

MICHAEL BAKER: 3D COMPOSITING WORKFLOWS IN NUKE

REFERENCE LIST

INTRODUCTION TO 2D/3D COMPOSITING:

Brinkmann, R., 1999. *The Art and Science of Digital Compositing*. San Diego CA: Morgan Kauffman

A basic overview as to the foundations of both 2D and 3D compositing. This chapter explains the fundamentals of 3D compositing in a non-software specific manner, embellishing the theory aspect of 3D compositing in a VFX pipeline.

The Foundry., 2009. *Nuke. Version 6.0*, London

Used for a video demonstration introducing the 3D environment of Nuke, what it is and what it looks like.

***Nuke Production Workflows: Pan and Tile*. USA. The Foundry. Available from: www.thefoundry.com [accessed 01 May 2010]**

A short video tutorial used as a demonstration of the application of a basic pan and tile 3D technique in Nuke.

***Introduction to 3D in Nuke*, 2009. USA. FXPhd . Available from: www.thefoundry.com .[accessed 29 April 2010]**

A short video breaking down 3D compositing techniques within Nuke. A snippet of this was used to demonstrate the application of 3D geometry importing in the Nuke workflow.

Wright, S., *2D Goes 3D: An Industry Op-Ed by Steve Wright*. Available from: http://www.swdfx.com/PDF/2D_Goes_3D.pdf

Used as an overall expert opinion for 3D Compositing. Steve Wright has worked as a compositor on major features and this PDF represents his views on what is possible within 3D compositing software at the moment and why it is effective. It was also a good source for the comparisons between 2D and 3D compositing as he explains the fundamental differences between the two systems.

Wright, S., *What's So Hot About Nuke?*. Available from: http://www.swdfx.com/PDF/Nuke_article_v3.pdf

An article about the whole Nuke software package. Here the paragraph on 3D compositing acts as a condensed description of the application of 3D compositing within the VFX pipeline specifically for Nuke.

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3D COMPOSITING PRACTICES: BACKPLATE SPECIFIC:

Case Study: *District 9*, 2009. USA. FXGuide.tv. Available from: www.thefoundry.com [accessed 01 May 2010]

A video Case Study focusing on the creation of *District 9* VFX shots within the Nuke software package. I chose to extract and study a segment whereby the compositor showcases his implementation of Nuke's 3D space to clean out motion-capture artists from the raw backplate.

Case Study: *This Is Love*, 2009. USA. FXGuide.tv [accessed 20 April 2010]

A video demonstration that shows Nuke's use of 3D compositing and projection to recreate a panoramic environment from raw backplates within the film *This Is Love*. Used was an edited section of the video case study to encompass the practical applications of 3D environment creation in Nuke.

3D COMPOSITING PRACTICES: HERO ELEMENT SPECIFIC:

The Foundry., 2009. *Passion Pictures Harness Nuke for Audi Spot*. Available at: [\[http://www.thefoundry.co.uk/pkg_testimonials.aspx?ui=CBC2593A-2C9F-4EF9-84BE-C198B0171453#audi\]](http://www.thefoundry.co.uk/pkg_testimonials.aspx?ui=CBC2593A-2C9F-4EF9-84BE-C198B0171453#audi)

A PDF Interview of Passion Pictures of their use of Nuke's 3D texture projection systems. This allowed for an industry based exploration of the use of texturing in 3D space within Nuke to enhance Hero Assets in the composition stage of the pipeline

The Foundry., 2009. *Nuke. Version 6.0*, London

Teapot Case Study

I myself utilised Nuke's 3D environment to create an example by which I was able to project an image onto a teapot in 3D space, in the fashion learned from the Audi Q5 Case Study. This demonstrates the flexibility, speed and overall efficiency of handling hero assets in 3D compositions.

Case Study: *The Mummy: Tomb of the Dragon King*, 2009. USA. FXGuide.tv . Available from: www.thefoundry.com [accessed 01 May 2010]

A video demonstration by Lead compositor Justin Van der Lek showing the use of 3D character projection within *The Mummy : Tomb Of The Dragon King*. This video demonstrates the ability of Nuke's 3D environment to effectively recreate full 3D textured characters within the composition stage of the pipeline, cutting out the need to revert back to the 3D department, thus creating a linear and more efficient pipeline.

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THE FUTURE OF 3D COMPOSITING:

Brinkmann, R., 1999. *The Art and Science of Digital Compositing*. San Diego CA: Morgan Kauffman

In the final parts of Brinkmann's chapter on 3D compositing, he prophesises upon the future integration of more 3D CGI functionality within 3D compositing software, thus adhering to the 'look development' direction of The Foundry.

3D Stereo Tracking , 2009. USA. CmiVFX: Available at www.cmivfx.com [accessed: 29 April 2010]

A tutorial on using the 3D environment of Nuke along with its 3D tracker to create a 3D version of a scene using dummy geometry and back plate projection that can be used to create stereoscopic imagery. This is brand new and therefore represents where the industry sees Nuke being used in the future, proving that stereoscopic applications are a part of 3D compositing's future.

The Foundry., 2009. *Sony Picture Imageworks and The Foundry Share Technologies*. Available at: http://www.thefoundry.co.uk/dl_file.aspx?ui=B809A76B-40BC-495E-B45F-B2F8EADFA5B6]

A press release from The Foundry that indicates that they are planning to incorporate a Sony Imageworks look-development tool, *Katana*, into Nuke by 2011. This demonstrates The Foundry's feelings of 3D compositing proceeding into the look-development area of the VFX pipeline.

Wright, S., *2D Goes 3D: An Industry Op-Ed by Steve Wright*. Available from: http://www.swdfx.com/PDF/2D_Goes_3D.pdf]

The last paragraph of this article pertains to Wright's belief that compositors need to understand 3D environments to 'future-proof' their careers, thus adding to my realisation that 3D compositing will be a major part of the future compositing pipeline.

Keating, G. 13 May 2010. Re: Michael Baker NCCA Digital Effects 09/10. m-baker@hotmail.co.uk [accessed 13 May 2010]

An email from a former Pipeline TD at Framestore, Gerard Keating. Gerard informed me as to his opinions on the future of Nuke detailing the belief the tracking inside of composition will be a big aspect. This helped to form a conclusion

PICTURES USED IN PRESENTATION:

Nuke:

- 1: Available from: <http://www.intraware.com.au/uploads/Image/Foundry/Nuke%202.png>
- 2: Available from: <http://www.fxguide.com/qt/wp-content/uploads/2009/12/wildthings.jpg>
- 3: http://newsimg.bbc.co.uk/media/images/46889000/jpg/46889958_jex_543947_de27-1.jpg

2D Comp: Available from: <http://www.mariomalagrino.com/compositing-illustration.jpg>

3D Comp: Available from: http://www.heribertraab.de/blog/uploaded_images/Unbenannt-1-787571.jpg

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District 9:

The Foundry. 2009 . *Image Engine Nukes District 9*. Available from:

http://www.thefoundry.co.uk/dl_file.aspx?ui=0A9CB4B4-B1BD-415B-AB91-EEB22087D13DCase Study: PDF

This is Love:

Available from:http://lesterbanks.com/lxb_metal/wp-content/uploads/2009/11/MoreNuke.jpg

Audi Q5:

The Foundry, 2009. *Passion Pictures Harness Nuke for Audi Spot* . Available from:

http://www.thefoundry.co.uk/dl_file.aspx?ui=18CEEE4C-7D45-438B-AF93-F583DF8625F6

2D Texture:

1: Available from: <http://www.swinburne.edu.au/design/tutorials/maya/modeling-apple-using-polygons/maya-modeling-apple-image.jpg>

2: Available from: <http://www.sas.upenn.edu/~glauren/cartoon%20worm.gif>

3: Available from: http://www.spurgeonworld.com/willsblog/archives/Pixars_RenderMan_Logo_2_w292.jpg

4: Available from:

http://www.dolphinmusic.co.uk/shop_image/product/fc73246a2b8f8ce792e93b36c3d30e87.jpg

3D Texture:

1: Available from: <http://www.swinburne.edu.au/design/tutorials/maya/modeling-apple-using-polygons/maya-modeling-apple-image.jpg>

2: Available from: <http://www.sas.upenn.edu/~glauren/cartoon%20worm.gif>

3: Available from: http://www.robertbreckenridge.com/nukeLogo_03.gif

The Mummy:

-The Foundry. 2009. *Nuke And The Emperor's New (But Muddy) Clothes*. Available from:

http://www.thefoundry.co.uk/dl_file.aspx?ui=CC7C6C63-628C-4FAC-B476-BF7608EFFF42

Nuke/Katana: Available from: http://2.bp.blogspot.com/_PworvUqj0dQ/Su-m5dbnCHI/AAAAAAAAAEE/erVDzgyIExs/s400/katana_3.jpg