Artist PROFILE

Adam Benton

COUNTRY: UK

CLIENTS: 3D World, Visa, MacFormat, Powergen, Britvic, Saatchi & Saatchi, Wunderman

Adam is a freelance illustrator, with a passion for sci-fi and fantasy. He's currently producing illustrations for a new Stargate Atlantis publication.

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DVD Assets

The files you need are on the DVD

FILES: Crashed Ship.obj, layers.psd, The Last Arc.tif, Final Scene.br6

SOFTWARE: Bryce 5.0, Photoshop CS2 (*demo*), Cinema 4D 10 (*demo*)

Bryce & Photoshop

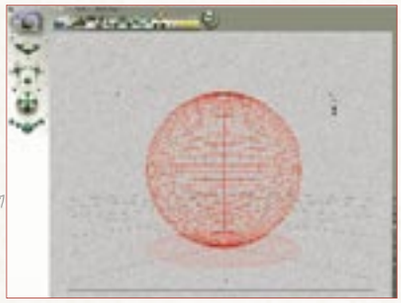
CREATE A SCI-FI LANDSCAPE

Adam Benton makes use of Bryce and Photoshop to create a sci-fi landscape scene including a derelict spacecraft

Back in the late 1970s when I was a young lad, I was hungry for science fiction of any kind, and the discovery of a book called Spacewreck – Ghost Ships and Derelicts in Space opened my eyes to a whole new world of sci-fi art, by the likes of Chris Foss and Peter Elson.

As the name suggests, it depicted all manner of abandoned, derelict and ancient spacecraft in space, or on various kinds of alien planetary landscapes. Those images had a profound effect on my own creative visions, and in recent years the versatility I found in the digital toolset have enabled me to realise some images in that vein myself, including the one on these pages – The Last Ark.

In this workshop, I'll test-drive Bryce 6 (although the main features used are available in Bryce 5 also), and show how I created this scene using it, some Photoshop layer and Alpha channel compositing, and a small amount of Cinema 4D to create and export the wrecked ship model. Although I will be principally using Bryce, this workshop is also about realising a final 2D sci-fi image using a combination of both 3D and 2D tools.



1 It all begins with a sphere...

Using nearby planets and moons in the sky of the world that you're creating really helps to define that world as alien, since it's outside the scope of our own Earth-bound experience. And since these elements are to be the most distant in my composition, it makes sense to start by creating these for my environment first. In Bryce, I select a Sphere object from the 'Create' palette, and use the navigation controls on the left to move in closer.

2 Planet materials

I click on the little M icon beside the active Sphere object to enter the Materials Lab. I then click in the first 'dimple' next to Diffuse. This activates the first Texture channel (A). Now, I click on the little P button to switch from a procedural material, to a bitmap picture. I click on Load to browse my texture library, and for this planet, I simply use one of NASA's maps of Mars. I also load in a Bump map of the same texture into the second box. Clicking on the little tick confirms my selections, and back in the Editor viewport, a quick render shows the results of the loaded textures.

PRO SECRETS

Earth moving

Bryce's Terrain Editor has gained some new features. First, the possible terrain resolution has increased to a huge 4,096x4,096, which it calls Planetary Resolution. It's now possible to create highly detailed terrains, with far less visible 'faceting' than with lower settings. The other new feature is the ability to import custom brushes to help sculpt your terrains.

Shortcuts

Duplicate objects

Command+D (Mac)

Ctrl+D (PC)

To duplicate an object in Bryce, simply hold down these keys.

3 Fading out

For the planet to look like it's outside of the atmosphere in the scene, there are some further tweaks to make back in the Materials Lab. From the Material Options drop-down menu, I select Additive. This performs a similar function to the Screen layer option in Photoshop. To finally make the illusion complete, the Sun Shadows needs to be set to a full 100 per cent in the Sky Lab – using anything less will make the planet too translucent. If you adjust things at this stage, bear in mind that if you change the sky preset, the Sun Shadow option will probably need to be reset to 100 per cent again.

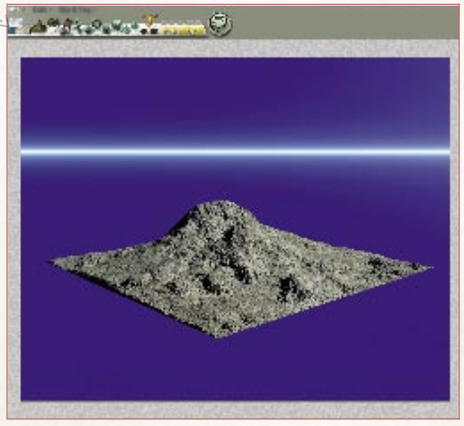
I then save this document, and create a new one for the terrains.

4 Terrain building

I want a highly detailed, rocky/sandy foreground terrain, so first I select a Terrain Object from the Create palette. Clicking on the [E] next to the object opens the Terrain Editor window, and from here I clear the default information by selecting New. Since I want these as highly detailed terrains, I click on the Resolution drop-down and switch to 2,048x2,048. For these terrains I started with the Rolling Hills fractal, and then applied some Mounds, a little Erosion and some further subtle applications of Mounds, and finally some Gaussian Edges to create a more central mound area, with a taper to the edges.

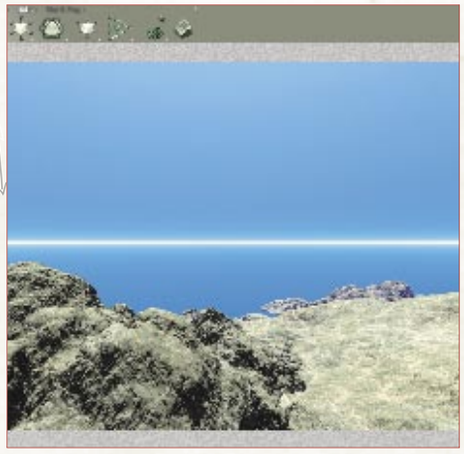
5 True grit

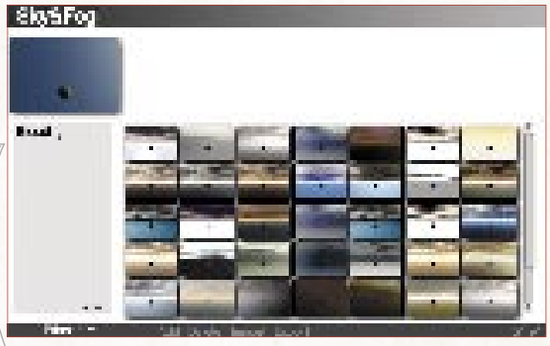
Back in the main window, I enter the Materials Lab (M), and locate a suitable sand photo texture from my library. A quick render now reveals the high detail in the terrain object, which is made even more gritty by my sand texture used in both the Diffuse and Bump channels.



6 Land forming

This terrain will now be the basis for most of the others in the scene. I start by bringing the first terrain close to the camera, on the left side. I quickly duplicate the terrain, and I move it further into the scene and to the right to form part of the mid-ground. Then I make another duplication, and scale down in the Y axis using the Scale tool (from the Edit palette). This flattened terrain creates a suitable plateau.





7 Sky and atmosphere

I need to set the scene a little better and get the right atmosphere before I continue, as at the moment, the lighting and sky colour are looking too Earth-like. I select the Sky & Fog palette, and click on the little side arrow next to the title, which brings up the Sky & Fog preset libraries. Bryce 6 has certainly grown in this area, with some particularly well-crafted examples in the Brinnen library.

I select one of these as a starting point, and return to the main window for a quick test render.

8 Tweak the sun

This is looking promising already, but I need to remove all of the Atmosphere effects (Fog/Haze) in the scene since, in this instance, I'm going to add these in post for more control. With some tweaks to the sun position, and remembering to make the Sun Shadows 100 per cent again, I have a nice strong light that I like, and a suitable, simple background sky.

PRO SECRETS

The sky is the limit

One of Bryce's strengths is its ability to change sky presets rapidly, and the ease the user has to quickly change the sun's position in the scene. Previewing your scene with a different sky or sun position can quickly change the mood, giving an artist almost unlimited variation. Bryce 6 has plenty of provision for user-created libraries and further expansion.

9 Land forming

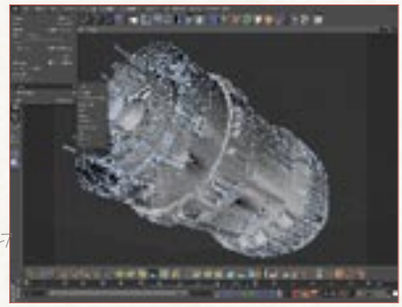
I create another duplicate of my terrain object and rotate it to create some variation using the Rotate tool in the Edit palette. I also scale this terrain globally by clicking and dragging on the Scale tool, followed by some further scaling in the Y axis, by only clicking and dragging on that control handle. This terrain now looks a lot rockier, and it also has higher peaks, despite having exactly the same greyscale information as its former versions. I place this terrain behind the others in the mid-ground.

10 Making mountains

I create a couple more duplicates, and move these even further into the scene, along with some further vertical (Y) scaling to make even more mountainous terrains. Often, I go back into the Terrain Editor, and reduce the resolution of more distant terrains, since it isn't usually needed, and can speed up the scene interactions, but the rocky effects are looking so nice, I decide to keep them at the same high poly settings as the foreground ones.

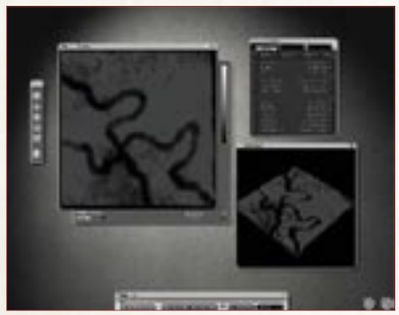
11 Plains and valleys

I am going to place my wrecked ship in the central area, as if we are looking down from quite high at a plain, with valleys and canyons. This should help to create a sense of grand scale, as well as giving me something relatively even to place the ship on. Duplicate one of the existing terrains, and in the Terrain Editor (E), clear what's there by selecting New. I start this one off with some of the fractal preset Cauliflower Hills, and then apply various amounts of Erosion, Subplateaus and some adjustment of the Raise/Lower function to squash the details into a more level surface. Then using the brush, set to a dark grey/black, I create some canyon gouges, before finally using some further applications of the previous settings to blend the canyons into the terrain. I keep a check on the progress in the 3D Preview window. Back in the main window, the terrain is positioned and scaled to fill the space between the near terrains and the furthest mountain on the left.



12 Ship wrecking

For my wrecked ship, I briefly switch back to my main modelling application, Cinema 4D, where I have some previously created elements used in another project. With some quick duplications of the main parts, rescaled, and moved around, I quickly have an object that should work well. The cylinders already have areas of deleted polygons, which will enhance the 'wrecked' look, and I modify the bottom area further by using the Brush tool to deform and disrupt the clean lines of the mesh, making it look somewhat buckled from a crashed landing. This really isn't a complicated model, since it's just made from multiple cylinders with some polys deleted, extruded and bevelled. You can find this model on your DVD.



13 Import duties

From Cinema 4D, I export the ship as a Wavefront Object (.obj) file, and then I import it into Bryce. Before I begin to scale and position the object, I enter the Materials Lab (M) to edit the textures. I'm using a combination of two different materials – the first is an old third-party preset I downloaded from the web, which is perfect for this wrecked look, as it uses a transparency map to delete areas of panelling. To augment this further, and add even more detail to the surface panelling, as befitting an object of this scale, I add a bitmap texture from my library. I have set the mapping of the first material to Object Cubic, and the second to Parametric. Both materials can also be scaled independently, giving you a lot of control over them.

14 Wrecked

After scaling the ship to a suitable size, and positioning it at the far side of the canyon terrain, I rotate the cylinder until more of the distorted mesh elements are visible. Then, I duplicate the object, and place it further along the object's Z axis, to create the impression of a second, broken section. Some final tweaks to the second section's rotation complete the effect. The scene is now looking good, but it needs some atmospherics adding to create the all-important depth, as well as the planets I created earlier to complete the alien look. I also add a couple of omni-lights with their colour set to the ground's sandy

Shortcuts

Merge texture effects

Command (Mac)

Ctrl (PC)

Hold down Ctrl/Command while clicking in the Mat Labs channel 'dimples', to merge effects.

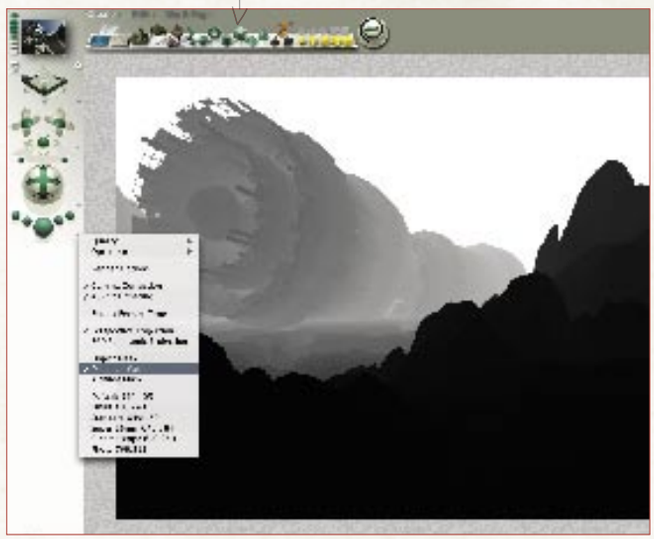
hue, and place them low and in front of the cylinder's open end, to help pick out some of the details that would otherwise be lost in shadow. This also helps to emulate the bounced light from the sunlit ground.

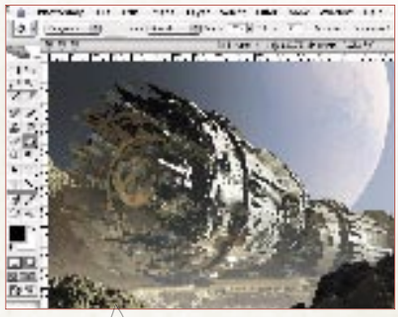
15 Field of view

At this stage, I could use the Merge… option in the File menu to load the planet document into this one, but experience has taught me that since I am using a wide (90 degree) field of view in this scene (double-click on the camera trackball for settings), even if I push the planets far away, at the scale I want them they will gain some camera distortion and become elliptical. So, since I'm going to add the atmosphere effects in post anyway, I will simply render the planets with a longer lens/narrower field of view (50 degree), and composite them later.

16 Rendering passes

Bryce has a number of very useful rendering options, including Distance Mask and Object Mask, and it's with these that I'll be able to separate elements, and add the depth haze to the final composition. I start by creating a high-res render of the full scene, and then, select the Distance Mask option and do another high-res render. Finally, to create a useable Alpha to separate the foreground from the distant plane, mountain and ship, I select only those foreground objects, and select Object Mask, and another render is made and saved. I also load the original planet document, alter the sky and sun position to match the main scene, and create another high-res render of that.





17 Bringing it all together

In Photoshop, I load all of the renders in and start copying and pasting the various Alphas (distance and object) into the Channels palette. These are then used to select the various scene elements, which can then be cut or isolated on duplicated layers. The atmospheric haze is simply made of a couple of gradient layers, which are then 'screened' over the lower layers. The illusion of greater depth can be attained quite quickly using this method. I copy and paste the planets render into the scene, with its Layer mode set to screen. Once positioned, I use the ship's Object Mask to cut away any of the planet image I don't need.

18 Final touches

Before flattening and adding the final touches – to tweak the contrast, colour balance and levels – I want to make the highlighted metal areas of the ship stand out more, with a sense of glow. To do this, I create a duplicate of the ship's layer, and use the curves function to squash out most mid-light levels, leaving only selected high contrast light and shadow. I then desaturate this layer, and re-colour it a light tint of yellow globally with the Selective Colour function. This layer is then blurred using Gaussian Blur set to five per cent. I then duplicate this layer, alter its colour to a more magenta shade, and apply a second blur. Both these layers are set to Linear Dodge, and reduced in opacity to around 35 per cent. This creates a sun-glow effect to help make those areas pop out.