

Artist PROFILE

Gary Tonge
COUNTRY: England



Gary is concept art director at Swordfish Studios/Vivendi and also creates concept art on a freelance basis. He's worked for Capcom and National Geographic.
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DVD Assets

All the files you need are in the Gary Tonge folder in the Workshops section.

SOFTWARE:

Photoshop CS3 (demo)

Photoshop

THE SCIENCE OF PAINTING SPACE

Scenes set in space are always on an enormous scale. **Gary Tonge** explains how to balance the many facets and subjects in a galactic vista

Space – my favourite frontier! One of the challenges I enjoy most is that of capturing the essence of a space-based scene: with such vast distances and sheer majestic spectacle involved, this is nature's grandest stage. Depicting such scenes is fantastic fun but creating a truly captivating piece can be complicated, as there are so many facets that need to be balanced.

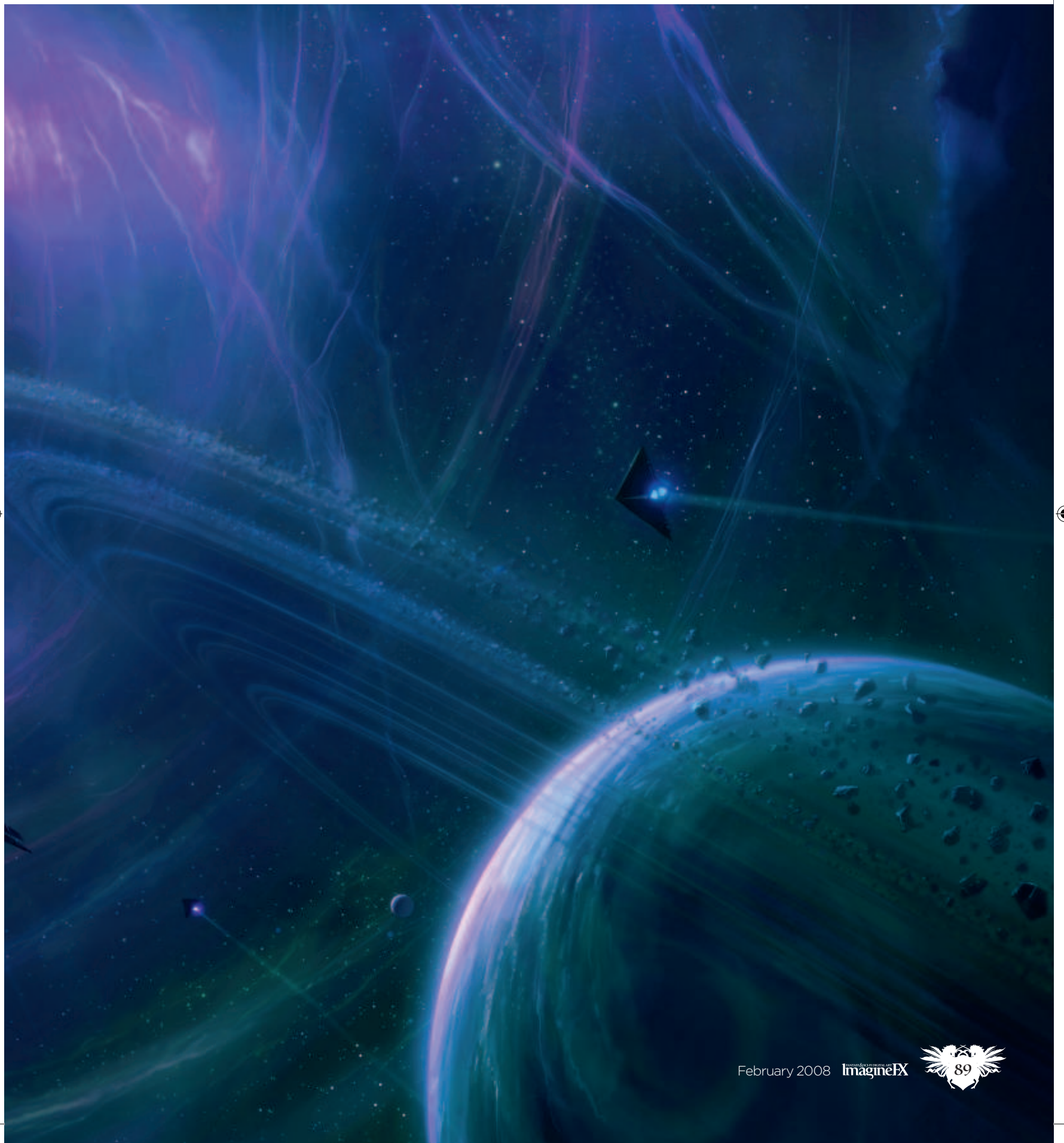
Take for instance the sheer scale of the subjects in a scene such as this. You have planets, which are normally at least the size of the world we all live on. Then there are stars: well, they completely dwarf planets and are pure

energy, so they tend to become the focal point of any piece that depicts them. Further out again come galaxies. Maybe 100 billion or so stars make up the average galaxy, never mind the many light-year distance between one star and another.

Space scenes can be wonderful, awe inspiring images that capture the viewer's imagination and let them to fall into the piece. This workshop aims to help you to understand how celestial objects work together and how you can use the enormous scale differentials to your advantage to increase depth, drama and compositional balance. So get your rocket ready! ➔



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1 Sketch your ideas

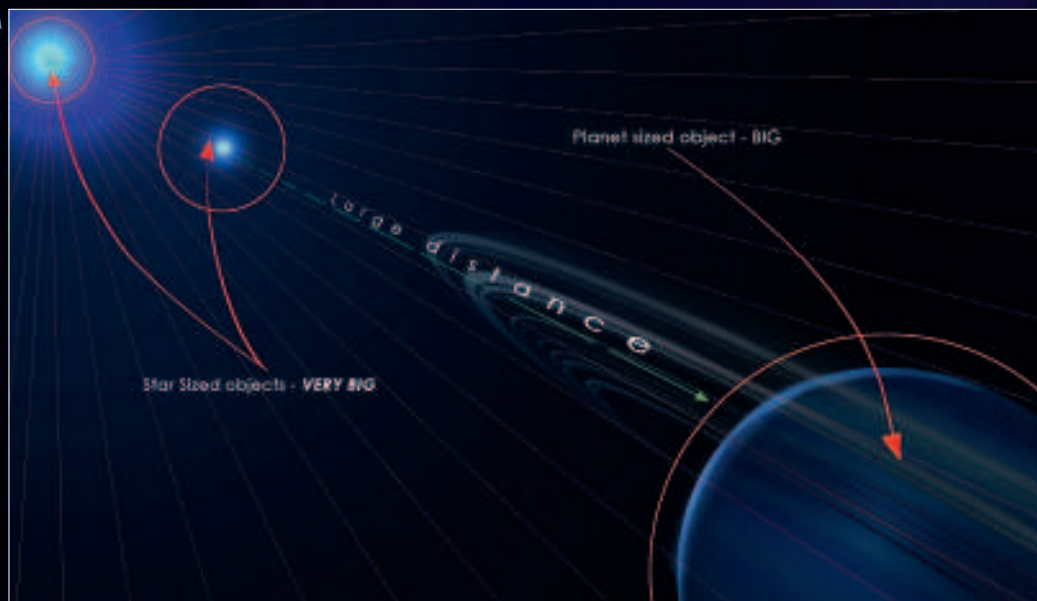
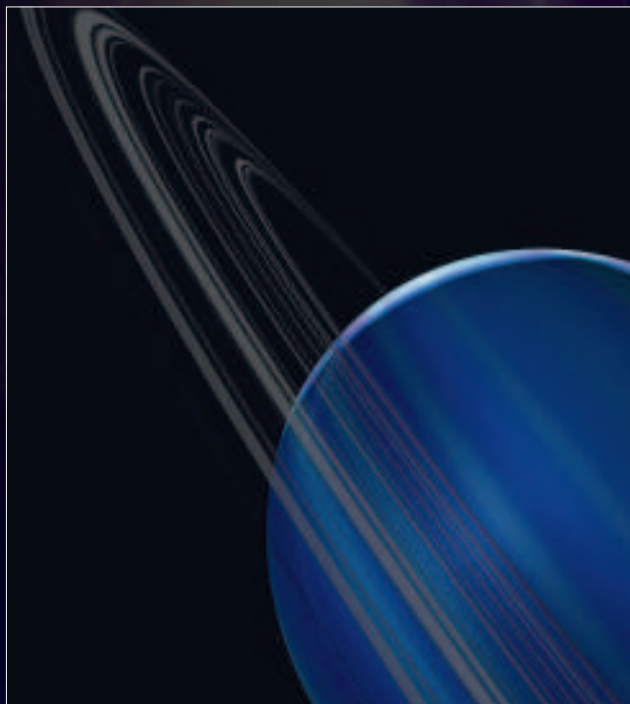
First off, think about what you want to focus on in the scene. I know from the outset that this image will be quite difficult to balance, mainly because I want to have no immediately identifiable focal point. Instead, I want to gently balance the subjects' size and position to really increase the feeling of depth and drama, but also keep the scene gentle and majestic. Sketch out a number of compositional try-outs to nail what you're after before beginning your proper painting – it will pay enormous dividends in the end.

2 Ringed planet render

The most complicated part of this scene perspective-wise is the ringed planet. The ring system around this world will either draw the eye into the piece, or totally undo the composition if created poorly. Hence I build a simple model and render it in the position I want (also enabling me to try a few angles quickly). I'll paint over this in the end, but those ring lines are priceless.

3 Scale and distance fundamentals

I can't emphasise enough how important it is to nail the distances and scaling with objects of this nature. As this simple diagram explains, the basic language of this piece will rely on the interplay between the framing planet at bottom left, the enormous distance to the binary star system – which is going to be about



100-1,000 million miles away from the viewer – and the distant stars, at least five to ten light years from the viewer. Get this part right and much of the piece will fall into place.

4 Get that lighting right

Right from the outset you have your primary light sources, so pay particular attention to making sure your lighting is absolutely right. The viewer will rely on the light to help describe the position of each subject – shadows are rare between heavenly bodies, so you must get the photonic behaviour right. I can't emphasise this enough.



5 Starting the nebula

A good proportion of the perception of depth is going to be created by a swirling construction of nebula clouds being gravitationally drawn towards the stars. Place some initial rough strokes down so you can get a feel for how these misty bodies will diffuse the distance and create a good divide between the clear up close objects and the less well-defined glowing mid-distance subjects. Paint these clouds on to a separate layer if you're unsure of what you want with them.

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6 Lighting the focal points

As you're going to be painting a large body of darkening clouds over these stars, punch out their brightness and colour with some very large soft brush dabs, or the Gradient tool set to Circular, so you can get a good high bright level from these before you paint the brightness back. Doing this will help you greatly as you want to paint dark back into the piece to create balance – and the dark clouds are effectively in front of the bright stars.

7 Other body scaling

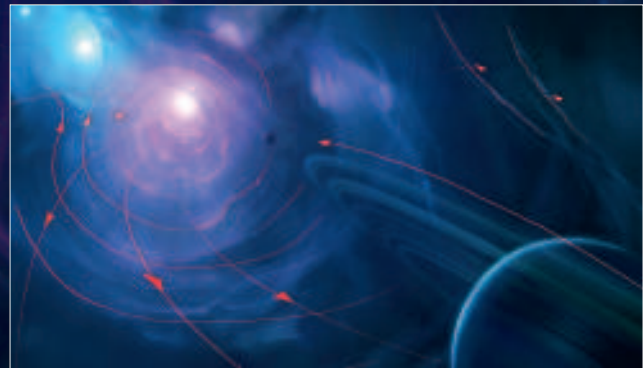
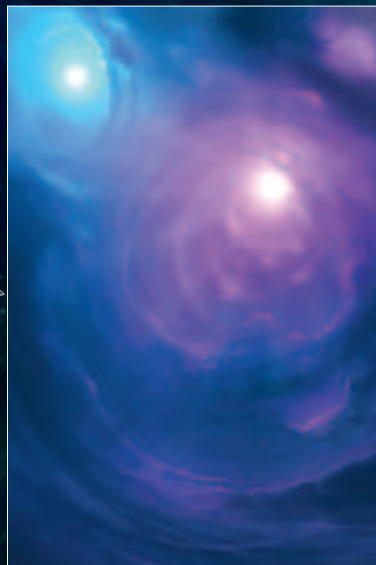
Try to find opportunities to generate depth and scaling reference. One excellent way to do this is to position moons around a featured planet: they give an excellent sense of scaling between the two bodies. Coupled here with the rings it really helps underline the large scale of the moon, but it's tiny compared to the planet. (Note: this moon was actually removed in the final image as it clashed – caused a tangent – with the space station.)

8 Nebula depth

Working up a sense of depth in the nebulous clouds is paramount to the balance of this piece, but can also be a little tricky. You want to draw the viewer within the arms of the clouds, towards the stars, and this might take a little balancing. I recommend you place these brush strokes on a new layer until you're fairly certain the shapes you have are



working. Note how light intensity is playing a big part in the understanding of how close these clouds are to the stars.



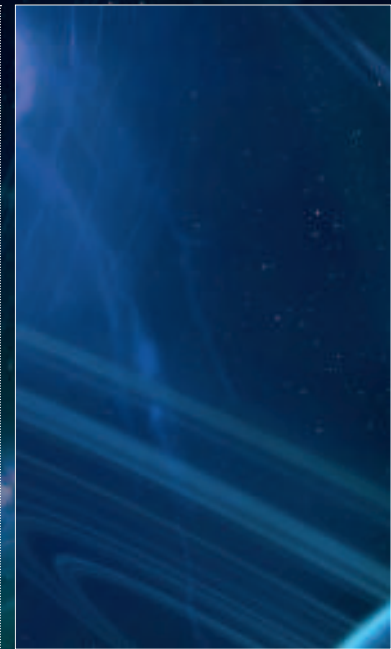
9 Movement in the image

A sense of movement in images of this kind is an excellent way of adding to the believability of the scene. I'm not talking about a fast moving vehicle, just the gentle insinuation that things are shifting slowly. Take note of the red lines on this piece, showing the type of movement I was working towards. The movement is implied subtly to demonstrate things such as inertia, gravity and spatial eddies.

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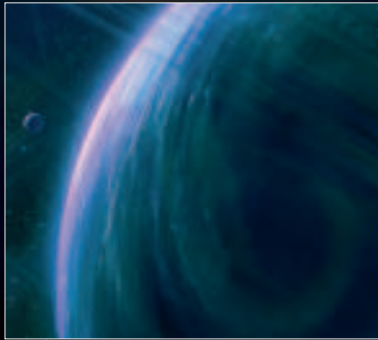
Creating star glows

When trying to create a glowing star, the standard brush modes can be a little difficult to work with. I tend to use a mode such as Colour Dodge or Linear Dodge and select a complementary colour that works well with the existing painting. Work delicately with a brush mode of this type (I normally have the opacity set to about 10 to 20 per cent) and work up the glow with a few gentle dabs with a big Soft brush.



10 Distant object diffusion

The furthest objects depicted in an image such as this are the distant stars and galaxies in clear space. These are much further back than the nebula and therefore obscured by anything in the main scene, no matter how subtle. Placing areas where you can see out to these distant heavenly bodies is good idea (it adds further depth), but also take into account how easily they can be occluded by quickly dropping their intensity when the slightest cloud gets in the way. ➔

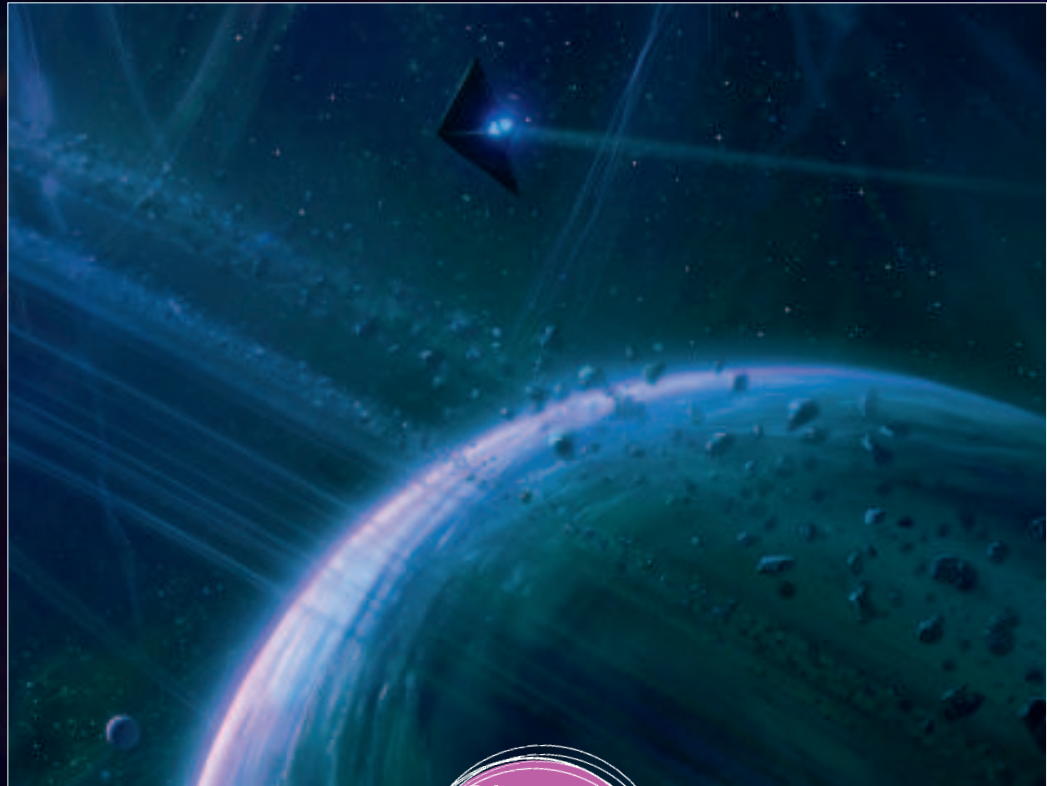


11 Planetary detailing

The closest large-scale subject in the piece deserves a lot of attention. Try to use the defined light positions to the full, and detail terrestrial clouds and other features with great respect for how the light would strike them. This is one opportunity to really add to the depth in the near subjects. Note the repositioned moon in this shot: the light on it from the stars and also secondary light from the planet striking the darker side really help to convey that it's small and on the far side of the planet.

12 Light creating depth

I've painted a tear in the side of the nebula clouds that's letting a substantial amount of light out. By highlighting the wisp-like clouds at the centre of this crop you can help the viewer to understand their relative distance in the scene.



13 Scaling from small to large

Take a look at this crop: there's a deliberate procession of objects falling away into the distance, while being larger mostly as they fall away. The craft – maybe 10 metres tall – is not far from the

Shortcuts History brush

If you have a large change that's been great in one part of the image but not another, brush back to the old version as needed.

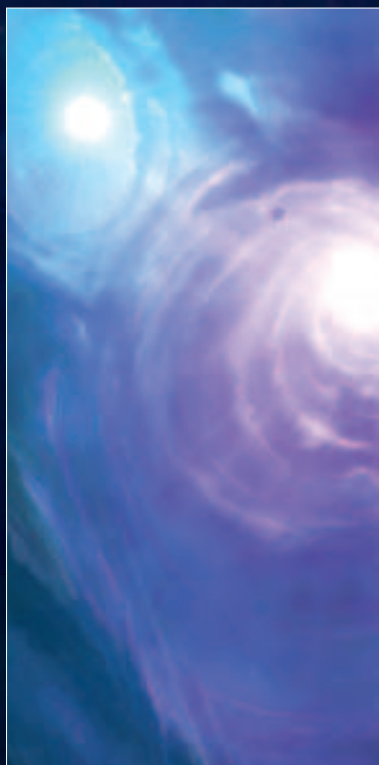
viewer, the ring objects 100-200m diameter (for the larger ones), the planet – 4,000km in diameter maybe, the moon 1,000km. These subjects all work in unison to describe the very large distances being handled here and make them easy for viewers to comprehend.



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14 Powerful light diffusion

Remember that your light sources here are stars. Their light is incredibly bright – so much so that in space they'd blind you instantly if looked at unprotected. This light will punch its way through clouds, much as it does in an overcast day on Earth. But in this case I've used the light to create incredible glowing arcs of clouds, the two different tinted stars mixing their colour properties in the nebula clouds. The end result is a deep and glowing focal area that has an ethereal quality to it. Note also the moon that I've diffused deliberately to imply that it's impinging on to the nearer cloud arcs.

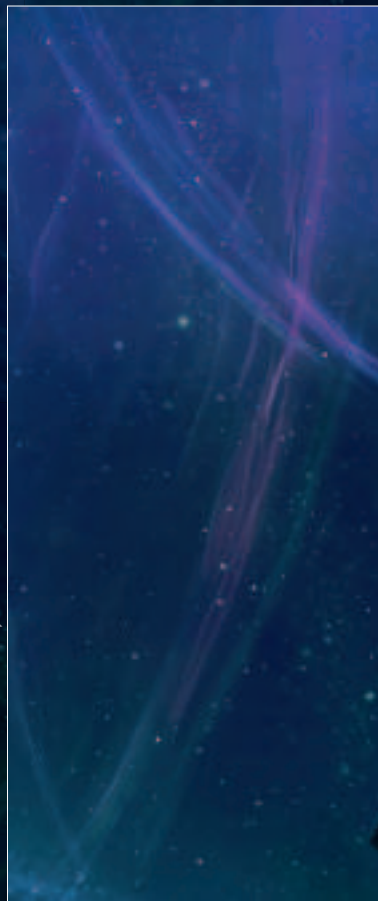


15 Delicate detailing

Try to spend time gently adding details that will help create layers of interest in the scene, adding movement and aiding compositional balance. These wispy clouds may look incidental, but I placed them very deliberately to complement the rest of the composition. They're also very good barriers between the nebula and the very distant stars.

16 Adding an element of humanity

Although none of the vehicles in this scene are large or imposing, I've depicted them in a way that makes them quite dramatic and ominous, their dark bodies being at odds with the glowing nebula or the light-bathed ringed planet. This choice is quite important, because you want to differentiate these subjects from the rest of the piece. Why? Partly because they're not natural, but more importantly because they're absolutely tiny in relation to the rest of the objects shown. Their very dark appearance helps the viewer understand that there's very little distance between them and the craft. The different craft types help add to the progression of scale as well. The smaller fighter craft, flanking this large carrier and then the much-larger-again station are maybe 50-100km away from the viewer – not even a spec in this scene as a whole.



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Cloud creation

Clouds are some of my favourite subjects: they're fascinating to paint and I'm very comfortable creating them without reference. However, I'll often put my clouds on a new layer so as to protect the underlying painting. Clouds can get quickly out of hand and it's important that you can go back to where you were if things go south. Plus the new layer gives you a freedom to really experiment – great when working with clouds.

17 The final image

The final piece is a deceptively complex balance of very diverse subjects. The goal of artwork of this kind is to create a vision that's easy to take in yet has lots of interesting features that will draw the viewer in and around the piece, where they can discover lots of little nuances that help them understand the majestic and epic subjects described and their relative positions, even over such enormous distances. It might take you a while to grasp the more difficult aspects of capturing such depth and scale, but I think it's really worth the extra effort as the results will speak for themselves. ●