

GUIDELINES: CREATING 3D ILLUSTRATIONS WITH ZBRUSH *by Nori Tominaga*



Final Illustration of Lionel Messi by Nori Ta. Digital (ZBrush and PhotoShop).

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INTRODUCTION

3D is generally associated with animation and visual effects, but more and more artists are harnessing its powers for illustration work. Popular illustrators such as *Meats Meier*, *Andrew Hickinbotham* and *Ralf Stumpf* all use packages such as *Maya*, *3DS Max* and *Zbrush* to develop their master pieces. As these software packages are capable of generating virtual models, textures, light, poses and even composites. My aim in this tutorial is not to teach you the technical aspects of these large packages. Instead I am aiming to give you an overview of the process and the potential it can have in your work. I'll be using *Zbrush* as my primary tool on a *World Cup* piece that appeared in *3D Artist* magazine earlier this year. You can find out more about *Zbrush* and a whole pile of tutorials at *Zbrushcentral.com*. I hope you enjoy it and if you have any questions drop me a line at *nori.tominaga@gmail.com*.

1. RESEARCH, RESEARCH, RESEARCH

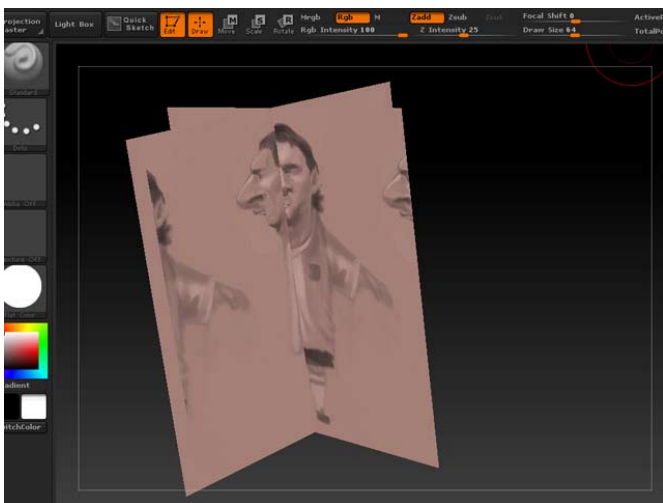
Despite the fact that this illustration will be based on a 3D model, a sketch on paper is always an essential place to start as it gives you a road map to your goal, before hitting the more complex three dimensional world.

My illustration is based around World cup Superstar *Lionel Messi*, and I began by researching how I think he looks from different angles.

2. AND MORE RESEARCH

I also sketched what I thought the final piece would look like. Sure, it may seem like a redundant process when the final piece will be a flat image anyway - but when the subject looks solid from all angles it enables you to have the freedom to nut out the best pose and composition for your piece at the end.

As opposed to in 2D where a drawing is essentially locked for the entire process. There are pros and cons to every tool or medium and it's no different in a 3D package.



3. LAYING VIRTUAL SLABS OF CLAY

First I set up my orthographic images in preparation for sculpting. An elaborate tutorial can be found at <http://tinyurl.com/2678jfj>

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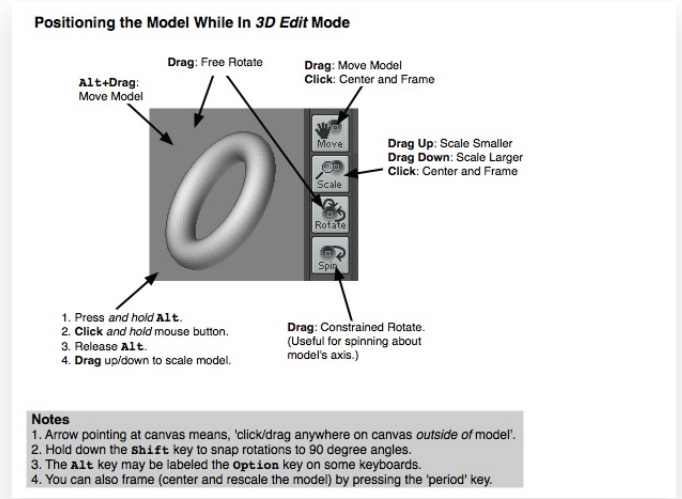
4. A LITTLE HELP

To give myself an easier start, I used a free basemesh that's like a slab of clay already shaped as a human. You can download it from <http://tinyurl.com/ye7zcf7>.



5. NAVIGATING THE SOFTWARE

If you're stuck even getting around this software, don't worry! You're not alone. Here is a navigation sheet provided by Pixologic to get you started. Hopefully after some practice this will become second nature to you.



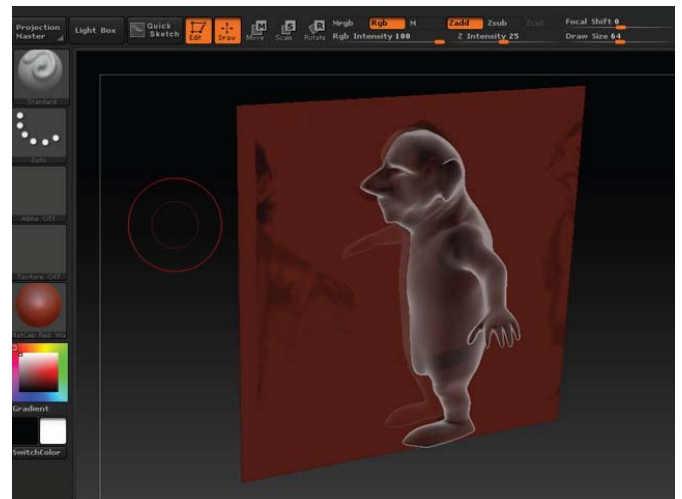
6. THE BRUSHES PALETTE

Now to introduce you to what does the brunt of your sculpting - *The Brushes Palette* located on the upper left of the *Zbrush* Interface. Have a play with these, but I usually stick to a few tried and trusted ones that I'll point out throughout this tutorial. I pressed *T* on the keyboard to ensure *Edit mode* is entered (the *Edit* button should light up orange). As well as this, I pressed *X* on my keyboard to turn on symmetry. In other words all changes I made to one side of the sculpt is mirrored automatically to the other.



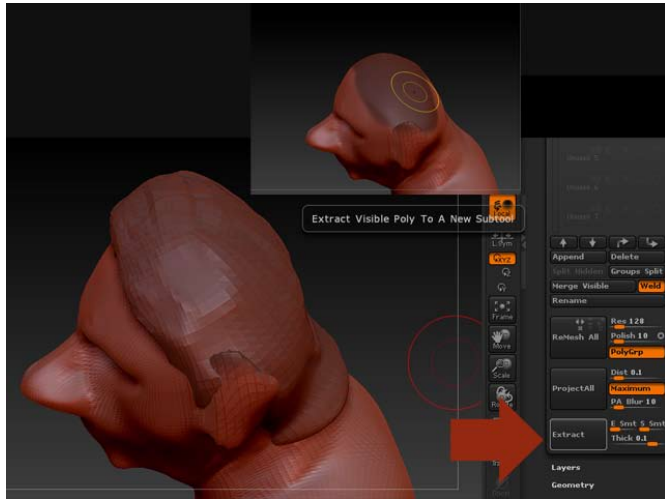
7. BLOCK IT OUT

At this early stage it was important to only block in major shapes and not go into detail. Therefore to achieve the shape below, I merely used the *Move Brush*. This brush yanks major masses of the sculpt so I could easily mold it into the shapes specified on my image planes.



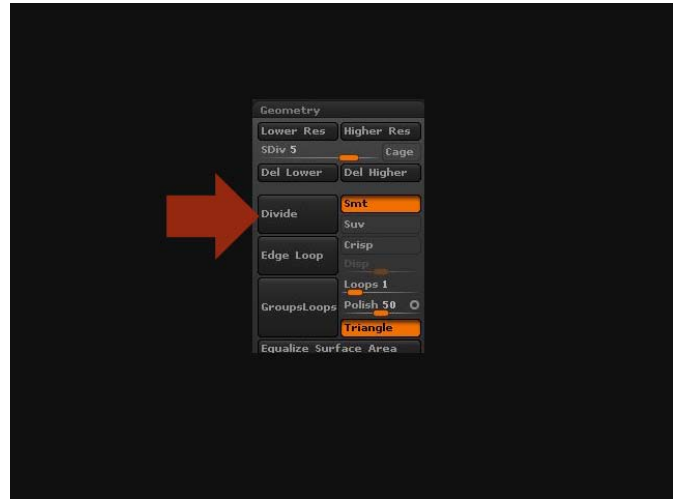
8. GETTING A LITTLE HAIRY

To make the hair mass I used the existing head geometry as a base. I held down the *Ctrl* key to start to mask where the hairline exists on the scalp. I then go into *Tools>Subtool>Extract* to create a new piece of virtual clay. Like the previous step, I used the *Move Brush* to shape the hair into place.



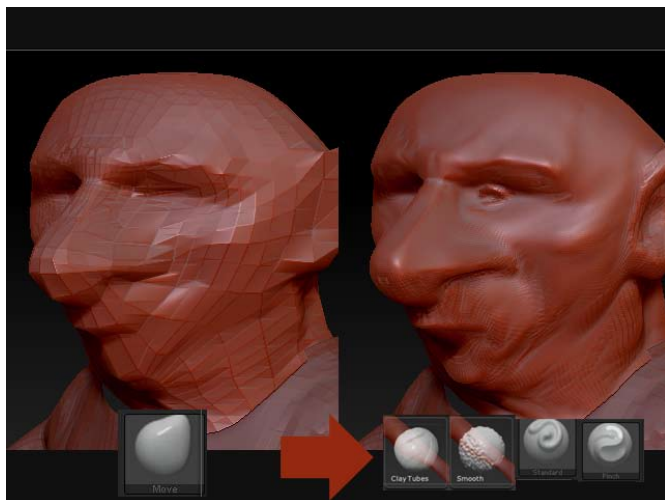
9. POLYGONS A PLENTY

Now the basic form was in place it was time to start adding details to my relatively blocky sculpt. These *blocks* are known as polygons. By going to *Tools>Geometry>Divide* I add more polygons thus giving me more ability to carve out finer detail.



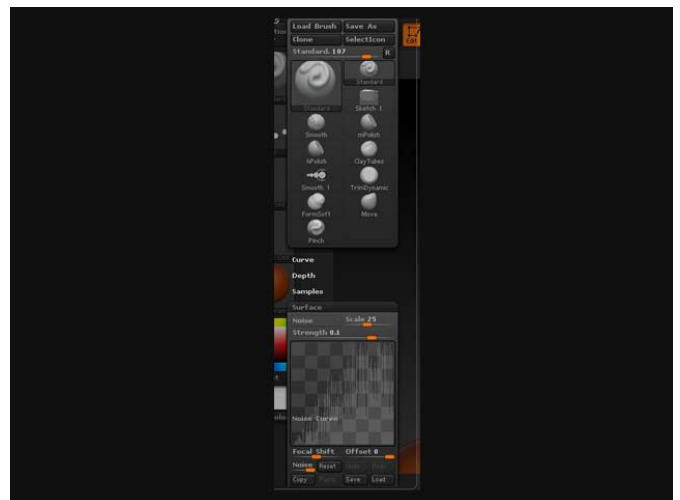
10. BRUSHES

With this ability I'm able to use more sculpting brushes to greater effect. My favorites are *Clay Tubes*, *Standard*, *Pinch*, *Inflate* and if you hold down the shift key, *Smooth*. These brushes do exactly what they describe, but experiment for yourself and see which ones suit you!



11. VARIABLES FOR BRUSHES

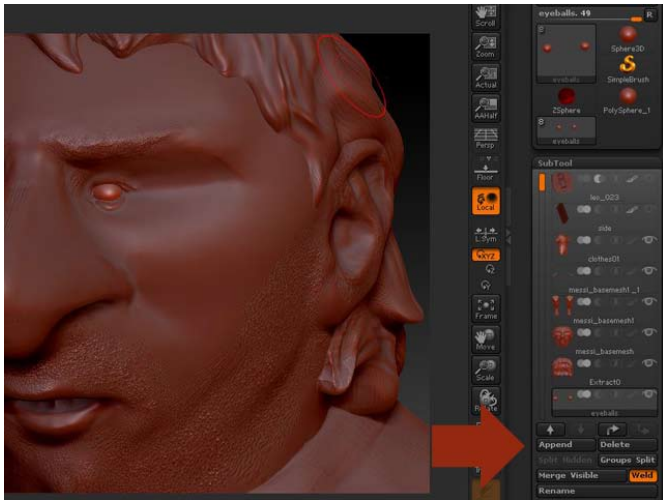
In addition to these brush variants, I experimented with brush tips, brush size, intensity and *Alphas* to get interesting textures on the model. For example, under *Brush>Surface>Noise* I can quickly create a rough texture to be used for stubble.



12. THE WHITES OF THEIR EYES

To add the Eyeballs I selected simple *Polyspheres* from the tools menu and appended them to my sculpt.

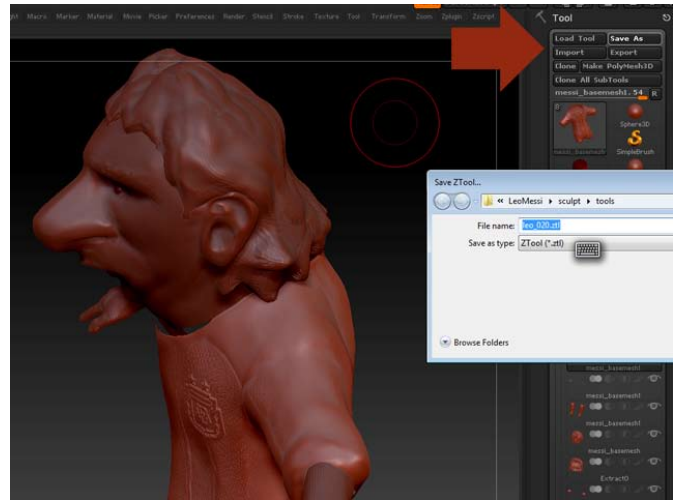
I moved them into place by getting out of *Draw mode* and into *Move Mode*. I'll explain more about this mode in the *Posing* section where I'll be moving a lot of mass in my sculpt.



13. SAVE YOURSELF

Don't forget to save your sculpture (also known in *Zbrush* as a *Tool*) through *Tool > Save As*.

As opposed to other software, saving the document will NOT save your sculpt. This is very confusing and catches a lot of new *Zbrush* users out.



14. CLOTHES MAKE THE MAN

As for Messi's clothes and accessories, these were all done in the same method as the hair - by extracting existing geometry and shaping them to fit.

Logos were done using *Alphas* but boy, I need another section just to explain these! Or you can read up on them yourself at <http://tinyurl.com/35nynj6>



15. ADDING SOME COLOUR

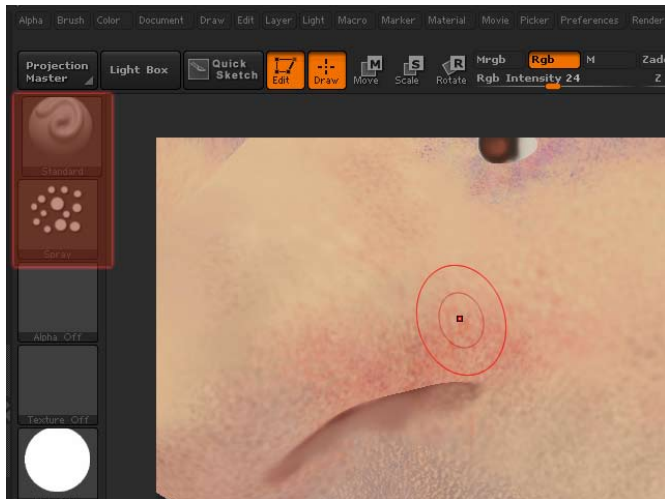
There are many ways to paint a sculpt in *Zbrush*, here I elected to paint directly onto the polygons using *Polypainting*.

I ensured the areas below are *checked/unchecked* and used a *Flat color* white Material on my sculpt as shown. I did this so I could get a more accurate representation of my painted colours without lighting influence.



16. ADDING SOME DETAIL

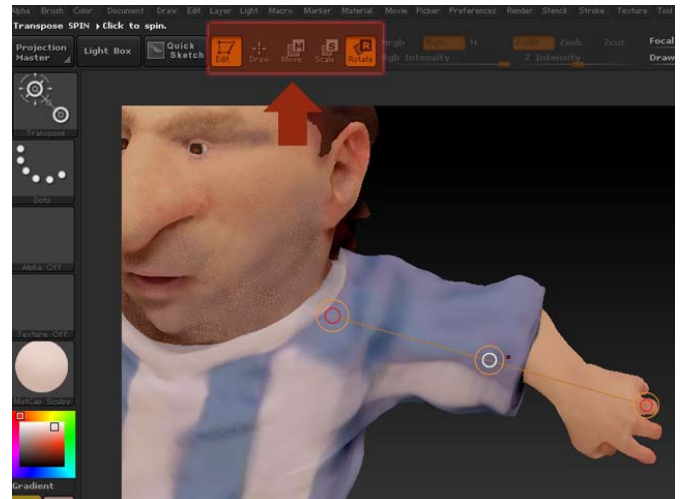
Again while painting I experimented with different brush nozzles. For pores for example, I used a spackle Spray to obtain added richness to the skin texture.



17. STRIKE A POSE

Now we move to what's known as the *Transpose Tools* which are highlighted in the image below.

With these tools we can make wholesale changes to the limbs to make the sculpt more dynamic. Using my initial sketch as reference, I carefully posed the sculpt to capture his essence. The transpose tools themselves are complex, so to find more information please refer here <http://tinyurl.com/2dq2gg5>



18. IT'S ALIVE

At this point I was able to have a sigh of relief. Yay! The model, at least, was completed and in *living* 3D. Now for some finishing touches in presentation.

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19. RENDERING THE FINAL AND COMPOSITING

So far I've only talked about a few materials for use in sculpting and texturing. There are plenty more materials to choose from to give you a different read on your sculpt.

I experimented with different *Zbrush* presets to give me different lighting scenarios and shadows.

For example, this is a *Wet clay* look that certainly can be useful when compositing in *Photoshop*.

When I was happy with a particular look I went to *Texture>GrabDoc* and saved the Render.

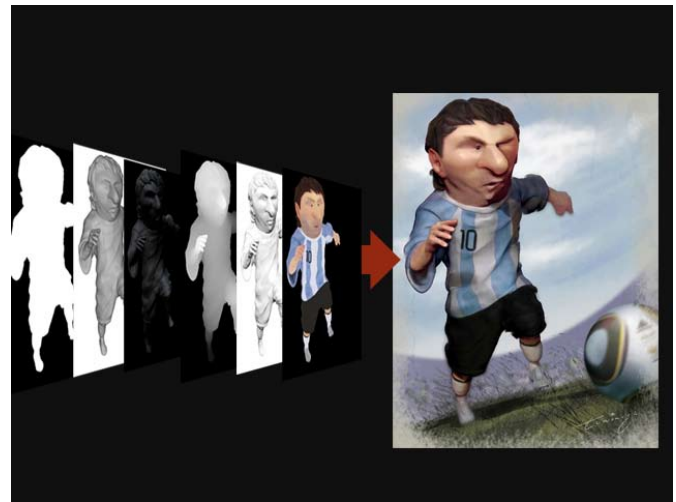
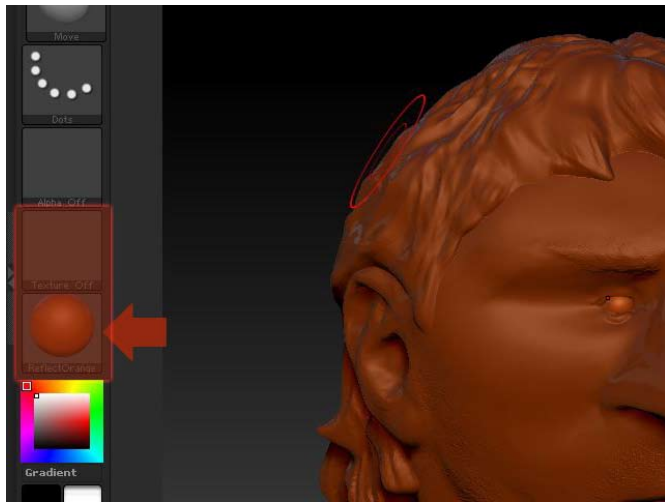
More information about *ZBrush* materials and lighting can be found here <http://tinyurl.com/2dv2t2y> and here <http://tinyurl.com/26xv9ze>

20. FINISHING TOUCHES

Now in *Photoshop*, I used several layer filters such as *multiply*, *screen* and *colour* to achieve the final composition!

Phew. So there you have it. For a turnaround you can visit my blog, noritominaga.blogspot.com.

I hope this inspires you to look into *Zbrush*, so you can incorporate it in your future works!



QUICK LINES FROM THE GUIDE: NORI TOMINAGA

PLEASE START BY TELLING THE READERS A BIT ABOUT YOUR BACKGROUND?

I studied Multimedia at university and that allowed me to get exposure to a wide range of creative disciplines.

I started my professional career as a graphic designer, but circumstance led me on to other creative fields, including advertising, animation, the video game industry and television commercials.

I've been pretty lucky to gain experience in all these different fields so far and I must say I've enjoyed every minute of it.

THE BULK OF YOUR WORK (BOTH COMMERCIAL AND PERSON) SEEMS TO BE CREATED DIGITALLY. DO YOU EVER CREATE YOUR ILLUSTRATIONS USING TRADITIONAL MEDIUMS?

The major advantage of digital is that it saves time. More often than not, a client gets back asking to change the hair colour of a character or requests an arm to be raised higher. Digitally it's relatively easy to make those changes, traditionally however it could send anybody mental!

So most certainly for commercial work it's nothing but digital.

That said, using traditional mediums away from the computer really is where those creative juices start flowing.

Scheduling time to experiment and draw outdoors without fear of what the client would say is creatively very satisfying and it feeds what I do back in front of my computer screen. Nothing can beat the feel, the smell, and even the sound you get from drawing with an ordinary pencil.

Digital or traditional I think both are essential in an illustrator's arsenal.

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The Karate Kid. Digital. Personal piece.

AS WELL AS CREATING DIGITAL CARICATURES AND ILLUSTRATIONS, YOU PRODUCE HIGH QUALITY 3D MODELS? HOW LONG DID IT TAKE YOU TO MASTER THE SOFTWARE NEEDED TO CREATE SUCH MODELS?

3D was something I was interested in early in my career and since then I have been lucky enough to work in studio environments using 3D skills.

I was even luckier to work with some very talented people, in an environment where we'd share a lot of new ideas, techniques and what not.

Conceptually I think 3D isn't hard to grasp, after all, we all draw and to a degree think in 3D.

It's the technical aspects that make it so daunting. 3D software packages are huge programs, where simply navigating through the software could make your head spin.

Once you get over the frustrations though, it's just another tool in the creative toolbox.

I'd hate to put a time frame on how long it takes me to learn something, and quite frankly I'm still learning all the time. As with anything, the more energy you invest in it, the more you can get out of it.

DO YOU OFTEN USE THESE 3D MODELLING SKILLS IN YOU COMMERCIAL BRIEFS?

Yes I do. Even when the brief isn't an obvious 2D brief I still use it for reference purposes.

Sometimes I won't be sure of the way something looks at a particular angle, or how the lighting would work, or how the perspective would work. I quickly rough out a scene in 3D and try to find the answers.

EARLIER THIS YEAR YOU SUBMITTED AN ILLUSTRATION TO IMAGE FX MAGAZINE, THAT WAS EXCEPTED AND PRINTED IN THE IMAGINE FX'S BEST II FANTASY FOOTBALL TEAM ARTICLE. THIS MUST HAVE BEEN AN INCREDIBLY EXCITING MOMENT FOR YOU?

Yes it was, as I guess, anything is when you're recognized for your work. Specifically, that piece was great because it was themed around a big event in a publication that was distributed worldwide.

ARE YOU ABLE TO TELL US ABOUT WHAT PROJECTS YOU ARE CURRENTLY WORKING ON?

I'm currently working with a VFX company in Melbourne doing concepting, 3D and texturing work.

If all goes well it will miraculously turn into a television commercial!

DO YOU HAVE A WEB SITE, BLOG OR ANY SITES WHERE PEOPLE CAN SEE MORE OF YOUR WORK? (OTHER THAN THE ILLUSTRATORS AUSTRALIA WEB SITE OF COURSE)

Other than the Illustrators Australia site I've got my main homepage at www.artofnori.com.au

From that there's links to a whole pile of networks I'm on including my blog noritominaga.blogspot.com.

DO YOU HAVE ANY ADVICE FOR ASPIRING ILLUSTRATORS?

To paraphrase legendary fine artist *Harley Brown* - *take your work seriously, don't take yourself seriously.*

Any creative career has it share of highs and lows, but providing you don't lose the passion for the craft and keep a relative sense of humour, somehow we all keep going.

Schedule time to experiment and have fun. Sure it may turn out bad, but if you are serious about your work, you'll keep developing your eye and continue to build your career. ✂



Bernini inspired Zbrush sculpt. Digital. Personal piece.