



plugs·n·pixels

IMAGE CREATION, MANIPULATION & EDUCATION

Create digital nature with:

[Vue Infinite](#) | [World Machine](#)

[TerraRay](#) | [Terragen](#)

Post-process the results with:

[PostworkShop](#) | [Topaz](#) | [Filter Forge](#)

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Cover art created with Vue Infinite 2014
Textured paper backgrounds by [Flypaper Textures](#)
This page: A blend of Vue and TerraRay renders
Page layout: Photoshop and [iStudio Publisher](#)





Vue

Infinite 2014

What's New?

Vue 2014.5 was recently released with some very practical enhancements, more than can be shown here, but in these few pages we can feature some of the highlights:

As shown below, several Tone Mapping filters have been added to the Post Render Options: Photographic Exposure, Linear Exposure, two Reinhard Exposure filters and False Colors, in addition to the legacy Vue Exposure response curve. (cont.)

Post Render Options

Last render preview



Current display gamma: 1.80 Edit

Film settings

Auto-exposure

Photographic Exposure Filter

Exposure 0.41

Shadows: 0.16

Mid-tones: 0.71

Highlights: 0



Lens glare

Radius 42%

Amount 89%



What's New?

Now you don't have to rely heavily on post-processing your Vue renders in Photoshop. Vue Infinite 2014.5 includes a Physically Accurate Sunlight Model that more closely simulates real-world sun and atmosphere appearance.

The renders below were done with Standard Spectral (L) and Photometric Spectral (R).

(cont.)

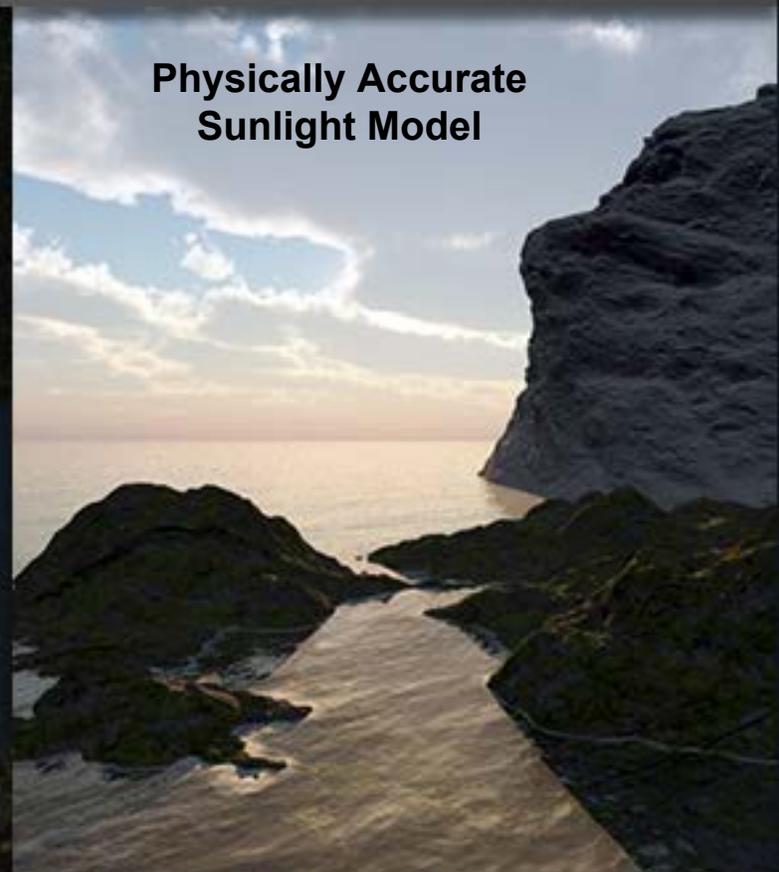
Hollywood quality, yet consumer-accessible.

Let VUE Infinite automatically adjust the atmosphere and camera exposure

This is recommended, as you will have a good starting point and can fine-tune the settings to your liking later.

Keep the current atmosphere and camera exposure

You will have to adjust the settings manually, otherwise your renders will look very bad.



**Physically Accurate
Sunlight Model**

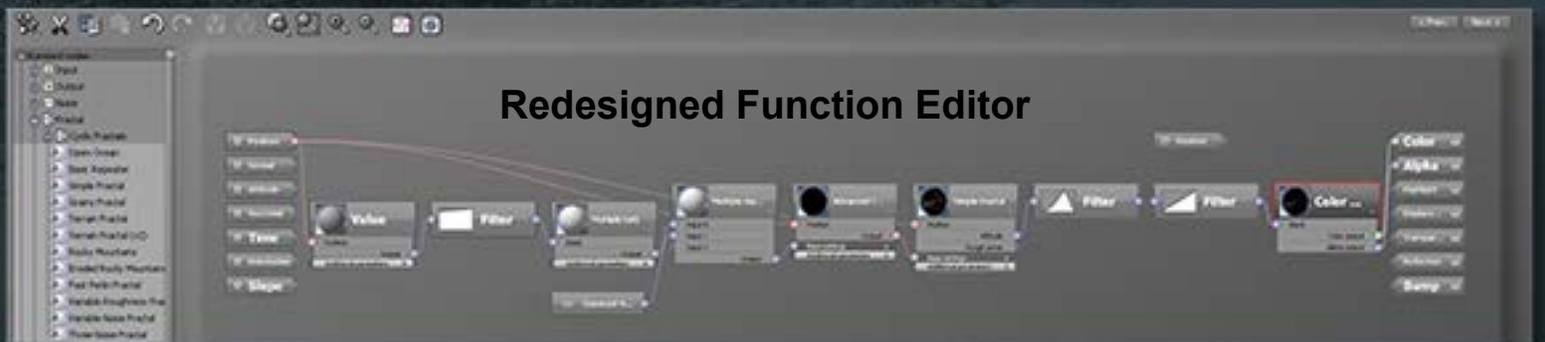
As shown at right, you can now go beyond making fanciful scenes with random pretty lighting to reproducing real-world sun positions according to specific dates and times (using a map, a set of pre-defined locations or exact coordinates).

The redesigned Function Editor with streamlined parameter access (shown below) is better suited for modern computer displays.

Not shown but equally interesting is the Light (or Daylight) Portal, an invisible object or objects that help render interior scenes more realistically by aiding Vue's understanding of the exterior source light and how it interacts with the scene; EcoSystem Clumping for more natural plant placement; Perspective Views that are not confined by the Main Camera, various interface enhancements and much more! •



www.plugsandpixels.com/vue.html



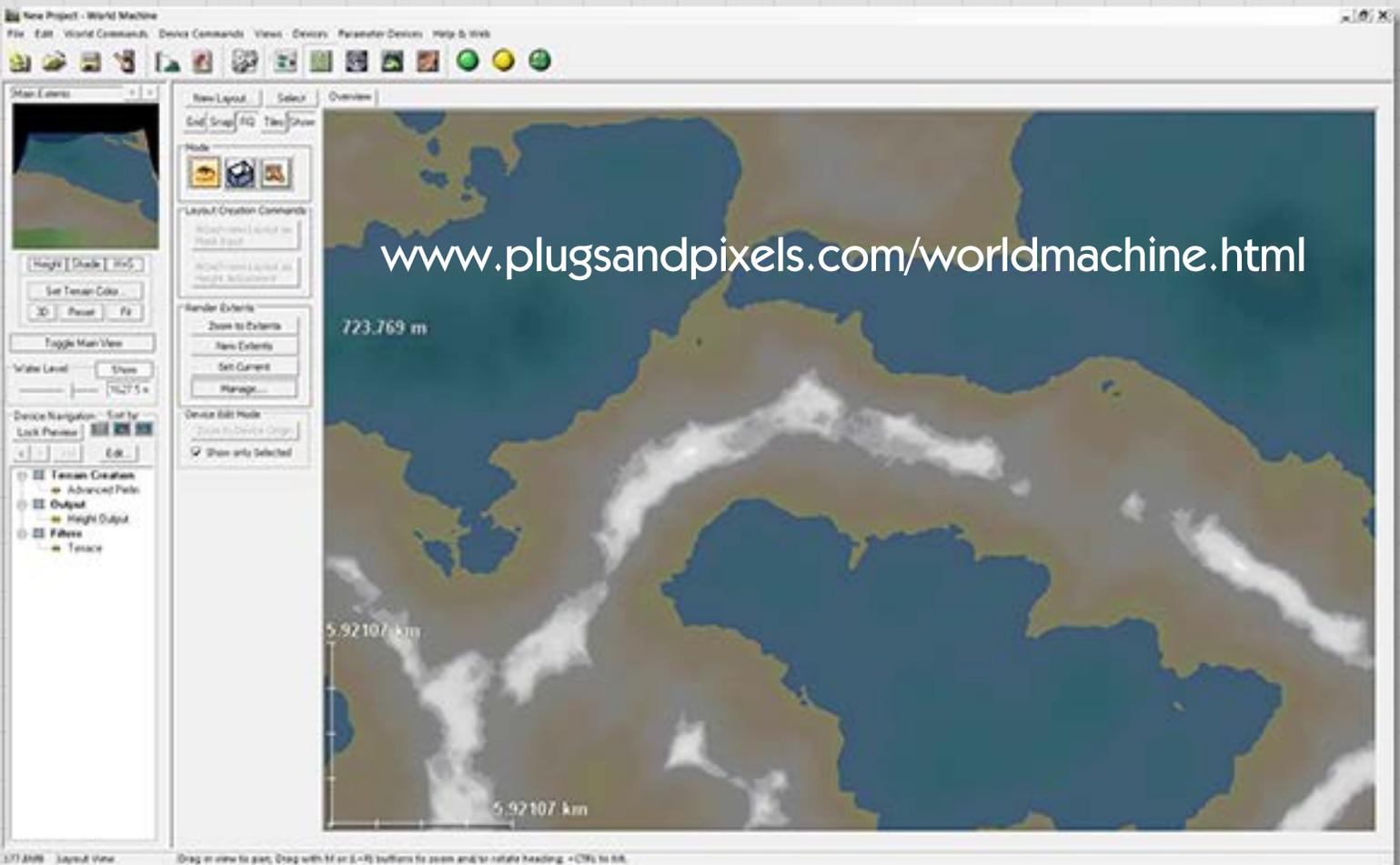
Redesigned Function Editor



WORLD MACHINE

Dedicated to terrain creation, editing and exporting

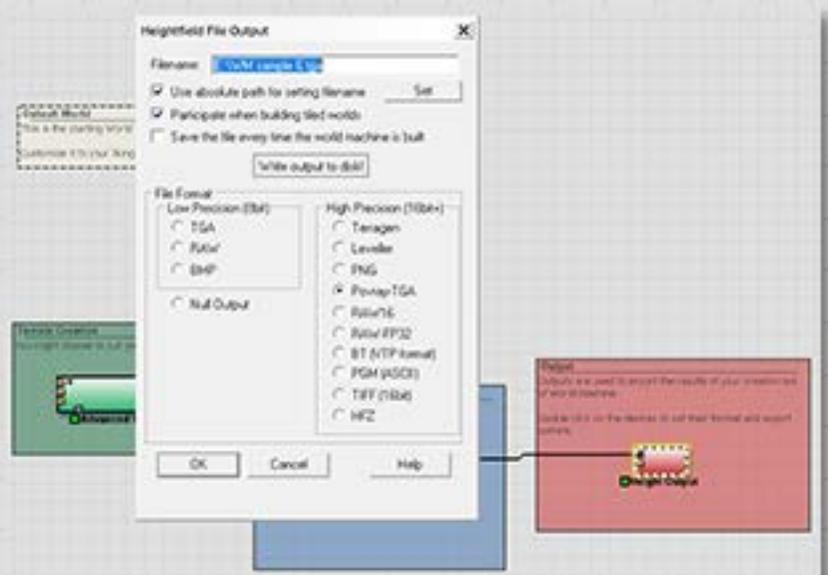
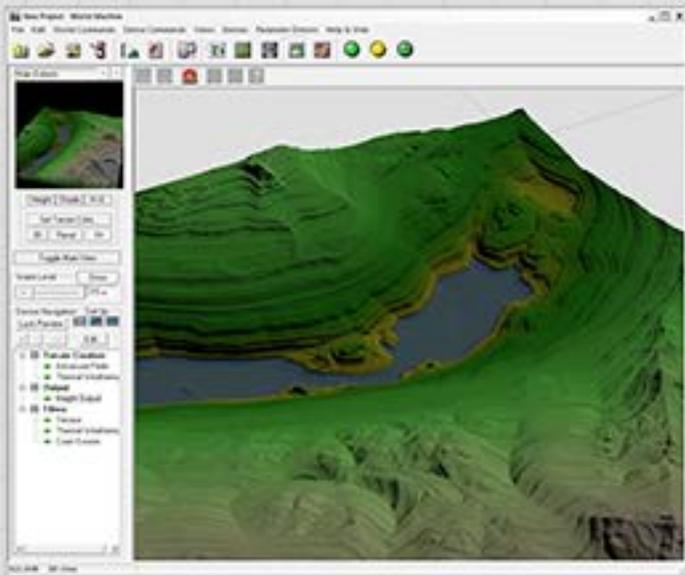
World Machine (for Windows) is designed as a companion to your rendering application, a starting point for bringing to life unknown worlds that express your unique creative vision.



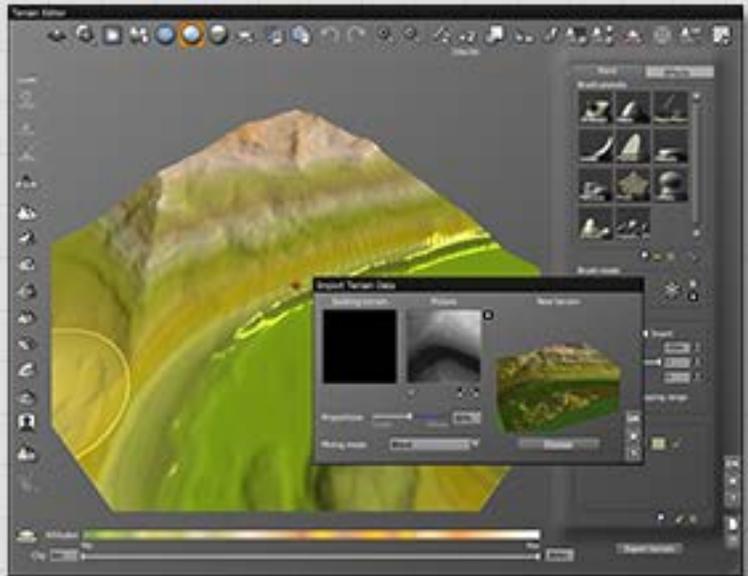
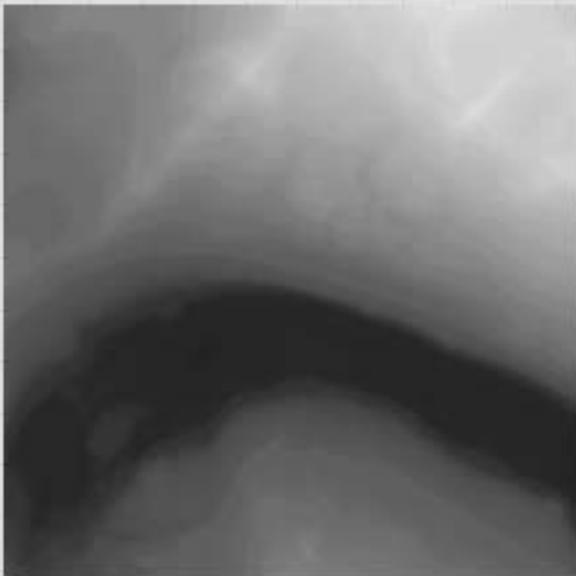
While other terrain creation applications are quite capable of creating base terrains in their own right, World Machine performs this task and this task alone. It is not a renderer (you will export the heightfields, textures and meshes to render elsewhere) but a node-based network of objects (called "devices") that you connect together to shape the distinct landscape you are imagining.

On the next page we'll take a quick look at a sample workflow where World Machine is used to create a landscape and generate/export a height map that is then imported into Vue Infinite for the final touches. (cont.)

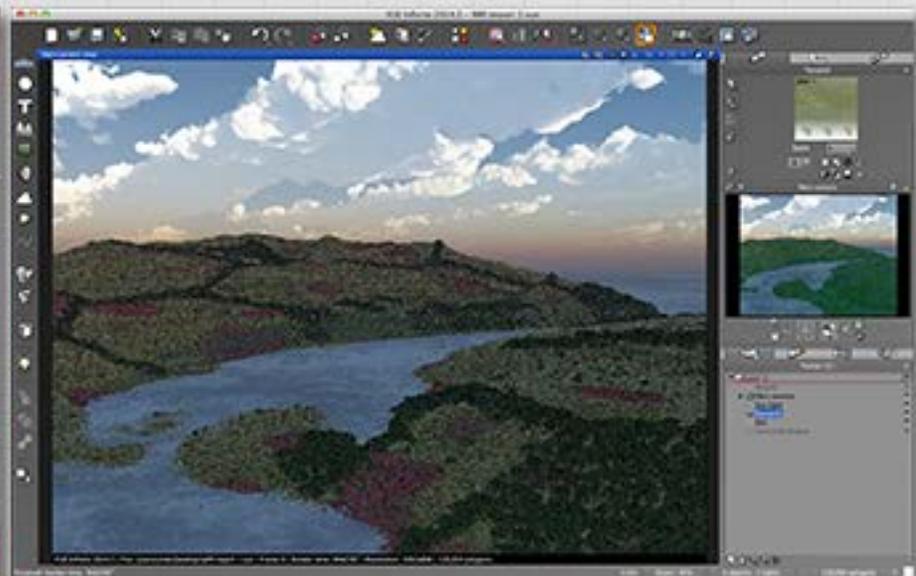
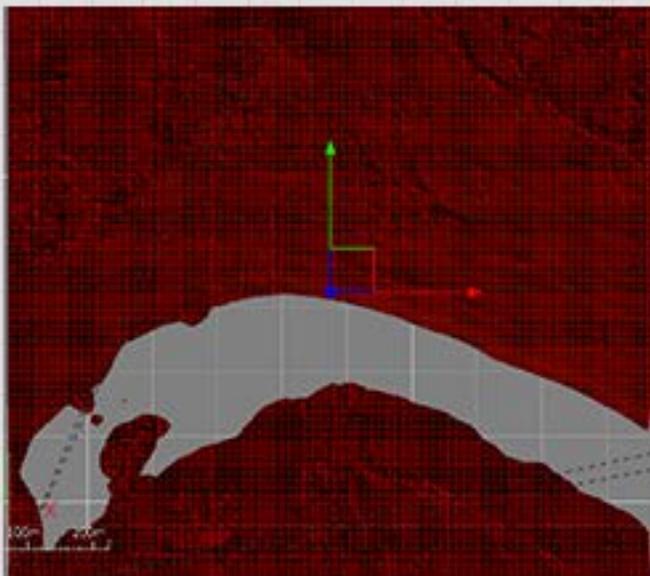




First, create your perfect terrain in World Machine and adjust all of its parameters to your liking. In the Output node, double-click to bring up the Heightfield File Output dialog and choose your export settings.



The resulting heightmap will look like this grayscale render at left, complete with all of the terrain information your render app will need. At right is the heightmap as shown within Vue, ready for more editing if necessary.



At left is the heightmap ready for exploration in the Vue environment. Here you adjust camera angle and height, lighting, etc. At right is an example of adding an ecosystem and atmosphere to the scene, which is ready to render. •

TerraRay

for Mac OS X

The perfect intro to 3D



For the negligible entry cost of \$9.99, Mac users can immediately get started creating their own 3D worlds! TerraRay is developed by Synium Software (their other releases include MacFamilyTree, Logoist and more).

Besides being inexpensive, TerraRay is about as user-friendly as this type of advanced app can get. You can begin your project with one of several preset worlds and modify it, import a heightmap from World Machine (as shown in the screenshot at right), or make your own terrain from scratch using the various erosion brushes. Next you overlay multiple terrain surface layers (where you apply earth materials such as rocks, mud, dirt, snow, etc. from presets) to add color and texture upon the bare ground.

Of course your terrain needs water and that option with full adjustments is provided, along with control over lighting source, size and direction. (cont.)





Terrain Elevation



Terrain Materials



Water



Lighting



Sky



Clouds



Fog & Haze



Camera



Plants (Yellow Grass)



Plants (Daisies & Grass)



Plants (Green Grass 3)



Rocks (Black Rocks)



Atmospheric conditions (Sky, Clouds, Fog and Haze) are manipulated from their own sections of the app, where you can adjust overall sky brightness plus sun placement, width and intensity. Then set the mood by adding, duplicating and editing clouds and rolling in heavy fog.

The most fun part of using TerraRay is grabbing ahold of the Camera's controls and exploring your terrain from many different angles. Choose from among various camera types, then adjust the field of view, camera height and target height.

Once you've found the perfect scenic spot, Render the view at different sizes and quality into a final image that you can export and print for wall display or share online.

Synium Software applications are known for their fantastic interface graphics, and TerraRay is no exception. It is a joy to use, and once you master it, you're ready to step up to explore the major players in this fun and rewarding genre.

www.plugsandpixels.com/terraray.html



Available on the
Mac App Store

(click here)

terraray meets postworkshop

Your best terrain renders can be used as the basis for creating interpretive artwork after the fact. PostworkShop is my favorite plug-in/application for adding artistic and graphic effects to my scenic renders. Here we will see examples of using TerraRay+PostworkShop to create entirely digital artwork.



In the screenshot above you can see a heightmap exported from World Machine and brought into TerraRay, with various plant and rock objects applied as layers and a 3D model from TerraRay's own Library added to the scene. As you work in TerraRay, the thumbnail preview window at lower left updates to show what your scene will look like when rendered (this particular camera angle of the scene was used for the background on page 2).

The art image above was created by opening PostworkShop and loading an alternate TerraRay render, then applying one of the Painting presets after exploring several of the options. There was no need to adjust any of the preset's parameters as the resulting effect was perfect for this scene! I exported a copy of this artwork and kept going...

On the next page we'll reload the image into PostworkShop and apply some different effects. (con't.)

This is almost too easy! With the image back in PostworkShop, I continued exploring the presets. In the examples below you can see how my original base render was easily transformed into three more totally different styles of art, with no additional effort. The successful application of any preset will depend on your image. If one doesn't "work", try another! (BTW, you can comp layers of effects and even blend separate images within PostworkShop itself.)•

Additional free Styles, Papers, Brushes, Textures and Presets are available online!

Image Info	
Pre-Processing	
Brown Water Sketch	
Brush width	133
Brush length	49
Brush Seed value	13551
Sketch Line width	5.51
Sketch Effect strength	2
Brown Brush width	36
Mask	
Mask strength	0
Mask Size (0)	50
Aspect ratio (0)	0
Rotation	0
Position X	0
Position Y	0
Blur	0
Invert	<input type="radio"/>
Post-Processing	
Effect strength	100
Gamma	0

Preview scale: 1.00 1:1 Render time: 2.5 sec



Reinterpret your photographs or 3D renders,
automatically or interactively.

Save 20%!

www.plugsandpixels.com/postworkshop.html

For Windows and OSX



A CREATIVE STUDIO
POSTWORKSHOP
FOR ARTISTIC IMAGE TRANSFORMATIONS

3

FILTER FORGE

A plugin for Adobe Photoshop that allows you to build your own filters.

www.plugsandpixels.com/filterforge.html



Whether you like adding various effects to your images or creating seamless textures for use in your 3D renders or graphics projects, Filter Forge 4 can handle it all!

With over 10,300 (and counting) fully editable filter effects to choose from, you will definitely find just the right treatment for any project.

The background of this page was created with one of the Stone textures, while the Vue render of the winter mountain scene was processed with various Creative Effects filters.

Advanced users can work with nodes, generate bump maps, adjust HDRI lighting, run scripts and export huge renders.

Filter Forge can be used as a plug-in or standalone app. •



Topaz plug-ins can do both corrective and creative effects. The original render from Vue Infinite (right) was totally transformed with focus, texture and tonal effects (bottom) using several of the Topaz Collection plug-ins, by adding one treatment on top of the next.



Original



Save 15%!



www.plugsandpixels.com/topazsuite.html

onOne's new Perfect Photo Suite 8.5 is a free update for owners of version 8. The Suite is a complete photo editor from start to finish, offering effects, enhancements, portrait-specific retouching tools, black-and-white conversion, file browsing, layers capability and masking.

The example render from Vue Infinite was edited with Perfect Effects treatments applied as separate layers. •



Ulco Glimmerveen

How he created The World's Largest Terragen Render!

You may remember Ulco Glimmerveen from issue #18 of Plugs 'N Pixels where he won a Terragen-related contest with his "Garden of Eternity." Now Ulco is back, having created The World's Largest Terragen Render!

Ulco describes this unique and challenging assignment and its workflow:

About this time last year I was asked to accept a daunting task: producing a wall mural 94x3 meters in size for a brand new museum exhibition at the Limburgs Museum in Venlo, Netherlands. Even with my background and comprehension of Terragen, it was shaping up to be a rather difficult and vague assignment. If I accepted, I needed to produce something that would not be substandard.

The museum wanted one continuous landscape, starting in the last Ice Age and ending around early medieval times, about 90 meters further on. On the exhibition wall there were nooks and crannies, doors and fire hoses to physically work around, so certain elements in the mural had to appear in precise locations. These elements included medieval villages, a Roman watchtower, a couple of Roman villas, a Stone Age settlement with celtic fields, an area of burial mounds, an early farming settlement, and, at the end of the Ice Age section, a small camp of reindeer hunters. In addition, each of these eras needed historically accurate vegetation and agriculture represented.

Designing within an oblong image ratio isn't easy. The main problem was how to stitch together all of the parts of this continuous landscape into one huge file, without ill-fitting overlaps. (con't.)



www.ulco-art.nl

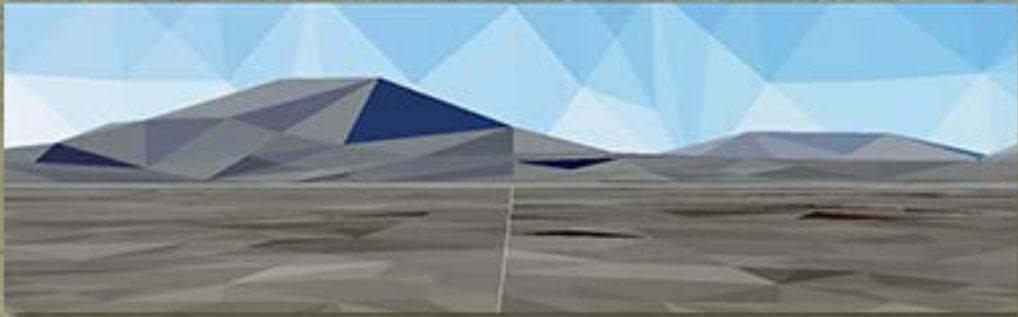
www.limburgsmuseum.nl/en/





With the camera on top of a small, very precisely tuned hill, I could have grasses and weeds close up as well as a view across a valley toward more distant hills. By aiming the camera level at the horizon, there was only minor distortion in the sky and lower grassy areas.

An idea was to rotate the camera and render several views. But 14 sections shot 45° apart added up to more than 360° of camera rotation, so I would see the same terrain, vegetation and sky again in the second half of the wall. After some consideration I decided to mask out the overlaps using a tree, then continue another section of the landscape from there.



The angle of the sun had to remain consistent throughout the scene to avoid differences in lighting. I had to find the perfect angle for the most important elements, but I also wanted some special lighting conditions, like shadows over woods and fields. These approaches took a lot of testing before proceeding (as seen above).

Once the team of local archaeologists signed off on the authenticity of the bare terrain design, I set about making masks for the vegetation, roads and fields. This task was complicated by having to stick closely to the archaeological drawings and exhibition space restrictions, so this caused me some sleepless nights. For instance, important elements had to be in clear view, and with hills in the landscape it was not easy to do. I had to repaint masks over and over again and add some extra internal masks in Terragen, link certain areas, subtract other areas, multiply areas by each other in certain ratios, use camera driven angles to ease in different types of terrain, etc. etc.! Not to mention creating new buildings, wagons, trees and other vegetation, so all in all it took me about 7 months working off and on to complete.

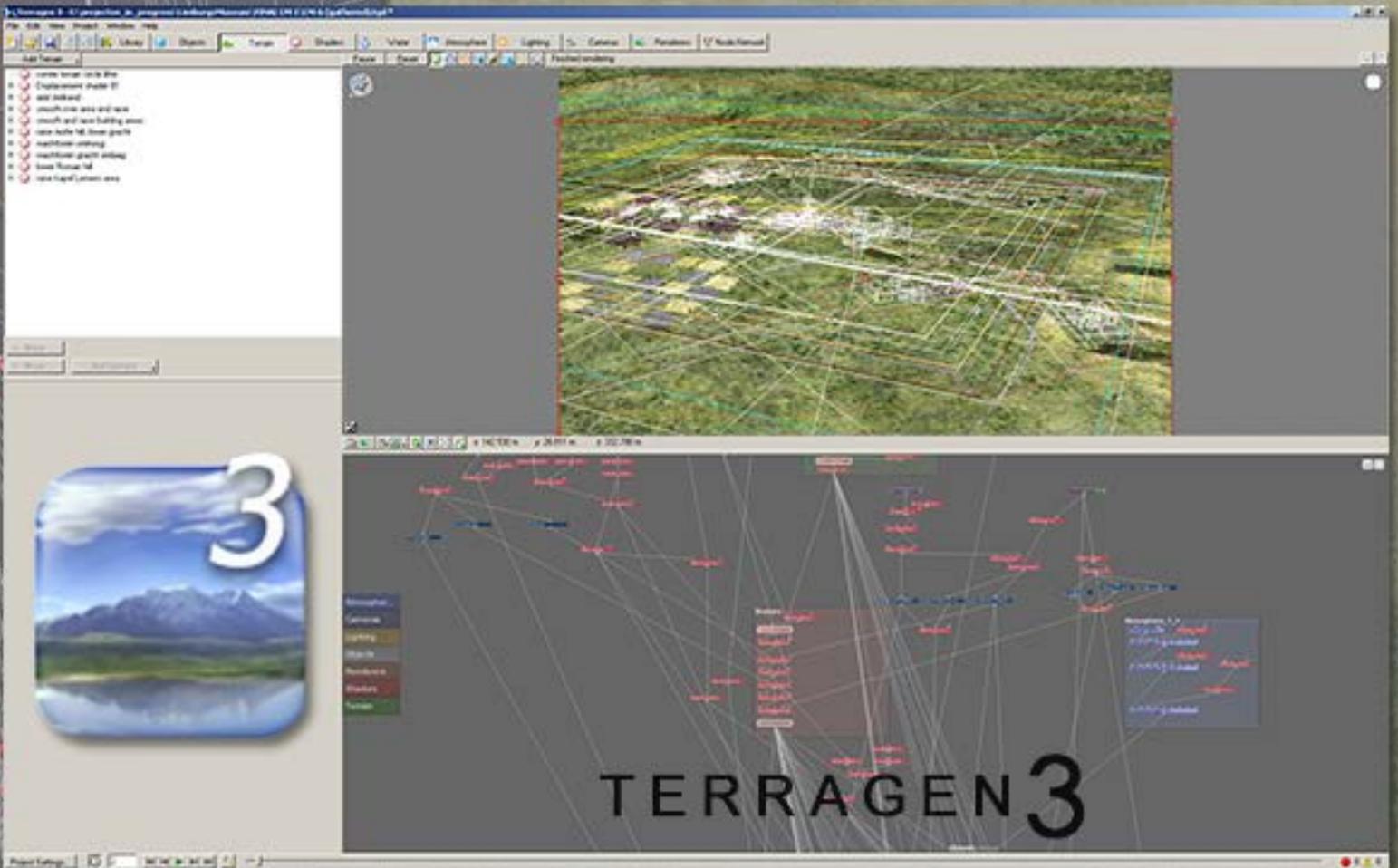
Despite the amount of design effort expended thus far, only half of the battle had been won. Now it came time to do render tests to determine speed vs. quality. (con't.)



I am grateful for rendering assistance offered on the Terragen forum (from members Richard, Martin, David and Michael). Rendering was completed within one or two weeks (a total of about 400 hours), followed by additional non-Terragen postwork to refine small details such as populating the scene with animals and people, painting in smoke and editing tree branches.

A total of 14 renders were reedited down into six final images to be printed on large format roll paper and finally attached in very large pieces to the museum walls (which was a new experience for the contractors!).

If you're in the area of Venlo, the museum is well worth the visit, and not just for the mural. •



Featured Artist: Paul Baldassini

This issue's Featured Artist Paul Baldassini, a fine artist, graphic artist, designer, photographer and teacher, engages in what he calls "contemporary realism". His subjects range from still life flowers and vegetables to people on the street and tractors in the field.

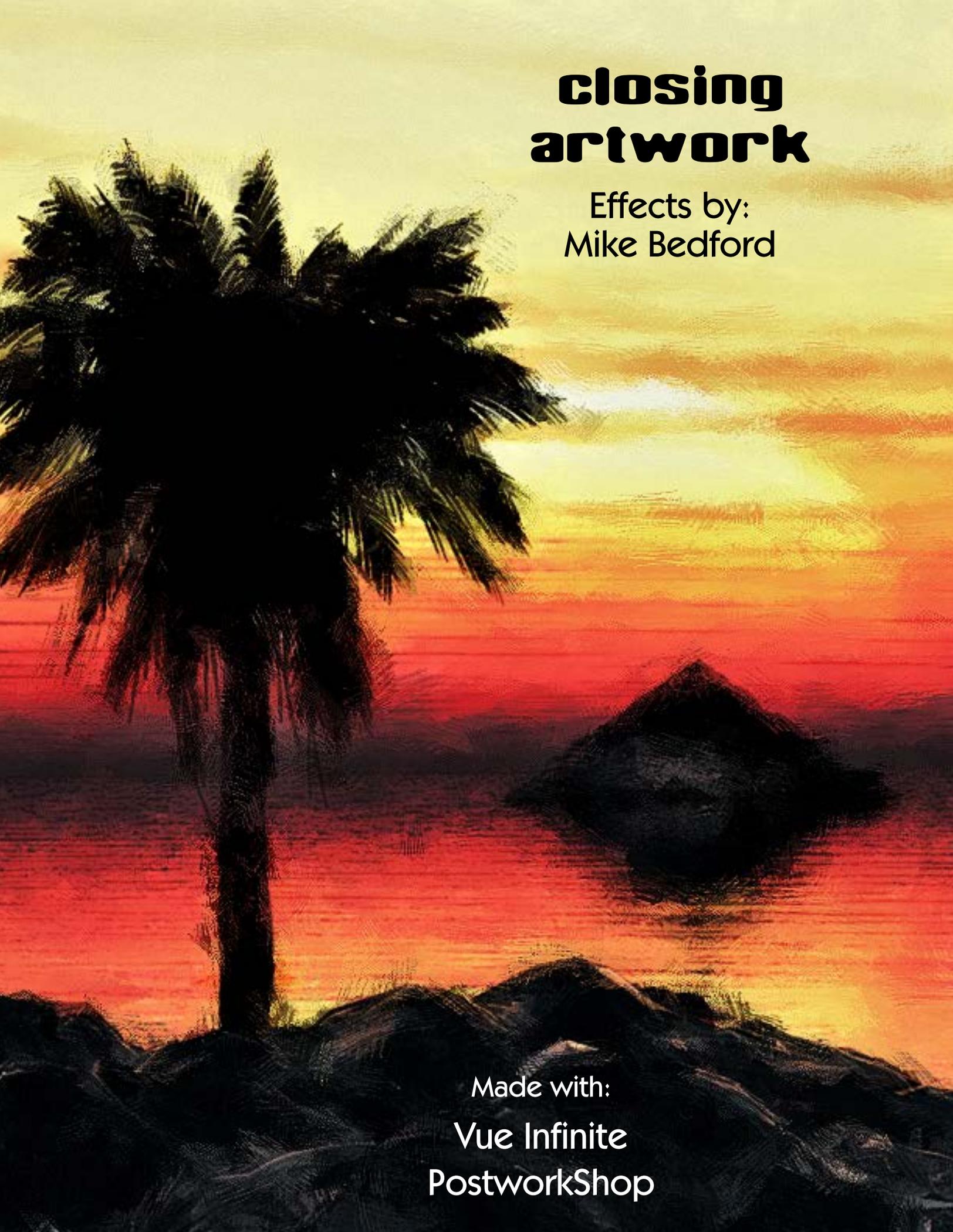


With a limited amount of traditional art training behind him, Paul is otherwise self-taught and has developed a style that incorporates Old Masters techniques with a contemporary feel. While Paul regularly draws and sketches, he prefers to use the camera as the initial capture tool.

These photographs travel through Photoshop for any needed preparation (involving careful observation, experimentation, editing, compositing and adjusting) before the final composition ends up on actual canvas via meticulously built up real-life paint strokes.

Paul works in his own home studio in Connecticut using carefully prepared fiberboard, an antique French easel and both watercolors and oils. See his website below for more about his work.

<http://baldassinifineart.com/index.html>



closing artwork

Effects by:
Mike Bedford

Made with:
Vue Infinite
PostworkShop