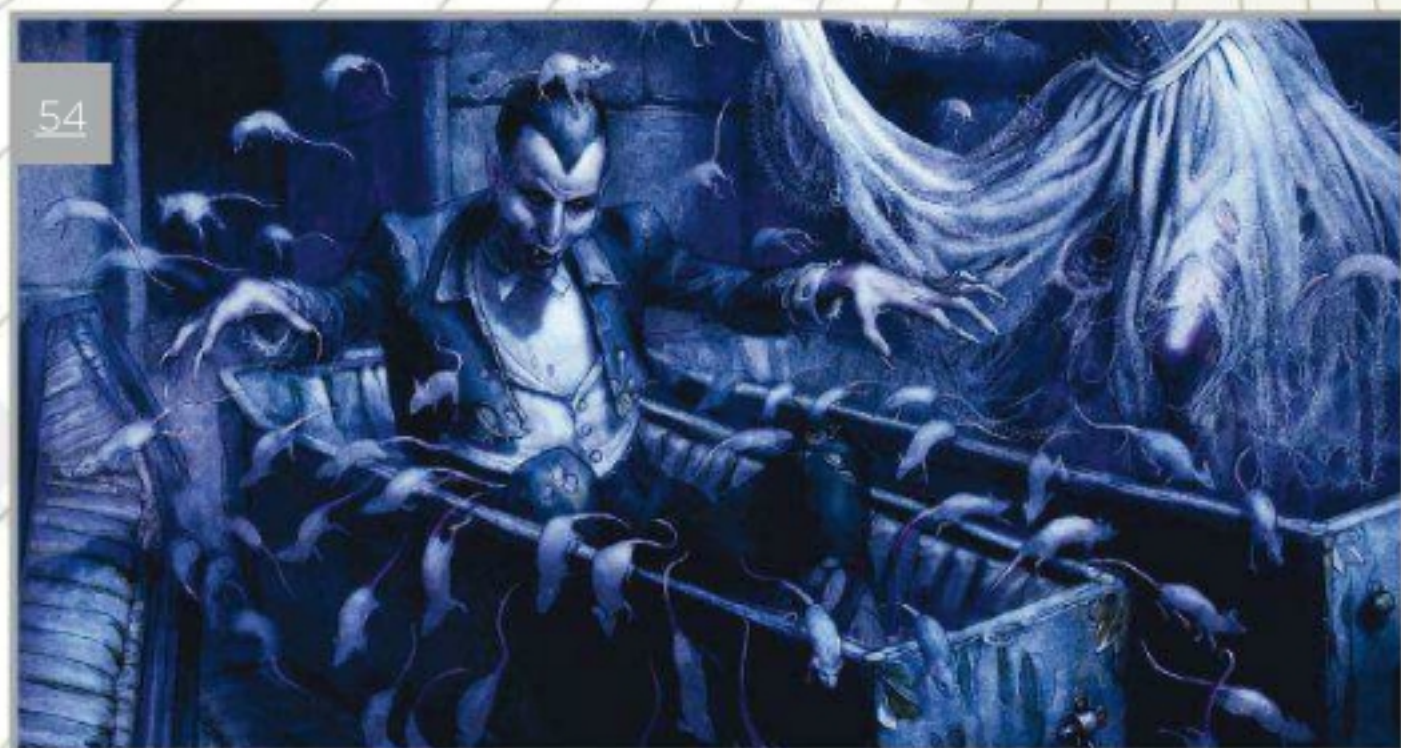www.raymondswanland.com

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Silhouette is the most characteristic visual element in every person or animal.
MARK MOLNAR

Core skills
EASY WAYS TO CREATE CREATURES

Learn the core skills to paint better monsters, including rendering a dragon's fiery breath and planning a creature's twisting neck.
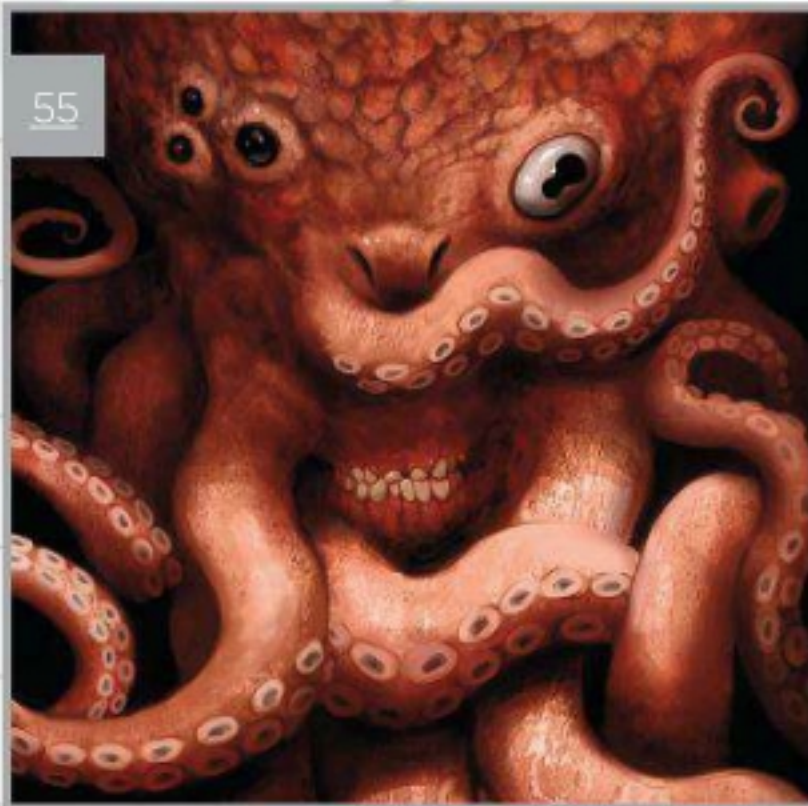
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57

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The best way to…
paint a scene of a carnivorous creature tearing the flesh from its prey

Artist's advice
Brynn says

Painting the gruesome scene of a hunter consuming its prey can seem tricky. Depending on what you're going for, the key is to keep it looking natural – as if this is the way the predators have always eaten. Naturally, any reference you can gather will help you in creating the scene. Another important aspect of this piece relates to the tooth structure of the carnivore. This will always affect how the creature uses its mouth to process its food.

In my painting, you can see two ways of processing the flesh. Depending on what type of predator you're painting, the way the creature handles its meal will differ between mouth shapes and teeth. When

Comparing the flesh to putty or clay can help you determine how it will react to being pulled and sheared away from a carcass.

beginning this painting, I sketched in a pencil layer to figure out how the flesh of the carcass would move around. As you can see, the two pieces of flesh act differently depending on how they're being eaten.

Once I figure out the acting of the carnivores and the composition of the piece, I'm then able to start laying in colour. I lay in the flesh tone and skin layer of the carcass. It's important to remember that flesh and muscle aren't always completely blood-soaked, either. I lay in a base, then I rough in darks and lights. I keep any blood on a separate layer, so I can edit it easily if I need to. Once I have the flesh and blood figured out, I can begin to lay in highlights to give it the feeling of being wet.

Step-by-step:
Paint a predator devouring its catch

1 As you can see, I begin by laying in simple colour, gradually building up the volumes as I go along. Using this technique will help me to see which direction the flesh is moving in and where I need to add highlights and shadows later on in the process. Once I'm happy with that, I do the same with the predators.
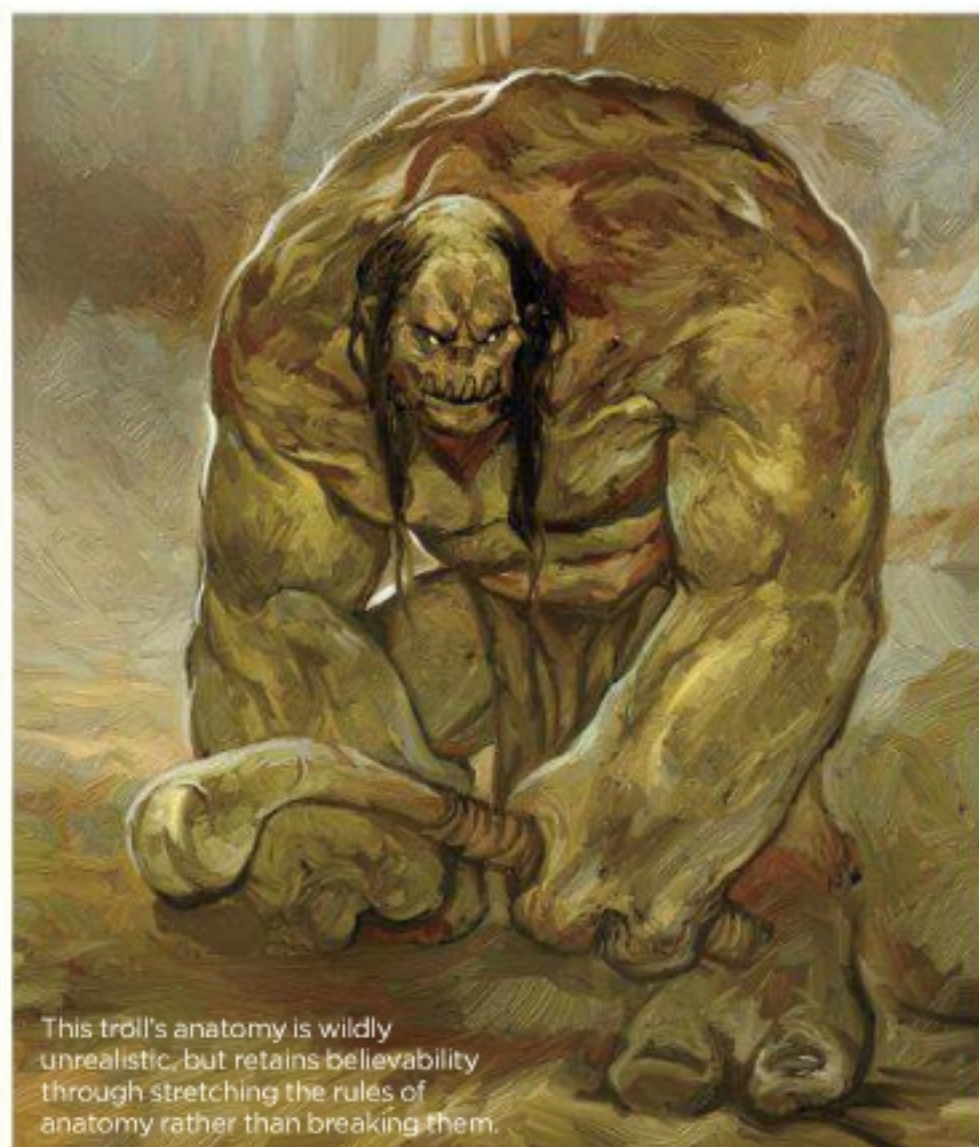

2 As I build up the flesh, I'm careful to keep the idea of motion in mind. The flesh that's being pulled and stretched by the predator should be painted with brush strokes that enhance that movement. I also begin to add blood at this point, keeping it on a different layer so that it's easy for me to alter at a later stage if necessary.

3 When you're painting the flesh in your scene, it's important to keep in mind the layers of fat that are found between the creature's skin and muscle. I've now laid in highlights and shadows to give the flesh and the predators more volume. The highlights also help to make the flesh and blood look wet.

How you can…
draw a muscular, oversized troll

This troll's anatomy is wildly unrealistic, but retains believability through stretching the rules of anatomy rather than breaking them.

Artist's advice
Jon says

The challenge when drawing a big muscular monster is marrying the fantastical elements with a level of believability. It's no good just inflating the arms of a human, nor wildly inventing anatomy with no reference to the human body. So you have to think holistically about the task.

We want the creature to have a threatening presence, so huge arms is a must: bulging shoulders, biceps, meaty forearms, great big hands all signify the creature's ability to do damage. For these to be convincing the rest of the creature needs to be similarly bulky. We can get creative and merge various muscle groups into huge slabs of muscle across the shoulders and chest, bulking up the upper body hugely, and adding to the idea this dude spends a lot of time crushing things. And all that weight of muscle brings our creature forward into a stoop, unlike a lithe human who looks light on their feet, ready to spring in any direction. A tilt of the trolls shoulders and hips gives the feeling of plodding, thundering steps.

A small head brings character too, as do tiny eyes. It's not just a matter of making muscles larger – reducing the size of other characteristics really helps, too.

Artist's secret

USING DIRECTIONAL MARKS

When using a program such as ArtRage that offers heavy impasto, or rake brushes in Painter or Photoshop, maximise their form-describing qualities by making marks that look as if they follow the shape of what they describe.

Use this easy way to…
give a bat's ears a translucent look

Artist's advice
Brynn says

Reference will be your friend in this case. Looking at different animal ears with backlighting will inform your work better than anything.

You could start by modelling a small ear out of Sculpey clay and then lighting it from behind. It's important to remember that the bat ear is thin, but it's also filled with blood. When light shines through flesh it tends to glow with orange and red hues.

I start my painting with a pencil drawing to grasp the anatomy of the ear. Next, I move into colour, making sure to keep the middle of the ear the lightest shade. The thinnest part of it will be the most translucent, while the thicker parts, such as the folds, will be darker. Keeping the middle of the ear light pink and fading it to orange gives it a translucent look. For the finishing touch, I add some almost-white light pink to really push the feeling of it being thin skin.

The next step is to work on a separate layer and add some red veins, because they would show up when the ear is illuminated. Finally, some white highlights around the edges hint that light is coming from behind the ears.

I begin by laying in basic colour before blending the hues together to give the image a smoother look. The lighter areas will appear more translucent.

How to…
easily draw your own imaginary creatures
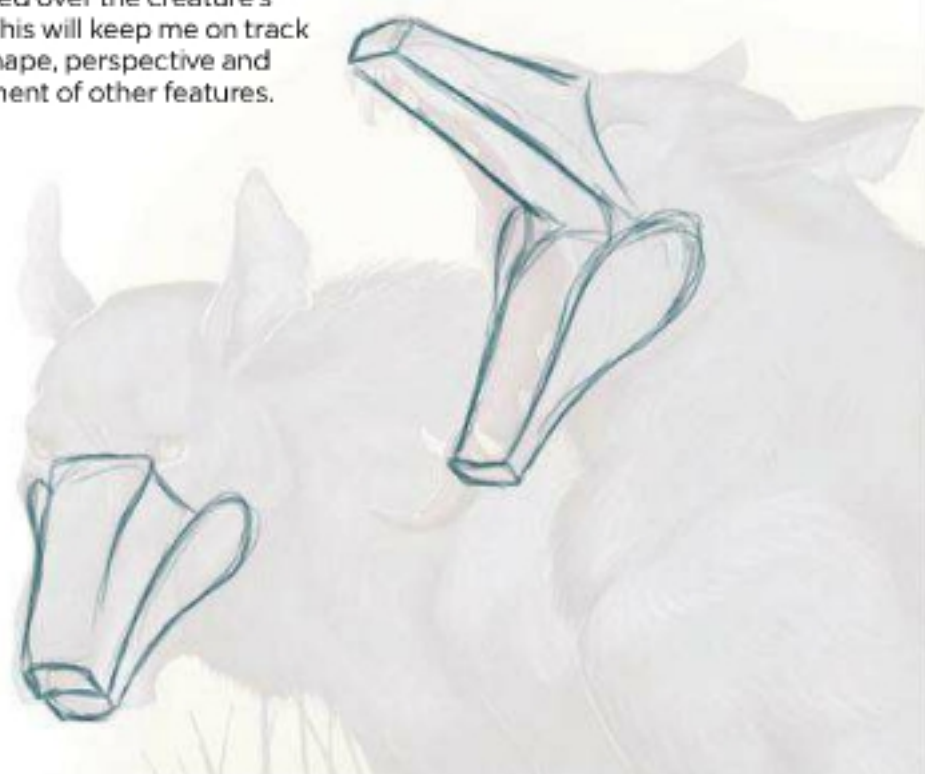

Artist's advice
Brynn says

The task of drawing imaginary creatures can be much simpler if you break them down into basic shapes. Thinking about complex structures in a planar view can help you to see them simply and keep you from feeling overwhelmed.

Of course, when tackling the details, such as an imagined canine-type jaw, it's always a good idea to study the canine skull itself and use references. Books, photos, the zoo and actual bones can give you a feel of what a jaw would look like at different angles. Taking my example and looking at canines, watching them yawn, snarl and pant will help with expression.

For my two creatures pictured here, I sketch out their heads using box shapes. This helps with the perspective of the jaws, as well as the positioning of the eyes and teeth. After I've sketched in the boxes, I add in definition such as fur, eyes, teeth and ears.

I always sketch things in lightly (on separate layers) so I can easily move things around to make sure the proportions are right. It's always a good idea to keep your shape sketch handy to refer back to while you're working.

Here you can see a rough box sketched over the creature's jaws. This will keep me on track with shape, perspective and placement of other features.

Learn an easy way to…
paint a pet character from the future

Artist's advice
Paco says

Designing a futuristic pet is like concepting any other kind of character. First, consider the world that surrounds it. If we're talking about a cold, industrialised future where animals and plants are almost extinct, then perhaps pets are cheap-looking robots. If in the future mankind has pushed the boundaries of scientific achievement then pets could be genetically engineered creatures. Perhaps people own animals from other planets, or maybe they simply have dogs and cats… who knows!

The key is to spend some time on the backstory before you start painting. Think of a design that makes sense in the world that you've imagined for it, which makes sense from an anatomical point of view and with features that could match those of their owner's.

Even if it is imaginary, your animal should still have believable anatomy. If you find you are getting lost, then try copying different animal parts, and then mix them to create one creature.

An easy way to…
paint an organic creature using three-point perspective

Artist's advice
Francesco says

For a three-point perspective you need two points on the horizon and one on the vertical axis. Convert straight lines from any intersecting point and our grid is ready.

With a creature this size we tend to keep it simple. As a trick for huge objects with spatial dimensions, I like to imagine being a bee exploring a forest or building and imagine how huge these structures seem. To paint this huge creature I used a tuber as reference (a bulb in the centre of a main root and a bud that grows upwards). I then make her more fleshy and scary.

Discover the best way to…
paint over existing thumbnails

Artist's advice
Kev says

When I'm preparing concept sketches for a video game, movie or comic, the resulting thumbnails are small, numerous and can be quite sketchy and rough. The best approach is to attack them quickly, without too much emphasis on adding any polish. Thumbnails must communicate ideas efficiently; polished presentation is a secondary consideration!

I scan a pencil thumbnail of a monster head into Photoshop, then create a layer above it with the mode set to Multiply. Into this layer I quickly paint a base colour of mid-brown using a soft brush with 70 per cent Opacity. A darker, reddish shade is used to add depth to the shadowed areas. This stage takes a few minutes and results in a tonal base painting. Next, onto the same layer I paint an unhealthy green over the head, describing the skin tone but retaining the darker areas. The colour is applied quickly with a medium-sized, medium-opacity soft brush, without too much thought for keeping inside the lines. Speed and spontaneity are important here!

A touch of scarlet is painted into and around the mouth and teeth, but I allow the brush to trail scratchy veins over the skin, adding freeform spatters and spots as I go. A little pink is added to bolster the red and add depth to the green of the skin, before a pale, greyish yellow is used to pick out the teeth and the lighter areas of skin. Finally, little spots of near-white pick out the highlights.

The loose and lively nature of the thumbnail is preserved and complemented by the application of colour tones and highlights using quick, expressive brush strokes.

Artist's secret
SET LAYER TO MULTIPLY

Colour added to a Multiply layer above a line drawing is useful as it enables the drawing to show through. The layer can then be duplicated and amended easily if colour variations or styles are required, while preserving the line art.

Step-by-step: Using three-point perspective

1 I start to insert a picture of the environment as a background, so I have a good starting point as regards colours and composition. Then I compose the three-point perspective grid and a new layer on top to draw the creature laying on the grid.

2 I begin to paint over the line drawing, trying to have a good balance with values to create convincing depth. Clouds are always a good way to make the sky more of an interesting space. Remember this is an early stage so don't worry about changing shapes, colours and design.

3 I continue to paint over the scene by changing the tail of the creature. I add a bit of atmosphere, modify the land and give our beast a more meaty tone to define the anatomy better. Remember, things that are in the distance tend to be desaturated colour and have a lighter tone.

The best way to… paint a fantasy bear, yet keep its realistic look

Artist's advice
Elizabeth says

Before launching into a sketch of my character, whether human or animal, I try to collect and study a huge amount of reference material first – both photographs and video. This is necessary to understand the forms and movements of the character I'll draw. Eventually the forms can become exaggerated, and not resemble the reference material at all, but it's good to start from a realistic image.

When we talk about dragons or unicorns, we don't really need to think about the fantasy element of what we're drawing. It's right there staring back at you. But when depicting a more common animal tinged with fantasy – a bear in this case – then it's useful to weigh up the specific fantasy elements that you're going to add to the illustration first.

If I have the time, I like to read books on mythology and folklore, or get inspiration from the Greek gods, Celtic songs, or legends about Indian shamans and their totem shields. Delving into the past, I find that for many Native American tribes the bear is a sign of courage, wisdom, intuition and special powers. That's a great element to incorporate into our fantasy bear.

I like working with Photoshop because it enables me to quickly capture many ideas and change my sketches as much as I want – much the same as with inking and colour. So here we go!

Visual references combined with mythology and folklore sources will help you paint a real-life beast in a fantasy setting.

Step-by-step: **The bear necessities**

1 I draw a quick outline shape to understand the perspective, the body shape, lights and shadows. This is a skeleton made with simple lines. Importantly, the cross is in the centre of the head and in the chest. Exaggerating the peculiarities of the bear make it a more appealing creature: I give it a huge round head, a large hump and rounded, very strong-looking arms.

2 Now I can comfortably draw on the skeleton of the bear. I define the details and I think about giving the beast a companion. A small, thin human makes the bear look even more stunning and overwhelming. It also tells us that the beast is smarter than the average bear, it's loyal to the human character and serves as a guardian, or perhaps a fellow soldier.

3 Now I start to colour the bear. For the fur I add a line of dark colour, then some lighter colour on top (1). I apply reflections of sunlight on the head and shoulders, before then adding green reflections from the water and surrounding vegetation (2). Finally, I paint in a flash of light green in the eyes to create a magic link between the Shaman and the bear (3).

4 Now it's time to detail the scene. In the palm of the Shaman's hand we see a magic glow, like the bear's eyes (1). This also connects with the bear head on top of the Shaman's staff (2). She wears clothes that mimic the bear's fur, on her arms, legs, neck and shoulders (3). To finish, I draw splashes of water to suggest the bear's forward progress with heavy steps (4).

An easy way to…
use Photoshop to depict blood in the ocean depths

Learn to…
set up a light source and judge how it'll turn out

Artist's advice
Cynthia says

Unlike putting a single droplet of red blood into a shallow glass, blood on a large scale deep underwater behaves more like a black cumulus cloud.

Our perception of colour drastically changes as we dive down into the ocean. Light waves become absorbed by water, and so hues lose their intensity the deeper you go, starting with the longest waves in the visible spectrum, which are the reds. In contrast, blues and greens transmit much better through water because they have shorter wavelengths. In simpler terms, what this means is that red blood may look black or grey, while the water itself and the creatures in it are still highly saturated blue.

Blood is also more viscous than water, and so once it's pumped out of a wound, it tends to hover around the source in a sort of cloud formation. Think of the mass of the blood as looking like a puffy cloud in the sky, but with a spout where the liquid is gushing out. The trick is to keep the edges sharper near the wound, then gradually soften the cloud as the blood is dispersed.

Step-by-step: A wounded sea beast

1. Set up your scene on a blue ground, to provide an accurate underwater backdrop. Position the sea monster and its attacker where there's enough room for the blood to seep out without engulfing your hero. Add a dark hole or gash where the hero has wounded the monster.

2. I've chosen a very dark blue-violet for the main mass of the cloud of blood. The temptation is to use a dark red, but even when it's very dark, red hues still look unnatural. Blue-violet, on the other hand, adds just enough warmth without being too far outside the visible spectrum.

3. Finally, add some details. I've gently applied some grey tendrils leading to the weapon; even though grey is neutral on its own, it appears warm against blue. I've also added some dim highlights to the top of the blood mass, and a cast shadow on the sea monster's tentacle.

I've added details that weren't in my reference, but the key elements are here; cool colours contrasting with warm.

Artist's advice
Jonathan says

The simple answer is to make, or find some reference material. Even if you're not necessarily making something realistic and are trying for a more stylised effect, you can always choose to omit information that you get from reference, but generally, it makes your work stronger.

In this case, there's no way for me to get a forest spirit (they're fictional) to stand over some fire on a gloomy day (it's hazardous). So instead I try to approximate the lighting I need for my image. As sci-fi or fantasy artists, it's often hard to find material that looks exactly like what you wish to create, so finding or making similar imagery can be helpful.

I already have a good idea of what the overall lighting scheme will look like. Overcast sunlight is relatively easy to render; it gives you nicely diffused shadows and little deviation in terms of an object's local colour. What I need to find out is how to integrate fire into the scene. With a dressed maquette and an ash bucket containing burning newspaper, I'm able to get some particularly useful information.

Artist's secret

MAKING EDUCATED GUESSES

The foundation I established with the forest spirit and flame carried over into the siege tower and burning arrows. Once you have the big colours and tones knocked in, it becomes progressively easier to judge how other materials would react to your light source.

The best way to…
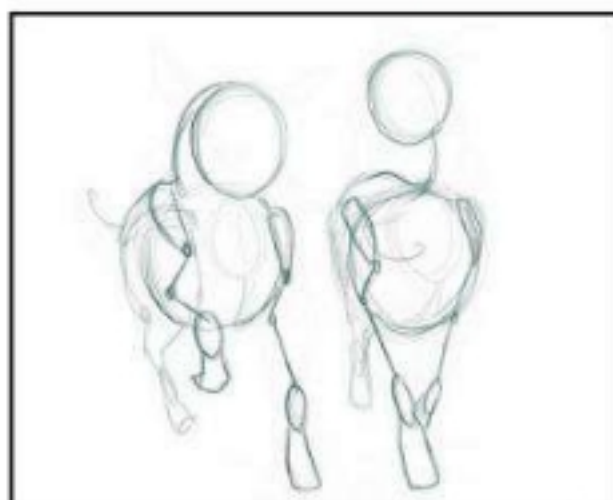## show an animal running head-on

Artist's advice
Brynn says

Starting out with a wire frame or skeleton of your animal will help you to get things in place without worrying about the details. Here, you should simply look to get the proportions and simple shapes of your animal in balance, drawing over the rear of the animal to make the foreshortening aspect easier.

Next, I usually rough in some very basic musculature. It doesn't have to be correct at this point – I just want to get in my large shapes to see where everything should be, including the animal's bulk. Don't go too crazy here, and ensure that you follow the rules as dictated by your chosen skeletal structure.

The last stage is where I hit the anatomy books to check that my anatomy is in line. For fictional creatures, I just want to make sure that it looks convincing and informed. Understanding how real animals are made and move, however, is the best education that you can get for ensuring your imagined creature looks real.

Artist's secret

TAKE A SIDEWAYS LOOK

Sometimes drawing the animal in the same position from a side view can help with visualising it at a frontal aspect.

By using some simple drawing techniques, we can lay the foundations for an animal walking head-on towards the viewer.

How you can…
create dynamic and interesting shadows

What you reveal will determine how the viewer feels when they look at your art.

Artist's advice
Manon says

Part of what makes a shadow dynamic is that it enables you to be selective about what you conceal and what you reveal to the viewer. The imagination will fill in the gaps if some things aren't crystal clear. Even if you're only planning to show parts of your subject in the light, you must paint all of it in the sketch stage. You can still decide at a later date what to keep and what you want to lose – in the shadow.

Think about what you want to show or emphasise and how you want the viewer to feel when they look at your image. Do you want it to be creepy or do you want them to be enchanted? Always try to set up your own photo reference, especially for playing around with shadow. Ask your friends to help you out!

I decide to have my werewolf looming out of the dark. He's very proud of what he's found. He's probably wagging his tail…

Remember where your light source is coming from – you can draw arrows on a different layer to help remind you. This comes in handy if there's more than one light source.

1 First, I imagine the image I want to paint. Once I have a draft of the painting, I determine how much of the creature will be in the light area. I create an imaginary wall of darkness, which works as a barrier between light and shadow. Everything behind that wall won't be particularly visible, so don't worry about it.

2 I imagine a light source for the parts outside the darkness. I want a hard light coming from above, such as moonlight coming from a window in the ceiling, so the brow, nose and fingers are illuminated. Projected shadows should hide the mouth and eyes, at least partially. References can be useful for shadows.

3 Once you have the shadows sorted out, you can start painting. For artwork that features a complex lighting scheme, planning becomes very important. You'll save a lot of time and produce a better piece of art. Don't be afraid to use references: a camera, mirror and desk lamp can be your best friends.

An easy way to…
paint a creature emerging from the dark without it being blurry

Artist's advice
Paco says

To paint a creature coming out from the shadows, the only thing you need – and this may sound contradictory – is a source of light. If there's no light then the creature can't come out of the darkness! You need to illuminate the scene in such a way that you end up having a clearly defined area of light surrounded by shadow. Or you can do the opposite and paint an area of shadow surrounded by light, such as a dark alley that's next to a well-illuminated street.

In either case, the aim is to create a scene where the creature can exit from the shadows. Think of shadows as a wall made of dark water: you have to determine how much of the creature's body is going to be outside of that wall and how much will stay within. The parts within should be black, but the parts outside should be affected by light, just like anything else in the scene. To create a scary atmosphere try painting a hard illumination with projected shadows.

Artist's secret
THE REFLECTED LIGHT

Even a creature of the shadows reflects some light. To achieve a more natural atmosphere don't paint the background next to an illuminated area totally black. Add a light colour to represent the light reflected by the creature (using blurred low Opacity layers in soft light, Overlay and/ or Screen modes).

How you should…
start from a silhouette, as opposed to greyscale/sketches

The initial humanoid silhouette is enhanced by the tentacle details.

Artist's advice
Mark says

In my professional work I use both techniques to develop a successful design. For example, to produce line work sketches it's really useful for industrial design-related tasks, such as vehicles, spaceships, mechs and so on. The two approaches work well for either fine detailing or figuring out the proper anatomy of a final character design for production purposes – for example, when creating a reference for 3D modellers.

I start with silhouettes if I have to create an iconic and recognisable creature or character without having to worry too much about the technical limitations of a production. This usually happens when I'm working on a pitch package.

Silhouette is the most characteristic visual element in every person or animal, because our eyes see that first before moving on to the face, hands and finally to the smaller details. The most successful animation or film characters have iconic silhouettes – that's how we can instantly differentiate them from others, even in a badly lit scene. Think about Mickey Mouse, Batman or even Stewie Griffin.

I start this creature design as a demo for my students, in which we have to develop a fictional pitch package for a horror film. I'm keen to create a scary, unique-looking monster, but I don't want to give it a straightforward humanoid shape. Instead, I imagine a mass of old root-like tentacles that are constantly in motion.

I'm aware that in horror films or games there can be a lot of under-lit environments in which my creature would have to stand out. I want it to be recognisable, even if we see only parts of it in a shot. That's why I start by developing a dynamic silhouette and then build all the details on top. I retain the original silhouette and simply refine it during the detailing process.

I block in the whole silhouette with a simple default Round brush. I try to focus on the dynamism of the creature. I want it to resemble a humanoid shape from afar, but also give the feel of constant movement through its tentacles.

The best way to…
avoid sci-fi clichés when painting alien armour

Artist's advice
Mark says

It's tricky to paint eye-catching, futuristic armour that also looks believable in its own universe. I've found that it helps to think through the story of an armour and add different surface qualities to various parts, rather than use a shiny, just-came-out-from-the-factory chrome material for every surface.

Even really precious objects have some minor scratches, stains or fingerprints on them. We have to handle futuristic things in the same way. Boba Fett's armour from the Star Wars films may be the best example: it looks futuristic, but we can instantly see that it's been through plenty of battles. The best approach is to first focus on the general form and language of the armour, and then add wear and tear to the surfaces.

In this case I had already worked on this universe for quite some time, so I had to follow the established visual aesthetic, but also create something unique and new. That's why I chose to depict armour that was more ceremonial than practical. After all, why would a fleet commander need a huge suit of armour? I imagine that he has to wear this every day, so I add stains, dust and scratches to the edges and other parts to suggest that the suit is made from a hi-tech material and has been in use for years.

I wanted to give the fleet commander of a war-like alien race some military armour, but instead of a bulky protective suit I wanted something more sleek, to show his rank.

Using various materials in your illustration not only helps to give more details to a piece, but could also make it more believable and realistic in its own universe.

Master an easy way to…
paint slimy skin on your creature design

To create the slime I apply some dark colour to the edges, keep the middle transparent (or extend the colour of the reflection) and add a white spot.

Artist's advice
Paco says

Painting shiny and slimy skin for an octopus, or any other kind of slimy creature, isn't a difficult task – if you spend some time gathering references, that is.

A polished and smooth surface causes something called specular reflection. This means that light is reflected and bounces off in the same direction, casting reflections on the surface, just like a mirror.

The skin of a slimy creature isn't exactly like a mirror, but it has a considerable level of specular reflection, so the brightest sources of light, the nearest objects and the surrounding colours should be at least partially reflected. Properly depicting the reflections is the key to success here.

It's not too complex a topic, but if you're not used to it then it can be tricky to pull off with a degree of success. That's why gathering some visual references, such as photos of octopuses, shiny latex and polished statues, can be a great help. Not only to paint a particular image but to increase your painting skills by studying real-life examples.

Other than that, you have to figure out how something is reflected on an irregular shaped surface. Try to imagine the source of light, and place the reflections following some logic. So for example, if the light source is a light bulb on the left of the octopus, don't paint a window-shaped reflection on the right. Paint them to accommodate the curves and shapes of the creature, and paint them with the right amount of luminous intensity.

Painting a slimy, shiny skin is easy if you paint in a clean and organised way, and you gather information and references before you start working.

Artist's secret

DIFFERENT SKINS, DIFFERENT REFLECTIONS

If you're painting a creature with a smooth skin, its reflections should also be smooth. If you want to paint a creature with harsh skin, don't forget to modify the reflections according to the kind of skin that you're painting.

Step-by-step: Paint a shiny, reflecting surface

1 First of all, I paint the slimy creature dry and matte. I simply focus on depicting its shape, colours, texture, illumination and so forth. Then I start to work on the reflections. I imagine an intense light source on the upper left (like the sun coming through a hole in the ceiling), so the reflections should be bright and more intense on the left.

2 Once I have an idea of what I'm looking for, I start to paint the reflections. I paint them in a separate layer, with a Hard and Opaque brush, because the reflections should have clean and sharp edges. I bend them following the curvatures of the head, the tentacles, all the while trying to create fluid and coherent shapes on the canvas.

3 Then I select all those reflections, lower their Opacity, and in further layers add more nuances (all inside the selection, to preserve the hard edges). I try to work using layers in Screen mode, because then I won't hide all the previous work – the skin of the creature – and can correct elements using dark colours, which is easier than applying the Eraser.

How you can…
paint a humorous vampire scene that's not a cartoon

Artist's advice
Nick says

The range of interpretation for vampires and their tales is broader today than ever – from hypnotic Dracula, through ravaging beasts, to tortured souls fighting their own kind. Humour and horror go hand in hand in many modern takes on the tale. There's no need to drift into cartoon representation here. The genre is ripe for humorous twists.

Sense of humour is a personal thing, but if you can find the right combination of situation, character and pose/facial expression to suit your brand of humour, you can usually make an image work for laughs. First decide what elements are essential ingredients to explain what's going on.

Although I sketch the vampires realistically, I exaggerate their postures to better explain what's going on. The classic elements of coffin, crypt and subdued lighting should help set the scene. That provides the springboard for you to concentrate on delivering your message – in this case attempted humour.

The female vampire's pose is key to showing what's going on so I work on that first, plotting out the main folds of material as well. I can have fun dropping the mice in later. I don't think of the mouse on male Vampy's head until much later – yet I think that fits in really well with his Tommy Cooper-like pose.

My spin on the classic vampire monster, plagued by mice and an unhappy wife forced to live in a tatty coffin.
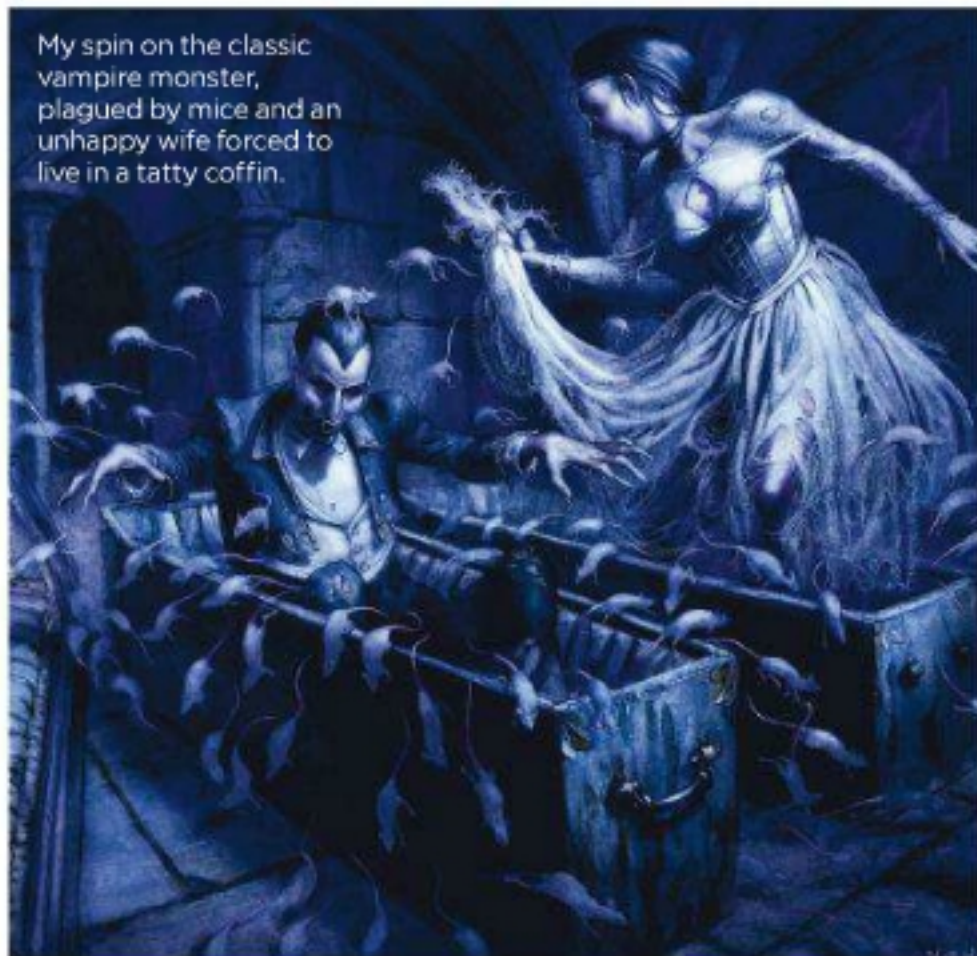
I'm inspired by classic vampire actors like Christopher Lee, but look for the humorous side of being a vamp… these sketches help decide my character.

An easy way to…
paint an object that's bursting with bright light

Once the materials are fully understood, the design of the character, proper perspective drawing, and painting can be applied to combine the elements.

Painting each material as a separate exercise will help the problem solving process, and ultimately result in understanding the whole picture.

Artist's advice
Kinman says

It's important to consider all the different elements that are involved. We'll need a non-light (A) to represent anything that's not coming from the light source itself, or being affected by any surrounding lights. Then there's the light source itself (B). Notice how the brightness affects the textures immediately around it, such as the glass in this case. We'll also require a translucent material (C) to represent a membrane or skin that the source may be shining through. When we place this type of material in front of the source, it'll tend to diffuse and blur any details.

Denser material, such as a bone, may be blocking the light (D). Since it's fairly close to the light source, the bloom from the light may refract through the object, and the denser and/or larger the object is, the less this will happen. In CG terms this is known as 'subsurface scattering'.

Finally, we need to consider any objects that may be in proximity to the light source, but not as close as the other elements (E). I might treat these as I would lighting any simple cylinder, box or sphere.

The best way to…
draw a dragon with scales and feathers, without it looking messy

Artist's advice
Jace says

The fantastic thing about painting a feathered dragon is that feathers are very similar in structure to scales. Feathers and scales are both typically round-diamond shapes that overlap each other in an offset manner. One problem with painting scales is that they can become a bit repetitive and so create a lot of visual noise.

As dragons are traditionally flying reptiles, the first thing I do is find reference pictures of alligators and large birds. Alligators are great as reference subjects because they have many different types of textures that make up their skin. The face of an alligator is generally smooth, while their backs become rougher with larger, spiky scales. This is similar to the feathers of large birds as well: they have small feathers in the face with large crowning feathers on the back of the head.

Now all I have to do is visualise how the feathers and scales will transition. A simple solution is to have the feathers emerge from underneath the scales, starting small and growing in size the denser the feathers become.

The best way to…
create a really interesting and unique depiction of the classic Cthulhu

Artist's advice
Manon says

Cthulhu has a big octopus-like head and tentacles – so where better to start than with lots of tentacles? I want my Cthulhu leering out of the dark, about to bring forth your impending doom!

You could try all kinds of versions of Cthulhu, but it's important that you take advantage of the gross-out factor of tentacles. You'll need to find some inspiration. I do a search online for octopus and squid photographs and collect a few together to refer to when painting. I also find some good bumpy textures I could add to my creature. Take note of how tentacles behave, how light falls on them and then start drawing.

Try some thumbnails first, to see what could work in the space of your canvas – this is always massively helpful. When I start drawing him, Cthulhu looks cute and kind of jolly, but I want him to be frightening so I produce a few more drawings to get the feel I want. Don't be afraid to make mistakes, this is often where the magic happens.

Once my drawing is done I take a nice rough texture and put it over the whole image using a Multiply layer and fade the Opacity so I have a 'dirty' canvas to work on rather than pure white. Start with shadows and highlights and you'll find he comes to life much more quickly because of the mid-tone background.
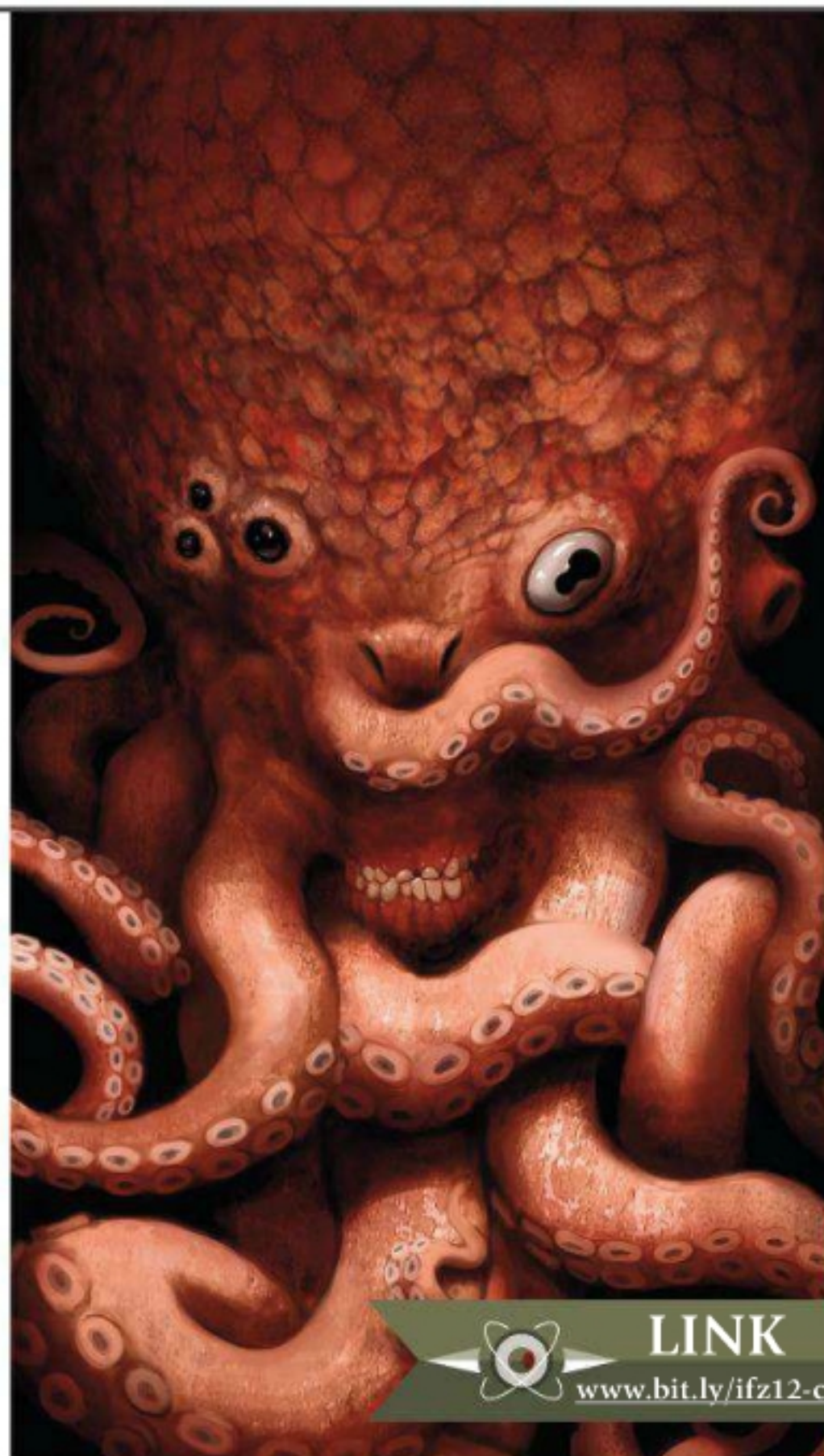
I keep the head receding into shadow and his tentacles are more in the light to give the idea he's appearing out of the dark.

LINK
www.bit.ly/ifz12-cth

Artist's secret
UP THE WEIRDNESS

Use asymmetry to help make something strange. In addition, throwing in a human mouth can work well, contrasted against the big wobbly tentacle head.

Step-by-step: Give a dragon some feathers
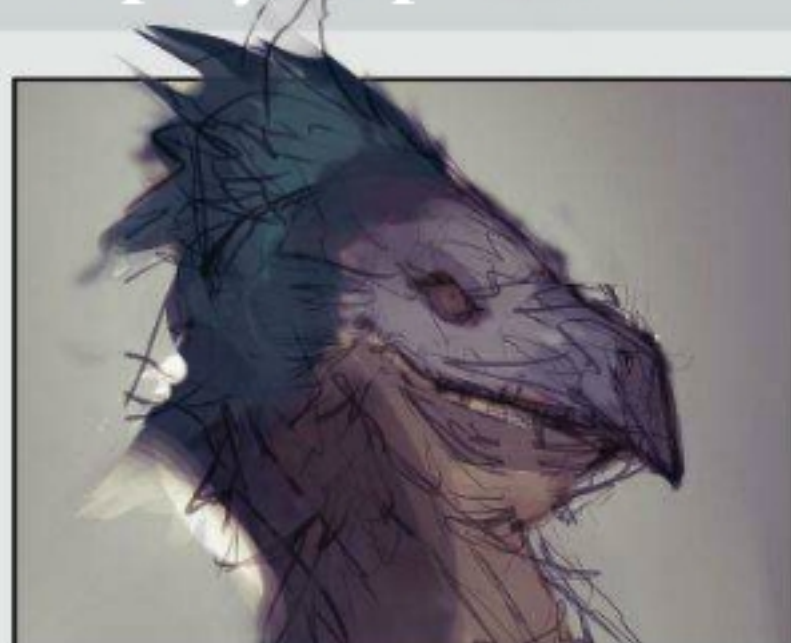
1 The Shoebill is a prehistoric-looking bird so I use it as my start point. I begin with a dynamic silhouette. After sketching that out, I place down basic colours. Following my alligator references, I paint the upper body parts in cool colours and the chest with a warmer, paler colour.
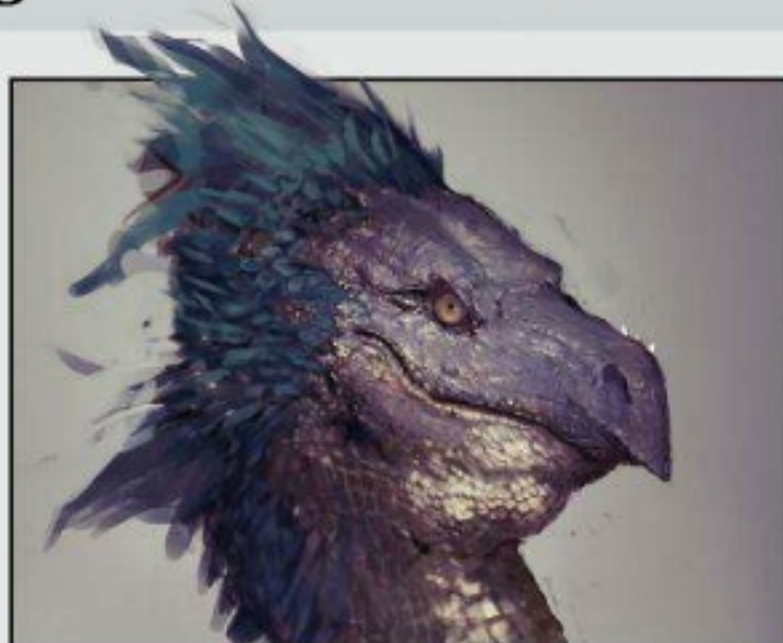
2 I use three different types of scales for the skin texture: the white ones are smaller and the most feather-like. I use these scales to transition into the feathers. In areas where the feathers start emerging, I make the scales more chaotic, as if they're bursting out from under the scales.
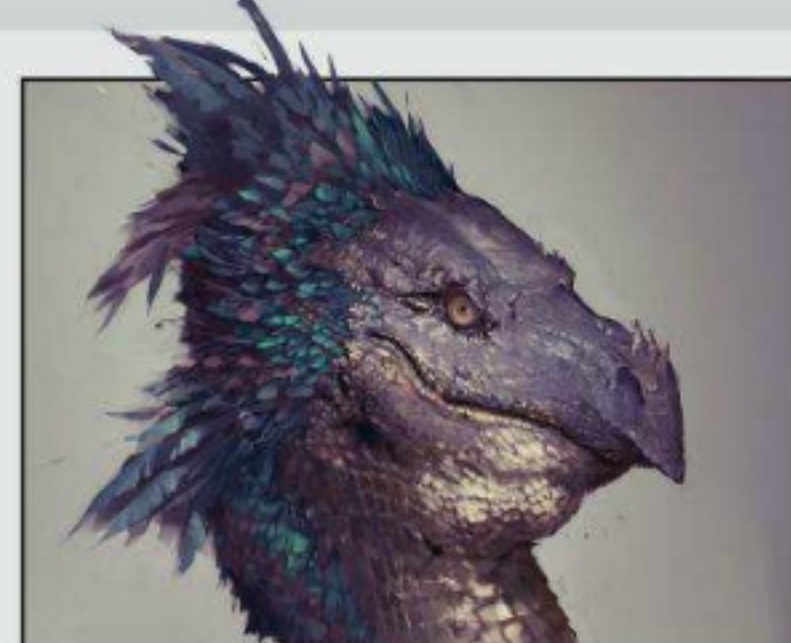
3 The Lasso tool is what I use most when defining feathers. After I have an area Lassoed, I paint the edges with a large Round Soft brush. Once I get down all the highlights, I go back with a darker colour and paint the cast shadows under each feather to gain a sense of the depth.

A good way to…
paint a dragon's curly neck

Artist's advice
Brynn says

A dragon's curly neck can certainly be tricky to get right. It should look flexible, but not to the point of appearing too flimsy. One way to approach this would be to study snakes, because they offer a realistic example of what a long neck might be capable of.

Start by roughing in a quick gesture sketch, where the spine of the dragon would lie in the image: a simple, curled line will do. Imagine the neck as a hose or long cylinder. Laying down your brush strokes in this direction will help and will also introduce volume in the image.

Another thing to consider is overlapping. Putting part of your dragon's neck in front of, or behind, the rest will give the image some depth and aid in making the neck look flexible. Atmospheric perspective helps push back any part of the neck that's behind the rest of the dragon in my image.

Using real-world references to paint fantasy creatures is essential to ensuring your design feels like it's a living, breathing animal. Have fun!

While you're painting your dragon, it helps to sketch out a planar view over your painting. This will remind you that the neck is a cylinder.

How to…
define a monster's powerful muscles
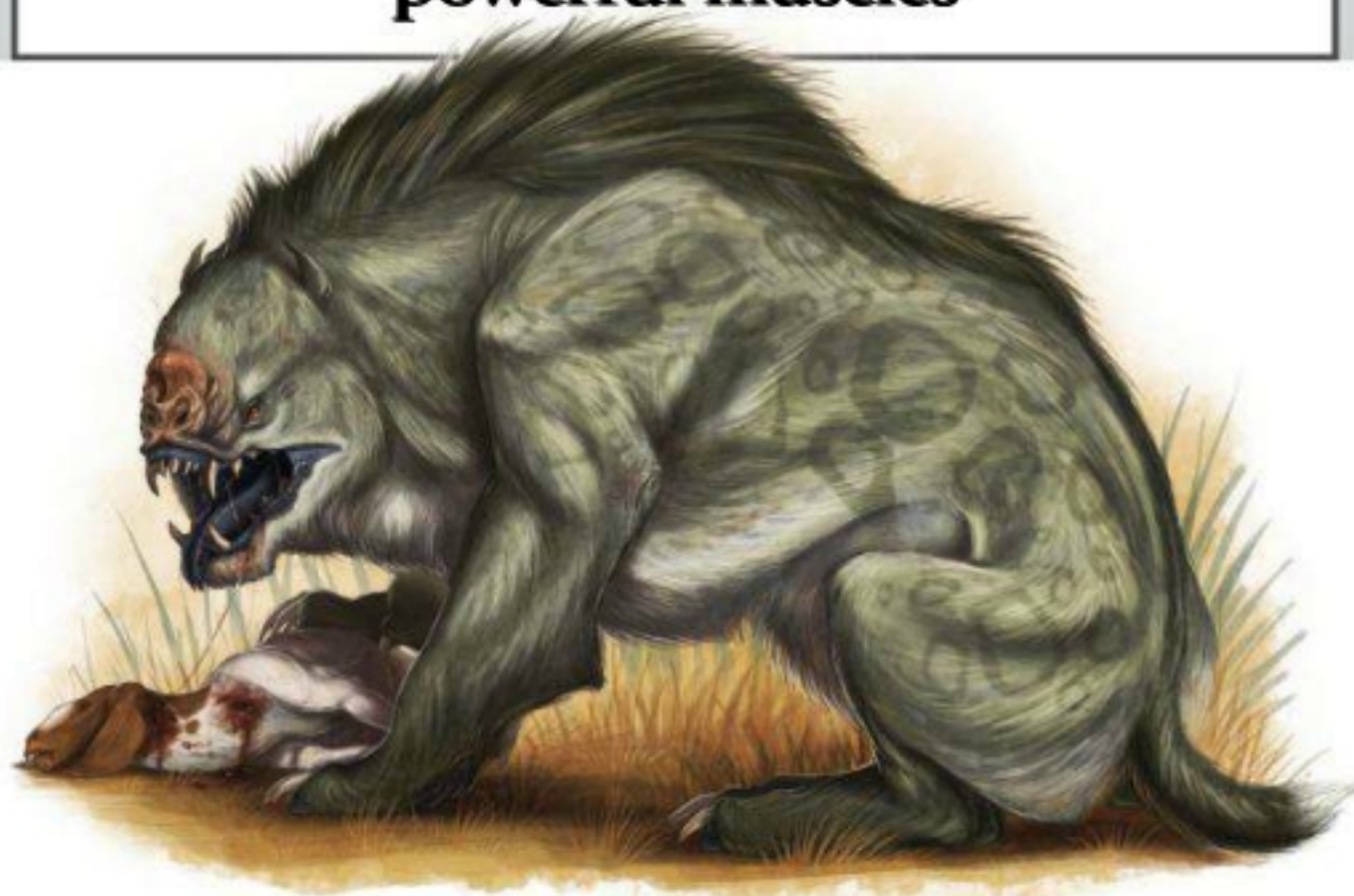
Artist's advice
Brynn says

Defining muscle structure can give your monster a powerful and intimidating look. While you want it to look muscular, never forget that fat, skin and sometimes fur, feathers or scales might lie on top. Studying animal and even human muscle structure and anatomy will help you achieve that 'in-between' look.

Adding a light source will help define muscle shape and volume. Thinking about the muscles as elongated spheres that fold in and out of each other will help in visualising how they might be lit. Using light, shadow and reflective light, you can create a defined look.

Painting the muscles simply can help you visualise them. Always keep the sphere in mind: light, shadow and reflective light.

I sketch out the muscles looking at bears, cats and dogs for reference. While painting my image, I refer back to this study to make sure the anatomy's correct as I move forward. If you want to get a good visual, try sculpting a small model out of clay and lighting it yourself.

The best way to…
give blasts of fiery dragon breath mass and momentum

Artist's advice
Raymond says

My approach to creating convincing and dynamic blasts of dragon fire is to focus on all the elements of the fire that emphasise its intensity. The brightness, heat, directional speed and scale all add up to make a monstrous blast from a classic fantasy monster. The inherent challenge of depicting movement and luminosity in a still image calls for a slight exaggeration in some visual elements, to draw attention to the laws of physics – and sometimes magic, of course – at work.

The power of a painting – and not necessarily one that depicts a fantastical scene – is that it doesn't need to adhere precisely to reality the way a photograph does. In this case, I believe that it's more effective to sculpt the form of the dragon's fiery breath with some stylisation that describes its motion. The visual motifs of my stylisation draw from other natural forces, such as extreme weather or volcanic activity, to add believable and archetypal power to the fire. Finding the balance between realistic rendering and the suggestion of movement is the key.

An easy way to…
separate scanned line art from its background to add colour

Artist's advice
Brynn says

There are a few quick tricks you can employ to prepare your pencil drawing for colour. Here I've scanned in a pencil sketch I'd like to colour; I often desaturate the drawing to get rid of any weird colour reflections from the scanner. I make the pencil drawing its own layer and then add a layer underneath and fill it with white.

Next, I select the area around the sketch. I usually use the Magic Wand tool set to a tolerance of about 35. I clean up the edges using the Lasso tool and make sure my pencil art is selected the way I want it to be.

After I've selected around my pencil drawing I then Refine Edges to obtain a softer look on the edges of my pencil drawing. I now delete the negative space around the drawing to get rid of the paper texture and anything else that the scanner might have picked up. Adjusting the pencil drawing with the Levels channel will also help in cleaning up the pencil lines.

After that you can set your pencil layer to Multiply and apply colour underneath. I also employ the Ghost filter for my pencil work – you can find it by searching online for Flaming Pear Ghost Filter.
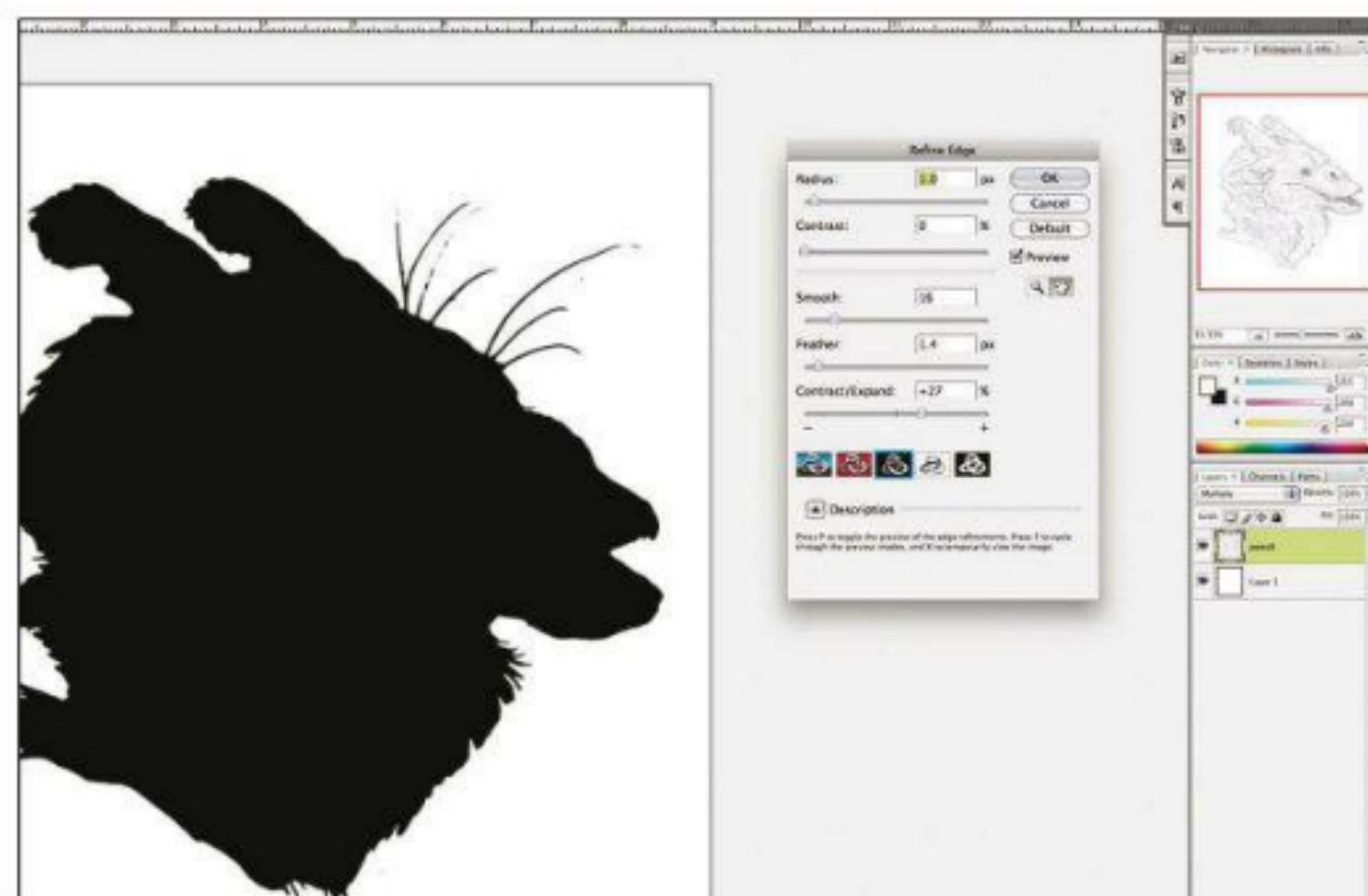
Knowing how to clean up your pencil sketches before colouring is a great skill to have.

Here you can see my layer order, the Refined Edge tool and how I've selected the pencil sketch.

Artist's secret
SAVE SELECTION

It's a good idea to save your selection after you've deleted the negative space around your pencil sketch. Click Select>Inverse, then Save Selection. You can always use it to lay down a quick colour fill under your pencil sketch later.

Step-by-step: Paint fiery dragon's breath

1 I paint the gradient of colour from the hotspot in the throat to the hot reds at the blast's edges. The fire's luminous quality is shown by reflecting the light off the dragon's face and neck. I emphasise the brightness by having the light bleeding through the skin around the mouth.

2 Billowing trails of smoke show the direction and the three-dimensional quality of the blast. The smoke that wraps around the column of fire is reminiscent of a tornado. It's important to remember that the size of the round pillows of smoke gives the fire and the dragon their scale.

3 I add the sparks and embers that are caught up in the turbulent air flowing around the blast. This brings out the depth from the background, all the way to the extreme foreground. Even the occasional scale breaking off can emphasise the raw energy of the dragon's fiery breath.

DIGITAL ARTIST'S
SURVIVAL·GUIDE

Software guide

ARTRAGE

Master using the core functions of this excellent app, including its unique canvases, drawing tools and natural media.

Simon Dominic
Simon is a self-taught freelance illustrator who specialises in fantasy, sci-fi and horror. He works primarily on game art, book covers and magazines.
www.painterly.co.uk

TURN OVER TO DISCOVER ARTRAGE'S TOOLS ➤

PREPARING AN ARTRAGE CANVAS

ArtRage is able to simulate the qualities of a real canvas, enabling you to define dimensions, colours and textures. If you intend to print your image then it's essential to understand PPI (sometimes called DPI). PPI stands for pixels per inch, and is the number of pixels that span a printed inch of image. Printed dimensions (inches) equal image dimensions (pixels) divided by PPI. So an image of 900x600 pixels at 300PPI will print at 3x2 inches. ArtRage helps you out here, as we'll see.

"ArtRage is able to simulate the qualities of a real canvas, enabling you to define dimensions, colours and textures"

CUSTOMISE THE CANVAS
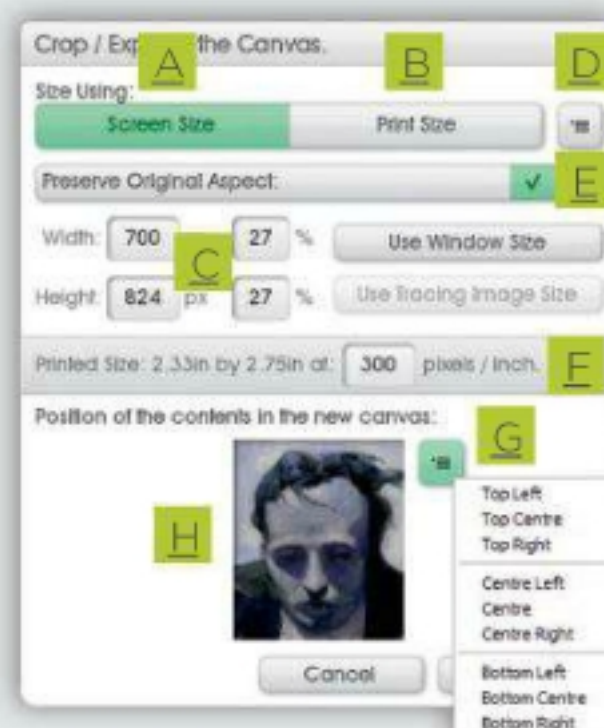
A. SCREEN SIZE
Press this to switch to pixel dimensions entry. Choose Screen Size if you are not intending to print.

B. PRINT SIZE
Choose to enter your physical print sizes here.

C. CANVAS DIMENSIONS
This displays dimensions either in pixels or physical units, depending on whether the Screen Size or the Print Size is chosen.

D. CANVAS PRESETS MENU
You can either select or create new size presets here.

E. CANVAS PROPORTIONS
Select Tick to maintain width-to-height ratio, or Cross to enter them individually.

F. CHOOSE PPI VALUE
Enter your PPI here.

APPLY NATURAL MEDIA TO YOUR ART

ArtRage's main strength lies in its easy-to-use natural media simulation. To get the most out of its painting and manipulation tools, ArtRage uses its own special .PTG file format, which can store extra information about your painting. For example, it holds paint thickness data for every point on your canvas, which makes for convincing blending and mixing effects. ArtRage also keeps the canvas separate to the paint, meaning that it acts like a real, textured canvas and not just another colour.

EDIT OILS AND WATERCOLOURS

A. PRESSURE
Pressure simulates pressing the brush harder against the canvas.

B. THINNERS
This simulates the addition of turps or linseed oil, which dilutes the paint.

C. LOADING
This is the amount of paint on your brush at the start of a stroke.

D. INSTA-DRY
With Insta-Dry on, the paint dries immediately.

E. AUTO CLEAN
With this off, your brush picks up paint from the canvas. It can be washed in the virtual glass that appears.

F. SQUARE HEAD
With this off, your brush tapers to a point as you reduce pressure.

WATERCOLOURS
The settings are the same as for Oils with the exception of the following:

G. THINNERS
Simulates the addition of water, which dilutes the paint.

H. COLOR BLEED
How much one colour will mix with another.

I. PAPER WET
With this off, paint soaks into the canvas to produce a darker edge.

Step-by-step: *How to prepare your canvas*

This box shifts position when option B (Print Size) is chosen.

G.
POSITIONING PRESETS
This enables rapid placement of your image onto the new canvas.

H.
POSITIONING WINDOW
Using this, you can drag your image within the window to put it roughly in its new frame.

1 Setting dimensions
It's important to specify your dimensions, and you have two methods for selecting canvas size. With Screen Size selected, enter the pixel dimensions and PPI, and the printed size will pop up below. Alternatively, select Print Size and enter the physical print size and PPI; pixel dimensions are then displayed. The menu on the top right enables you to select and save your presets.

2 Choosing your canvas
Click the Canvas Preview window to reveal the canvas options. Now set Opacity, Metallic Effect, Roughness and Grain Size (1). Click the Colour swatch (2) to choose a hue and the Grain swatch (3) to select a texture. You can view the presets in the panel to the right (4). They are bundled according to the groups in the centre. Add Group (5) creates a new group. Select OK to apply.

3 Resizing your canvas
You may want to alter your canvas attributes after starting work. Choose Edit>Resize the Painting to resample the entire image. Use the Screen and Print options as in Step 1. If you want to reduce or extend the canvas without resizing the image, use Edit>Crop> Expand the Canvas. Enter the new size and either drag your image to the desired place or use the positioning presets.

Step-by-step: *Explore the Oil and Watercolor tools*
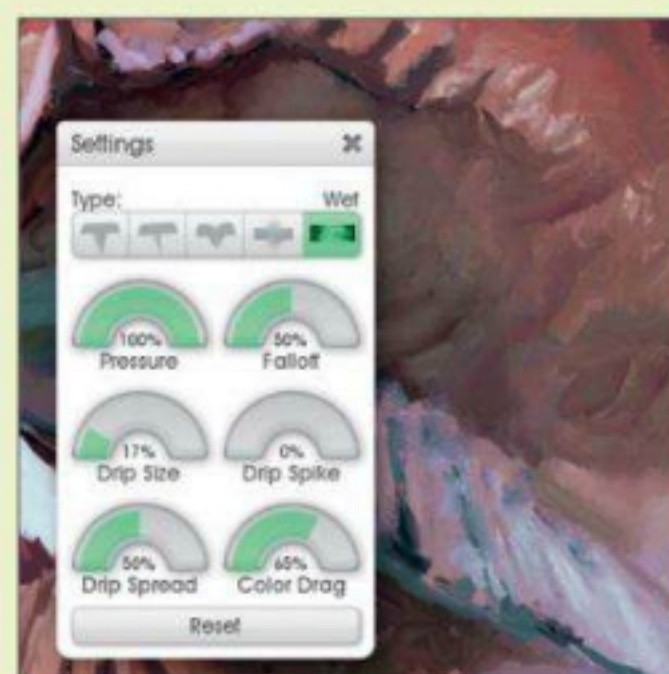
1 Set your oil paints
Make sure Tools>Color Options> Real Color Blending is ticked. Select the Oil Brush tool from the Tool Picker menu, bottom left. In the Tool Settings panel, reduce Loading to produce short, dry dabs. Set the Loading to 100 per cent and Thinners to 0 per cent for thick, textured paint. Ticking Insta-Dry stops paint mixing, giving a pop art effect. Increase Thinners for a light wash.

2 Edit the Palette Knife
Manipulate paint already on the canvas by selecting the Palette Knife tool from the Tool Picker. The thicker the paint on the canvas, the further it'll spread. Select a Type from the five options in Tool Settings: Flat, Edge, Soft, Blur or Wet. Flat produces a convincing palette knife effect while Wet mixes thinners with the paint for some great textured blends.

3 Tweak watercolours
Select the Watercolor Brush from the Tool Picker. Set the Config dials in Tool Settings to 50 per cent for strong colours with moderate bleed. Reduce Thinners and Color Bleed for more compartmentalised colours. With Insta-Dry on experiment with a Photoshop-like wash. Setting Thinners to 100 per cent and Bleed to 0 per cent simulates brushing water onto the canvas.

SKETCHING AND DRAWING TOOLS

To get started with ArtRage's hard media it's a case of simply selecting the Pencil tool and then away you go! Straight from the get-go you'll find you're able to produce a convincing graphite simulation that's straightforward to use.

Yet as is often the case, ArtRage provides some powerful extras that encourage you to get the best from the basic functions. Two such extras are Stencils and Rulers, which allow for anything from precision work, to textures and enhanced line smoothness.

You can adjust the Pencil tool's pressure and softness depending on whether you want subtle shading or bolder lines

GRASP ARTRAGE'S STENCIL SYSTEM

A. SHOW STENCILS
Use this to display a list of Stencil Groups.

B. ADD STENCILS
Bring in your own Group.

C. IMPORT A STENCIL
Import a Stencil from a greyscale image on disk.

D. QUICK VIEW OF STENCILS
Shows thumbnails of Stencils in a Group.

E. MANAGE STENCILS
The stencil loading and organisation menu.

F. CONFIGURE STENCILS
Right-click a Ruler or Stencil to get the options menu.

G. STENCIL, RULER OR GUIDE?
Choose these here.

H. MOVE STENCIL
Move Stencil on the Canvas.

I. INVERT THE STENCIL
Opaque becomes transparent and vice-versa.

J. RESET ORIENTATION
The Stencil rotates around the Pin Position.

K. HIDE/REMOVE STENCIL
Hide the Stencil or remove it completely from the canvas.

L. SAVE STENCIL
Save into a folder as an image.

GET MORE FROM ARTRAGE'S LAYERS

Layers are transparent canvases that can be worked on without affecting the rest of your image. Layers can be merged together, or with the canvas, at any time. If you're not happy with a layer delete it. This enables you to try out effects and compositions before committing yourself. Using Blend modes combined with Opacity settings,

"I find layers useful in composition. I sketch each character on a separate layer, then move them around and resize them until I'm happy"

you can alter the colour and appearance of an existing image, or add subtle textures.
I find layers useful in planning composition. I sketch each character on a separate layer, then move them around and resize them until I'm happy. Like most ArtRage features, layers are easy to get the hang of and the more you explore them the more cool features you'll find.

LAYERS PANEL

A. CREATE LAYER
Make a new layer.

B. THE CANVAS
The canvas can't be deleted, but it can be cleared or duplicated to a new layer.

C. GROUPED LAYERS
A collapsible grouping option for organising your layers.

D. GROUP MENU
Grouped layers options include Alter Blend Mode and Opacity.

E. LAYER NAME
You can name your layers if you wish.

F. LAYER MENU
Options in the Layers Menu include Transform, Duplicate, Clear Contents and Set Blend Modes.

G. NORMAL LAYER
A non-grouped layer, the default option.

H. LOCK TRANSPARENCY
This prevents you from painting onto the layer's blank areas.

Step-by-step: Using the Pencil tool and Stencils
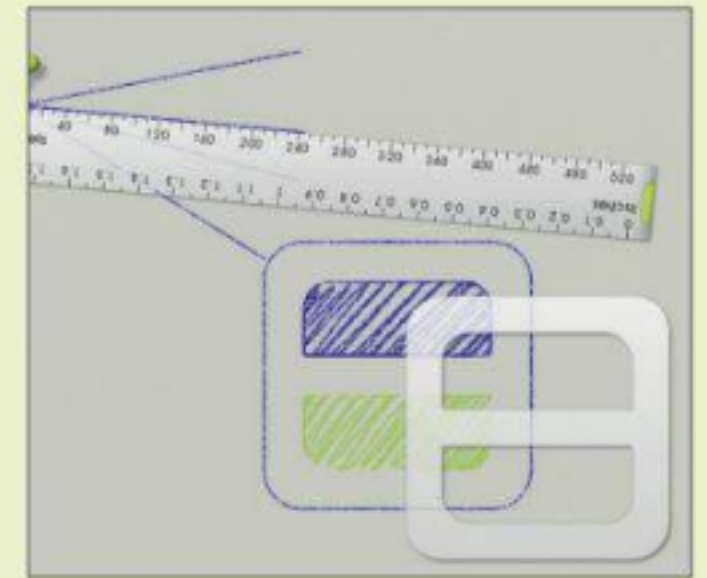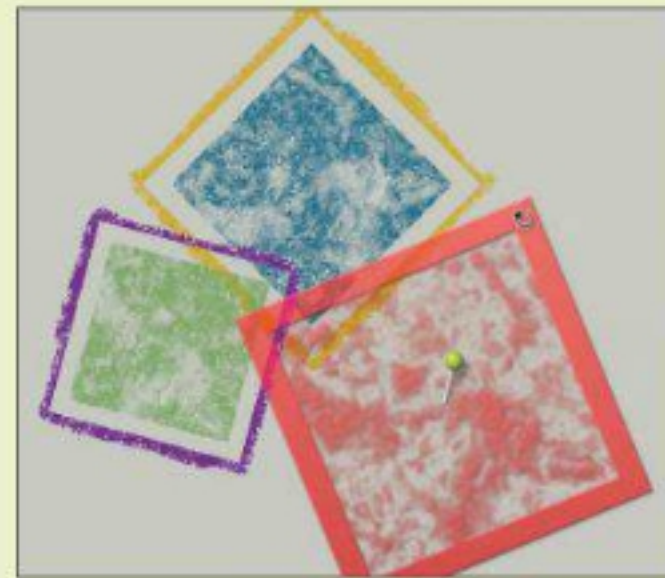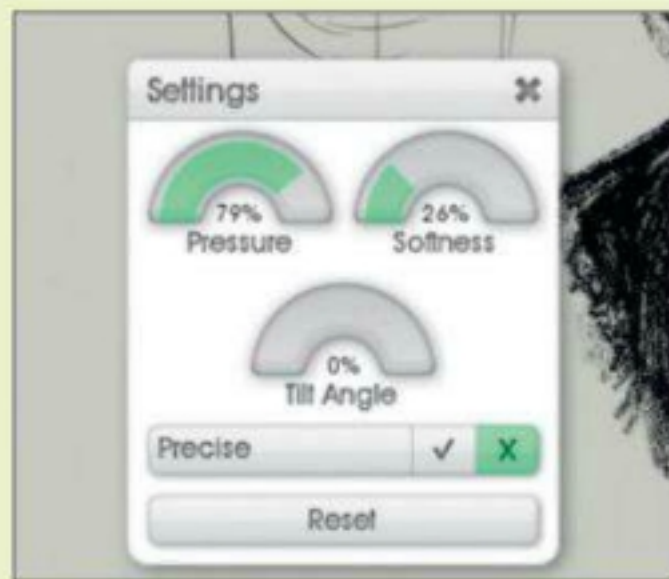
1 The Pencil tool

Select Pencil from the Tool Picker. In the Settings panel, configure Pressure, Graphite Softness and Angular Tilt, which simulates drawing with the edge of the pencil (0 per cent equals point, 100 per cent equals full-on edge). Tick Precise and you'll see Tilt is replaced by Smoothing. Try setting Smoothing to 100 per cent – ideal for character construction lines. Try out the Crayon and Chalk tools, too.

2 Using Stencils

First, choose View>Stencil Collection. Now click the Textures group and select Turbulent. With the Chalk tool, draw over this Stencil. Notice how the Stencil's varying opacities generate texture. Hold Space and drag (or Right-Click+drag) if you want to move the Stencil, use Option/Alt+drag to zoom, and use Cmd/Ctrl+drag to rotate. Try holding Shift when rotating and zooming.

3 Using Rulers

Rulers are a type of Stencil and, like their real-world counterparts, enable you to trace round their edges. In Stencils, choose the Ruler from the Rulers group. Place the cursor slightly over the Ruler and draw. Your line will appear along the nearest edge. Rotate and elongate the Ruler using the end grips. Right-click the Ruler for more options. Any Stencil can be used as a Ruler and vice-versa.

Step-by-step: Getting started with layers

⌊ LAYER MENU
The same as B, except you don't need to select the layer first.

⌊ BLEND MODE
Use to change a Blend Mode.

⌊ OPACITY
Enter value or click, hold and drag.

⌊ VISIBILITY
Toggles your layer visible or invisible.
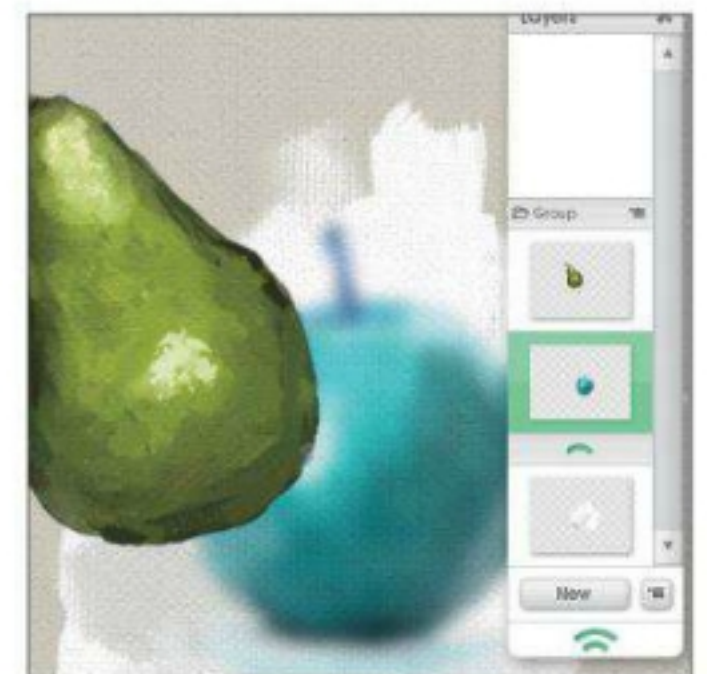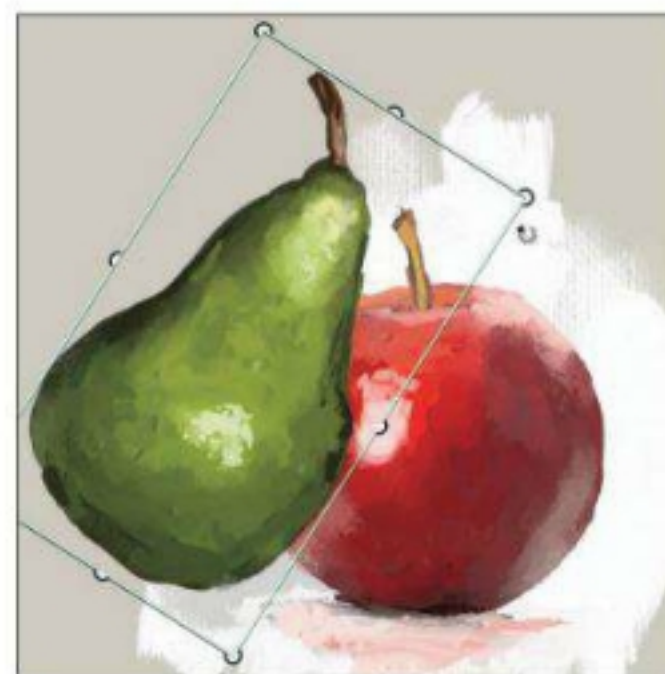
1 Get started

Choose View>Layer Panel. Select New to create a layer, and paint something. Move the cursor over the Layer icon, click Opacity and enter a value for transparency. Click Lock Transparency to allow painting only in areas you've already painted. Click the Visibility eye to make your Layer disappear and reappear. If you have multiple Layers, you can drag them up or down.

2 Move and transform layers

From the layer's Panel menu, choose Transform Layer Contents. Drag within the layer boundary to move the layer or drag the round tabs to resize. To rotate the layer, place your cursor on the boundary and, when it changes to a curved arrow, drag it. Try right-clicking within the boundary and Flip Horizontal or Flip Vertical. Transform all layers at once using Edit>Transform All Layers.

3 Group and duplicate layers

To merge a layer with the one below, use Merge Layer Down, and to create a copy, choose Duplicate Layer. You can group layers together by selecting Create Layer Group and dragging layers into that group, and transform all layers in a group with Transform Group Contents in the Group menu. Finally, try some special effects with Edit>Blur Layer and Edit>Adjust Layer Colors.

SELECTIONS AND TRANSFORMATIONS

At first glance, ArtRage's image manipulation offerings appear to be rather basic, comprising little more than a Selection tool and a Transform tool. However, behind those icons lurk some impressive features: Varied Selection Modes enable complex shape definition, while

"Behind the Selection tool and Transform tool icons lurk some impressive features"

Type-specific settings, such as Feather, enable subtle bleeds and special effects.

Most tools have their own specific settings and mixing and matching Types with Modes makes for a wide range of results. Best of all, the selection and transformation processes are very intuitive. Not only do you always knows what's going on, you'll also be tempted to explore by experimentation rather than retreating to the ArtRage manual in frustration.

THE SELECTION SETTINGS PANEL

A. RECTANGLE
Basic rectangle or a square with Shift.

B. ELLIPSE
Elliptical, or circular if used with Shift.

C. POLYGON
Click to join the dots, then double-click to close shape.

D. FREEHAND
Freehand shape that closes when you lift your pen.

E. MAGIC WAND
Selects nearby

areas based on the colour.

F. PAINT AREA
Paint area excluded from your selection. To include only the mask, use Edit> Invert Selection.

G. CONTROLS
Type-dependant controls, such as Opacity for Paint Area and Spread for Magic Wand.

H. REPLACE
When you draw a selection all other selections vanish.

ORGANISE AND MANAGE COLOURS

When using ArtRage's colour tools we often come across the letters H, S and L. So what do these actually mean? Well, 'H' stands for hue and represents a pure colour from the colour spectrum. 'S' stands for saturation and defines the colour's intensity. Finally, 'L' is for luminance and this is a measure of how light or dark your colour is.

Luminance is sometimes referred to as value, and therefore a value study is a greyscale image that concentrates on lights and darks. As we'll see below, ArtRage makes it relatively straightforward to combine the three attributes hue, saturation and luminance, producing any colour that we require for our digital canvas.

THE COLOR SAMPLES PANEL

A. COLOR SAMPLES
Colour Samples panel menu.

B. ADD GLOBAL COLOR
Add your current colour to the Global Samples. Global Samples are available for any image.

C. ADD LOCAL COLOR
Add your current colour to the Local Samples. Local Samples are stored with the current image only.

D. GLOBAL COLOR SAMPLES
Load, Save and Append Global Samples.

E. LOCAL COLOR SAMPLES
Load, Save and Append Local Samples.

F. CLEAR SAMPLES
Clear all samples from Global or Local areas.

G. NAMES
You can choose to give each Sample a name and display them in a list, or omit the names

and display them as a grid. To assign a name right-click and select Set Sample Name.

H. SORT SAMPLES
You can sort your Samples by H, S, L and R, G, B or Name.

I. ADD
The '+' icon adds a new Sample.

J. SWATCHES
The main Samples display shows swatches for all your available colours.

Step-by-step: *Discover ways of defining and manipulating selections*

I. ADD
You can draw multiple selections.

J. SUBTRACT
Subsequent selections will remove areas from your first selection when overlapped.

K. DIFFERENCE
Only the selection areas that don't overlap preserved.

L. INTERSECTION
Only the selection areas that overlap are preserved.

M. TOGGLES
Find type-specific toggles here.
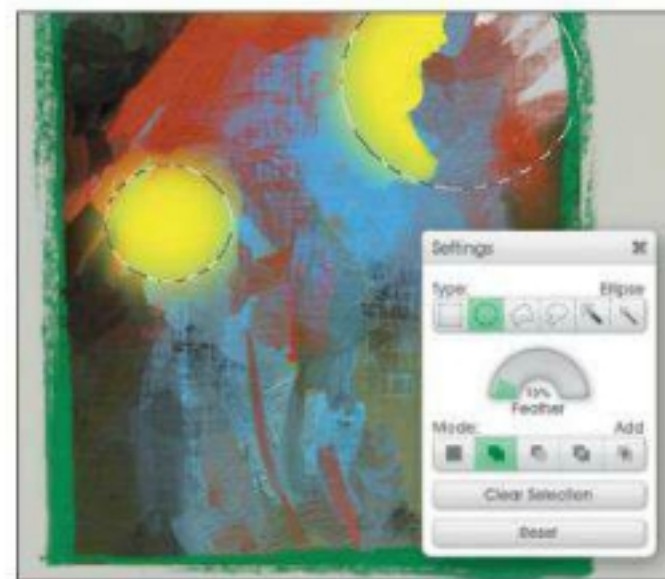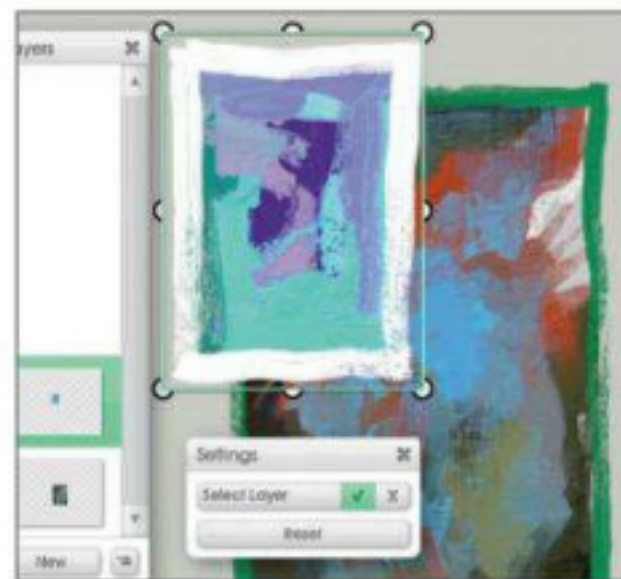
1 Basic transformation
You can select the entire contents of a layer directly. On a multi-layer image choose the Transform tool. In the Settings panel, tick Select Layer. Now when you click your cursor over painted areas of your image it will select the correct layer and enable you to move or transform its contents. If you untick Select Layer then only the content of the current layer will be transformed.

2 Advanced selection
Choose the Selection tool. From Settings, click Type: Ellipse, Mode: Add. Set Feather: 15 per cent. Create several selections and then choose Oil Brush. Paint over your selections and see how the feathering enables the paint to bleed into the rest of your image. Press Ctrl/Cmd+D to clear the selections. Note: after creating any selection you can choose Mode: Replace and drag the selection to reposition it.

3 Magic Wand
You can select areas based on colour. Go to Settings and choose Type: Magic Wand and Mode: Add. Set Feather to 10 per cent and Spread to 25 per cent. Click a couple of different colours. Notice how only similar colours are selected. Now copy and paste your selection. You can use the Edit>Invert Selection command to lasso everything but your selection at any time.

Step-by-step: *Choose colours and customise your palette*
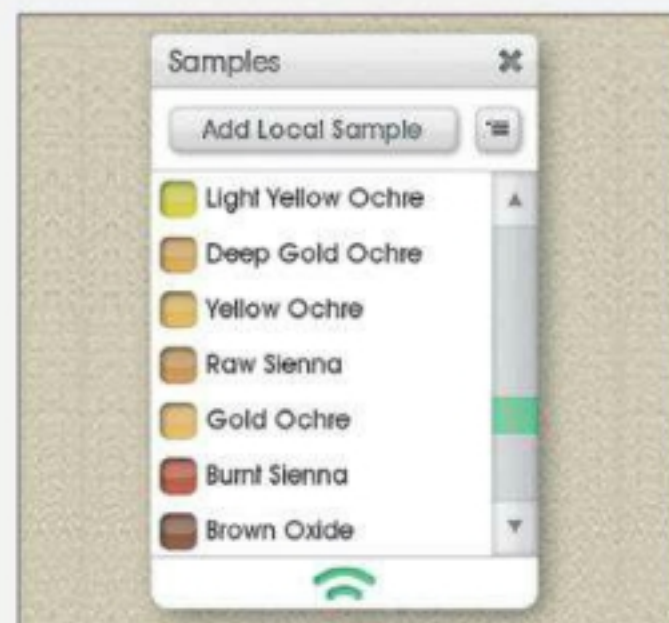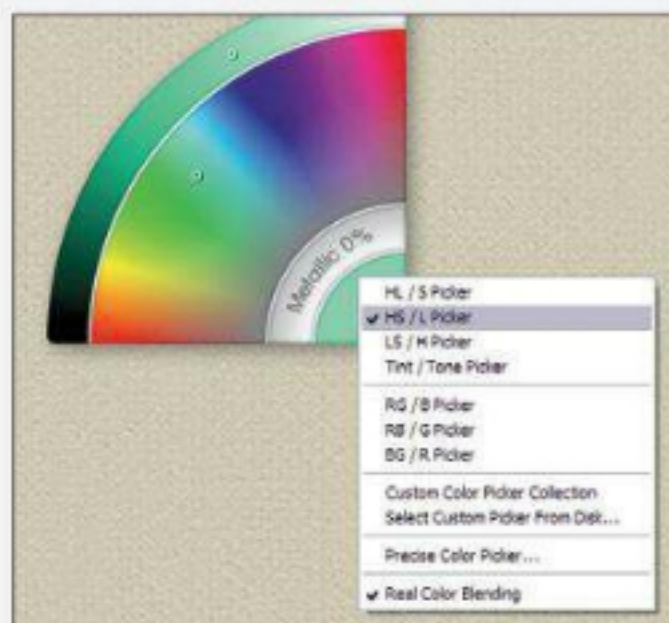
1 The Color Picker
ArtRages's main colour choice tool is the Color Picker. Choose Tools>Color Options or you can click the inner band of colour in the Picker. A menu of modes is then displayed. Choose HS/L. The inner quadrant now holds 'H'ue and 'S'aturation information, while the outer band displays 'L'uminance. All HSL and RGB (Red, Green, Blue) options follow the format of 'two inner/one outer'. Tint/Tone is a variation on LS/H.

2 The Color Samples panel
Choose View>Color Samples and select Import New Local Color Sample Set. Go to the Colors folder under Resources in the ArtRage installation folder structure and select the file Oil Spectrum.COL. Remove any colours you don't need by right-clicking them. You can add new ones using Add Local Sample. Working with limited colour palettes helps you to maintain colour consistency throughout your image.

3 The pop-up Color Picker
Press Ctrl/Cmd+Alt and hold your pen against your tablet. This brings up the Popup Color Picker, which is in LS/H format (so the inner circle is L and S and the outer band is H). Drag the cursor over the Popup to select your colour and release pressure to choose. Another handy feature is Tools>Color Options>Real Color Blending, which causes the colours to mix like real paint pigment.

Core skills

QUICK WAYS TO DESIGN VEHICLES

Using simple, easy-to-follow tips and techniques our artists show you how to create unique and authentic spaceships, tanks and mechs.

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> We see robots as machines – but giving them a human shape is the key to making them attractive
> MÉLANIE DELON

TURN OVER TO START DESIGNING VEHICLES ➤

Discover a good way to…
add personality to vehicle designs

Artist's advice
Charles says

An easy way to add personality to any object is to paint unique details that tell stories, such as decals on a military vehicle. However, it's important that such details are in keeping with the vehicle's purpose.

I start with thumbnail sketches to generate ideas, before taking my favourite thumbnail into Photoshop to flesh out ideas, forms and the mechanics of the mech, all the while keeping the art relatively loose yet structurally sound. Using the rough mech concept sketch with no decals, I make a sheet with some duplicate layers of the sketch to try out different decal ideas. Coming up with scenarios and a narrative for the mech drives the decal design process; I consider military, futuristic and sporting situations.

I then apply the decals with broad brushstrokes to test possible concepts. The broad stroke decals are mainly shapes to either completely cover up or break up the shapes on the outer panel surfaces. Shape design is the focus, complementing the decal shapes and their arrangements with the shapes that are already established in the mech concept sketch.

When I'm happy with the shapes and arrangements of the decals, I add smaller decals for accents, scale, functionality and believability. When a design is ready to take to a final presentation, I revert back to my previous sketch to finalise and focus on fleshing out the mech design fully, before adding in the final decals at the very end.

For the final mech design, I simplified the forms, refined the mechanics, and went with a futuristic police theme for the decals.

Decals can help to describe a narrative for a design. It's always fun to play with different themes by using shapes, colours and patterns.

Artist's secret

PLAY AROUND WITH THE BASE COLOUR OPTIONS

A good way to start exploring a variety of decals is by changing the base colour of the mech. This inspires me to explore different colour schemes more often then not, and at times it can also trigger ideas for themes.

Step-by-step: Design a mech with details and decals in mind

1 First, I sketch a final mech design. I'm only focusing on the forms and mechanics at this stage, prior to any decal applications. It's much easier to handle the industrial design of the mech without having to paint and repaint decals. From trying out some decal ideas in the roughs, I already know the theme and colour scheme I'm going for.

2 I create a layer mask for separating the mech from the background, to help retain my edges. The layer blend mode I'm using is Overlay, although Softlight, Color and Color Dodge can get some cool results. I play with broad decal placements and shapes on the panel surfaces, following the contours to help the forms read and pop.

3 Finally, I apply smaller decals and accents. I try to balance their location and scale so they work as a whole, especially when using accent colours. I like researching, creating and using small informational decals to scatter around appropriate areas of the mech for functionality, believability and strengthening the narrative.

How to…
speed paint a crashing spaceship
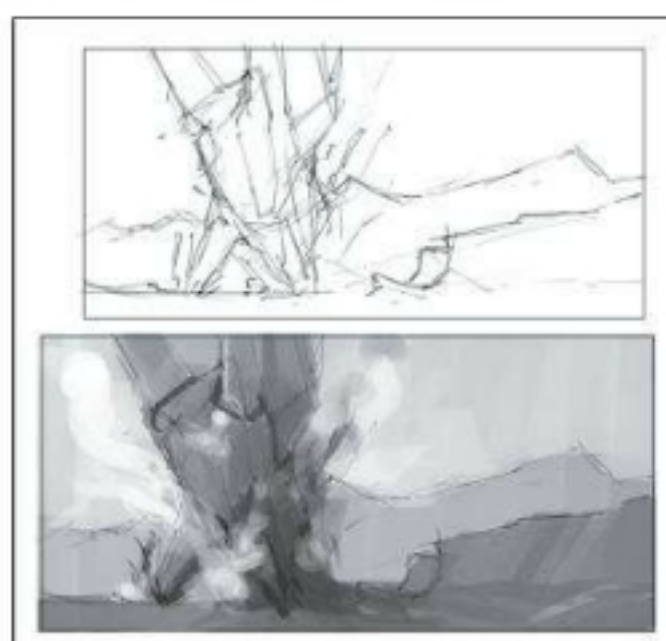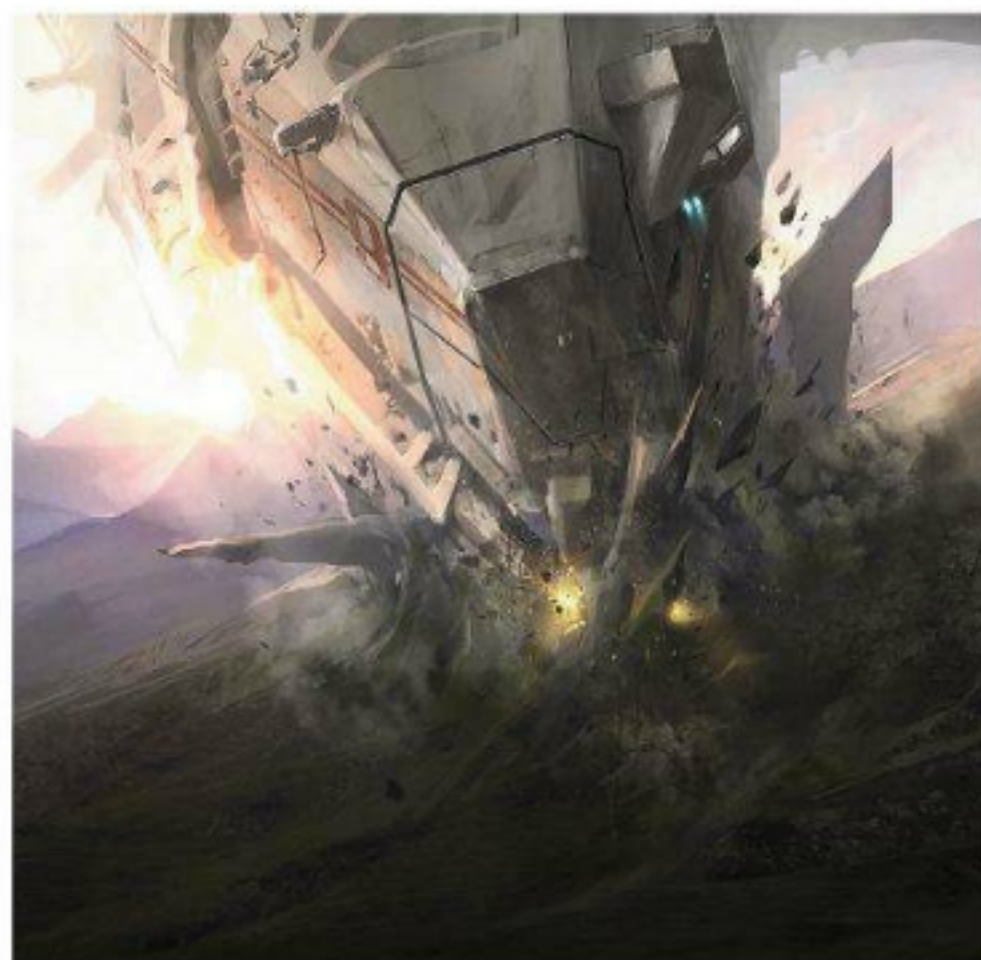
I draw a fast line sketch directly in Photoshop. I use quick movements with my pencil and try to stay away from any detail at this stage.

After the line sketch I paint basic black and white values to help finalise the composition and make the light source more readable.

Artist's advice
Francesco says

Before painting the doomed ship, I must consider the manner in which the craft is going to crash. For example, it could be slap-bang into the ground, it could scrape the side of a building or perhaps it could be a collision with another ship. Once I've made a decision about what is going to happen, I start to gather references, which includes the materials that will be seen in the image, such as shattered rocks or burning trees, as well as elements stemming from the ship itself. These will include crumpled metal, explosions and plumes of smoke.

Once I have all the reference images, I begin to sketch some quick ideas, playing with the composition and grey values so that I can understand the size of the ship in relation to the ground, and the depth and light.

In this speed painting I want to capture the very first moment of impact of a huge cargo ship crashing in a mountain environment. When I create an image like this I try to visualise the painting as though it's a still frame from an action-packed sci-fi movie. You can see how I directly use reference images as a photo collage to help streamline up the painting process.

Notice that I've included pieces of rock flying away from the impact area. I create them using the Lasso tool, before adding the smoke and sparks, indicating that the metal ship is scraping along the rocky surface.

The best way to…
use reference to design functional-looking mechs

Artist's advice
Jonathan says

I love designing mechs. It's not a subject that I've done much of professionally, but there's something about it that brings out the kid in any designer.

Before even thinking about funtionality or joints, I begin designing using shapes. The thumbnails pictured below are made in Alchemy, which is a wonderful free program. You can download it from www.al.chemy.org. Its toolset is very fast and simple, and stops you from noodling too many details too soon. By keeping the designs simple, I deal with big shapes and the overall design of what the mech will be. As simple as these drawings are, I'm implying what kind of joints I'll be using later on. Whether your design is based on something mechanical or organic, your shape will dictate how it needs to be articulated.

I studied fine art at university and so have no engineering or industrial design education. Like most people, I have to crib ideas about how things work or move from the real world. What's really interesting is the variety of places you can get ideas for mechanical movement, whether you look for things on the internet or simply look at what's in your environment around you.
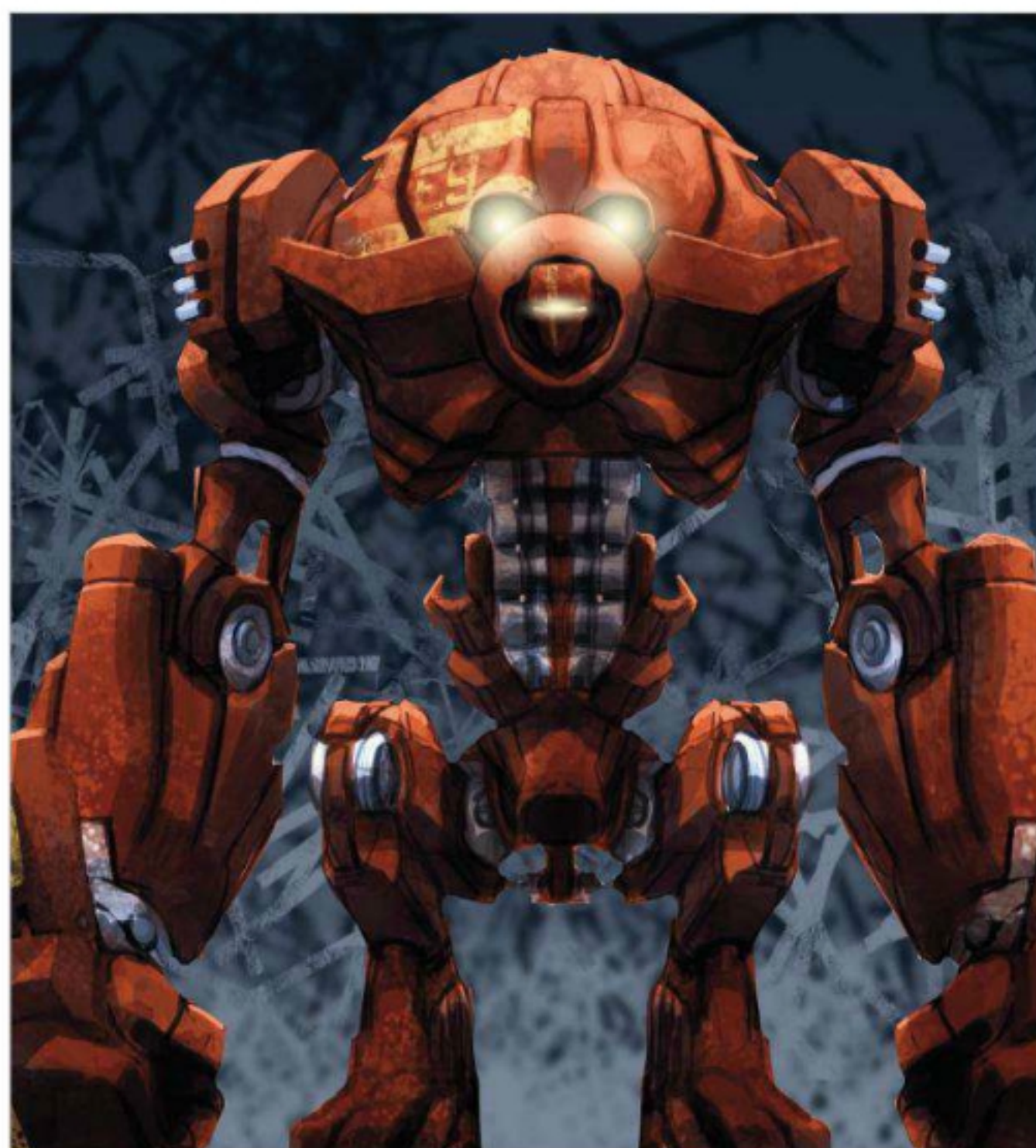
I generated these thumbnails in Alchemy. At this stage the aim is to come up with a variety of loose designs, rather than produce a few detailed mechs.

Artist's secret

USING NEGATIVE SPACE

Good mech designs feature negative space, especially close to and in joints. If your design is humanoid, punch some holes through the shape so it will look less like a person in a suit and more like a mech.

How to…
give a steampunk walker a high fantasy look

If you balance the original base with exaggerated flourishes and decorative touches, you should be able to straddle the two worlds of steampunk and high fantasy.

Basing the passenger housing on an old hansom cab or some other period vehicle immediately strikes a note about the world's technology.
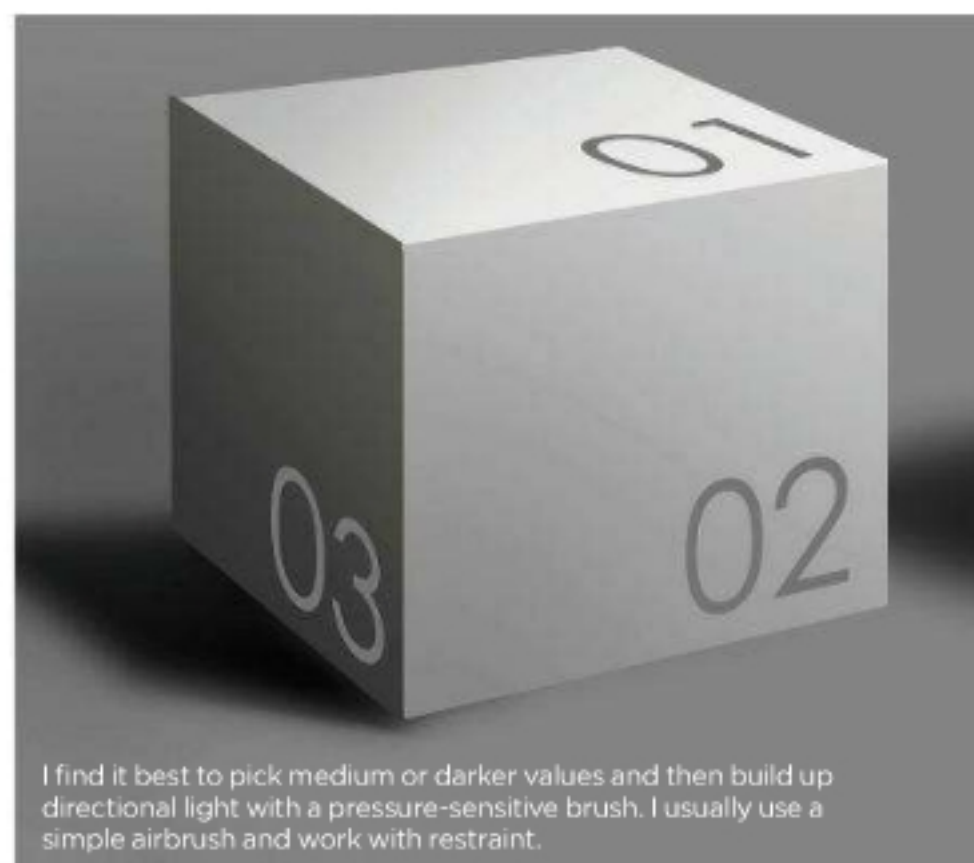
Artist's advice
Nick says

Can you bring steampunk and high fantasy design together? Why not? The rules controlling each fantasy universe can be quite rigid, but that doesn't preclude occasional pilfering from other genres. The Victorian era that colours the steampunk universe was itself subject to a neogothic revival in its architecture. You could argue that a medieval influence like that is already in tune with high fantasy and go with that. However that is more often represented by flamboyant flourishes and exaggerated decoration borrowed from many sources.

There is something inherently pleasing about the idea of a mechanical walker.

My preferences lean towards two-legged efforts reminiscent of a T-Rex. For my design's Victorian basis I looked at hansom cabs. They were the period equivalent of London's iconic black cabs (or New York's yellow ones), with a distinctive look.

I stick a pair of sturdy iron/brass legs beneath, with hints of a suitable power unit, including a chimney behind. Once I have my basic unit I can think about adding design and decorative features drawn from more medieval sources. By keeping to the traditional steampunk materials for construction, successful genre blending should be eminently possible.

How you can…
make vehicles look solid

I find it best to pick medium or darker values and then build up directional light with a pressure-sensitive brush. I usually use a simple airbrush and work with restraint.

Artist's advice
Sam says

This comes down to communicating form in a real manner. It's easier when you break it down into primitive shapes. For example, when you're rendering cubes, the three visible surfaces are each going to have different values.

My example here is lit from above, so the top surface has the lightest gradient. The surface numbered 02 is darker, and 03 even more so. The numbers on each surface are all the same value of grey – they just look different relative to the value of the surface. When you think of this in terms of vehicle design, for example, just keep each side of the vehicle within the proper gradient according to the light source.

Having an understanding of a sphere can help if you're adding curves to a vehicle design. When you're rendering metallic spheres, you have to take into account the location that the sphere is in. I render my sphere here as if it's in a simple room. The upper portion reflects the walls and ceiling of the room, while the lower section reflects the table it's sitting on. Knowing this – and practising, of course – can aid your designs no end.

Learn the best way to…
concept an alien-looking spaceship

Artist's advice
Mark says

To answer this question I want to produce a futuristic yet believable design. I imagine an invasion against an Earth-like planet by an alien race, which is coming from a water or fluid planet. The bone structure of the cuttlefish and other deep-sea animals spring to mind, and I try to mix this with the design of today's drone aircraft. I produce lots of thumbnail sketches of the overall silhouette, then pick one and do a rough line drawing to establish the direction of my design.

I use 3D sculpting techniques to create the main design. Sculpting software is useful as I can achieve the creative work in full symmetry. Also it enables me to design the top and bottom of the ship in parallel.

A combination of sketching, 3D tools and Photoshop helps me create this menacing-looking spaceship.

After I sculpt the main ship, I add some basic panelling and other more mechanical parts on the underside to suggest the ship was manufactured. The right balance of plain panels and busier mechanical areas helps to enhance the realism of the design.

For the paint job of the ship I go back to my original references and try to mix them – the satin black of the stealth aeroplanes and brownish yellows of the cuttlefish living around coral reefs. I want to make it slightly animal-looking, but still menacing as a military jet. Finally, I make simple renders from various angles and bring them into Photoshop. I paint an aerial background and repaint the jets to achieve a film key frame, just like a cinematic shot.

Artist's secret
USING RADIAL BLUR

You can add extra depth and dynamism to your images with the Motion Blur filter in Photoshop. I use the filter here to blur out the objects more as we move further away from our focal point, which is closest to the ship.

Step-by-step: Design an invasion fleet
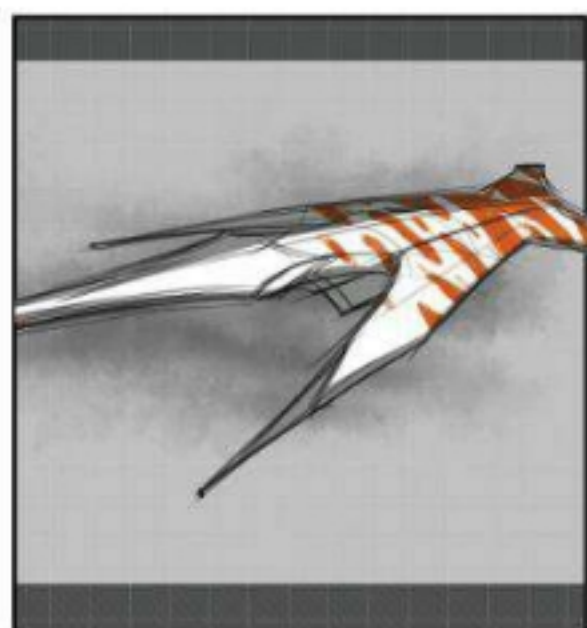
1 After several small silhouette thumbnails I produce a quick line sketch of the spaceship and establish the general direction of my design. I try to keep the lines of the vessel simple and dynamic, similar to a deep-sea fish. Originally I wanted to go with a white-orange colour scheme, but I decide to change to a black-orange one.
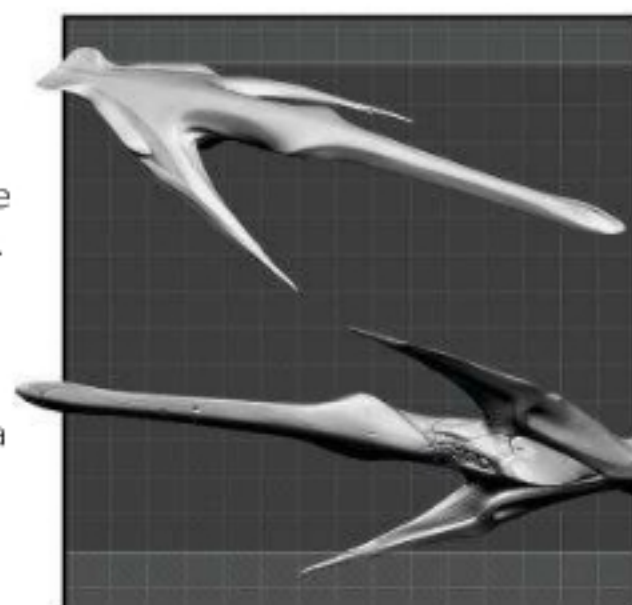
2 I try to stay as close as possible to my original idea. I keep the simplicity of the silhouette, but add a range of small details, such as the panelling and mechanical parts on the underside of the ship, to make the design more believable. The freedom of the 3D sculpting software helps me to achieve a more dynamic-looking spaceship.
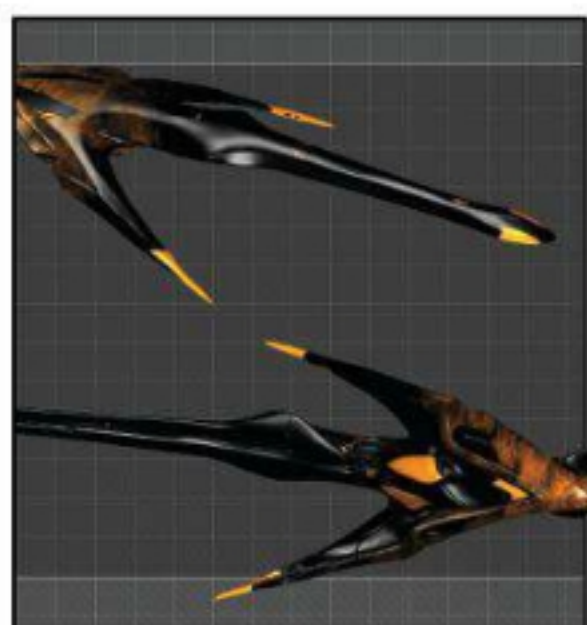
3 For my paint scheme I try to mix my original references: the menacing satin black of today's stealth planes and the brownish yellows of cuttlefish that live near coral reefs. I add the saturated bright-yellow areas, because the black-yellow palette reminds me of the colour of the spotted salamander and I imagine the alien pilots having a similar appearance.
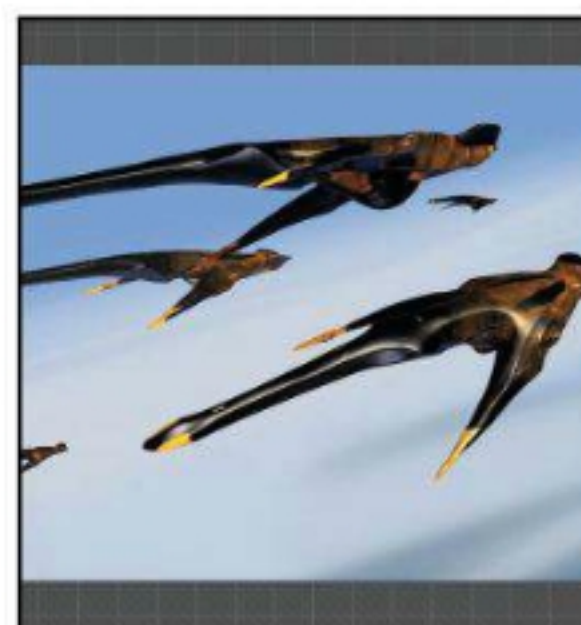
4 Because I want to show the ship from all sides, I render out various angles with the same simple lighting scheme. I place them against a quickly painted sky background and vary the sizes to make them look like a fleet of jets. After this step I start the painting process and add the necessary details to all the planes and the background to create a cinematic-style image.

Understand how to…
make vehicle designs stand out from the crowd

Artist's advice
Sam says

Vehicles' designs are made of basic shapes, each of which can affect the impression and purpose of your design. When designing armoured vehicles, for example, an aggressive and powerful look can be achieved in various ways. You can have a vehicle with either angular surfaces or organic shapes and both can have a strong look. A lot of that comes from the stance and overall balance of the shapes.

I want the stance of this vehicle to have a strong rear end so I keep a lot of horizontal lines back there. Assigning it four wheels at the back also gives it a strong foundation. To contrast this, I draw interesting shapes on the front end to push the vehicle forward. This attracts the eye and gives

The stance and shape of a vehicle can make it feel aggressive, leaving you free to experiment with its chassis.

forward momentum. With the front end of the vehicle, I try to integrate the cab, body and grill plate in a way that ties things together. The front end is pretty much the face of the vehicle, and another area that can help push its overall aggressiveness.

With these things in mind, you can play with different proportions to design various kinds of armoured vehicles.

Step-by-step: Design an aggressive-looking vehicle

1 Here's the base model in SketchUp, a program that enables you to build a solid structure to work from. I start with a side-view sketch and extrude the silhouette. I add detail and shape the body, drawing lines, and pushing and pulling shapes. Once you have your base body shape, add details. Then use Photoshop to paint design variations.

2 This is one of the early variations I made to paint on top of my model. It's a little bit all over the place, but it shows that you shouldn't be too worried about deviating from your base. I try to keep things pretty loose at this point. Because the base is a 3D model, it's easy to see how the lighting works, and your perspective is all here.

3 Here's where things start to come back together in the paintover portion of the process. I go back to some of the original things I had on the base model, such as the door placement. If you have other vehicle models, you can set them up in the same perspective and lighting as your other model, so you can easily copy and paste portions to use in your painting process.

4 I try some new stuff on the front end. If this were for a client, I'd present these as front-end variations for one of my concepts. I choose the new option and add more details for the final image. When finishing, look at photos and pay attention to proportions and user interaction. It's always good to have function in mind when designing things that people are going to use.

Learn to…
make a machine look sexy
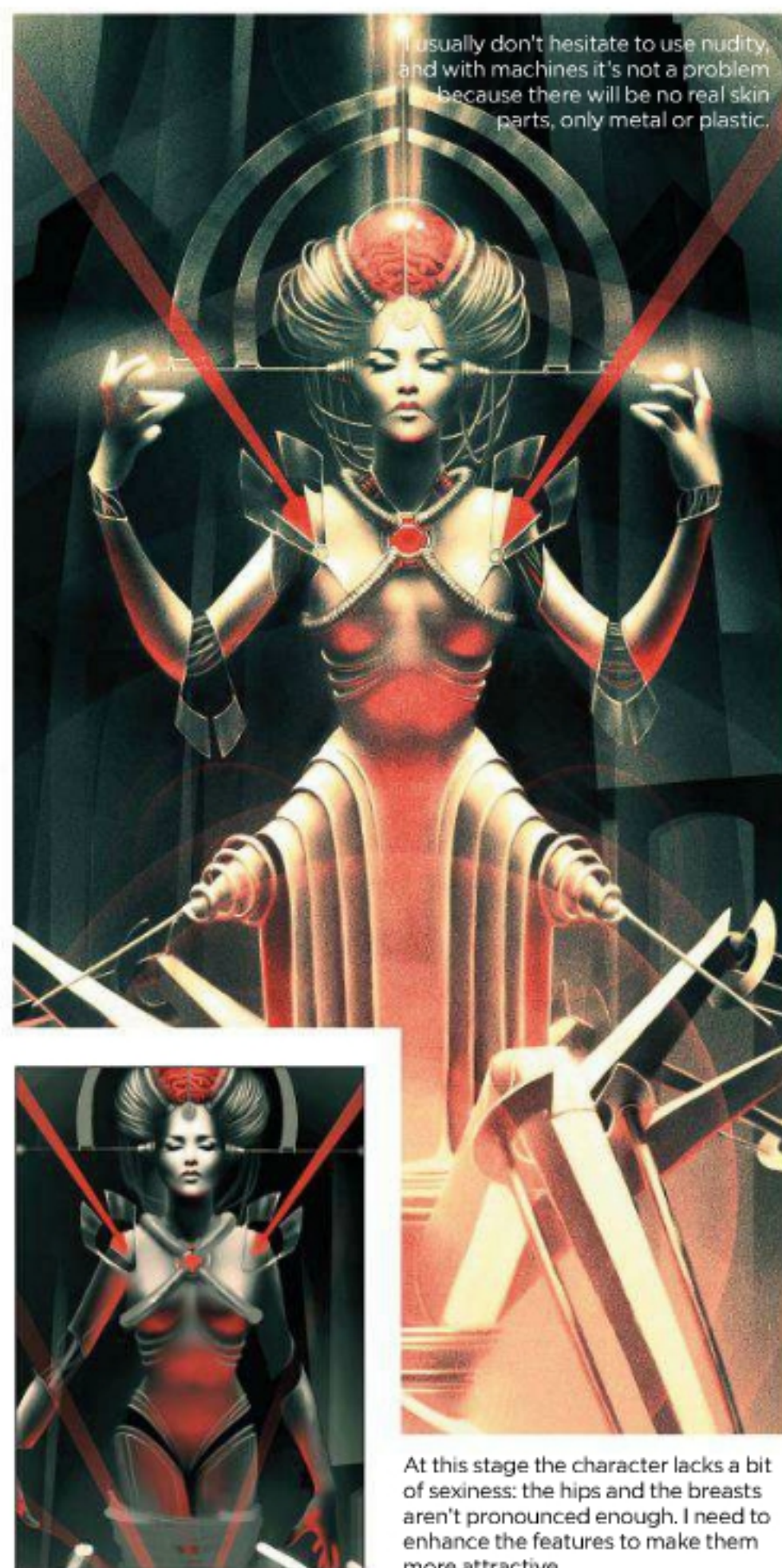
I usually don't hesitate to use nudity, and with machines it's not a problem because there will be no real skin parts, only metal or plastic.

At this stage the character lacks a bit of sexiness: the hips and the breasts aren't pronounced enough. I need to enhance the features to make them more attractive.

Artist's advice
Mélanie says

A machine or robot can be as sexy as any human being. The trick is to not think of it as a machine, but as a person. This is the most difficult part – we all tend to see robots as machines – but giving them soul and human shape is the key to making them attractive.

The easiest way to achieve a sexy render is to start the base like a normal human body – the only difference at this stage will be the colour scheme. We want it to look like a machine so the colours should be more metallic than skin tones.

Then I slowly add machine details, such as wires instead of veins. It's almost like clothing. I have a lot of freedom here, as long as I leave some parts of the body neutral. I also prominently display the most attractive areas of the character, such as the face and the breasts. I paint these almost the same way as I would do on a human body. These are the features that will determine the sexy side of the robot.

Master an easy way to…
make an object look like it's heading straight towards the viewer

Artist's advice
Bill says

There are a few ways of giving the impression that an object is coming out of the page, but the most dynamic method is to take an object out of the boundaries of its frame and into the page itself, which I will do here.

In Paint Shop Pro I start out by creating a wide perspective grid, then grab a small portion of the grid for my image. I can now enlarge and refine this part of the grid for the drawing stage. I use the Vector tool to build a basic box shape into a spacecraft, which gives me control over the lines and enables me to go back and change them. Then I convert it to a Raster layer and save as an Overlay layer.

Now I can paint the ship without worrying about the missiles. When I'm done I add borders to the image and use the same perspective grid to draw and paint the missiles coming out between the picture plane and the new border. It now appears that they've missed the spaceship altogether and are on their way past the boundaries and out of the picture. Simple!
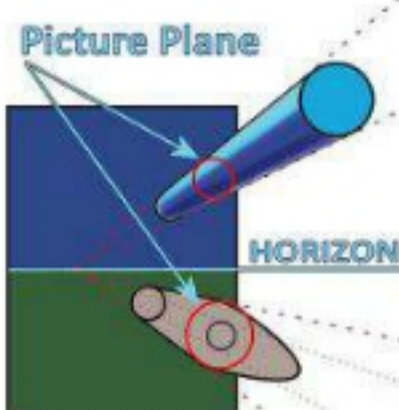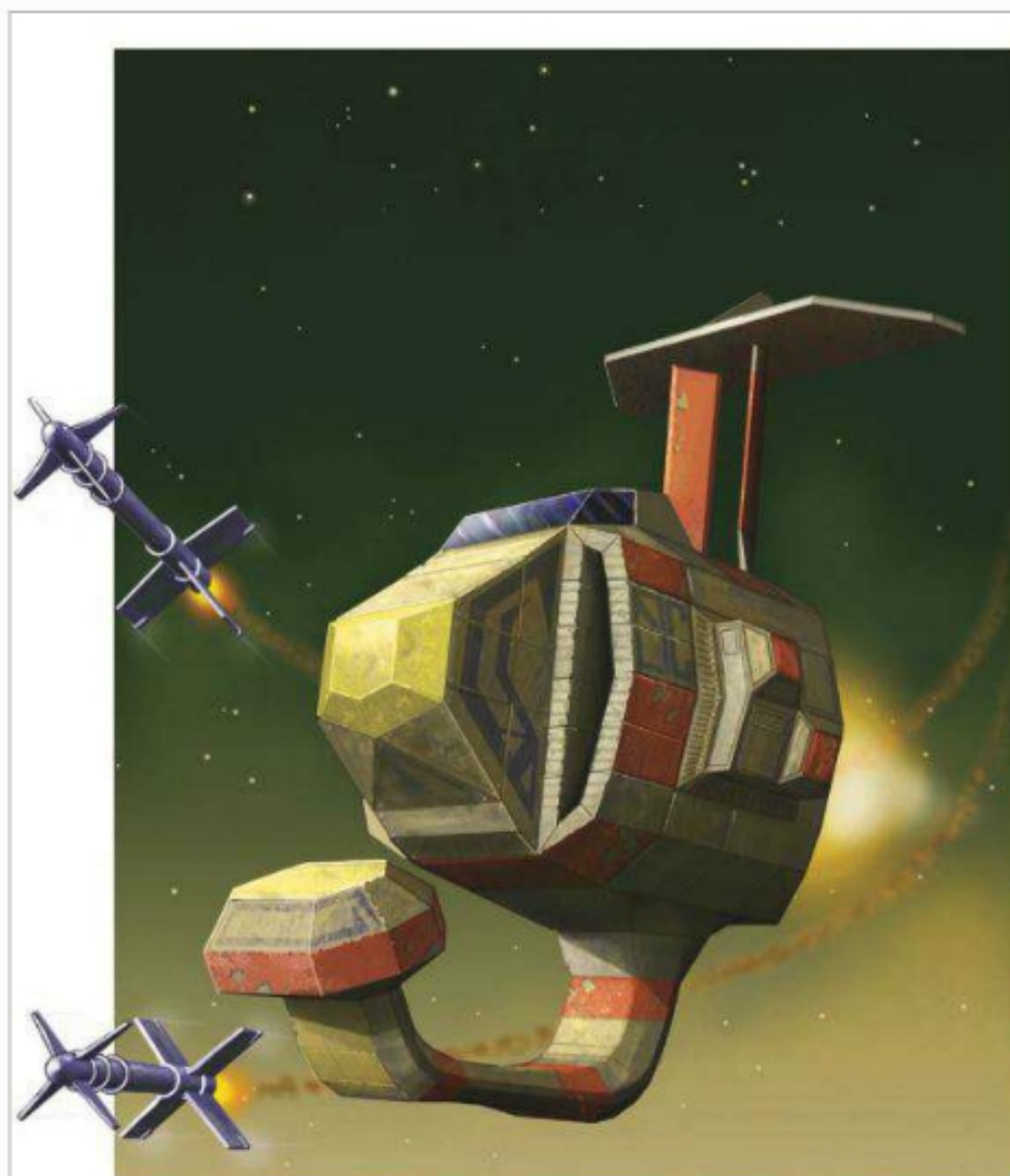
With more foreshortening it's possible to make the effect look far more dynamic and direct.

DOWNLOAD YOUR FILES

LINK
www.bit.ly/ifz12-sai

ACCESSING YOUR FILES
Click or copy and paste the link above into a browser to download the files to a desktop PC or Mac.
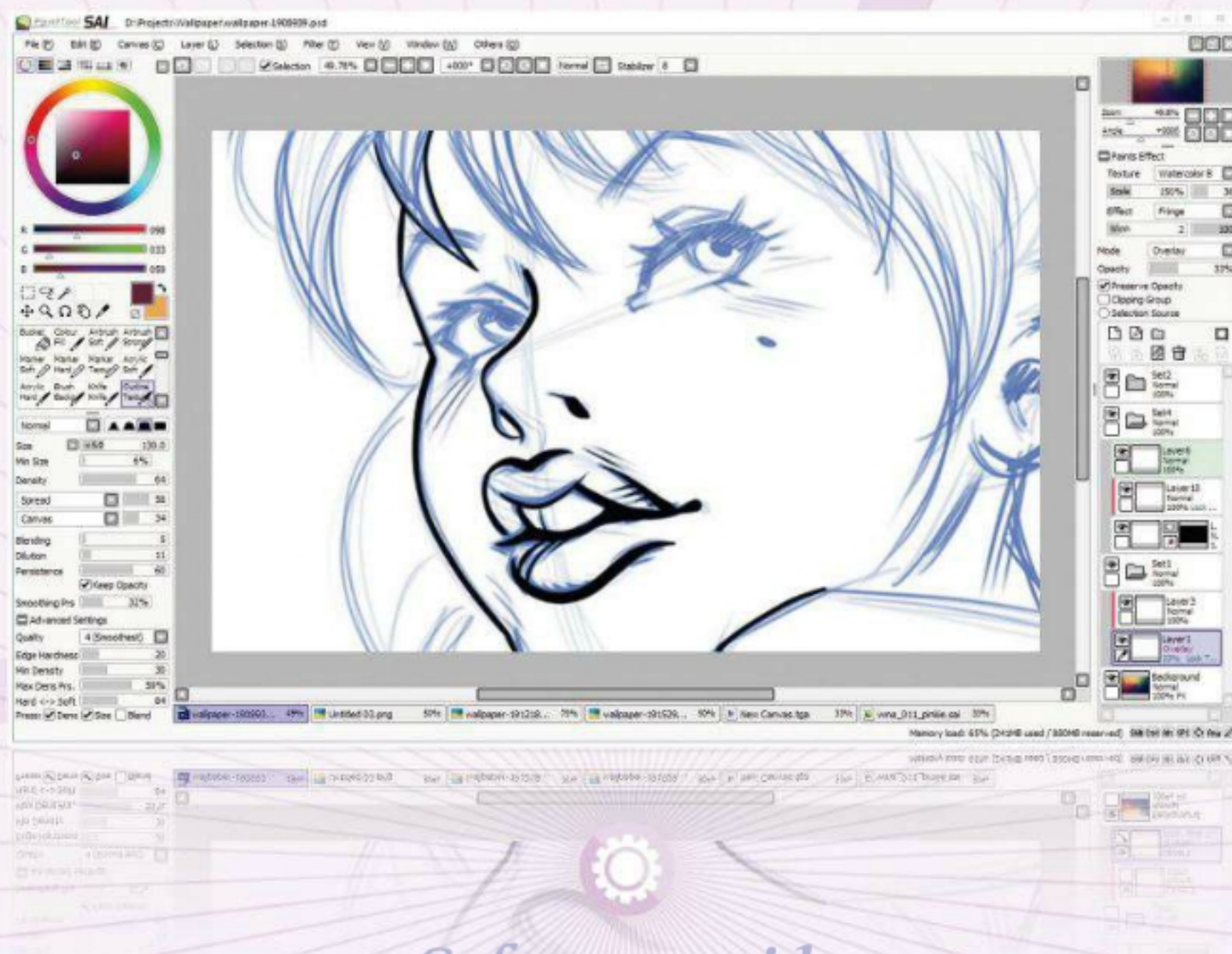
Software guide

PAINT TOOL SAI

Follow our instructions to better understand how to use this very popular budget software used by comic and manga artists.

Paco Rico Torres
Paco is a freelance illustrator living in Spain who's produced art for several card games, magazines, books and role-playing games.
www.pacorico.blogspot.com

START USING A NEW ART PROGRAM

PaintTool SAI is a relatively light program. It doesn't have too many options, but you can achieve a lot with what it does offer. You can download a 30-day trial from www.systemax.jp/en/sai, and it costs around $40 for a full working version of the program.

If you're used to working with Photoshop and open PaintTool SAI for the first time, it may look confusing. In fact, using SAI is easy and this basic guide will enable you to start working with the software.

SAI isn't a photo-manipulation program. It's designed specifically for painting and drawing, so many options available in programs such as Photoshop aren't in SAI. That makes the program less versatile, but more efficient.

"PaintTool SAI doesn't have too many options, but you can achieve a lot with what it does offer"

MANAGE PAINT EFFECTS IN SAI
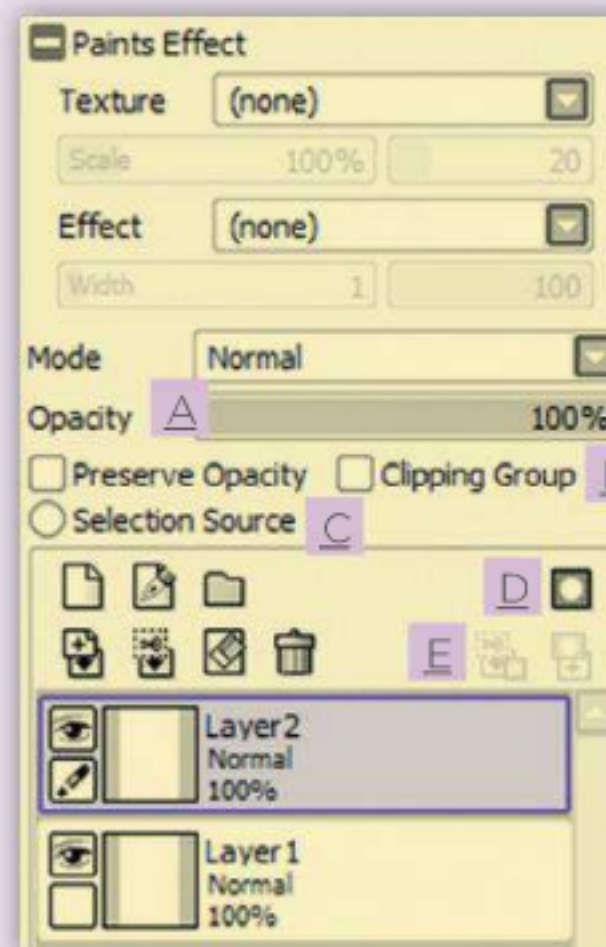
A. MAINTAIN OPACITY
If this is on a layer, then whatever you paint on that layer will have the same opacity of the surface over which you're painting.

B. APPLY CLIPPING
If the Clipping group is on a layer, whatever you paint on that layer will have the same opacity of the layer below.

C. ACTIVATE SELECTION
If a layer has the Selection Source on, the Color Bucket and the Magic Wand will work according to whatever is on that layer, no matter in which layer you're using them.

D. LAYER OPTIONS
Create a new layer, delete, clear, merge, transfer down or group with other layers.

E. CREATE A MASK

GET THE MOST FROM YOUR TOOLS

PaintTool SAI has a bunch of basic tools, and some of them can be widely modified using the brush parameters. Each default brush has its own purpose, but it's possible to modify them so that you can use them in a totally different way.

The brush parameters are the most complex aspect of the program, so I'll take a look at some of the basic tools before going further. I'm going to explain just half of the most basic tools and I will focus on the most complex ones in the next section.

Most SAI tools try to emulate real-world paint media, so using them may require you to change your way of working, particularly if you're used to Photoshop. However, with a little practice you can achieve really interesting effects.

TOOL ROUND-UP

Use our round-up to familiarise yourself with some of the basic tools available and where to find them.

### SELECT AND MOVE
The Selection, Lasso and Magic Wand enable you to make selections. Below them are the Move, Zoom, Rotate, Hand and the Color Picker.

MAKING MARKS
These are the main painting tools. The tools above, except maybe the Marker, are more 'technical' than the ones below. The Pencil is good for precise line work and the Legacy Pen is good for pixel art. The brushes are less precise and more 'arty' in nature.
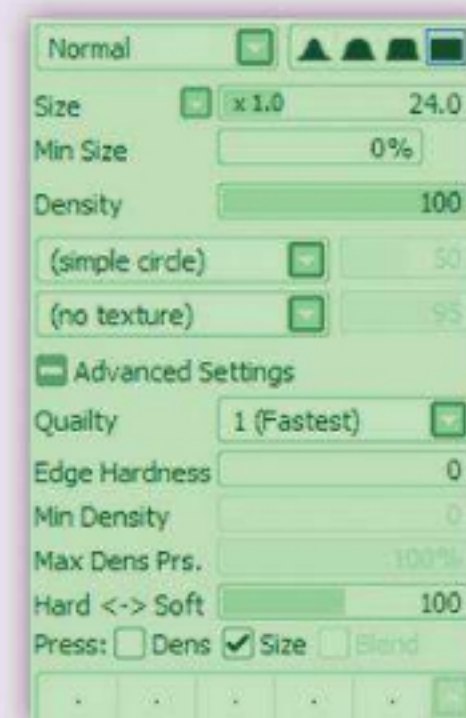
BRUSH PARAMETERS
These enable you to choose the size, the hardness and many other options in order to modify the main tools.

Step-by-step: *Explore the Color panel, the Layer panel and the Quick bar*
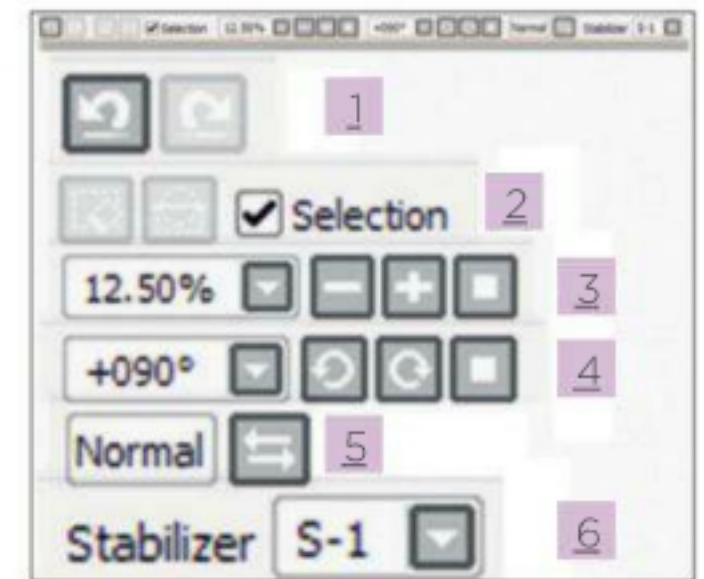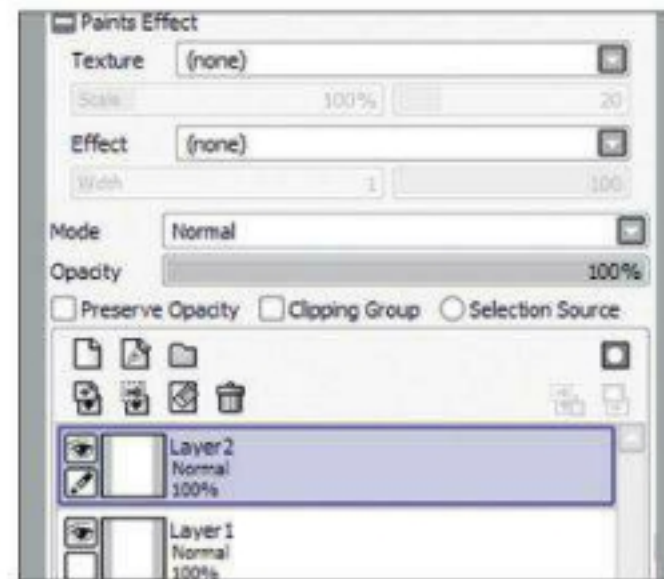
1 The Color panel

This comprises six elements, which you can show or hide by clicking the small icons on top of the panel. With these six elements you can select colours to paint with using the colour wheel, change their RGB or HSV (which stands for hue, saturation, luminosity) levels, mix two colours to produce a middle point, save your favourite colours, or mix them like traditional paint before applying them to the canvas.

2 The Layer panel

From this panel you can add texture to a layer, apply a watercolour-like fringe to the edges of all the brushstrokes in the layer (which is an effect), change the colour mode of the layer, alter the opacity of the layer, create or delete layers, and introduce Layer Masks – although note that this last one only works with the Pencil tool. All in all it's pretty intuitive, especially if you've used layers in other painting programs.

3 The Quick bar

The Quick bar, found below the menu bar, has some useful shortcuts, such as Undo and Redo (1), Deselect, Inverse Selection, and Hide Selection which hides the dot line around a selected area (2). From here you can also Zoom (3), Rotate the canvas (4) and flip the canvas horizontally to check for composition errors (5). Finally, the Stabilizer (6) is great if you have shaky hands like me. Check it out!

Step-by-step: *Starting to use some of the basic tools*
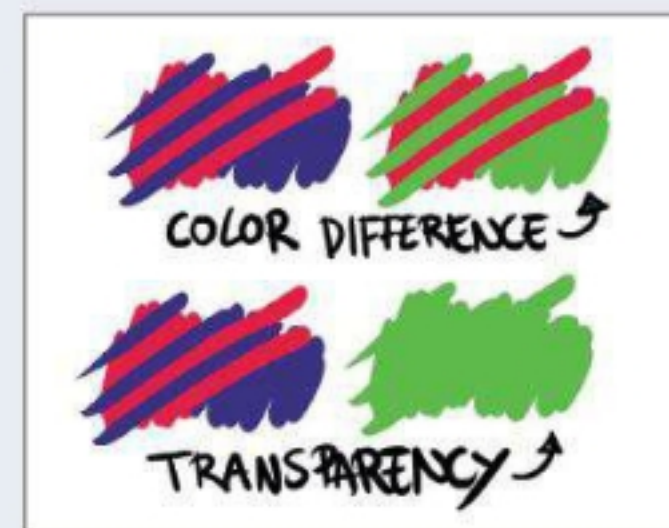
1 Markers, Pencils and Pens

The Marker tool in PaintTool SAI is only a rough recreation of a real-life marker pen. The pressure of the pen controls the opacity and the size, and it is possible to blend colours with a bit of skill and practice (the more you press down with the tool, the less it blends). The Pencil tool produces simple, solid lines, while the Legacy Pen (or Binary Pen) uses just 1-bit colour, and this is why it looks pixelated.

2 The Selection Pen and Eraser

When you use the Selection Pen you'll see that whatever you paint has a pale blue colour. Once you choose any other tool, that blue turns into a selection, ready to be transformed or altered. Furthermore, if there's any active selection on the canvas then picking the Selection pen will turn it into that same blue colour. The Selection Eraser works in much the same way, but it erases your marks.

3 The Bucket tool

Use the Bucket tool to fill a chosen area with colour, just like its Photoshop equivalent. However, there's actually more to it than simple block filling. You can set it to detect transparency, so that the tool will fill a pixel and all the surrounding pixels with the same transparency, no matter which colour they have. You can choose to detect pixels in the current layer, in a selected layer or in all layers present in the image.

TIPS FOR USING SAI'S BRUSHES

Now it's time to talk about the AirBrush, Brush and the Watercolor tools. Using the Brush and Watercolor tools can be frustrating if you've never used blending brushes before. They're tricky to control if you don't know exactly what they do, and how their use differs from Photoshop's brushes. Their main abilities are to blend and to dilute the colour. You can modify the way in which they do that using the Brush parameters, and I cover this in the section below. But for now, let's focus on how to use the Brush itself.

The first thing to note is that the Brush and Watercolor tools can create really artsy effects, but they aren't very precise. It's hard to do perfectly clean or highly detailed stuff with them, so be patient and spend some time familiarising yourself with the controls before attempting to paint.

Furthermore, try to use the right tool for the right task. The Brush and Watercolor tools can quickly create traditional-looking paintings through colour blending and brush stroke effects.

DIFFERENT BRUSH MOVEMENTS AND THEIR OUTCOMES

PRESSURE POINTS

Using the Watercolor tool, starting over the green spot, with a left-to-right, red brush stroke. The first one is made by pressing the pen just a little; the second one pressing a lot.

PURE BLEND

With the Brush tool, start over the green spot and make a left-to-right, red brush stoke, with low, medium and high pressure.

ZIG AND ZAG

With the Watercolor tool over a green spot, make zig-zag brush strokes with the same green colour, pressing just a little. On the right, it's the same but using red colour over the green spot. First with low pressure, then with high pressure.

ALL MIXED UP

With the Brush tool, over a green spot next to a red spot, make several red zig-zag brush strokes in different directions with different degrees of pressure to mix them. If you paint from the red to the green, you'll extend the red paint, and vice versa.
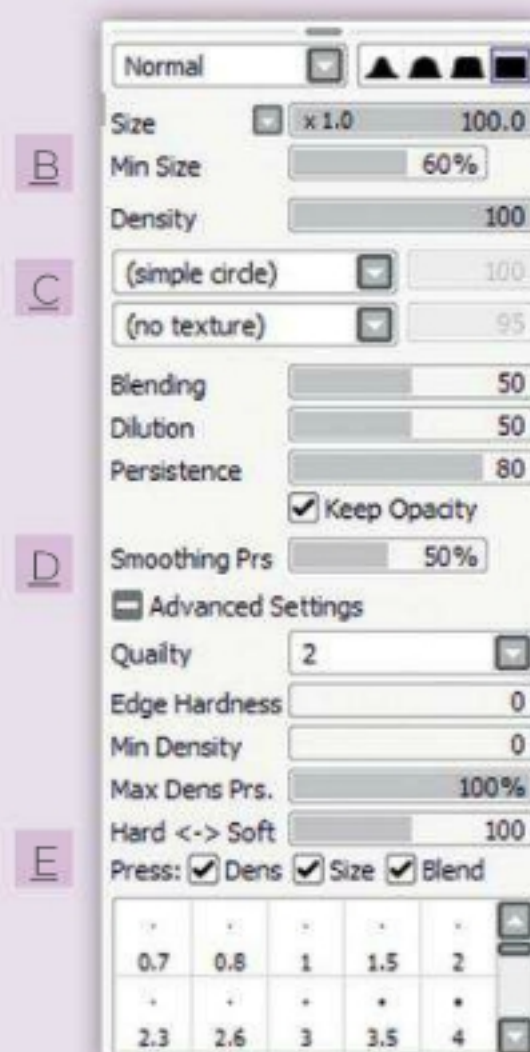
SET SAI'S BRUSH PARAMETERS

PaintTool SAI's brushes can look confusing initially, but they're pretty easy to use once you know what they do. The first thing you'll notice is that not all the tools have the same kind, or the same amount, of parameters. That's because not all the tools are intended to perform the same task.

"Not all the tools have the same kind, or the same amount, of parameters as not all the tools are intended to perform the same task"

There are some brush parameters that are pretty intuitive, such as Brush size, but others are more difficult to understand. I'm going to focus on the three most complex parameters: Blending, Dilution and Persistence.

Previously I've discussed how brushes blend and/or dilute colours. So let's talk about how to choose the right amount of Blending and Dilution. The parameters work best if combined, so spend some time experimenting with them.

BRUSH PARAMETERS

Normal ▾ ▲▲▜▜■	A
B Size □ × 1.0 100.0	
Min Size 60%	
Density 100	
C (simple circle) □ 100	
(no texture) □ 95	
Blending 50	
Dilution 50	
Persistence 80	
☑ Keep Opacity	
D Smoothing Prs 50%	
☐ Advanced Settings	
Quality 2 □	
Edge Hardness 0	
Min Density 0	
Max Dens Prs. 100%	
Hard <-> Soft 100	
E Press: ☑ Dens ☑ Size ☑ Blend	
0.7 0.8 1 1.5 2	
2.3 2.6 3 3.5 4	

A. EDGE SHAPE
With this you can choose between a Soft, a Hard and two Medium brushes.

B. DENSITY AND SIZE
Enables you to control the opacity of the brush, and maximum and minimum sizes.
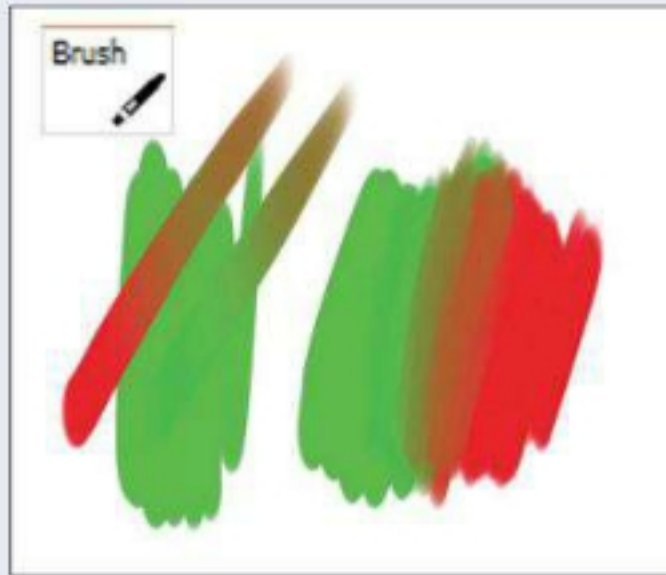
C. BRUSH VARIABLES
Use this to select shapes and textures. The sliders on the right change intensity of shape and texture.

D. SMOOTHING PRESSURE
Lets you set a minimum pressure value. Press with pen below value and it'll blend.

E. DENSITY, SIZE AND BLENDING SETTINGS
Alter density, size and blending of a brush by pressing harder or softer with your pen.

1 Brush tool

The Brush tool in SAI works a lot like oils. If you paint on a clear layer, it'll be like an ordinary brush. But if you paint over a painted surface, the colour you're painting with and the colour on the layer below will blend together, not only on the canvas that you're using, but also on the brush itself. Depending on how you move and use the brush, you'll produce different results. This is a good tool to use if you want to experiment with your art.

2 Watercolor tool

The Watercolor tool works in a very similar way to the Brush tool, but with the added functionality of being able to dilute the colour on the layer. In other words, this enables you to blend your colour in until it's transparent – this is just like adding water to a wet watercolour painting. The more you press, the less you dilute. Remember that with these tools, like in traditional painting, how you move the brush is very important.

3 AirBrush tool

The AirBrush is the easiest of all the tools in Paint Tool SAI to use. Although it doesn't blend or dilute, it's a great soft brush that works pretty much just like an actual airbrush. The more you press, the more opacity you produce. This can be especially useful if you want to add some subtle colour hues over a detailed painting. And since Paint Tool SAI doesn't have blur filters, this is a pretty important brush to be familiar with.
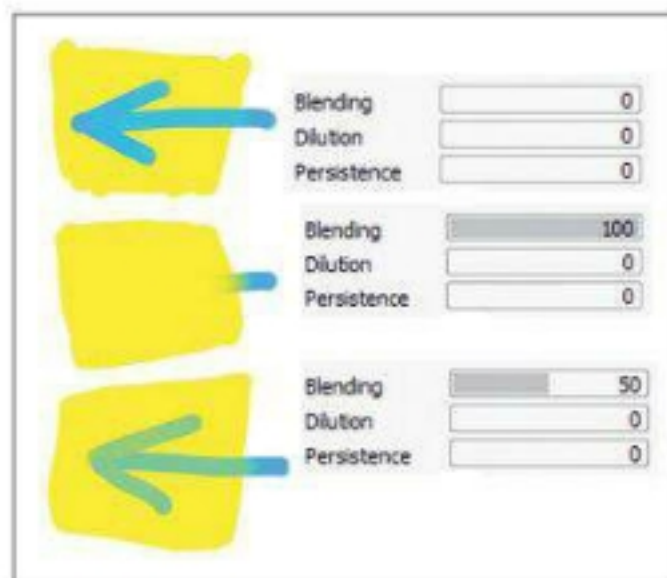
1 Blending

The Blending parameter controls how much a brush will blend on the digital canvas. Blending in PaintTool SAI is similar to blending with oils or acrylics. If you start with a yellow surface on a layer and you then paint with blue, you can easily mix it until you produce green. A brush which has the Blending set to 0 will just paint. In contrast, with the Blending set to 100 it will blend the colours on the canvas.
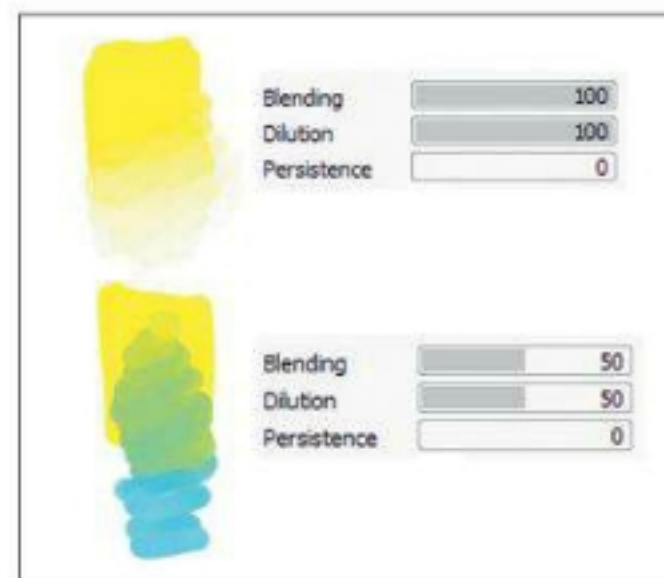
2 Dilution

The Dilution setting is similar to adding Dutch varnish to oils. It makes the paint more transparent, and at the same time blends the already painted colours on the canvas. So a brush with Blending and Dilution set to 50 paints with a semi-transparent blue colour and blends, while a brush with Blending and Dilution set to 100 will work like water-painting: it blends the colours until they're transparent (similar to a stump).
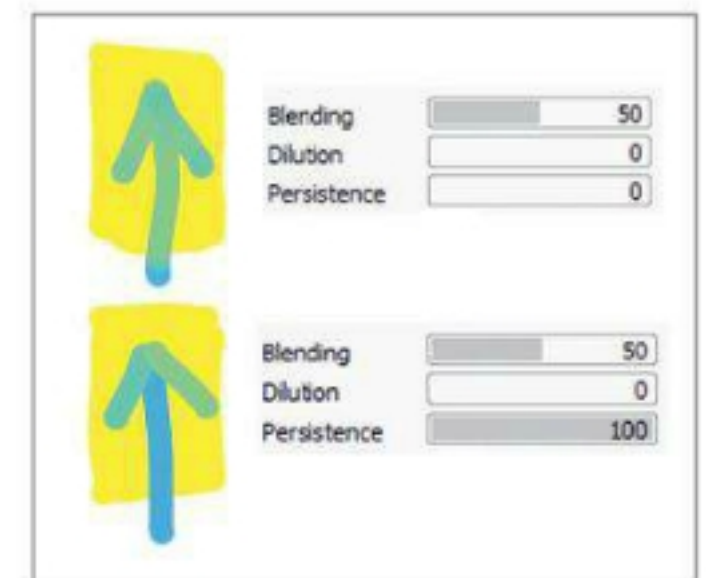
3 Persistence

This setting determines how much the colour you're using is affected by the Blending parameter. If you have a high persistence value, the colour you're using can be blended with the colour on the canvas, but the colour in the brush predominates over the one on the canvas. It's only useful when combined with the Blending parameter. With these three parameters you can create the perfect brush for every situation.

CUSTOMISE AND CREATE BRUSHES

Paint Tool SAI is a pretty basic program and it doesn't feature too many tools. But as we've already seen, with the few tools it does have you can still achieve a lot.

You can create a new tool by right-clicking one of the empty squares on the Tool tray, setting the parameters to your

"You can create a new tool by right-clicking one of the empty squares on the Tool tray, setting the parameters to your liking and saving it"

liking and saving it as a new tool. For example, you can create a new Pen tool: set it to emulate a charcoal using the brush parameters, change its name to 'Charcoal', and that's it – your own custom charcoal tool ready to use.

But sometimes you need more than that: more textures perhaps, or more brush tips. In this case, you'll need to create them from scratch. So here's how you do it…

CUSTOM BRUSHES
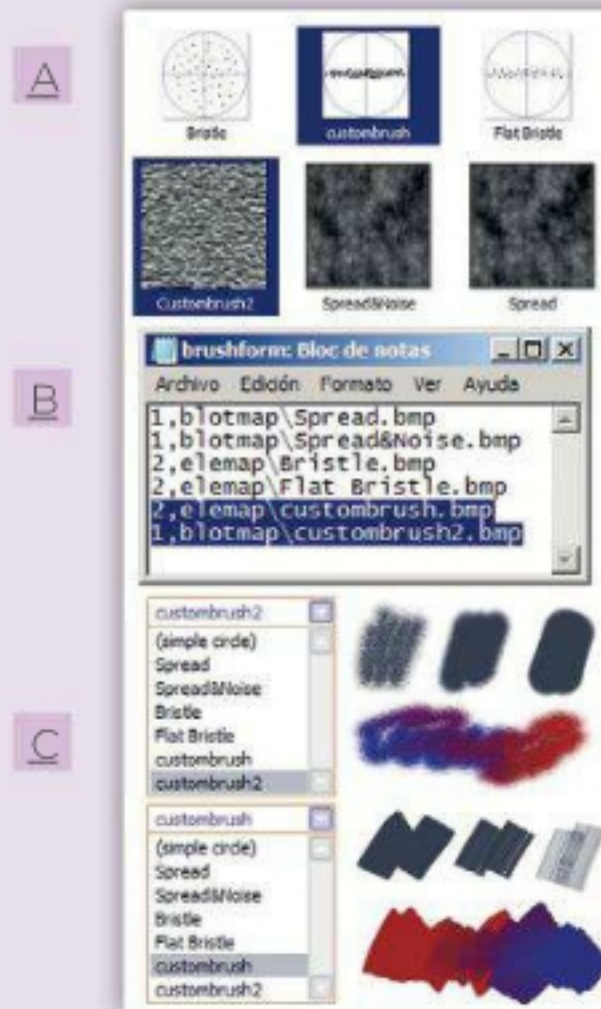
A. DUPLICATE FILES

First I duplicate one of the files in the 'elemap' folder, delete the black dots using Photoshop (preserving the blue crosshair) and paint new ones according to my liking. Then I rename it as 'custombrush'. I do the same with one of the files on the blotmap folder and I rename it as 'custombrush2'.

B. BRUSH SHAPES

I want to create new brush shapes, so I open 'BRUSHFORM.COMF' using the notepad, because it's the .COMF file used for brush shapes, and here I add the following lines:
2,elemap\custombrush.bmp
1,blotmap\custombrush2.bmp
And then I save it and close it.

C. READY FOR USE

Finally, if I have done everything right, the next time I open SAI, my new custom brush shapes should be there, ready to use.

START USING VECTOR TOOLS

Sometimes you need to create clean and precise shapes. Perhaps you need to paint a perfectly curved katana, or ink with precise, clean strokes. In these situations, vector graphics are helpful. If you draw a vector line, you can modify it until it has exactly the shape you want. You can also resize it without losing quality. That's why they are so interesting when it comes to creating perfectly clean shapes.

In Paint Tool SAI, vector tools are called Linework tools and can only be used on Linework layers (created by pressing the button with a little pen on it next to the new layer button). Vector tools aren't difficult to use once you spend a bit of time with them. However, working with them can be slow, so you need patience.

LINEWORK TOOLS

A. PEN TOOL
The tool you use to draw. It works pretty much as the ordinary SAI tools.

B. ERASER
Removes control points.

C. WEIGHT
Weight changes the size of the line proportionally. So if there are thicker or thinner parts on the line, you won't lose them, it will just change the scale.

D. COLOR
Changes colour of the line.

E. EDIT
Edit is used to modify the line. It has many functions that can be selected on the Tool tray.

F. PRESSURE
Pressure makes parts of the line (control points) either thicker or thinner.

G. SELECTION PEN
Selection Pen can be used to draw something, and when you choose any other tool, that drawing will automatically become a selection.
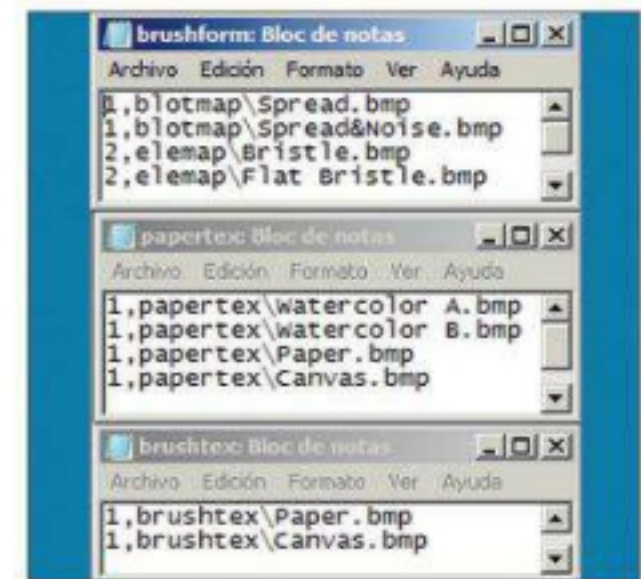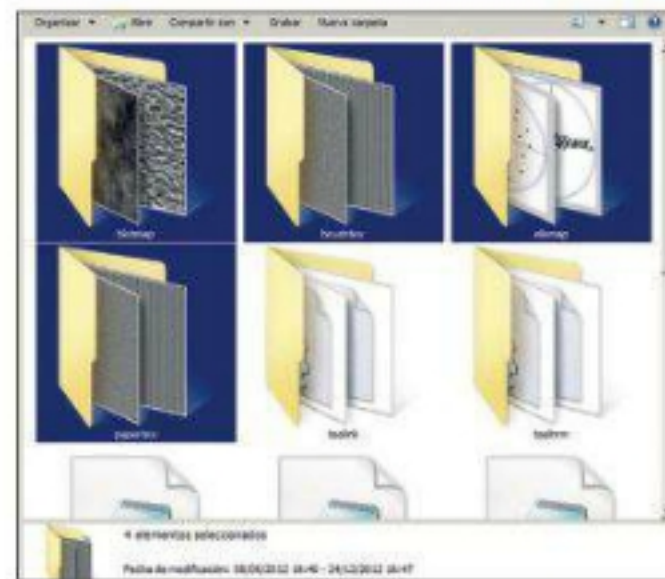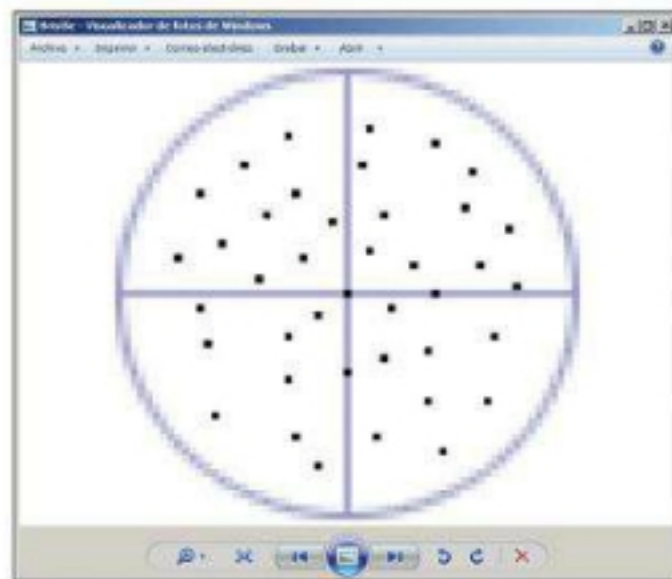
H. SELECTION ERASER
Selection Eraser can be used to erase what you draw with the Selection Pen.

I. CURVE
Curve creates curved lines. Click, then drag, then click again, and it will create a curve automatically between points.

J. LINE
Line works in the same way as the Curve tool, but it creates straight angular lines.

1 Getting to know your folders

Take a look in your SAI folder and there you'll see some more folders, with names such as 'elemap', 'blotmap', 'brushtext', 'papertext' and so on. Inside these folders there are some files and these are the brushes and textures that you can use in SAI: 'elemap' and 'blotmap' are for brush shapes, while 'brushtext' and 'papertext' are for textures (brushes and layers).

2 How to create some custom files

Now you have to create some new files and place them in the right folders. You need to create a very specific file for each thing. For example, all the files in the elemap folder need to be 63x63 RGB. When they're saved as a BMP file, you'll see a blue crosshair in the middle. So the best thing to do is to copy the default files and use them as templates for your custom ones.

3 Find and name the .COMF files

Now you have to look for the .COMF files in the SAI root folder. There should be three in there: 'brushform', 'brushtext' and 'papertext' (for shapes, texture and layer texture, respectively). You have to open the appropriate one using the notepad and write '2' if it's an elemap, or '1' if it's anything else, and then the name of the folder and the name of the file.

1 Learning to make the first strokes

Imagine that you have a rough pencil drawing, like this one of mine here, and you want to ink it in a very clean way. Simply create a new Linework layer in SAI, then choose the Pen tool and create some straight lines over the top of your sketch. Then press Ctrl or choose the Modify tool. As a result, you'll see a lot of small dots (these are control points) inside the line.

2 Modifying the control strokes

Next up, choose the Modify tool and you'll see a lot of options on the Tool tray – and you should find all of them to be pretty much self-explanatory. Choose the second option and then click and drag on one of the control points on your drawing. You can then modify the line to your taste – you can bend it to perfectly match the pencil lines of your sketch if you so wish.

3 Experiment stroke by stroke

The process is basically the same for all the lines. As you become more experienced with the program you'll start using some of the other Linework tools, such as the Eraser, which erases control points, and the Pressure tool, which modifies the pressure of the line – making each point thicker or thinner. Spend time experimenting with these to see the different results you can have.

ARTISTS PANEL

Lindsay Cibos
Lindsay is the creator of the manga series Peach Fuzz and the webcomic Last of the Polar Bears. She's also written several art instructional books.
www.lastpolarbears.com

Christy Lijewski
Christy is an American comic who's best known for RE:Play from TokyoPop. She's busy working on her new series, Dire Hearts.
www.heavy-gauge.net

Rob Duenas
Rob's a graphic artist at Mad Engine for licensed men's apparel, and he produces freelance comic book covers at weekends.
www.sketchcraft.com

Kai
Kai is a 'mangaka', illustrator, guitarist and model for V-kei fashion. His art combines dark and visual kei aesthetics with mythical, longing themes.
www.khaoskai.com

Serge Birault
Serge has worked for the music industry, video games, publishing and advertising. His art book, Corpus Delicti, is available now.
www.sergebirault.fr

Chris Ng
Chris has been working professionally in Imaginary Friends studio for the past five years. He's currently building his freelance portfolio.
www.chrisnfy85.cghub.com

Saskia Gutekunst
Saskia has a degree in graphic design, but she likes to work within multiple fields such as comics, illustration, animation and games.
www.saskiagutekunst.com

Core skills
MASTER DRAWING COMICS

Explore the different styles that make up comic and manga art, from line art tips and digital inking to traditional manga painting.

84

Think plushy: big head, compact body and simple rounded features.
LINDSAY CIBOS

DOWNLOAD YOUR FILES

LINK
www.bit.ly/ifz12-comic

ACCESSING YOUR WORKSHOP FILES
Click or copy and paste the above link into a browser to download the files to a desktop PC or Mac.

Mixing large and small features enables me to create an incredibly cute character.

1 I do endless sketches of creature candidates (magical horses, floppy-eared critters and bipedal cats), but it's not until I ask myself what I'm trying to create that everything clicks. I envision a chibi wolf god leaping through the sky, bashing lightning from the clouds with a large mallet.

2 Now I focus on the proportions, pose, details and expression, with the goal of pushing the cute factor. Don't go overboard with details here. Realistic fur, for example, can detract from the cuteness, so keep things simple and round.

3 Use layers to tackle the background, character, and effects separately. Paint the background to set the mood and colour scheme. Then build up the shading on your critter. Keep the character's colours simple and vibrant. Save the special effects for last.

The best way to…
draw cute manga creatures

Artist's advice
Lindsay says

There are some simple guidelines to help you start to draw cute creatures. First, it helps to have a general idea or theme to work with, so think about the qualities you want your creature to embody before you start sketching.

Play with proportions and head-to-body ratio. Think plushy: big head, compact body and simple rounded features. Don't be afraid to exaggerate size, such as extra large ears or a long swishy tail. Small works, too:

teeny tiny paws, a chocolate chip-sized nose or button eyes. Then add to the creature's appeal by adorning them with a prop, article of clothing, gem or symbol. Just be sure that it ties in with the theme so the overall design has a sense of unity.

For the pose, depict your creature in action, doing something that demonstrates its personality: kicking, leaping or playing, for example. Finally, consider using vivid or unnatural colours to enhance a character's visual appeal.

Discover how to…
take a traditional manga creature and make it your own creation

I use dramatic lighting and glow to suggest that Kimba is majestic and extraordinary. Some dust implies that there's something going on under the cliff. Adding details makes the image more lively.

Artist's advice
Chris says

It's always fun to create your own version of an established creature or character design. For this piece I decide to do a pin-up of Kimba the White Lion, a character from the popular 50s and 60s manga and anime TV series.

Before drawing the creature, I think about the way to execute the overall image. It's critical that you have a clear direction before you start to work on your drawing, because it makes the process a lot easier later on. Try to make this a habit and you'll have a more efficient workflow. After I've got a rough idea, I use Google Images to get a better

vision of what I'll create – and I may even be able to improve my idea during this stage.

I want to combine real white lion cubs with the traditional manga Kimba, which was designed with a more human, child-like face. I decide to keep the human eyes in my version, but give it a more realistic lion cub anatomy. I add a sense of power by positioning him on a cliff, looking intently at something off-canvas, and I incorporate a flowing mane which suggests a blowing wind in the scene.

I reference the realistic anatomy of a real lion cub, then try to make the face look more human.

An easy way to…
quickly paint a zombie for a comic

Textured brushes can easily emulate fine details.
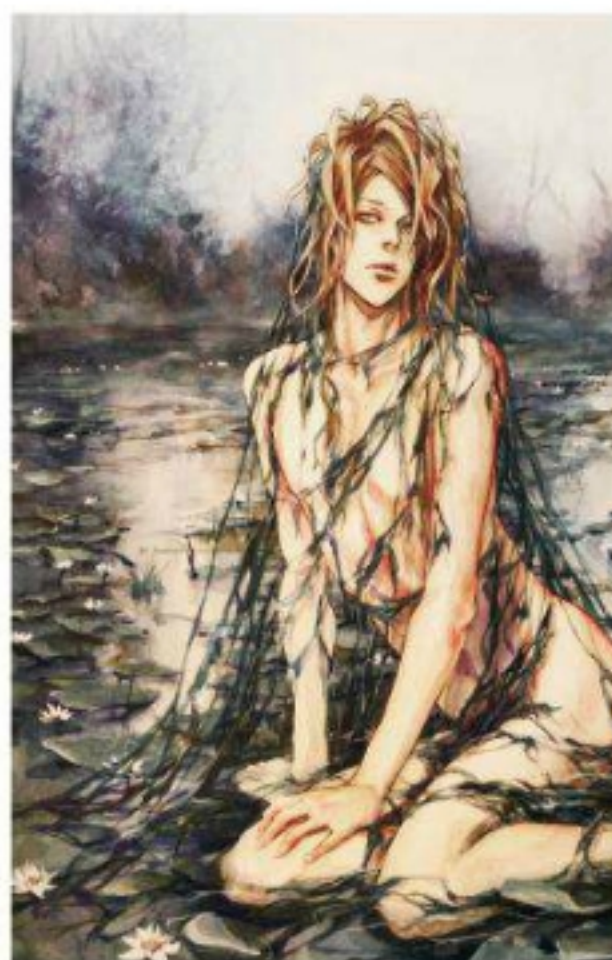
Artist's advice
Serge says

Rotten flesh is a good excuse to work with very textured brushes. Indeed, instead of painting a precise and detailed picture, try to use different 'dirty' brushes. I'm using a lot of Ditlev brushes and Photoshop for this one – you can easily find them online. Use your brush like a stamp: if you work with several layers, you can decrease the opacity of the layer for more precise results.

Start with a basic greenish flesh tone and paint the texture with different tones and at a low Opacity. For a very 80s touch, apply warm and cold lights. It's a good idea to add several light sources because these give volumes greater definition. For the background and the lights, I use the Soft Round brush on a very low Opacity. I only need an hour to finish my zombie. If you want to create something quickly, work at full size rather than zooming in and out all the time!

As you can see, my brush strokes are very rough and not very precise.

A good way to…
make manga characters look more realistic using watercolours

With watercolours I start with brighter colours, before moving on to darker ones.

Observe real life and make life studies. I'm inspired by Baroque painting styles more than by the simplified colouration.

Artist's advice
Kai says

Watercolours have a texture that helps create a living atmosphere. This illustration is a scene from a fairy tale I'm writing. It's a dark and sad story about a prince who's imprisoned in a pond. The colours I've chosen support the mood of this story: they're defining the impressions of time, flow and silence. The greens aren't saturated and range from olive to violet. The balance of warm and cold colours is important. I use crimson red and ochre tones both for his skin and as hints in the background.

Don't use too many colours in your art because the image will end up unbalanced. A realistic painting is about giving a life-like impression. To maintain the manga feel, I strike a balance between applying a flattened, cartoon-like colouration and giving depth to the painting.

You should also bear in mind where the light source is coming from. Compose your image according to the light and shadow.

The best way to…
create a scene featuring multiple characters

Artist's advice
Christy says

It's important to be able to guide the viewer through the image, so their eye will linger on each character before moving on to the next. Using a composition that has strong lines – be they diagonals, horizontals, or verticals connecting the characters in some way – is the easiest way to make sure no one gets overlooked.

Using colour to keep your characters from blending into the background is also very important. Don't use similar colour schemes in the foreground and the background – for example, avoid lots of cool colours, or a monochromatic palette. Changing up the painting style on the figures and the background is also an effective tool. If you can use it, spot lighting focused on the figures is an effective trick.

An uncluttered background ensures the focus remains on your characters.

How to…
create a manga-style monster character

Artist's advice
Saskia says

When looking through various manga titles I've noticed that you'll often either find a cartoon-like monster, or more realistic creatures that could come straight out of a classic fantasy illustration. So when creating your monster you need to first think about your intention: is your monster supposed to gain sympathy, or do you want to set it up as a scary antagonist?

Generally, if you want to paint a monster that people can relate to it's wise to make it appealing by adding soft forms. For example, Pokémon's strongest monsters are still cute and cartoony looking.

If you want to create a more humanoid creature, things can become a bit more tricky. Despite having a human-like appearance your monster has to be recognisable as a creature. The trick is to simplify and reduce your creature's face to its key elements. For example, if you have a humanised wolf you could keep the long nose and the general skull structure, but work in human expressions.

It's important to do your research first, especially if you go for a more realistic approach or if your creature is based on a real-world animal. Ensure you do a few studies to get a feeling for the animal's prominent features. Once you have a bit of basic knowledge you can abstract as much as you like.

Here are some stylistic directions that you could use for your design.

Artist's secret
A ROUGH OUTLINE

Choose the outlines carefully to emphasise the nature of your monster. Use round and fluffy forms for monsters that are supposed to engage the viewer's sympathy, and hard edges for dangerous creatures. This trick is often used in animation and comics.

Step-by-step: Fill your environment with figures
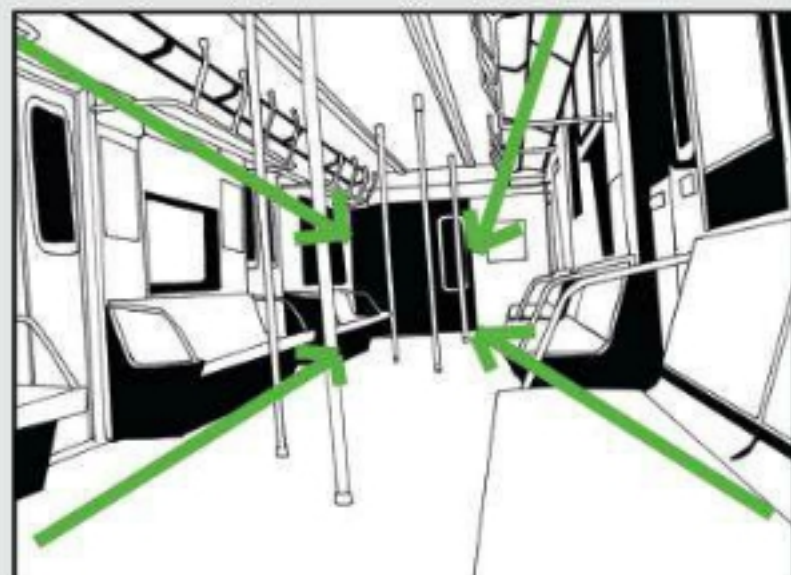
1 I start laying out the background with strong lines on either side, as defined by the subway walls. There are a few verticals created by the poles, but the figures will be in front of them so as not to break up the horizontals that are made by the figures.
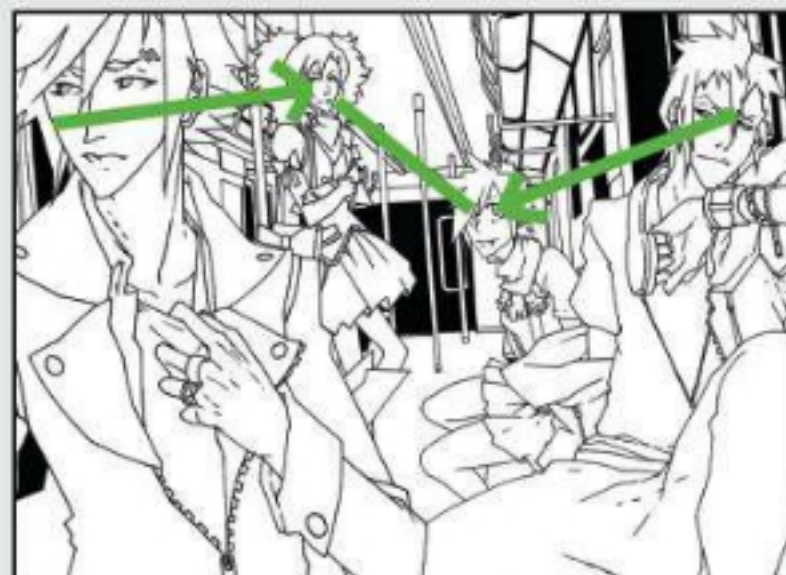
2 The next step is to make sure the viewer's eye flows from one character to another. In this case all of the characters are equally important, so I make sure their heads are lined up on diagonals. This means the eye naturally follows from one to the other.

3 The characters are going to be colourful, so I stick to neutral/warm tones as much as I can for the background, to make sure they pop out. When you have a complex background it's crucial to keep the colours simple so they don't overwhelm the characters.

Discover the best way to…
add a Visual-kei aesthetic to your manga art

Artist's advice
Kai says

To accompany my answer I've chosen to draw Kyouya, who is the original character of a Visual-kei music project I'm starting with a friend. We want to use a drawn manga character as an avatar and produce real music under Kyouya's name.

V-kei includes very different styles, which are inspired by various fashion trends. But all of them have to be eye-catching! Out of personal preferences I love to draw a hard-rock and host style-inspired fashion. This includes extensive use of leather materials, chains and silver accessories. People sometimes tend to overuse these elements, so you have to bear in mind what the final image will look like. Channel your inner fashion designer! Don't just wildly throw different details together, though. Visual-kei fashion has a very harmonic look, even if it doesn't look like it at first.

For the past five years I've been working as a model for V-kei fashion in magazines and on events. Occasionally I've worked with my friend, who is the designer of a Japanese fashion brand, to create unique costumes. This experience has helped me understand the spirit and depths of this unusual fashion trend. For my painting I prefer to do it all traditionally, using the nib pen and ink to outline the drawing and watercolours for the colouring stage.

Artist's secret

PAINT AUTHENTIC V-KEI HAIR

Look for styles used in the V-kei industry, such as backcombed and spiky, modern colours and edgy shapes. The hair colour I use is dyed on natural black, so the blond dye is darker and more saturated at the roots, as in real life.

Step-by-step: Paint a Visual-kei character
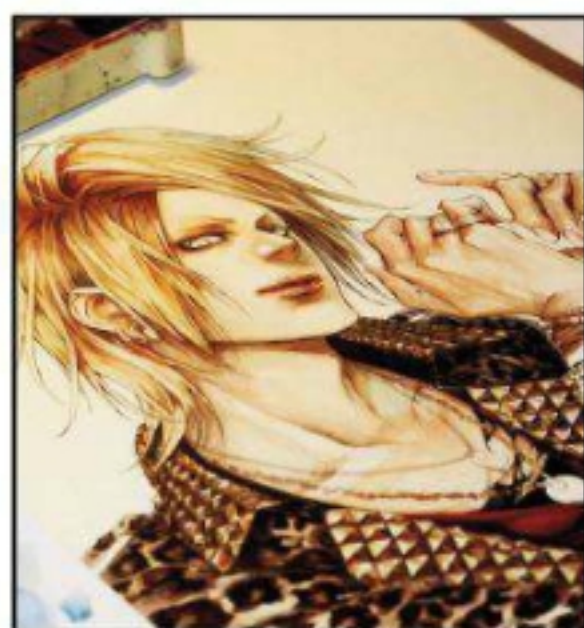
1 I'm aiming for Visual-kei, rather than a straight gothic look, so I choose a yellow-black colour palette instead of all black, with a couple of red highlights. The warm colours work well for blond hair. Note that the final image has to work with all the elements. I prefer to limit the colour palette to two or three colours. The hues are inspired by the leopard print pattern!

2 I start painting the jacket with a bright base colour, which I will transform into leopard print. I use a muted yellow-brown colour and define the shadows and highlights before applying the pattern. For the black stains I use a wet-in-wet watercolour technique and let the colour bleed into the small circles. This keeps the pattern looking natural and every stain unique.

3 The golden pyramid studs are definitely 'in' at the moment and you can find them in many designs! After I finish the jacket I paint the shiny metal. During this stage you have to be very careful about the light direction and define every surface of the pyramids accordingly. Bear in mind that the shadow side is not just black, but also reflects the light. Patience is key!

4 Finally, I render the silver jewellery and the leather wristband. There are no limits to your fantasy character and his costume! I like realistically painting the accessories and therefore I define every chain link. Visual-kei characters tend to use a lot of silver and black jewellery. I've found that it's a good idea to make the accessories contrast with the rest of the image.

A good way to…
give your character an interesting, distinct look

The wholesome girl stems from the common round shape, the muscular angry man has the cube shape as its base, and the sly villain is created using the long oval shape.

Artist's advice
Chris says

When designing a character, the first thing that I think about is the overall silhouette of the figure, including its posture, which depicts attitude. The most important part is the head and the face, which give your character soul – it's where most people look first.

To create an interesting character, you have to depict a suitable skull shape and facial expression. The silhouette of the head is fun to play with, and it can help tell a story or give the impression of a particular character to the viewer. Pay attention to your friends' skulls: different head shapes in combination with their facial features build up the first impression of that person.

I experiment with three basic skull shapes, and create the second image from those shapes, applying specific expressions and lighting to further enhance the characteristics. Feel free to exaggerate the shape of the skull if you want to emphasise its characteristics. Use its expression to give a rough idea of what the character's doing or what kind of posture they've assumed, so you can think more about their mindset.
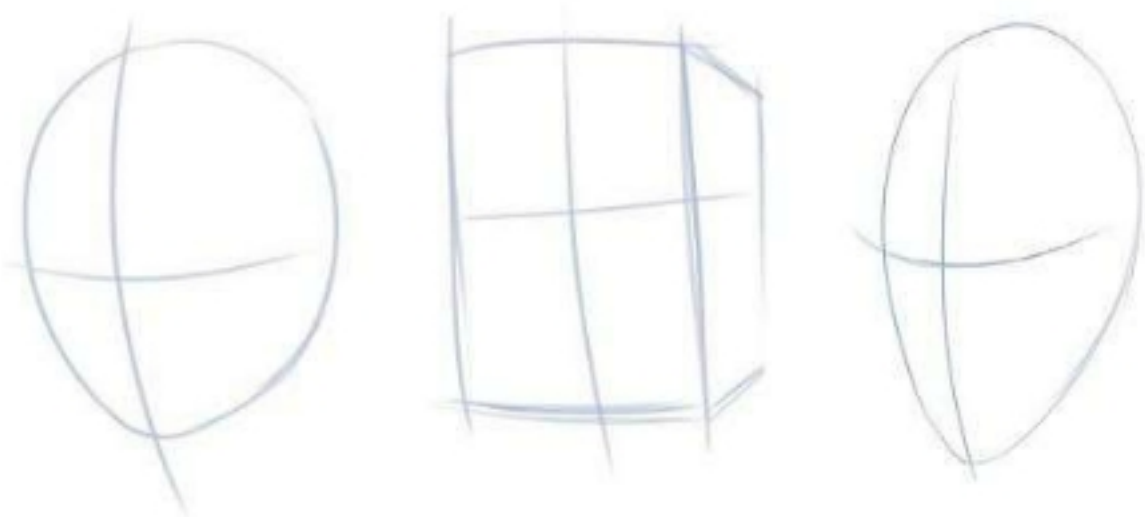
A round shape is used for most characters. A cube is used as a base for a bulky, chiselled character. A longer oval shape can be used for a character who is tall and skinny.

Artist's secret
MIX IT UP

Sometimes I play around and mix up shapes to create more interesting head shapes to fit the characters, such as using a triangle with a small sphere above it to create an orc-like creature with a small brain and big jaw. Mess around with funny skull shapes that you see in real life and use your imagination to create something fresh. Remember that using a unique skull creates contrast and helps the viewer recognise the character.

How to…
design a Chibi manga character

Artist's advice
Rob says

Chibi is the super-deformed style of drawing characters with oversized heads or child versions of characters. Start out with a character who's normally six or seven heads high and reduce them to somewhere between three and one-and-a-half heads high, with their head being the largest part of the character. The smaller the body, the cuter the Chibi.

You can mix and match parts as well, including facial styles from big anime eyes to button-style faces, with either proportionate bodies or tiny lower halves. Don't worry about intricate details, as they're usually too tiny to bother with.

Chibis aren't just for humans, either: the style can be used for animals, robots, vehicles and food as well. It's a great way to liven up the mood and reveal emotions.

Focus on shape play and proportions when drawing Chibi characters.

Adjust parts to change a figure from 'Cute' to 'Oh mah God!' adorable.

An easy way to…
depict three dimensions in black and white manga

Artist's advice
Christy says

Think of it as if you were working with three basic tones: highlight, (pure white), shadow (pure black) and midtone (grey tone/ crosshatching/greyscale). There can be several midtones, different tones, hatching or greyscale used to differentiate textures or colours, but if you're using your white and black tones correctly then they're not always necessary.

Keep in mind where your light source is and paint in the solid blacks first. Spot blacks should be wherever light doesn't hit. After that greyscale can be used to expand shadows, add lighter shadows or to create a different sort of shadowing, such as hair or clothing. White can either be created by using the blank canvas or by adding it back in later for highlights. Don't be afraid to build and subtract as needed!

Here the drop shadow on the fabric is a hatching, the leather has a shine and the heavy shadows are solid black.

The light source is overhead and behind, so the underside and frontside of things receive solid spot blacks.

Learn the best way to…
design a Gundam girl character

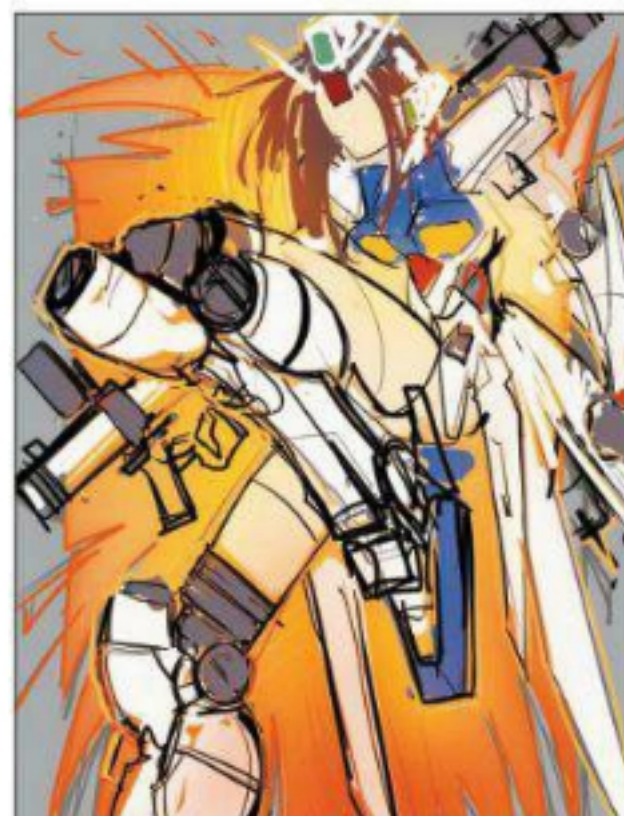I prefer to design outfits in colour, then build my construction shapes on top of that.

Artist's advice
Rob says

Gundam girls refer to drawing young girls or ladies in body armour that resembles Mobile Suits. Think of it like cosplay, but with mecha armour.

Start with a basic female pose, working your construction and silhouette out normally, then add armour and accessories. Lots of reference will help out on the particulars, so refer to Google for research purposes. Keep your shapes as three-dimensional as possible, and if you struggle with construction, try referencing real Gundam model kits instead of drawings.

Think of the mech heads as possible hats or headband accessories. Weapons could easily become purses or backpacks, and robotic legs large boots or shoes. Realistic or fun – the balance between sexy and deadly is the focus, with specific Gundam details accentuating the attitude of your design. Even though my version is very mecha, she easily could have just been wearing a dress that resembled aspects of the Gundam reference.

How to…
create manga-style expressions
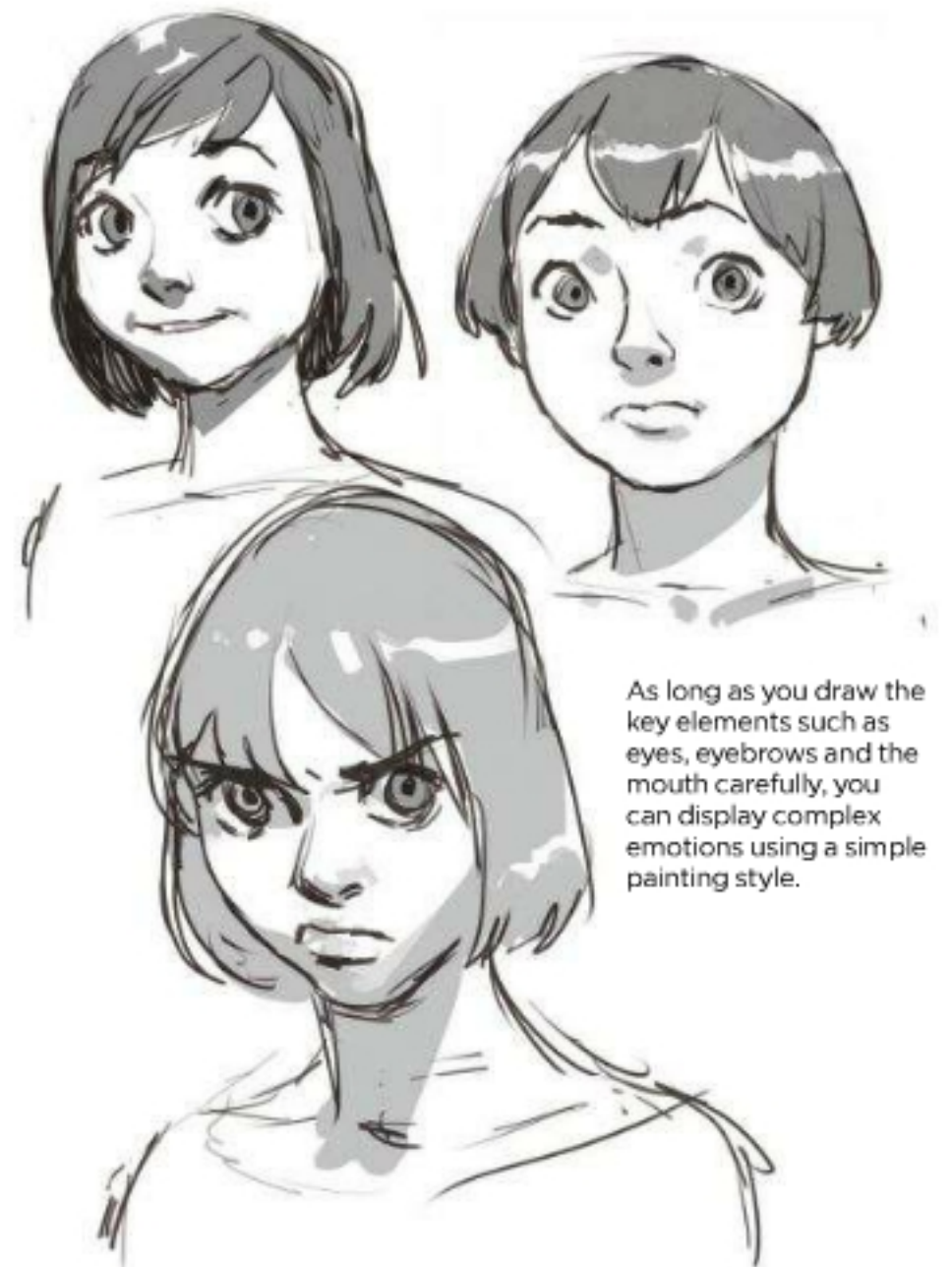
As long as you draw the key elements such as eyes, eyebrows and the mouth carefully, you can display complex emotions using a simple painting style.

Artist's advice
Saskia says

Most traditional manga works with a simple style that's based on classical rules of art. In the end you're always going to have more artistic freedom by having a strong knowledge of what you're simplifying, so pay attention to those anatomy books.

Exaggeration is the key to getting the right expression. The stronger the emotion, the more you can exaggerate it. Look out for the key elements that make up the emotion. The most important things to emphasise are the eyebrows and eyes, because these are the first things your eyes are drawn towards, and they're crucial for displaying any emotion. If you're unsure, observe your own face in a mirror or take digital photos while you mimic some facial expressions, and use this for inspiration.

Be careful when you're drawing the eyebrows – they can make a crucial difference between several different expressions.

Discover an easy way to…
adopt manga-style elements into portrait art

Artist's advice
Serge says

Painting a realistic manga character isn't easy because the volumes aren't logical. For example, the eyes are totally flat. The best approach is to cheat and use more human-like shapes. Try to find good references such as vinyl figures or dolls, but bear in mind that it doesn't have to be exclusively plastic in nature. Think about your light sources first, which will help you find your palette and define your volumes.

When you have to deal with realism, the most important problem to solve is the contrast. Try to avoid pure white and pure black – I usually spend a lot of time on this. To achieve a smooth result, I work with the Soft Round brush on a very low Opacity. Apply a lot of very light strokes, using a larger brush for bigger areas and a small one for detailing. I use a lot of layers: one for each element of the eyes, nose, month and eyebrows.

For the flesh tones, your palette has to be more complex than a simple gradient. Add a little bit of red on the nose and the cheek bones, a little bit of green on the shadows, and a little bit of blue/cyan under the eyes. The hair is the boring part. Start with a flat very dark area and paint hair strands individually. It'll take a few hours, but if you want to achieve convincing results, you need to invest the time!

My first attempt to paint a realistic manga head looks more like a vinyl figure. It's impossible to paint logical volumes for the eyes!

Artist's secret

PAINTING SKIN TEXTURE

Add skin texture with a textured brush, such as the Drybrush in Photoshop. Apply freckles with a small Soft Round brush. Use a different layer to decrease the opacity of the layer for more efficient adjustments.

Here's a very flat face with giant occular globes. It would be difficult to sculpt this in 3D, but manga is 2D, so we can cheat!

Step-by-step: Bring a manga character to life

1 Here's my quick sketch. I don't spend a lot of time on it because when you try to achieve realistic rendering, it's often pointless. It's all about volumes, not lines. Just define the composition and the proportions. Digital painting software gives you a lot of freedom – you can change everything in your picture very easily. Take advantage of it!

2 The face is the most time-consuming part. I start with a flesh-toned flat area on a layer, then define the volumes gradually with the Soft Round brush on other layers. I need to do a lot of strokes. My sketch is still on the top layer, and I increase or decrease its Opacity when necessary. By the time I've finished, the sketch will no longer be visible.

3 I use the same method for the hair. Straight and dark hair isn't too difficult to paint. First I create a very dark-tinted area and then on another layer, I define the global volume. Then I paint in all the small hairs and I add the reflections using the background colour and white. Once again, I use the Soft Round brush on a very low Opacity.

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THE DIGITAL ARTIST'S
S·U·R·V·I·V·A·L·G·U·I·D·E
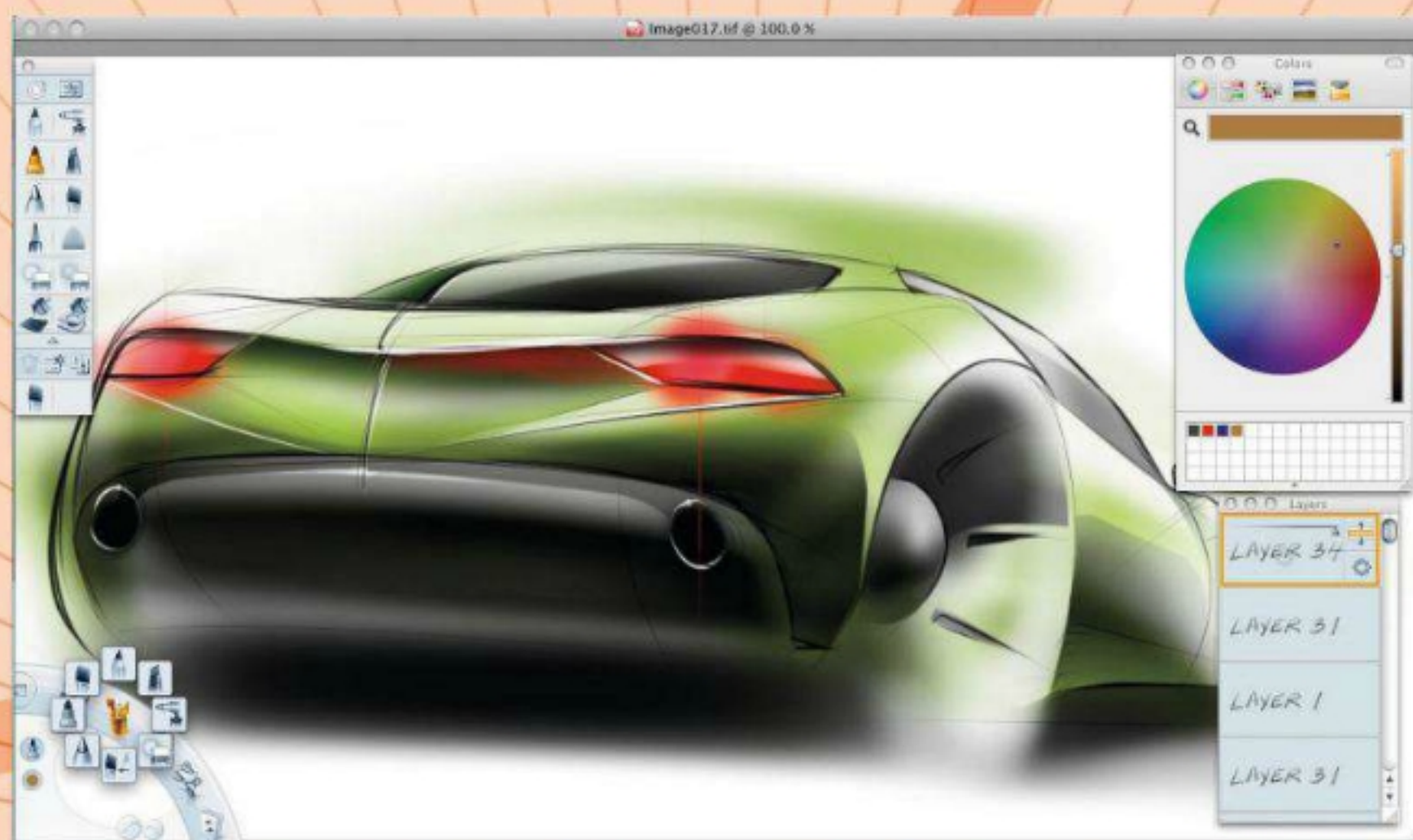
Software guide

SKETCHBOOK PRO

Our artist will guide you through this app's functions so you can get more from this very effective software, including its brush libraries, workspaces and palettes.

Nick Harris

Gloucestershire-based Nick went digital in 2000 after 18 years working with traditional methods. He works mainly on children's illustrations.

www.nickillus.com

Autodesk's Sketchbook Pro doesn't follow in the footsteps of Photoshop for workspace layout like some other software. So let's go over how to access some of its core features. If you're looking for a drawing focused software, without the bloat of the likes of Photoshop and Painter then Sketchbook Pro (SKB) may be for you. It is still capable of fully rendered finishes, but it leans more towards reliance on old-fashioned drawing and painting skills. While that may sound intimidating, there are enough tools on offer to make its use a liberating experience. By keeping it simple Autodesk delivers stylus response that's almost unparalleled – where 'lag' is something you're unlikely to encounter.

Until you turn them off SKB provides mini-guides to get you started with some of the palettes, but first you have to open them. There are various ways and we'll cover some here.

CORNER LAGOON

These are the default tool and command pop-ups that appear when you click each icon.

Note that useful tool tips appear to guide you.
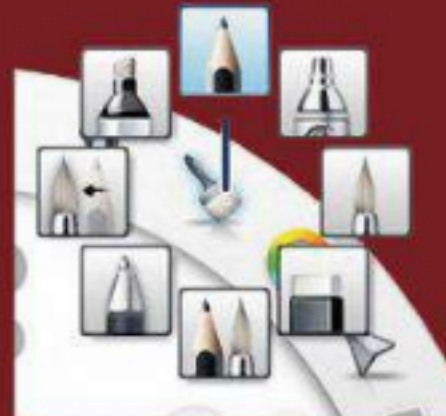
You can change the selection to your most used.

You can change the selection of colours too.

The bottom two icons offer alternate access to various functions, including 'save'.

UNDERSTANDING SHORTCUTS

One thing that can really help speed up your creative process is knowing a few shortcuts for transforming the canvas and grabbing your favourite brushes quickly.

So you have your blank canvas, you have the palettes you want open with all the tools to hand (you can toggle the screen clear with the tab button on your keyboard) and it's time to start drawing. It's easy to navigate your workspace with a Puck which appears under your cursor when you press the spacebar. Some slower machines may struggle with the option to have 'rotate canvas' active so it may need turning on in Edit/Preferences if you want it.

There is a similar puck to transform layer content, which appears by your cursor when you press 'V' on the keyboard.

SOME SELECTED KEYBOARD SHORTCUTS

SPACEBAR – HOLD
Opens Canvas Transform Puck.

V – HOLD
Opens Layer Transform Puck.

B – HOLD
Drag cursor to change brush size.

O – HOLD
Drag cursor to change brush opacity.

CTRL/CMD + ,
Opens the Preferences panel.

BACKSPACE
Clear selected layer content.

M
Opens marquee selection on layer – backspace to clear.

L
Opens Lasso selection.

CTRL+D/ CMD+D
Deselect.

DOUBLE CLICK ON FLOOD FILL TOOLS
Opens 'tolerance' controls for them.

CLICK ON COLOUR PUCK
Opens floating colour picker.

ALT/OPT – HOLD OVER COLOUR
Colour picker.

R
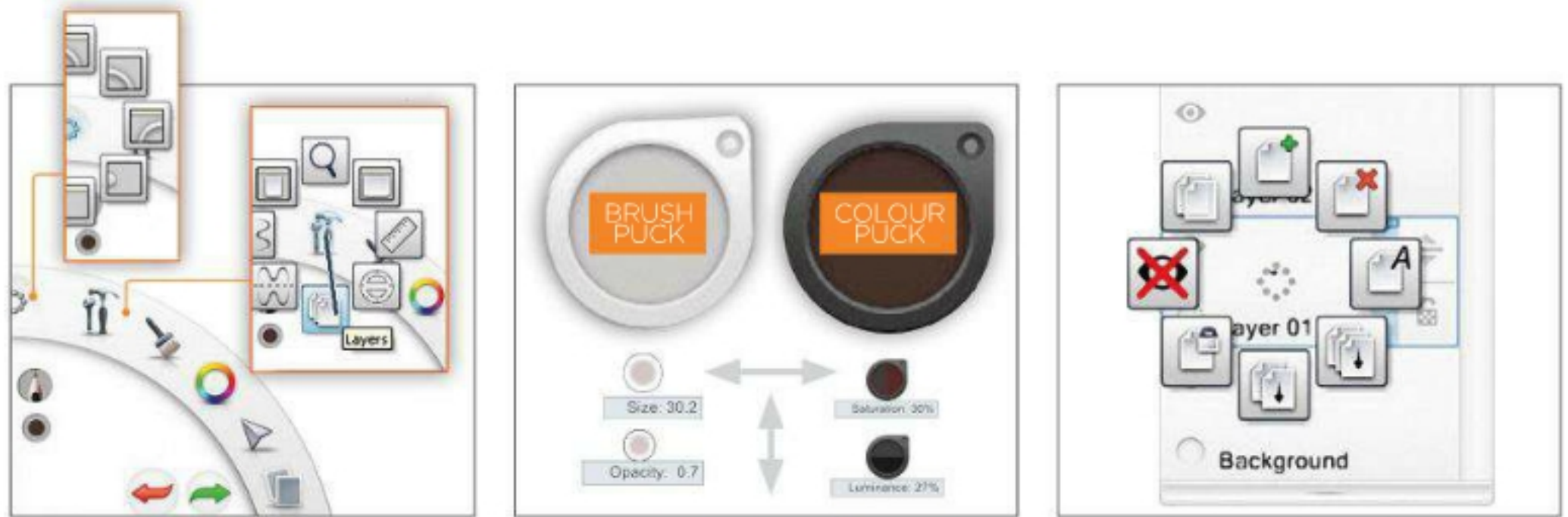Toggles ruler guide.

E
Toggles ellipse guide.

F
Toggles French Curves.

X AND/OR Y
Horizontal and/or vertical symmetry.

Step-by-step: Accessing tools and creating a canvas

1 On a Lagoon

Apart from the usual toolbar with 'File', 'Edit' etc along the top, you are presented with a quarter circle, corner 'Lagoon'. Clicking each icon brings up eight further icons relating to tool, colour and other operations. Click on the icon and drag the cursor to the relevant icon to open it. Two icons (active brush and colour spot) inside the Lagoon toggle those palettes open and closed.

2 Floating Toolbar

You can also access tools like symmetry, rulers and shapes through a Toolbar opened via Window/Toolbar or via the floating Puck at the bottom corner of the screen. All palettes can be toggled by their name under 'Window', including the brush and colour Pucks. These small floating controls for size/ transparency on brushes and saturation and/or luminance for colour, work by vertical or horizontal click dragging.

3 Familiar functions?

SKB loads a canvas on launch, but to create a new one go to File/New. Change the dimensions using dialogues opened through Image/Image Size, Canvas Size or Crop. Save using File/ Save or File/Save as. 'Save as' initially requires you to supply a name and place to save, but subsequent 'save as' saves a file in numerical sequence. Remember to use a new name or SKB will continue the sequence.

Step-by-step: Using the keyboard shortcuts
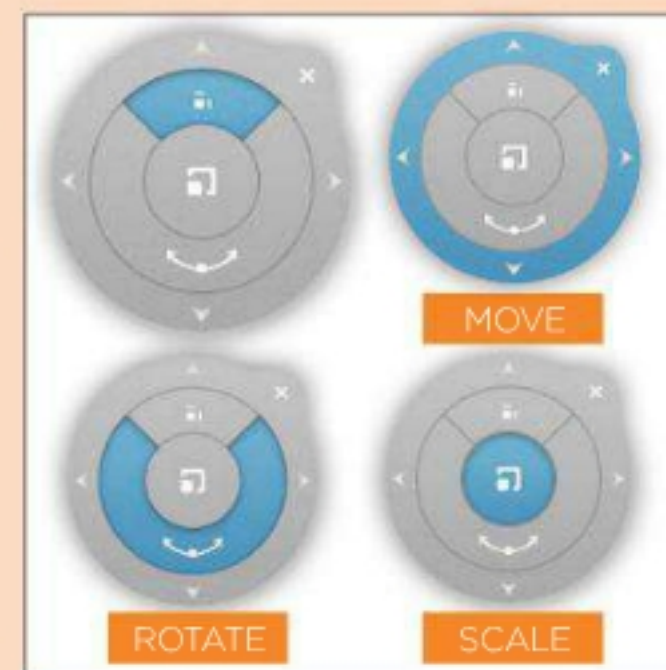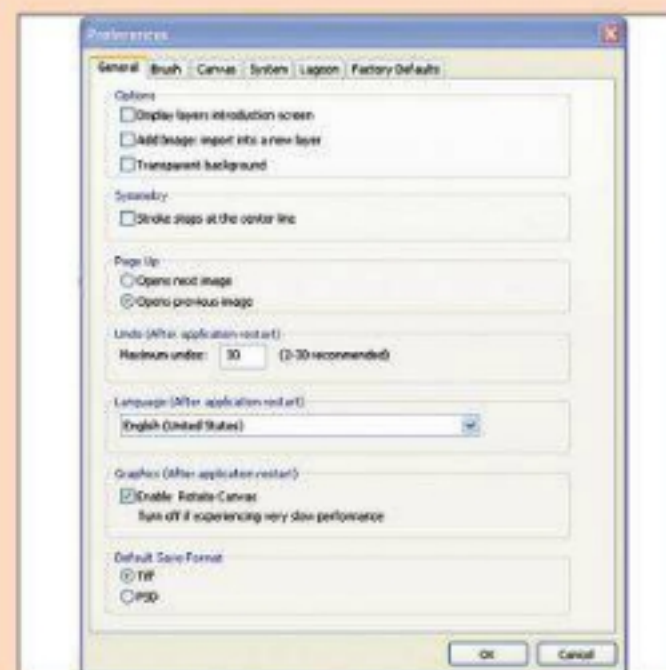
1 Canvas navigation

The Canvas Puck comprises an inner and out ring, whose markings indicate the function. Press spacebar to make it appear and then drag the cursor on the canvas to change of view. The rotate portion appears below the zoom portion when available. Hold spacebar, activate that portion and drag round as desired. The canvas snaps back perpendicular when you get close.

2 Layer transformation

Holding 'V' on the keyboard brings up a similar puck to transform layer contents. Move, rotate and scale are located identically to the Canvas Puck, but you are offered the additional option of irregular scaling using the small portion directly above the central scale portion. Dragging vertically or horizontally enables squashing and stretching in those directions.

3 Selection transformation

This is even more useful when you realise that these transformations can be applied to selected portions of a layer. Use any of the selection options offered to pick out part of a drawing and press 'V'. The puck appears over the selection and you can transform it on the same layer, only committing to the change once you pick a brush or another command to continue.

USING SHAPES AND GUIDES

How good can a drawing software be for more technical creations if it doesn't boast vector tools? Well for those who just like drawing it can be very good.

The control Sketchbook Pro software offers you on 'freehand' brush strokes is extremely responsive and a renowned strength. However there will be times you may require straight lines and more regular shapes. The floating Toolbar is the place to see these options displayed together. SKB implements shapes, guides and tool options in way that feels intuitive to use and retains that free flowing drawing experience. At least that's how it feels to me compared to other software I've used.

"Sketchbook Pro implements shapes, guides and tool options in a way that feels intuitive to use"

EMBRACE ALL THE TOOLS
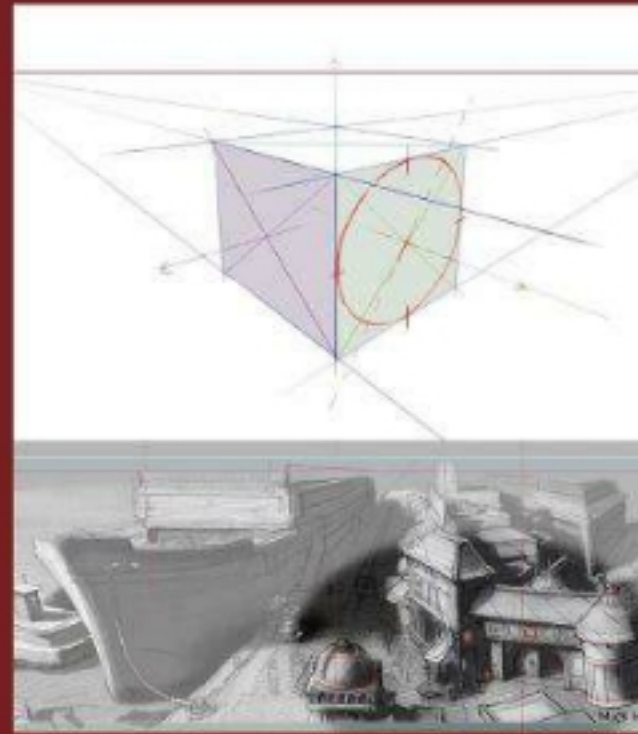
RULERS
The Rotate/Pivot points found on the rulers are really useful when you are setting up perspective.

SHAPES
Rigid shapes can still give interesting effects when used with different brushes. The new smeary brushes and blenders definitely have potential in that area.

EXPLORE THE BRUSH LIBRARY

While the brush palette offers plenty of default brushes for you to play with straightaway, with enough choice so there should be something there you like, this is only an introduction to what's there.

Click on the small icon situated at the top right of the palette and a library opens up, with categorised groups of brushes including smeary, blender and textures. As

"While the brush palette offers plenty of default brushes for you to play with straightaway, this is only an introduction to what's there"

you open each category, you should notice a small circle of dots in the top right-hand corner of it. Clicking this opens up another set of controls, this time specific to managing and creating brushes. Tool tips should pop up when you hover over them to tell you what each one is.

CREATE A CUSTOM TEXTURE BRUSH

A. DRAW
Make some marks on a clear area using an existing brush. These are just pencil marks.

B. SELECT
Open the library and choose a category. Click the little circle top right and click the 'New Brush' option that pops up.

C. SELECT
Select the type of brush you want to create. If unsure click 'Standard'. That's what I did here.

D. CLICK
Double click the new icon that appears. To open 'Brush Properties'.

New Brush

Create Do-It-Yourself Brush

Create New Do-It-Yourself Brush:

Base New Brush on:

- Standard
- Marker
- Smudge
- Current Brush
- Smear
- Eraser
- Synthetic Paint

Import Create Cancel

Step-by-step: *Understand the ruler, ellipse and curves tools*


SYMMETRY

While Symmetry is obviously useful for pattern and regular shape creation, it can be used as a time-saver on organic shapes too. Switch it on and only draw half an object.
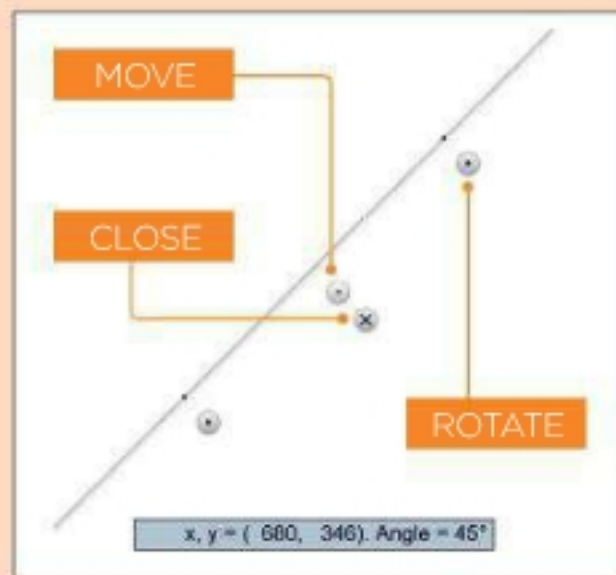
1 *Along different lines*
Without drifting into vector tool territory, SKB has enough choice to make it a popular sketching choice for many designers. Ruler, Ellipse and Curves work with freehand drawing. Vertical and/or horizontal symmetry can be open with any of the other tools individually (bearing in mind that Ruler, Ellipse and Curves automatically use 'freehand'). Marks made reflect the brush being used.
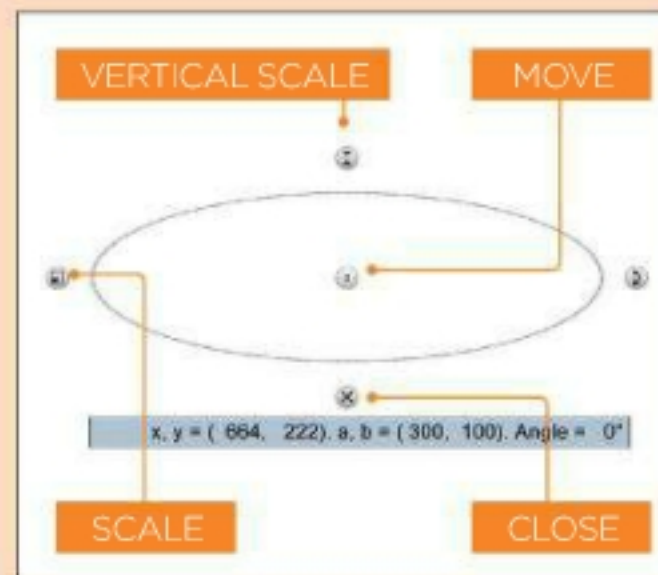
2 *Simple but effective*
Each of the three 'guides', Ruler, Ellipse and Curves have control handles for scale and rotation, and constrain any marks made. You can't make marks away from them while active. French Curves has an additional button to scroll through a variety of shapes. The Ruler's rotation points act as pivots. You can use these guide tools in your art or as aids to it, experiment with them and see how they can affect your workflow.

3 *Shapely stuff*
The basic shapes are simple rectangle and oval, which can be constrained to square and circle by holding the shift key while dragging. The marks made reflect the brush selection. Apart from 'freehand' you have Steady Stroke, Straight Line and Polyline options to influence your strokes. (Straight lines can be constrained to horizontal or vertical using the shift key as well.)

Step-by-step: *Using the Brush Library and Brush Properties*

E. ADJUST

Click the 'Texture' tab, select your settings and click 'Capture'. Adjust the circle size ('B'+drag) to cover your mark area and click on it.

F. REFINE

Play with the brush property settings until you're happy.
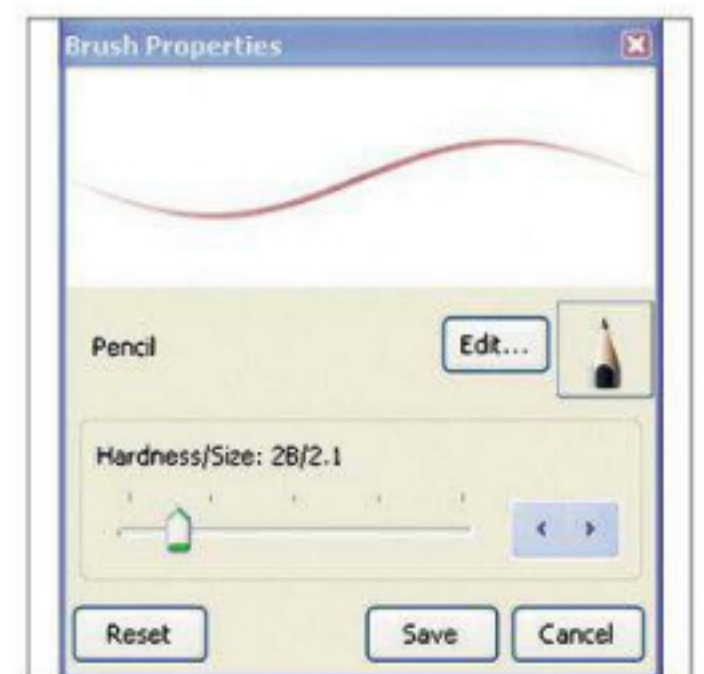
1 *Management decisions*
My first impression of the library was that it was rather large and unwieldy, but its ease of use to manage and add to the many brushes won me over. Moreover you can drag brushes from the library to replace anything in the brush palette. This makes good sense when you've tailored brushes, or copies of brushes to your own needs using 'Brush Properties.'

2 *Settings will set you free*
Brush Properties panel offers size, opacity, loading, colour variation and spacing controls dependent on the particular type of brush. The basic range tends to have a smaller variety of controls, while more complex brushes have grouped controls with tabs that can be collapsed for convenience. Once you start adding your own 'captured' marks for custom brushes the possibilities increase dramatically.

3 *Experiment and learn*
Try varying the range between 'size with light pen pressure' and 'heavy pressure' to see how it affects brush response. Do the same with other settings. Remember that the scale of the canvas you are working on affects the impact these settings have visually on the strokes. This is a key thing to remember when working digitally, here at least, size does matter. Keep experimenting and trying new settings.

MASTER LAYER FUNCTIONS

Every decent software package that has layers delivers a dedicated palette with certain functionality. In this section I'm going to quickly go over where and what SKB has on offer.

Layers add a whole world of potential to any drawing/painting software and SKB has enough options to make their use straightforward and powerful. This includes a way to identify layers that I've not seen in other software. We have to start somewhere so why not with that? It always pays to name layers for organisational purposes.

To get to the dialogue to accomplish that, first click on your chosen layer and drag the cursor right to the icon with an

'A' on it. Now you can click in the text box and replace what's written there.

At the same time the default setting is for the display to show what's on the layer visually. However for times when that

isn't clear enough to see, you can un-tick the 'show me what is on the layer' box, press 'clear image' and write or draw whatever best suits you as a reminder to mark it.

"Layers add a whole world of potential to any painting software and Sketchbook Pro makes their use straightforward and powerful"

NO LAYER MASKS? NO PROBLEM
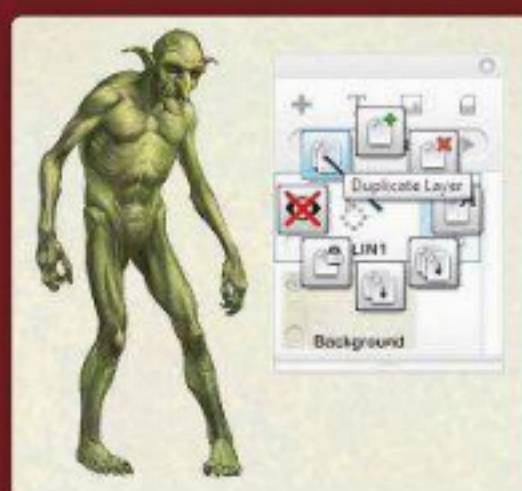
STEP 1
Duplicate your layer.

STEP 2
Now lock the copy layer and paint with your chosen 'shadow colour/s'.

STEP 3
Leave the layer locked and paint lighter areas, or unlock the layer and erase what you don't want.

ADJUSTING AND USING PREFERENCES

While the functionality of SKB is great already, you can tailor the experience to your own needs even more by making a few changes in Preferences.

As you discover your favourite tools and functions in a software you will want to have them more easily to hand. Even if you don't use the Lagoon much at first,

preferring the other palettes it's worth diving into the Lagoon tab of the Preferences panel to understand what you might be missing. It offers you the total control to place each tool exactly where you want it in that system.

That power becomes even more potent when you learn that each icon/selection

can be made to appear under your cursor on the canvas – by right clicking for the PC, or stylus clicking on a tablet.

Nor are you limited by category. For example, you could have your favourite four brushes, symmetry, ruler, flip horizontal and save – or any other combination you choose.

SOME THINGS AREN'T SOFTWARE SPECIFIC

Don't neglect practices that can benefit you whatever software you might choose to use

PAPER TEXTURES
Sketchbook Pro architecture doesn't support 'paper textures' but you can still have a natural media look using texture brushes. Plus you can always paint your own textural layers to sit under and/or over anything you create. Start a dedicated folder to keep any 'papers' that you create and collect.

LOW HUE VARIATION
Using low values of around 10 per cent or less on hue variation for brush settings will naturally tend to bring a degree of randomness into your colouring that will enliven things generally. Alternatively of course, try turning it up for wilder results!

SWATCH PANE
Organise your swatch pane in an order that works for *you* and/ or for the needs of the particular image you are working on. If you reset it regularly, consider taking screen-grabs to save favourite versions that you can load as an image to sample colours from.

Step-by-step: *Understanding the layer palette*

1 Layer palette icons

Four icons along the top of the layer palette access 'Add new layer', 'Add New Text Layer', 'Add Image' and 'Clear Layer Content' (or press backspace to clear a layer). Adding an image can be set to create a new layer with it on or to be added to the current layer. The small eye icon toggles layer visibility. You cannot work on a 'hidden' layer. The blue vertical strip is an opacity slider.

2 Layer blend modes

Directly below the four icons sits a control for layer blending modes. Autodesk has avoided the temptation to load up a plethora of modes you'll probably never use, going instead for four you almost certainly will: Normal, Add, Multiply and Screen. If you're not already familiar with the effect these settings have, spend some time playing with swatches of colour on a few layers. You'll soon get the idea.

3 More icons

To the right on each layer representation are two more icons. Press the upper one and drag to move layers up and down in the stack. Toggle the lower one to lock and unlock content transparency – useful in the absence of 'layer masks' for restricting paint areas. You'll also find 'Lock Layer' within the pop-up that appears when you click and hold on a layer.

Step-by-step: *Improve your workflow by tailoring the software to your needs*
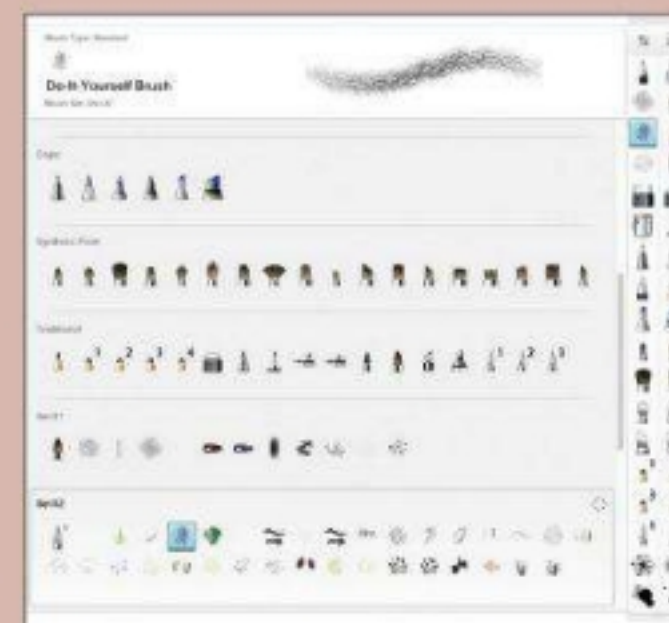
1 Maximise the options

Having to move the cursor away from the canvas repeatedly to change tools is annoying and a waste of time. Save time by customising the first Lagoon icon settings to bring your favourite tools to your fingertips and using 'swap between two brushes'. (Shortcut – S). Click it when changing to a different brush. Click it again and it reverts to the last one and so on. It can effectively add an extra brush to the eight tool options there already.

2 Preferences change

Remember that preference settings can be tweaked quickly at any time to suit your current needs. You can elect to have a transparent background instead of opaque white on all your images for example. Choose whether to save as tiff or PSD by default, dependent on what you plan for your images. Change whether images imported to a project are saved to the selected or its own layer. Everything can be reset in 'Factory Defaults'.

3 Customise the Brush Palette

If you prefer using the Brush Palette, move all your favourite brushes to the top. Open the library by clicking the small double bar icon at the top right of the Brush Palette, navigate to your favourites and drag them to the palette. Reduce the need to refer to the library by placing all your favourites near the top of the brush palette. Also remember you can have different versions of the same brush with a variety of settings.

ARTISTS PANEL

Brynn Metheney
Raised in the High Desert of California, Brynn has a passion for creature and world design. Her clients include Dark Horse and Wizards of the Coast.
www.brynnart.com

Jon Hodgson
An experienced artist who has over 50 book covers to his name, Jon has an enviable CV. He is currently the art director on the Dr Who card game.
www.jonhodgson.com

Paco Rico Torres
Paco is a freelance illustrator living in Spain who's produced art for several card games, magazines, books and roleplaying games.
www.pacorico.blogspot.com

Francesco Lorenzetti
A freelance video game concept artist living in the North of England, Francesco loves painting creatures and emotive environments.
francescolorenzetti.blogspot.com

Charles Guan
A video game concept artist working in Canada, Charles has created characters for the most recent SSX game on PS3 and Xbox 360.
fantasticfunmachine.blogspot.com

Bill Corbett
Bill works as a freelance artist producing illustrations for media groups, public relations companies, small businesses bands and private clients.
www.billcorbett.co.uk

Cynthia Sheppard
A freelance fantasy artist with a background in traditional painting, Cynthia likes to bring classical techniques to her digital art.
www.sheppard-arts.com

Tony Foti
Tony is a US freelance illustrator who contributes to D&D, and Fantasy Flight Games' Star Wars and The Lord of the Rings games.
www.tonyfotiart.com

Mark Facey
Mark is a freelance illustrator who loves creating creatures. Visit his blog and ask him any questions you like, so long as they're about art!
www.creaturejournal.tumblr.com

Mark Molnar
Mark is a concept and visual development artist. He's busy doing freelance work for international film, game and animation companies.
www.markmolnar.com

Nick Harris
Gloucestershire-based Nick went digital in 2000 after 18 years working with traditional methods. He works mainly on children's book illustrations.
www.nickillius.com

Kinman Chan
Kinman studied at Gnomon School of Visual Effects, and has worked for Disney and Lucasfilm. He also owns Kincept Co.
www.sparetimer.blogspot.com

Lauren K Cannon
Lauren is a freelance artist who works digitally and traditionally. She creates art for book covers as well as personal clients.
www.navate.com

It's the shadows that have the most dramatic impact on form.
TONY FOTI

Core skills

HOW TO PAINT ENVIRONMENTS

Master the art theory behind painting environments and put it into practice in these bite-sized but essential workshops.

ACCESSING YOUR WORKSHOP FILES
Click or copy and paste the above link into a browser to download the files to a desktop PC or Mac. Do the same to watch videos where you see the icon.

111

112

105
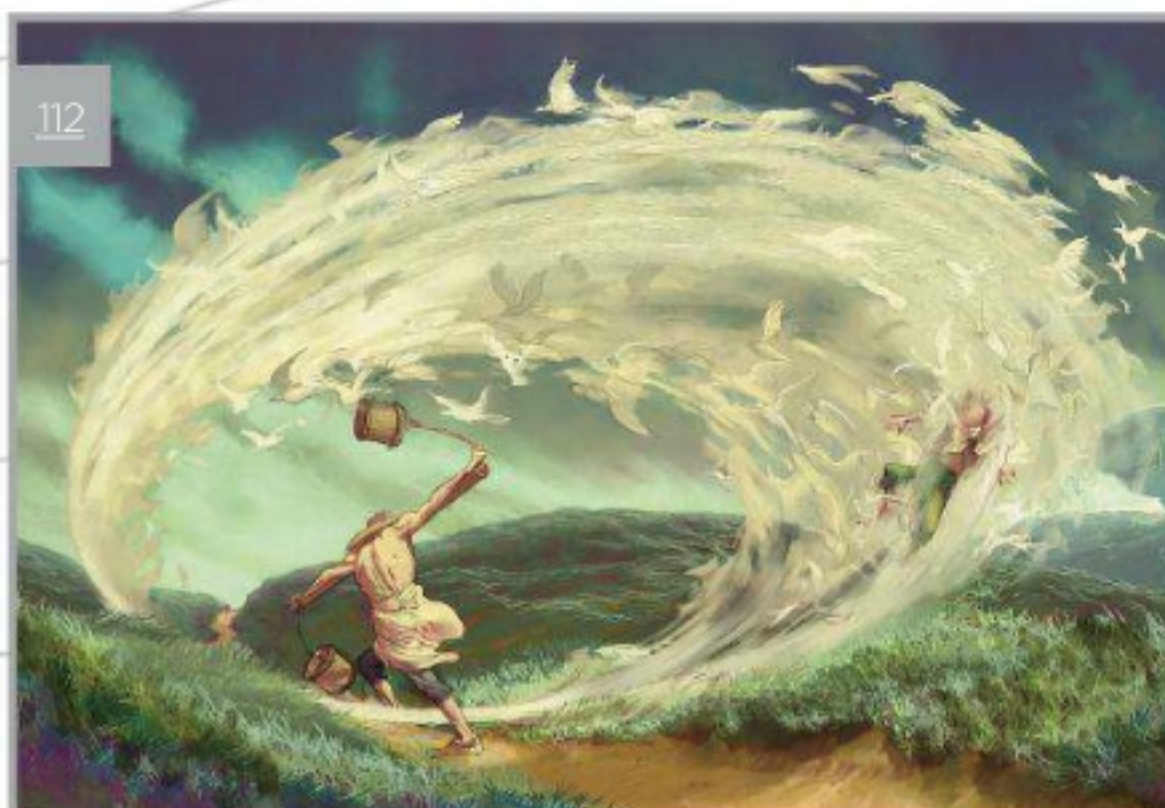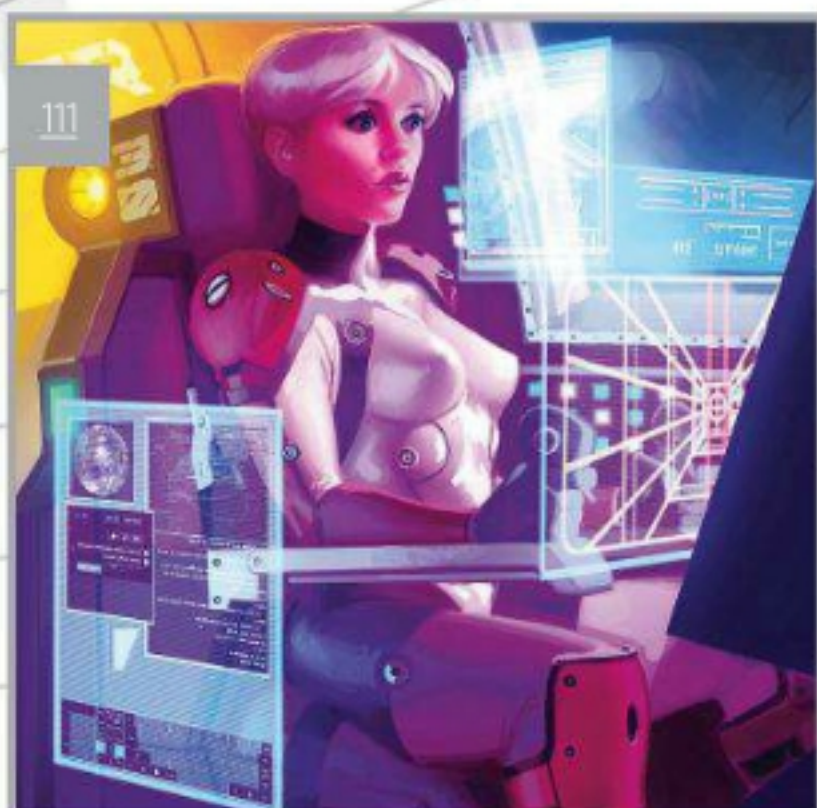
TURN OVER TO DIG INTO ENVIRONMENTS ➤

The final painting shows everything working together: atmospheric perspective; overlapping graphic and narrative elements; and human scale. While it looks complex, the foundations are extremely simple.

Build in a human scale with some figures, and imply depth with the narrative device of a path wending its way deep into the image.

The best way to…
paint a steep mountain pass, giving the impression of depth

Artist's secret

PAINTING BY ERASER

A new layer, some low Opacity spray from a Soft/Airbrush tool, and then a nice sharp eraser can create depth and distance easily and accurately. Use this secret to sharpen edges, and add a misty atmospheric perspective to soften distant areas.

Artist's advice
Jon says

Painting complex and 'deep' landscapes such as mountains can seem like a tough challenge, but it can be surprisingly simple once you've learned the basics.

The first step is to know your mountains. Get out into the wilderness with a camera, or do some searching in books and online. We never copy found images – it's likely to be illegal and unethical – but we can use them to learn the visual vocabulary of rocks. Understanding what we're looking at is the next thing. Drawing from life will be the biggest help, but some theory to back that up is important, too.

Atmospheric perspective is very well explained online, but in short, as things get further away they become paler and bluer.

Another important element in any mountain scene is overlapping. Our brains tell us that one thing is behind another because of overlapping. Get lots of that in there. Also, have some elements heading into the scene in perspective. A winding path, a rope bridge, a river – all of these things work well for the task. These also bring a narrative element.

Narrative elements are crucial in illustration: they prompt us to imagine the moments before and after the moment depicted in the scene. As well as expanding the world beyond the edges of the canvas in physical terms, narrative elements bring the piece to life in terms of passing time. Lastly, add in something that gives the image a sense of human scale – such as a person!

Step-by-step:
Break a mountain scene down into steps

1 A mountain pass can be complex, so break it down into big shapes. Make showing depth a priority and use colour and overlaps without much detail to define the composition. Colours are less saturated and more blue the further away they are. Overlaps create depth by showing one object behind another.
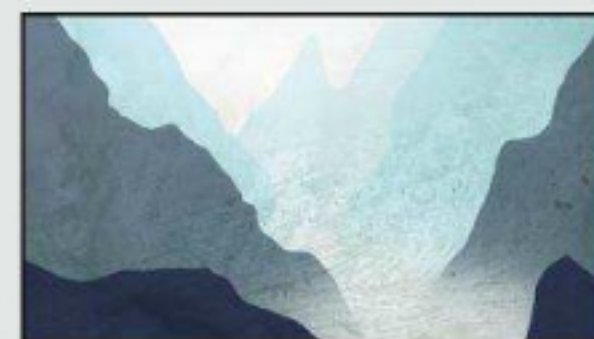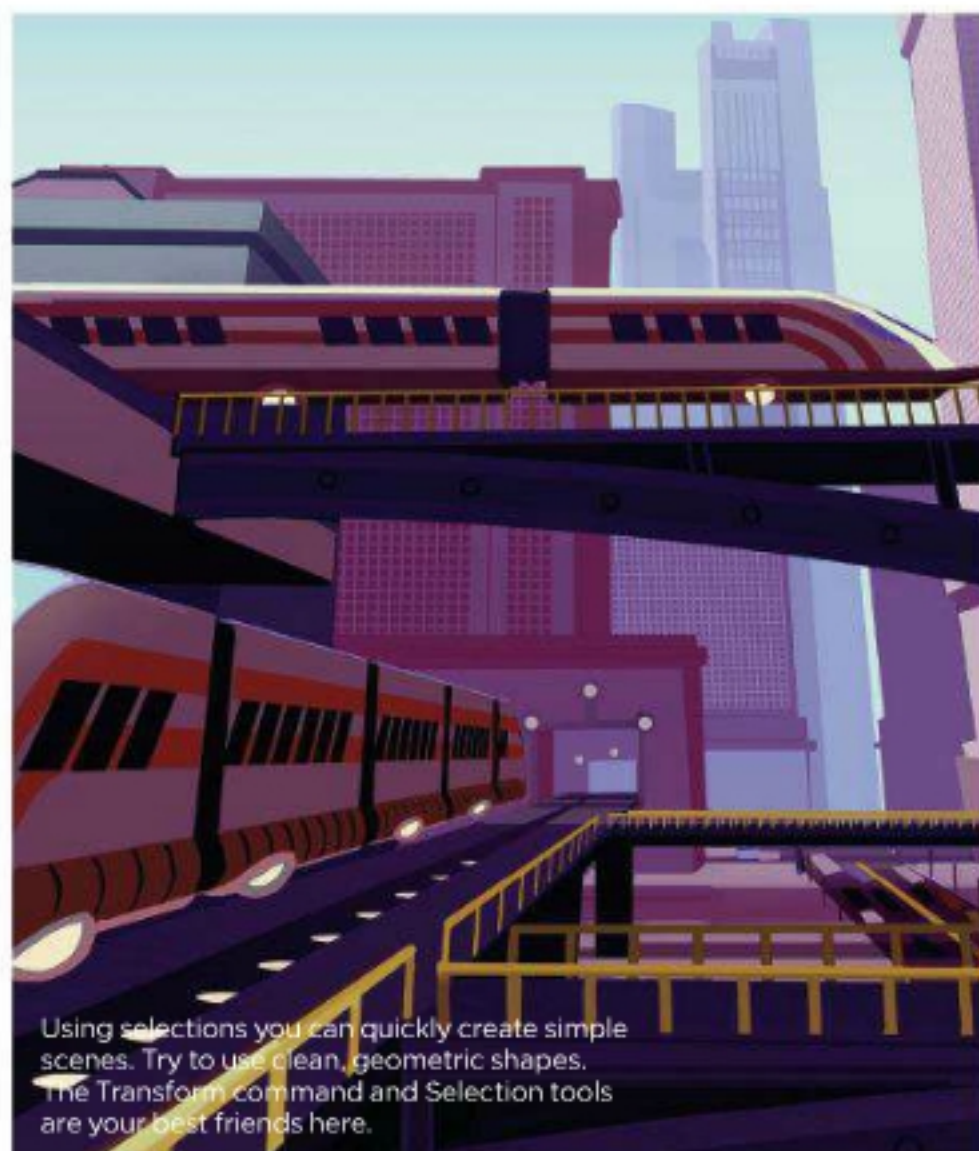

2 This is the simplest step but crucially important for the final image: I take a scan from some real, highly textured paint and drop it on top of my simple image as a Multiply layer. This starts to break up the simple forms with some rough details. You could stop here! It's a nice graphic image with everything we need in place.

3 The painting part is really about embellishing a strong foundation. Keeping the colour within the broad guide laid down by the initial blocky 'sketch', add all that mountain goodness, using reference where needed. You can do as little or as much as you like. I took it quite far, and in the end had to force myself to put the stylus down.

How to…
create a futuristic urban scene quickly

Using selections you can quickly create simple scenes. Try to use clean, geometric shapes. The Transform command and Selection tools are your best friends here.
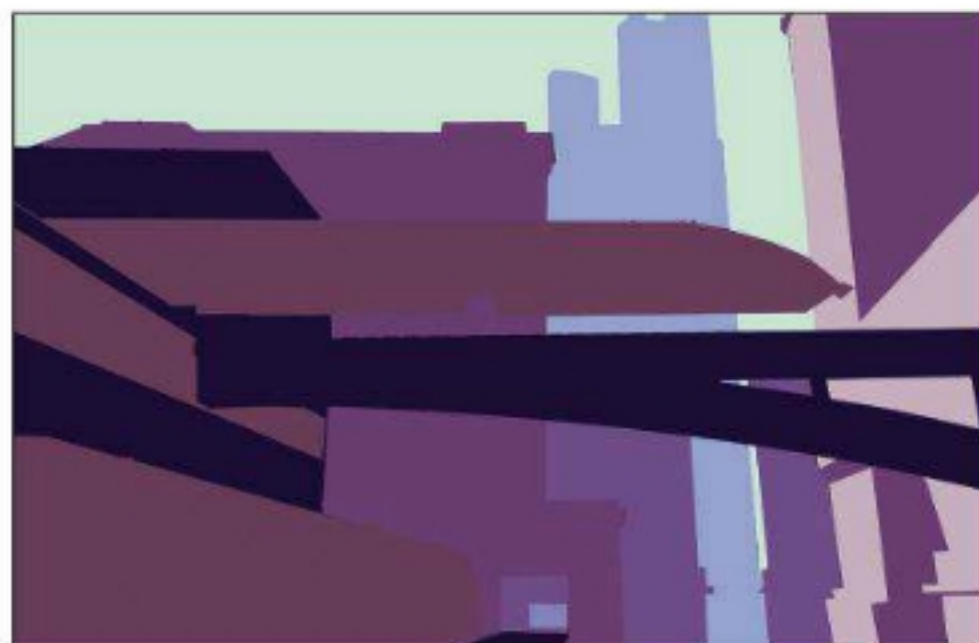
Artist's advice
Paco says

Normally the more time you put into an illustration, the better it looks, and painting a city, even one with stylised details, can be time-consuming. But sometimes you don't have much time, or you simply want to paint some background quickly so you can focus on the foreground. Then you can reduce the shape of the city to big blocks of colour and light. Simply do a line drawing of the city and, most importantly, plan the lighting of the scene. To make things even faster, you can create it using a 3D program like 3D Max or SketchUp and use it as a reference.

Then, using the Lasso and Selection tools in Photoshop, create big blocks of colour matching the line work: just focus on the silhouettes of the buildings and the most intense shadows to begin building your cityscape. Once you have it, fill the blocks with 'texture' – for example create a square grid, and paste it on the buildings to make windows, then use Photoshop's Transform command to adjust the perspective – and add all the details.

This is the base for all the detail. Paint distant buildings in lighter shades to create depth, and play with light shadows and perspective.

An easy way to…
draw forest scenery with realistic lighting

Artist's advice
Cynthia says

To achieve realistic golden lighting in a forest, break up your composition into foreground (1), middle ground (2) and background (3), using three distinct values. I've used abstract shapes to map out the strong light in the middle ground, and the almost entirely black silhouette in the foreground, to give the effect that we're looking into a clearing from deeper woods.

Once your composition is set up, start defining the general shapes of the leaf clusters and trunks with a large brush. Keep refining your shapes from coloured blobs to more detailed leaves and twigs. Like each leaf, clusters of leaves have their own forms with a light side and dark side. Work from the general to the specific: from larger forms to smaller, more refined shapes. I've used short hatch marks and a square brush to suggest individual leaves, but you can get as detailed as you like.

Even if you plan to draw every single leaf, it helps to get the suggestion of individual leaves down first so you don't lose the forms you created in the last step. To make the outer edges of the sun-soaked leaves glow, paint over them with bright yellow-green on an Overlay layer.

When painting a landscape scene, it helps to start out by using three distinct values and abstract shapes to separate the foreground, middle and background.
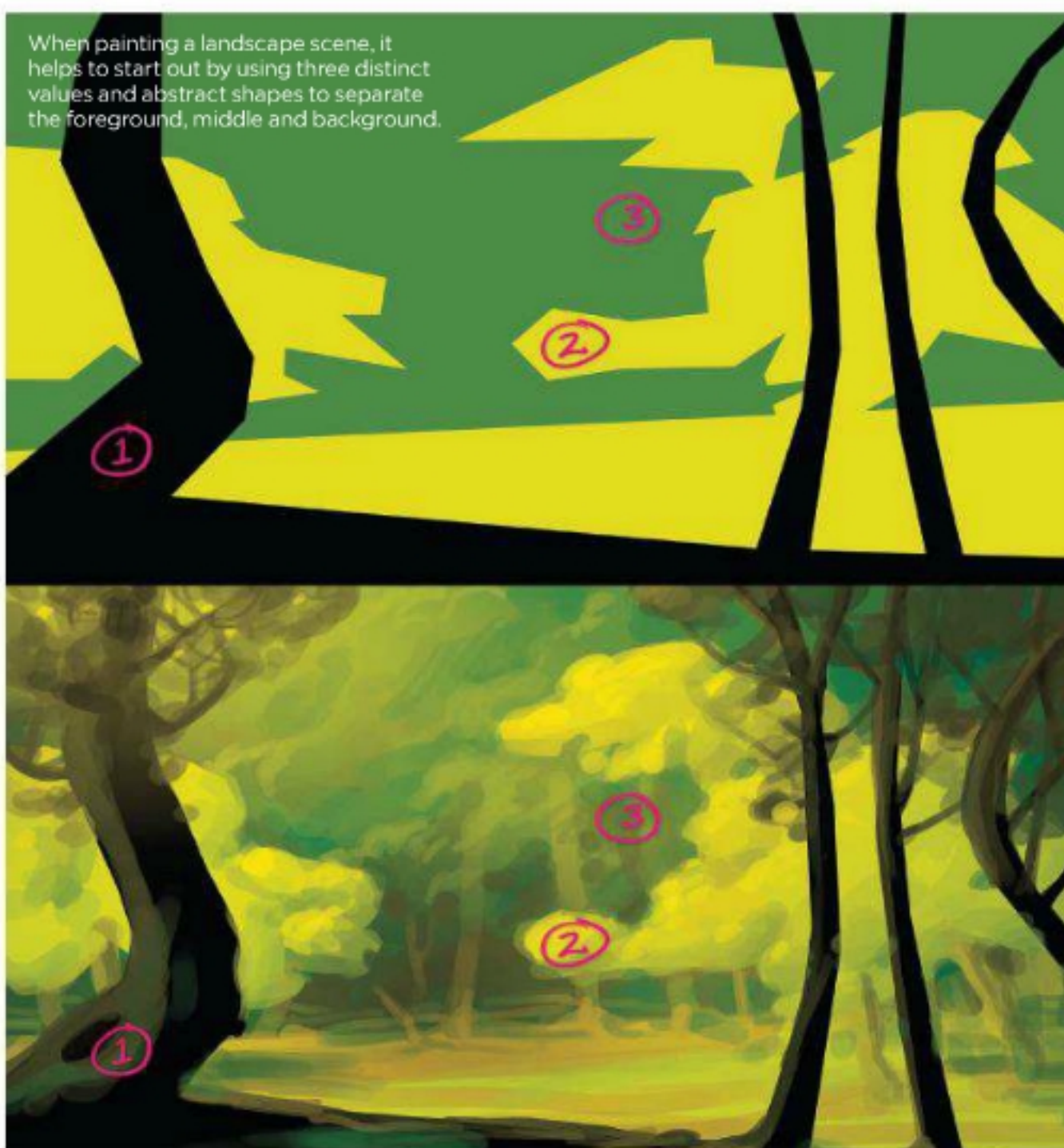
You should note that the leaves at the sunny edges have more contrast against the background.

Artist's secret
PAINTING LEAVES IN THE SUN

The brightest yellows in a forest canopy are usually seen on the undersides of leaves as the sun shines through them. Contrary to intuition, the tops of green leaves in bright sunlight have highlights which are closer to grey-green than yellow.

Learn to…
use blocks of light for an impressionistic scene

## Artist's advice
Francesco says

Lighting a scene is like playing a game of chess: knowing in advance where to put your pieces will enable you to say checkmate before you know it!

Lighting emphasises the aspects of a painting, such as composition, storytelling, impact and realism (including material, visual effects and atmosphere). The use of blocks of light can also help to affect the painting's mood, making for a more dramatic composition.

In this image that I've created for a personal project you can see there are two masses of light, while everything else is immersed in shadow and penumbra (partial shadow). One of the blocks of light is ambient, and the source is so great that it sheds light on all sides (like the sun or a big explosion). The second is a block of artificial light: the light is directional and may be generated by luminescent panels, or a strong source of energy.

It's fun to play with artificial light, especially in a space painting. But you must place them in a strategic manner to create the most engaging and refined image.

I like lighting solutions that result in an impressionistic, dramatic-looking image.
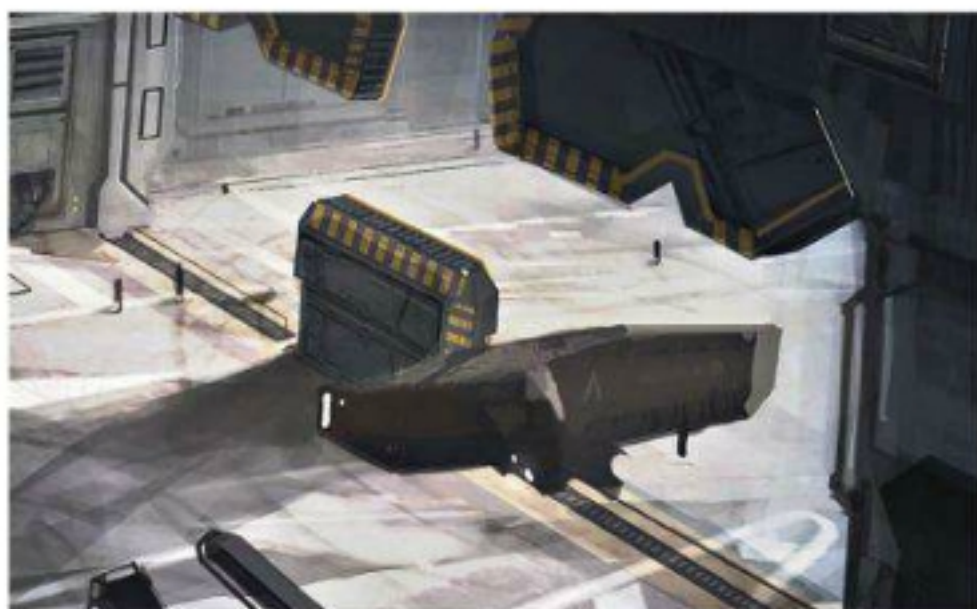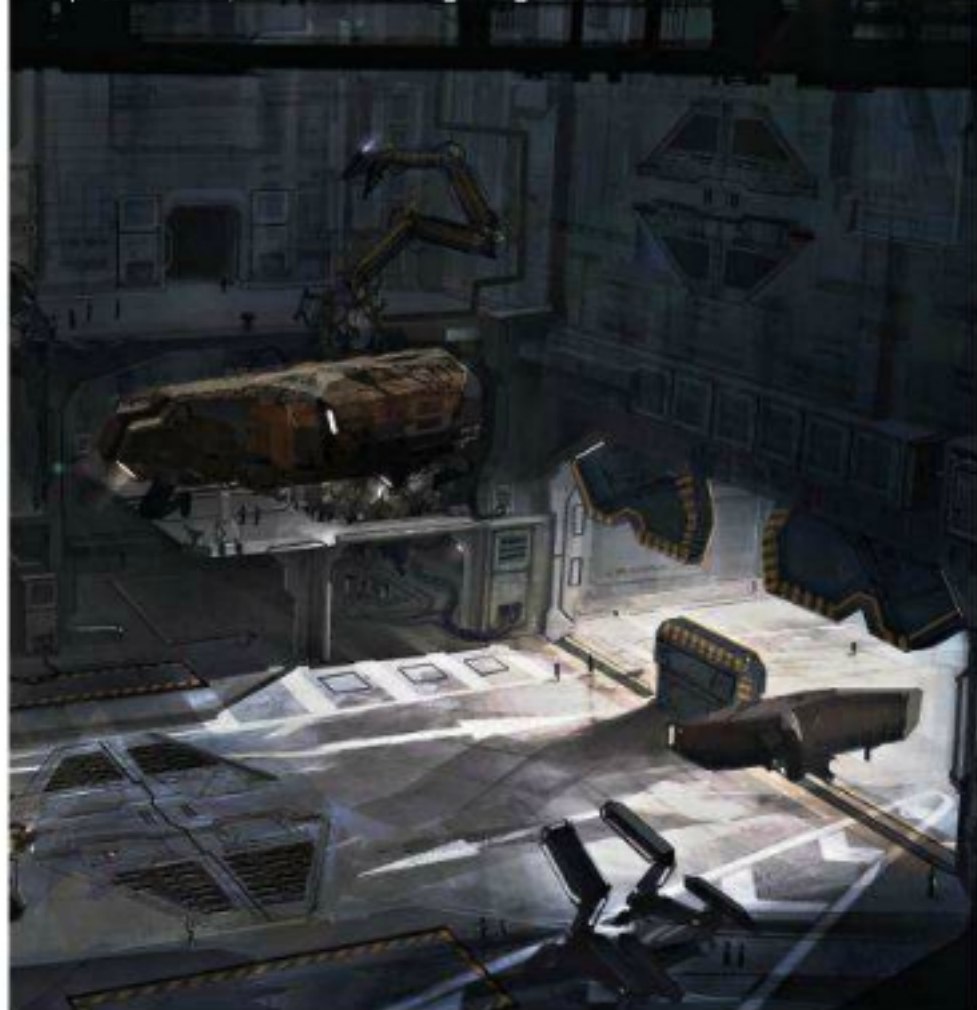
I used dark silhouettes to create spaceships surrounded by light tones, which is an effective way to create contrast and depth between elements and the environment. Clean silhouettes and strong contrast give a realistic look.

Discover how to…
paint the same scene from a different perspective

Using the master shot (below) I'm able to make judgements about the height of objects in relation to each other. The more objects you put in a scene, the easier it is to make these measurements.
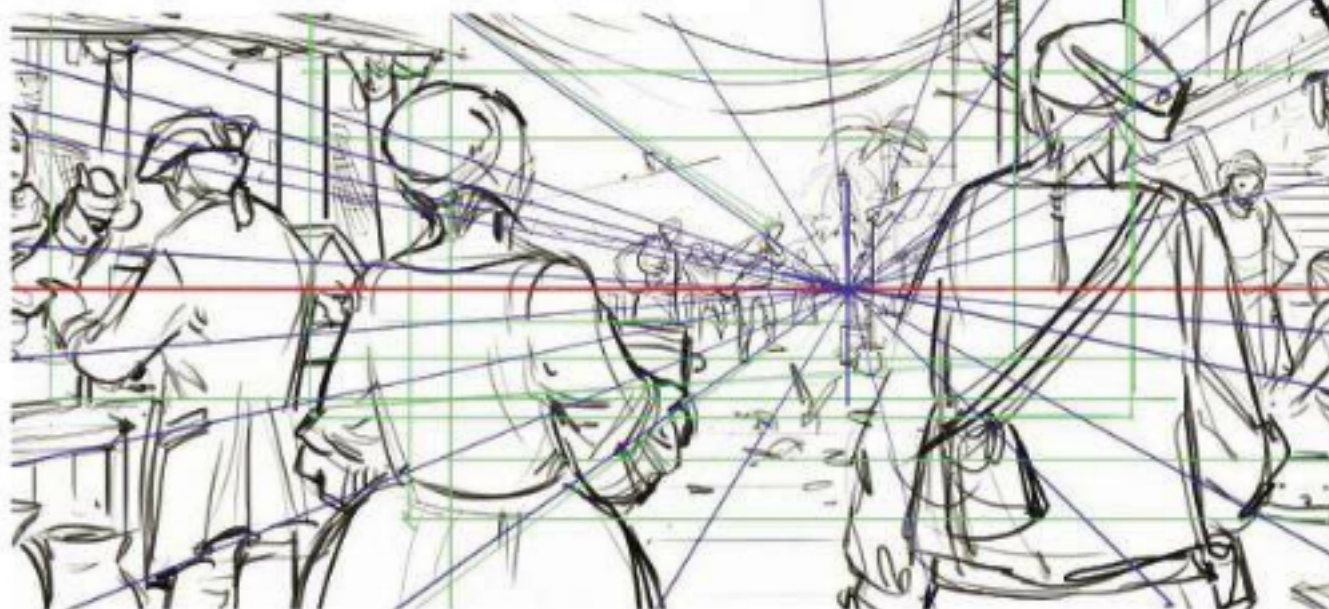
Artist's advice
Charles says

To start, I create a master shot to rotate. I draw it in a top-down view to help visualise the space. I also create a perspective grid for measuring the relationships of objects. I measure distance in the painting by connecting the ground contact point of an object, and following the perspective grid to the next closest ground object. For height, I draw upwards to the top of an object and define relationships in the distance by drawing through in perspective from both the ground and top of the object.

To create the second shot, I focus on laying out the big objects in the scene
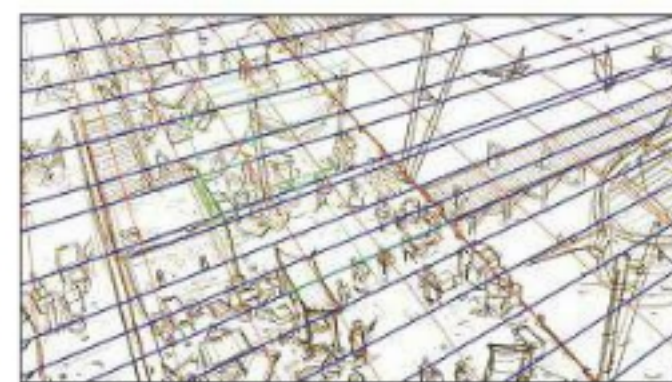
The master shot: notice how the orange always follows the horizon line and vanishing points, and continues up to help define height relationships.

first, such as the walls and the ground. From there I start drawing one item at a time to use as an anchor for measuring distance from one to another. Most important is defining where objects are sitting on the ground plane. The more the objects in a scene relate to each other, the easier the process becomes.

A good way to…
create an alien landscape that feels real

Artist's advice
Brynn says

Making an alien landscape feel real starts with landscapes here on Earth – we can use what we can see to inform our paintings. For my painting, I want to create a rocky, desert-inspired landscape. Looking at deserts in Utah, Arizona and the Gobi Desert, I see how wind and rain affect rock and how they carve the stone and shape the sand. Using atmospheric perspective, I push the depth of the piece.

It's also important to consider lighting. The sun in my piece is bright,

Use references to paint elements the viewer will be familiar with, but use unusual colours and compositions to create a familiar but alien world.

but because of the dense atmosphere, it might not be a strong light source. Adding further elements such as bizarre-looking plants and a large planet in the distant sky helps make the landscape feel otherworldly.

Master the best way to…
paint realistic-looking water in an environment, such as a flooded wasteland

Artist's advice
Mark says

The key to painting realistic water in any type of environment is to generate believable reflections. In the case of a swamp or flooded wasteland it's a little easier, because there are fewer elements that could disturb the surface of the water and create waves. There are no underwater currents, and there is little movement in the air above the water because of the dense undergrowth. The water will cover dead and rotting vegetation, so any areas underwater are always going to be much darker than the environment above the water. Because of these factors the reflection will be clean and only the colour of the water itself will darken it slightly.

I leave the reflections until the last step in my painting process. I'm only blocking in the rough shape of the water surface with a solid colour. After I finish painting most of the environment, I'll copy out everything to a separate layer and mirror it at the meeting line of the main landmass and the water. I like to blur it slightly to give a more natural feel to the water.

After this I paint various parts of vegetation to break the smooth surface of the water – branches poking out, patches of plants, scattered duckweed and so on. It will also give more realism if you create small islands to suggest that the depth of the water is uneven. The only thing you

I imagine a space explorer arriving on a swamp planet. He's found the abandoned hives of the creatures who originally lived here. I want to create a mysterious image – something that brings up more questions than it answers.

have to watch out for here is making sure that you create similar reflections for these new details.

I use a limited palette for these types of paintings, because there isn't a characteristic light source providing any direct light. I use a mixture of desaturated greens and browns to suggest the plants and vegetation, and choose a lighter bluish tone in the background to show the humid air.

Artist's secret
CREATE A REFLECTION

The easiest way to create a reflection is to mirror everything above the surface of the water horizontally and blur it slightly. I use the Motion Blur filter at 90 degrees, which gives the natural feel of distorted reflections of still water.

Step-by-step: Paint a 'known' alien world
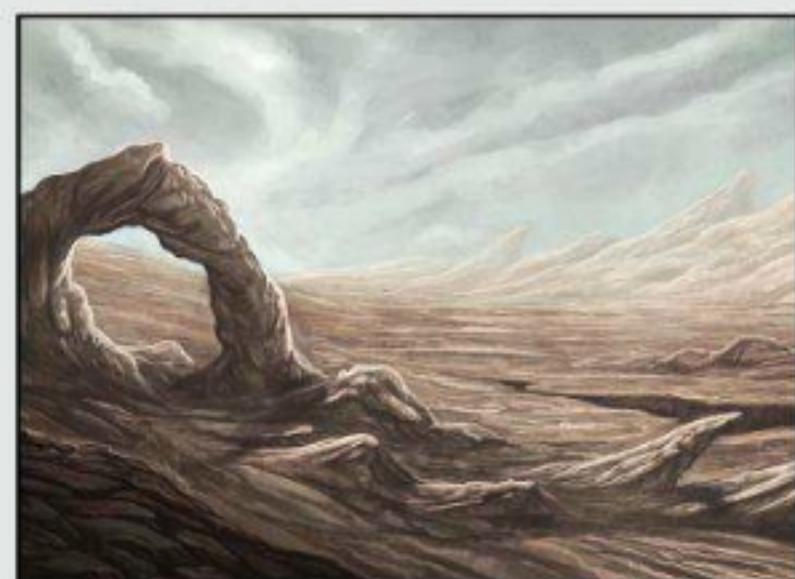
1 I start with a pretty basic landscape, only focusing on the rock and the atmospheric perspective. Using references from various deserts and rocky environments here on Earth, I begin to get a good feel for what a similar alien landscape would look like.

2 I add a large planet in the sky to ensure that the landscape feels less like Earth. The colour of the sky and rock are crucial elements in the image too. Playing with the viewer's perceptions in this way can make an alien environment still feel familiar.

3 Finally, I focus on populating the world with odd-looking plants and tiny, drifting seed pods. This helps sell the planet's history and develop a narrative for the view. Again, they're elements known to the viewer, but placed in an unusual setting and with different colouring.

Working out a lighting scheme – and the shadows that this creates – is the key to a successful painting.

Step-by-step:
Depict a snowy mountain scene

1 If we want to make the snow feel three-dimensional, first focus on descriptive lighting. A quick sketch of the planes will help you understand where the light rays will hit. Placing the sun a bit low and to the right of our scene will create longer, more descriptive shadows.
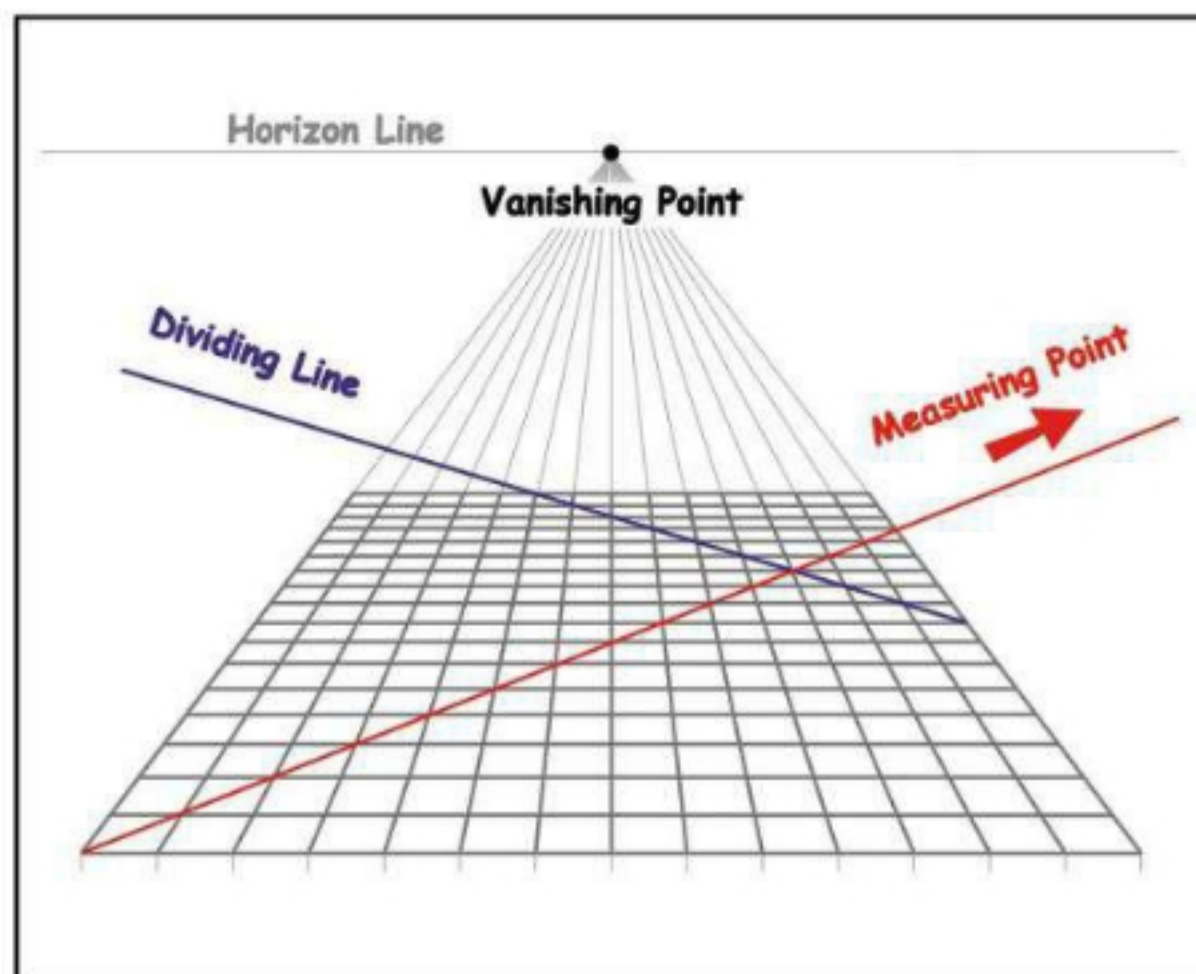

2 With the sun placed for optimal cast shadows, it's time to focus on the shapes. For cast shadows, think of light as water coming out of a tap. From a large source like the sun, it hits everything at a consistent angle. Be careful with your shadow shapes – they define form as much as the light side.

3 The colour of the sky is reflected in the shadows. Here the cool blues help our hill feel like frozen water. For soft, powdery snow, the transitions are more gradual (although avoid anything so soft it feels like mist). Icier snow has more highlights (reflections), so treat with harder edges.

The best way to…
paint a snowy landscape that has form, using shadow and even colours in the snow

Artist's advice
Tony says

The trick to painting anything with form – be it snow, rocks or feet – is all in the lighting. If there's a single light source, the shadow patterns that result will more clearly define the surfaces they're moving across. Rembrandt was such a fan that a strong, single light source moving across a face from the side is now known as 'Rembrandt lighting'. Not only do the number of light sources have a big effect, but the hardness and direction of the light play a big role as well.

If there are too many tonal shifts in an area, unwanted focal points can spring up. So try drawing with hue and saturation while keeping the values close together. Detail can be added without sacrificing the design by controlling your lights and darks.

As a matter of fact, you can think of shadows as the glue that holds everything in place three-dimensionally. In the case of overcast weather, the clouds absorb and emit a lot of light down on to the ground, so cast shadows are faint. As a result, photos on a cloudy day rarely emphasise form in the way sunlight does.

Shape, value and edges all play important roles in describing the bumps and curves of an object. However it's the shadows that have the most dramatic impact on form.

An easy way to…
maintain accurate perspective in a painting

Any line that crosses diagonally through a square creates a dividing line, which is perfect for extending the grid without having to draw off the page.

Artist's advice
Bill says

The best way to maintain accurate perspective in your painting is to create your own perspective grid. The first line I draw is a straight horizontal line across the page, known as the horizon. It represents the eye-level of the viewer and it's at this line that all objects in the distance disappear.

The next thing I establish in the image is the vanishing point. This is the point where all linear lines from the foreground converge at the horizon at a single point (think of railway lines disappearing into the distance until they meet at one spot). With this in mind I draw a line at the bottom of the page and divide it into equal units. From each point I draw a line back to the vanishing point, until I have something that looks like a ploughed field disappearing into the distance.

I now draw a line from the first unit (bottom left) at an angle so that it meets a point at the horizon at the far right (the measuring point). Finally, where the new line intersects the other lines I draw a straight line for each intersect to create the grid in perspective.

There's nothing like a perspective grid to bring out the 70s 3D retro in an artist. It's just one example for using a perspective grid.
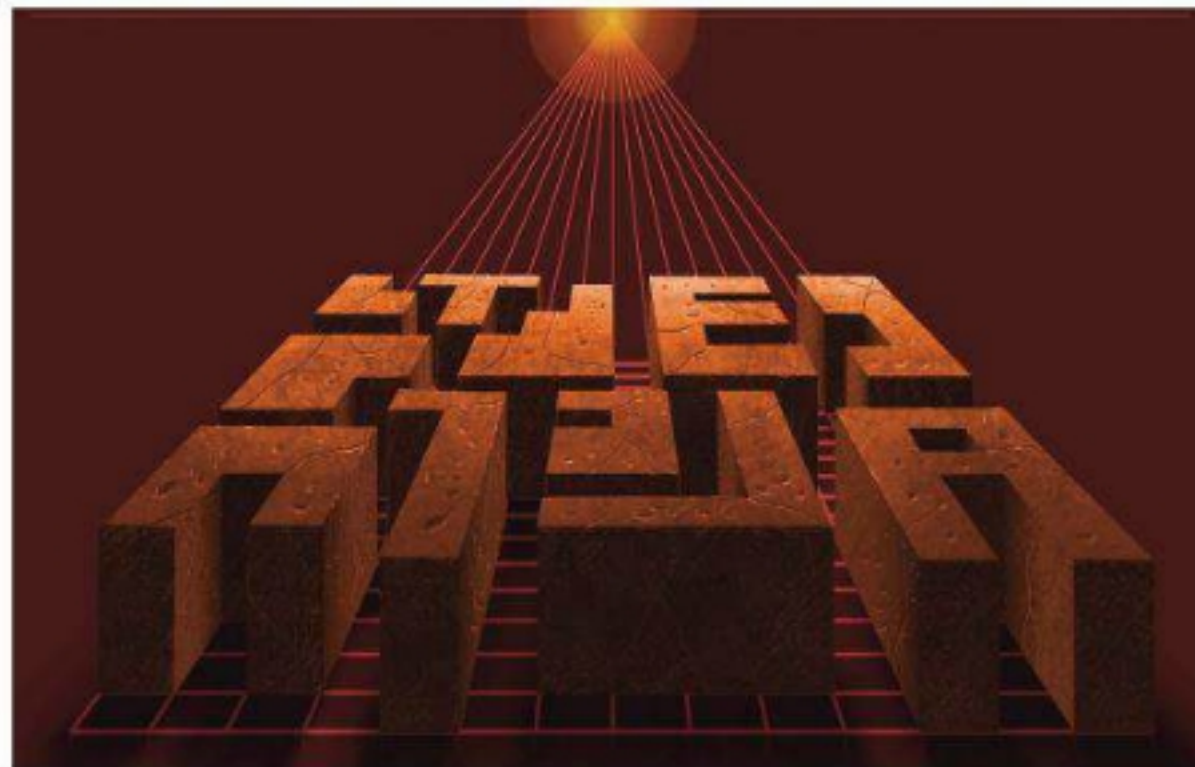
How you should…
paint cloud cover over a bright moon

Artist's advice
Lauren says

Clouds are always about how you handle the combination of softness and detail. The basic mistake with any kind of cloud is to make it too airbrushed and misty. In the case of a bright moon, where the clouds will be strongly backlit, it's crucial to commit to edges, shapes, textures and colour shifts.

Start by blocking in the sky and moon without the clouds, then add the clouds on a new layer with a good 'cloud brush' – a fluffy, textured brush that creates organic shapes. By varying the size of a brush like this, and switching up your colours, you can create a great base for your clouds in very little time. Then add in details and edges where necessary.

Remember the moon's light radiates outwards and will light the sky around it accordingly. Also remember that clouds are vaporous, not opaque. The light will shine through with different strengths all over the cloud's form. Most importantly, use artistic licence to prevent the sky from looking too busy or crowded.

Shape, texture and contrast are all important in painting clouds in a dramatic lighting situation, such as in a moonlit sky.

Discover how to…
achieve detail and realism in a night scene

Artist's advice
Mark says

The two easiest ways to add details and realism to a night illustration is by using natural and artificial light sources. The natural light source could be the moon, which has a cold, desaturated colour. Consider using warmer, more saturated colours for the artificial lights. This can create depth and you'll also use these lights to reveal the original colours of objects in your image.

Using the moon as a light source enables me to introduce some aerial perspective and subtle value changes. For the main focal points I use the mech's warm artificial lights. This helps me not just show the original greenish tone of the swamp, but with using a complementary colour pair (blue-orange) I can separate my main focus from the background.
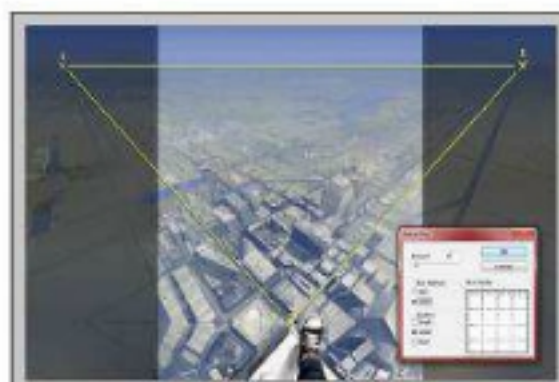

In a night scene, focus on the silhouettes and slight value changes to create depth (Top left).

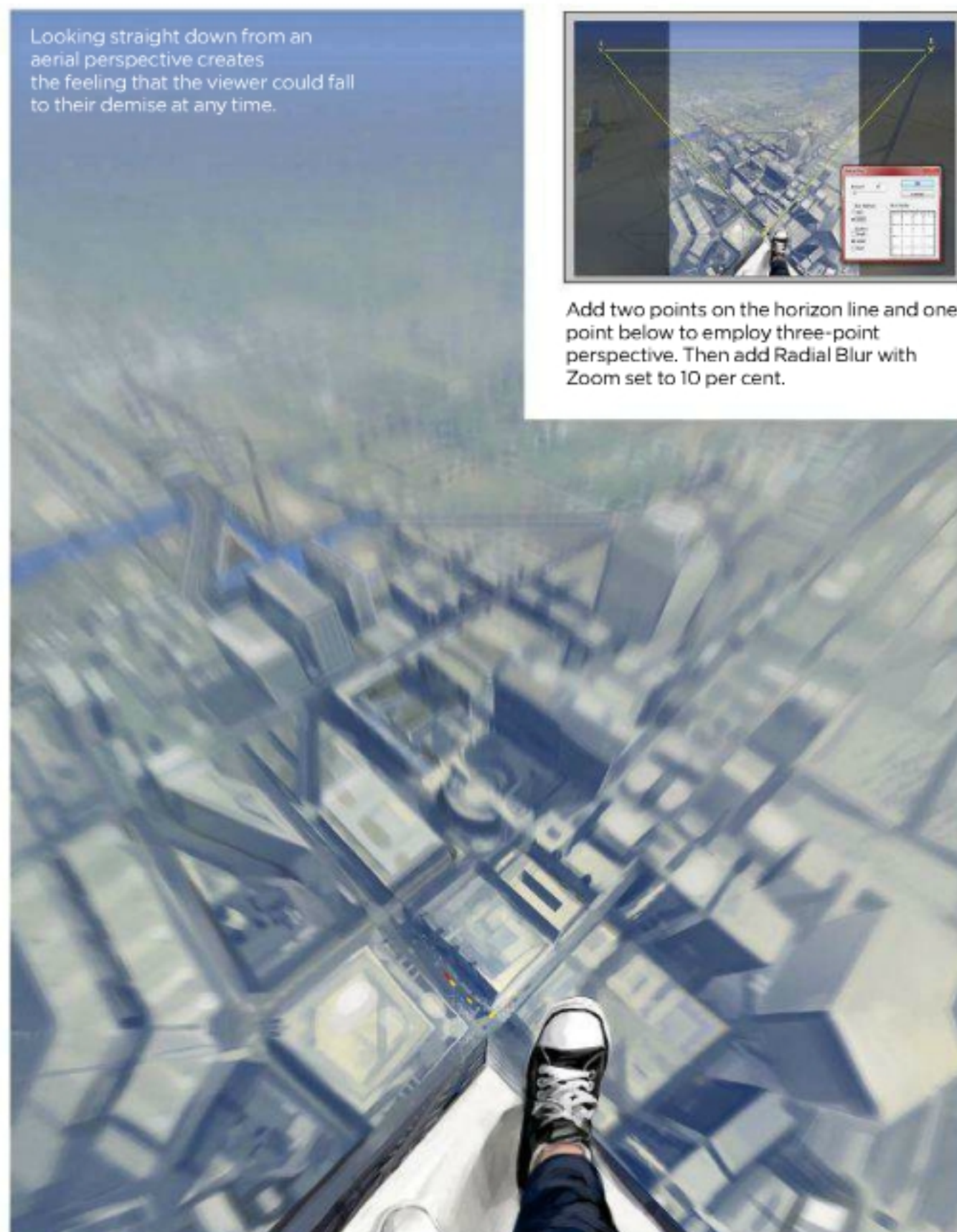The artificial light helps reveal the original colours of the objects (Bottom left).

A good way to…
depict a vertigo-inducing sky high scene

Looking straight down from an aerial perspective creates the feeling that the viewer could fall to their demise at any time.

Add two points on the horizon line and one point below to employ three-point perspective. Then add Radial Blur with Zoom set to 10 per cent.

Artist's advice
Cynthia says

A painting featuring dizzying height requires exaggerating the distance between the viewer and the ground, putting the farthest-away element right next to the closest one. One of the best ways to achieve this effect is using three-point perspective. This is a technique often used in comics when the artist is rendering a city or group of objects from a very high, or very low, vantage point.

In my example here, you see a pair of feet – the viewer's – standing on an edge, which looks directly down over a tiny cross-section of traffic, from an almost straight up-and-down aerial view. I also use atmospheric perspective – the principle that things become cooler in hue and more muted as they recede further into the distance – to enhance the feeling of being up high. Being able to see where the sky meets the horizon helps us feel like we're looking down on the landscape from a greater distance.

Finally, the effect is completed by applying Radial Blur with the centre point aligned on the focal area at the street intersection, making it look like we're almost falling over the edge and creating a sense of dizzy unease.

Artist's secret

AT THE WORLD'S END

If you want to further exaggerate the appearance of height from the top of a tall structure, curve the horizon line in the distance. Because the earth is spherical, the horizon appears more dramatically curved the further up you travel.

An easy way to…
draw a spiral staircase in perspective

Artist's advice
Bill says

The method that I'm explaining here can be used to draw a spiral staircase at any angle and at any size, and although not the simplest thing to draw, the only thing that's really required is patience and a good knowledge of perspective.

The principle of drawing the staircase is based on a linear template; a circle drawn in a square with another smaller circle drawn within the larger circle. The outer circle is then divided into segments to create the steps of the staircase.

With this template I can create a stack of layers to represent each step of the staircase. Imagine a stack of cakes where only one slice from each cake can be seen. Each slice is placed in sequence around the central axis (essentially a staircase).

It's worth noting that a circle is traditionally drawn within a square, because a circle in perspective is actually an ellipse. The edges that touch the sides of the square will do so in the same places in the perspective view.

A square is also useful for creating the guidelines for drawing each level of the staircase in perspective. As such, it's a good idea to have a smaller square for the inner circle, too.

Another thing to note is that when using a perspective grid to create the first square it's important to remember to divide the square horizontally, vertically and diagonally. This will create the first eight segments for the staircase for you and make it easier to divide the circle into additional segments. Time and care will certainly reward you here!

Here's a creepy turret in an old castle. The work put into getting the perspective right will certainly pay for itself when you draw your staircase.

The template is the key to getting the staircase drawing accurate in perspective. In simple terms, it's like looking down on a tube within a tube.

Discover how you can…
use texture to emphasise perspective

Artist's advice
Kinman says

Texture plays an essential part in emphasising perspective – so much so in fact that I use it with almost every brush stroke that I put down. Texture solutions will differ for each piece, but here's some general food for thought.

Large establishing shots: we want to be thinking about the agriculture, living spaces, districts or terrain over large areas. Having miniature stories to tell will make it easier to decide how to disperse textures throughout the piece. The ability to see buildings and structures as simple shapes of texture and pattern will also be of use.

Intimate shots: when showing space in close quarters, be sure to pay attention to the details of all elements. Every object has unique textures and patterns different from their surroundings, and the camera lens may also distort those textures. A macro lens, for instance, shooting an ant on dirt will look completely different than a 50mm of the same subject.

Point of view or camera angle: being high above ground or low to it will affect how we treat our depth cues. A low camera angle means we have less canvas space to show depth, so each brush stroke should be carefully considered.

Here's my Photoshop painting of an aerial landscape with a few buildings. Each area of space has a different treatment of texture. I don't work methodically when I paint environments, so to demonstrate I share a few of the key thoughts below.

Think of agriculture, living spaces, districts and terrain to determine textural grouping and mapping on a larger scale.

The perspective grid can help with the separation of spatial textures, patterns, colours, values and edges.

Artist's secret

GRAYSCALE CHECK-IN

Paintings should also read well in black and white. I find that having a Grayscale Adjustment layer helps keep my eye in check as I'm painting. Turn this layer on to ensure that the basic spatial relationships haven't veered off course.

Step-by-step: **Paint a visually interesting landscape**

1 Start by establishing a clear foreground, mid-ground and background (A, B, C). I think of these separations as card cutouts on a spatial grid, and it's common to separate these 'cards' via distinct values. Alternatively, we can separate by hue and saturation, as long as they're defined clearly (not recommended for beginners).

2 The cards made in Step 1 will become the guides for the next steps. Here I divide each card into three separate levels, and we can begin to make decisions to separate (again) each level. Any of the technical approaches to do this (colour, pattern, texture, value and edge) apply, so long as they feel different from each of the other levels.
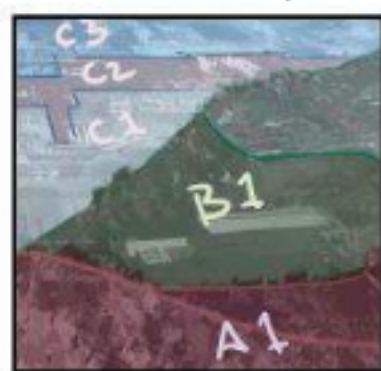
3 Once the first two passes are defined, fine-tuning begins. Each level we've separated can be divided again into smaller zones to make look different. These differences have a hierarchy: step 1 having the largest set of differences, step 2 having slightly less, and so on. Continue dividing and refining as long as your patience allows!
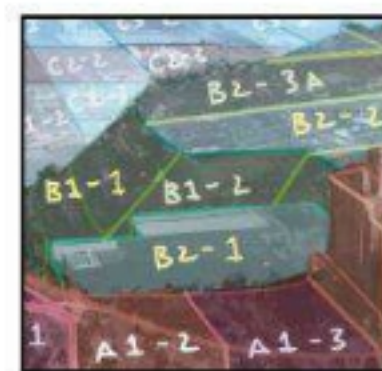
A good way to…
paint a spewing volcano, without it looking like a runny egg

Artist's advice
Francesco says

I'm using this question to try and explain the ideas – and my assumptions – that are involved when I'm painting an environment, in this case an interesting volcano. A volcano is a geological formation that changes shape over time primarily through the red hot magma coming out, which cools and becomes solid, forming new channels over time.

In this concept painting I imagine the volcano as a bubbling cauldron that's full of magma, and when there's a full moon the magma rises because of tidal pull. This astronomic phenomenon brings the magma to the top, where it escapes from the edges, leaking out so the volcano starts gradually raising.

It's interesting to think about how the volcano could have become active in the past. In this case there were many earthquakes that have caused landslides, due to the movement of tectonic plates in the region.

The abundant spills of magma create large incandescent rivers that over time have formed valleys and canyons. These are considerations that may suggest ideas for your environment scenarios. In general when I want an element to stand out in a concept or illustration I try to put it in a context that contrasts with its surroundings.

This is an intermediate stage. I refine the composition and volcano shape, then add magma and atmospheric effects such as smoke and fog.

I decide to push the vertical shape of the volcano, avoiding the usual cone shape to make it more visually interesting.

How to…
add more colours to something monochrome

Here's a concept of mine that has been reclaimed by nature.

Artist's advice
Francesco says

A lawn, say, may seem like a solid shade of green, but it contains many other colours. Even a small patch of lawn reveals glimpses of soil, clumps of dried grass and other species of grass.

Light also plays an important role. Painting light and shaded areas creates a lot of chromatic variations. In this image I use a green/yellow in the light area, which shifts to a cold blue tone in the shadows. In some areas I use a warm tone to differentiate the type of vegetation, showing where the orange-brown shrubs are growing.

This is only a piece of concept art so I don't detail the grass and flowers much. This approach helps you be more aware of colour choices when painting.

How you should…
paint a convincing-looking nebula for a space scene

soft areas

Hard areas

Create depth by varying the softer, blurrier areas and harder areas

Artist's advice
Mark says

Nebulas are huge interstellar clouds made up of dust, hydrogen, helium and other gases. I always start a space scene with a black background and work with a really big sponge-like textured brush. Then I start on depicting the nebula. First I lay down the base colour of the gas cloud, that has a middle saturated red, and then try to come up with an interesting shape.

On top of that I use other colours, on Overlay and Color Dodge layers, to give the clouds more diversity. I create the three brighter spots in the middle. From this point I only focus on these areas of the image.

Create a feel of depth by varying the saturation and value of the clouds. Another trick is to create softer/blurrier and sharper areas.

Finally add the stars. I use a simple splatter brush and cover the whole image with small dots. Then I erase back the stars with the same textured brush that I used for painting the clouds.

Using Screen, Soft Light and Overlay layer modes, and with the correct lighting of the surroundings, you can easily create non-solid looking holograms.

An easy way to…
paint holographic interfaces without making them look solid

Artist's advice
Paco says

Painting holograms, or any other kind of translucent, luminous effect, is easy using Photoshop. The method I use is simply painting the hologram in a layer, then setting the layer mode to Screen.

A Screen mode layer brightens everything on lower layers, based on its own luminance. That means if a Screen mode layer is completely white, you'll see everything white; if it's filled with black you won't see any change because it'll be like an invisible layer; and if it's filled with grey, you'll see the background but 50 per cent brighter. It acts as if you were painting with light instead of paint. So a Screen layer is

This is how the hologram looked before I set the Layer Blending mode to Screen and used the Transform tool to give it perspective.

perfect for painting something like a hologram, which is essentially light.

Remember that holograms are supposed to cast light. The light from the hologram should be visible on, and affect, the surrounding areas.

There are no rules on what a holographic interface should look like, so let your imagination run free – and try to get some fresh ideas. In this case I made the edges of the holograms slightly blurry, and also made a copy of the hologram in the background and pasted it over the original one, a bit displaced, to make it look like a failing, damaged device. But those are just ideas. Enjoy trying different effects!

Step-by-step:
Light a scene using holograms

1 Even though I haven't painted the holograms yet, I have them in mind for a light source and colouring. Make the light from the holograms affect the elements around them so they look natural. I paint the holograms – flat and not in perspective – on separate layers.

2 I flip the holograms horizontally, because the viewer will be viewing them from the rear. Then I adjust the perspective of the holograms using Transform in Photoshop (Edit>Transform). If you haven't tried that before, practise with the Skew or Distort commands in the Transform sub-menu.

3 I adjust the Opacity of the holograms and give them extra light by adding two new layers over the top: one set to Soft Light with blurred light blue brush strokes on it; the other set to Overlay mode with lighter blue brush strokes. Both have Gaussian Blur applied and are at a low Opacity.

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The best way to…
draw the viewer's eye around an image to focus on a final point

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Artist's advice
Nick says

A simple way is to use swirling shapes. A swirl effect will focus the eye on what's at the centre of the image, be it the cause or the target for its presence. They present a useful way of pulling in the viewer.

An easy way to achieve this is to employ radial or zoom blur filters, offered in Photoshop and other software. But the

Don't be tempted to introduce too much detail. It will detract from the feeling of movement.

downside is that they may jar in a more painterly piece. No problem. All we're talking about really is controlling the direction and smudge/blur of brush strokes.

Using an oval/circle as a guide, follow its arc to lay down an appropriate array of marks using whatever brush you choose. If the guide is on a separate layer, just lose it later when finished – and make sure that

you cover it with paint strokes if it's on the same layer. This works with Painter's image hose and ArtRage's sticker spray brushes, too.

Remember to incorporate perspective in your arc and dab size if appropriate. Dabs closer to the viewer may seem more blurred than those further away, depending on the scene and the swirl, of course.

Step-by-step: Put a new spin on your fantasy art
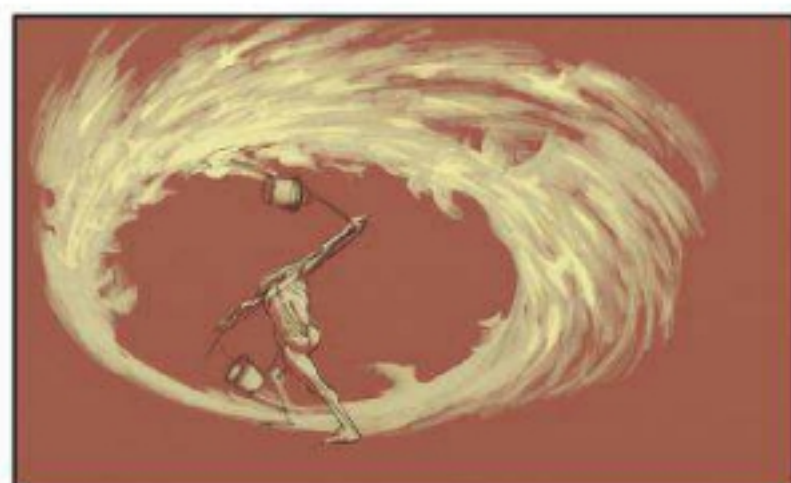
1 I sketch a rough idea using ArtRage oils. My swirl is based on a flock of birds but there's no need to paint every feather. I pose the figure as though he's being spun around by the force, to support the feeling of movement. I need to account for perspective for elements around the arc – flight direction and size, for example.

2 I place the idea into a composition, and then I start to block in some background shapes and colours. I choose darker tones for that, keeping the swirl light in contrast. I start to hint at shapes in the counter-clockwise movement. Using the multi-colour 'grit' glitter, I introduce texture that I then soften with the 'wet' palette knife.

3 I build up marks that follow the arc of the swirl and strengthen the feeling of movement. Notice the direction of the grass as the swirl passes near it. I then bring in another figure being swept off their feet to show the force of movement, and add elements dragged off the background to the cocktail to help integrate it.

Learn to…
paint an underwater composition

In real life our eyes can't focus underwater properly, but I'm keen to keep the focal points clean and sharp, so I try to emulate how underwater cameras work.
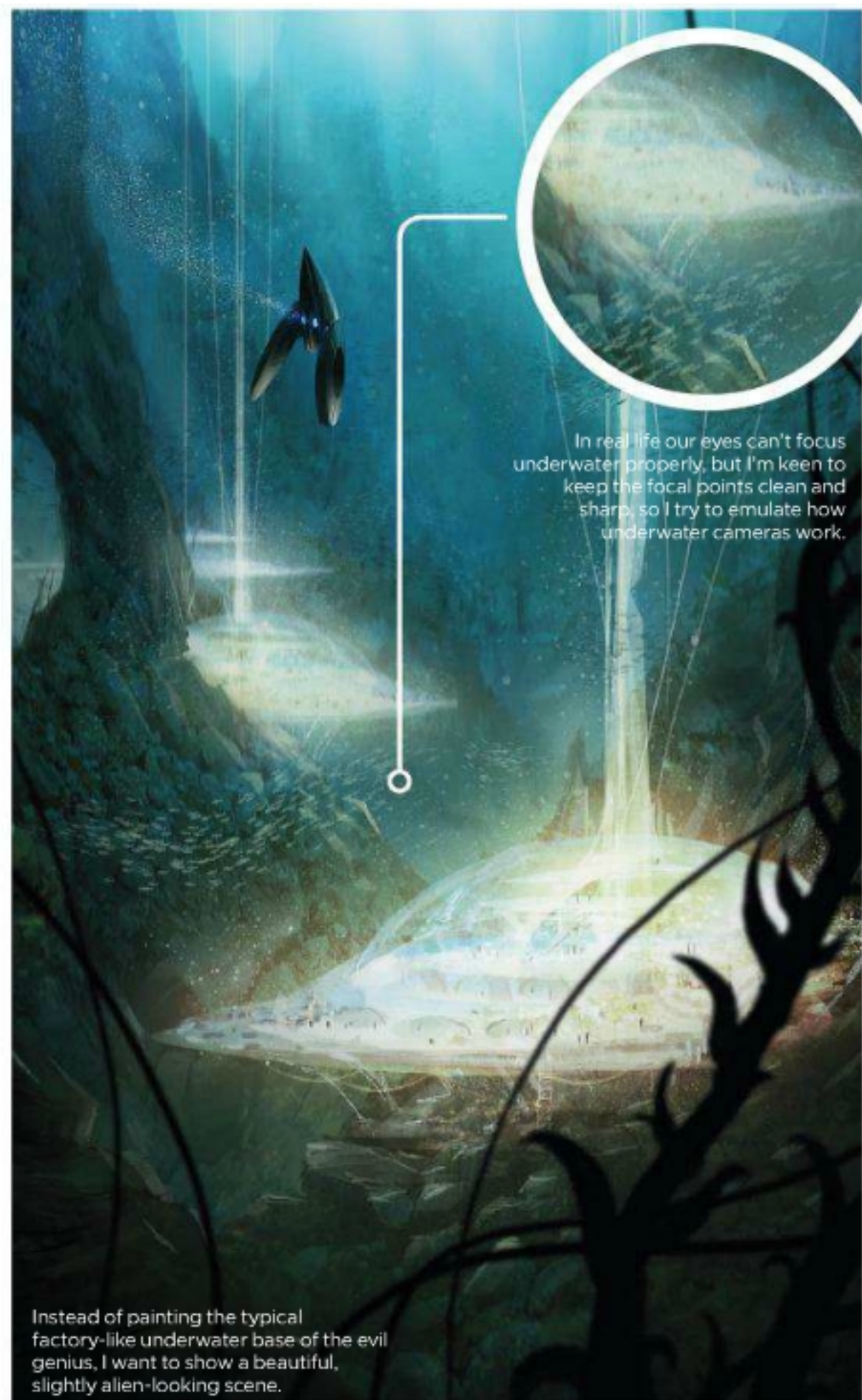
Instead of painting the typical factory-like underwater base of the evil genius, I want to show a beautiful, slightly alien-looking scene.

Artist's advice
Mark says

Water is a much denser element than air and filters out the light – the deeper we go, the darker it gets. That's why we have to change the rules of atmospheric perspective in this case. Our horizon line will be the darkest part of our imagined skyline, and things become lighter and more saturated the closer we move to the water's surface.

Distant objects will look blurry because the constantly moving water spreads the light in every direction. This helps to create more depth and reduced background detail. I give the light sources extra glow because of the same reason.

I'd recommend not basing your colour palette on a simple blue, but to make use of a range of blues and greens. Life depends on the amount of phytoplanktons in the oceans, because these creatures form the base of the foodchain. This affects the colour of the water: the more plankton that's present, the greener the water.

As a finishing touch I add shoals of fishes swimming around and air bubbles above the habitats to indicate life and movement.

Discover how to…
paint water meeting the land, such as a sandy beach

Artist's advice
Mark says

Painting water is actually rendering the light that's being reflected back from above and below its surface. With a sandy beach scene you will want a smooth gradient for the sand as it gently slopes down beneath the surf. The colour of the water gradually becomes darker because less light reaches the bottom. Also, with details such as froth and ripples defining the general shape and form of the water's surface, the colours and smooth gradients beneath will give it a deep and translucent visual effect. Remember, as waves spread further up an inclined sandy beach, they gradually become smaller.

You can also add a tide line. The shallower parts of water that reach the line are like thin sheets of glass with only a sharp line of white froth giving them form.

The smooth gradient moving from a sandy yellow to a dark blue implies depth, while the waves and froth define the surface of the water.

How to…
paint the effect of wet stone

Artist's advice
Mark says

Painting wet stone can be tricky, with factors such as lighting, texture and colour having a huge effect on how the surfaces look. A smooth, round pebble appears almost glass-like, whereas a lot of the shine is dulled on a rough masonry wall.

When a stone gets wet it darkens. I paint this boulder as if it were dry and then go over it with light green and blue on a Multiply layer to darken it and give it a mossy-green hue that looks damp.

Once you're happy with the underlying colours, start adding areas that catch the light. Ensure the highlights reflect the colour of the surrounding light. Paint the brightest spots where the layer of water gathers the most, such as in small pools or where it's present in cracks and along edges.

Wet stone will often give off subtle reflections of objects that are nearby, and depending on the surface texture, they're likely to appear distorted.

The light, reflecting from water pooling in the indentations and reflections on the surface of the stone, helps sell the wet appearance.

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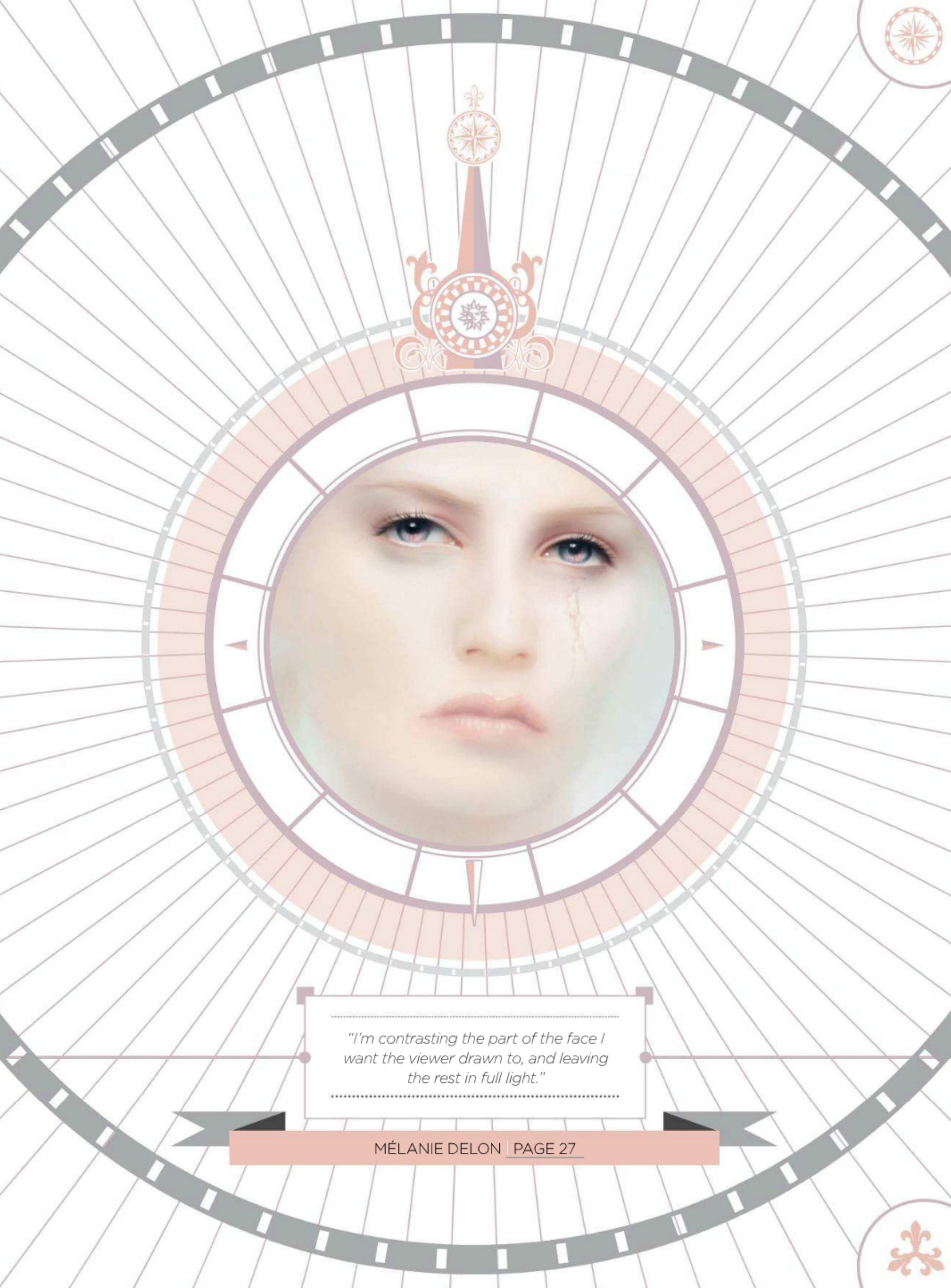
"I'm contrasting the part of the face I want the viewer drawn to, and leaving the rest in full light."

MÉLANIE DELON | PAGE 27

We see robots as machines – but giving them a human shape is the key to making them attractive
MÉLANIE DELON

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