

GALLERIES

>>More of the latest 3D inspiring art such as this cover image by Sebastian Schoellhammer

NEW SECTION : IMAGE MAKING OF'S

>>Deconstructing the Gallery images, and written by the artists.

UNDERWORLD : EVOLUTION

>>Luma, Sci-Fi spectacular Studio Reveals it's mastery of Creatures and 3D Environments



TEXTURING MASTERCLASS

>>continuing Texturing series, this month texturing a humna head part 1 of 2

HEBER ALVARADO

>>VFS Graduate and now Creature Modeling on Next Gen games for Propaganda...

RICK RAMOS

>>Brazilian freelancer with ambitions...

PLUS COMPETITION & RECRUITMENT

>>win a copy of Shade 8.0 and find the perfect CG industry Job!



3dcreative

www.3dcreativemag.com
www.zoopublishing.com

EDITOR
Ben Barnes
ben@zoopublishing.com

ASSISTANT EDITOR
Chris Perrins
chris@zoopublishing.com

MARKETING
Kelly Payne
kelly@zoopublishing

CONTENT MANAGER
Warin Pismoke
warin@zoopublishing

DESIGNERS
Matt Lewis
Martin Shaw
Bobby Brown

INTERVIEWS
Heber Alvarado
Rick Ramos

TUTORIALS
Richard Tilbury
Taylor Kingston
Luciano Iurino
Vojislav Milanovich
Giuseppe Guglielmucci
Niki Bartucci
Florian Wild

MAKING OF
Scott Morgan
Hodong La

GALLERIES
Anna Celarek
Cheng Qingfeng
Fabio Zangla
Lee Scheinbeim
Luc Van Gilzen
Pete Sussi
Sebastian Schoellhammer
Udom Ruangpaitsorn
Jonkajjys
Dave Auclair



cover story

articles

interviews

tutorials

making of's

competition

galleries

recruitment

004

YOUR VIEWS!

Let us know how we can meet your needs

019

UNDERWORLD

Luma's Creatures and Environments

026

CHASING DEMONS

PYSOP chases down a demon for Dodge

006

HEBER ALVARADO

Creature Modeler for Propaganda

012

RICK RAMOS

Brazilian Freelancer with ambition

036

MASTERCLASS

Texturing a Human Head

034

JOAN OF ARC

part 6 of 8 of this ongoing monster!

041

MENTAL RAY

DGS Exploited for Maya

045

THIS LITTLE PINKIE

Sylvester and Tweetie by Scott Morgan

051

EVOLUTIONARY

The Evolutionary small creature by Hodong La

064

WIN! SHADE 8.0

courtesy of efrontier

057

10 OF THE BEST

images from around the world

066

RECRUITMENT

Job Vacancies

068

ABOUT US

Zoo Publishing Information & Contacts





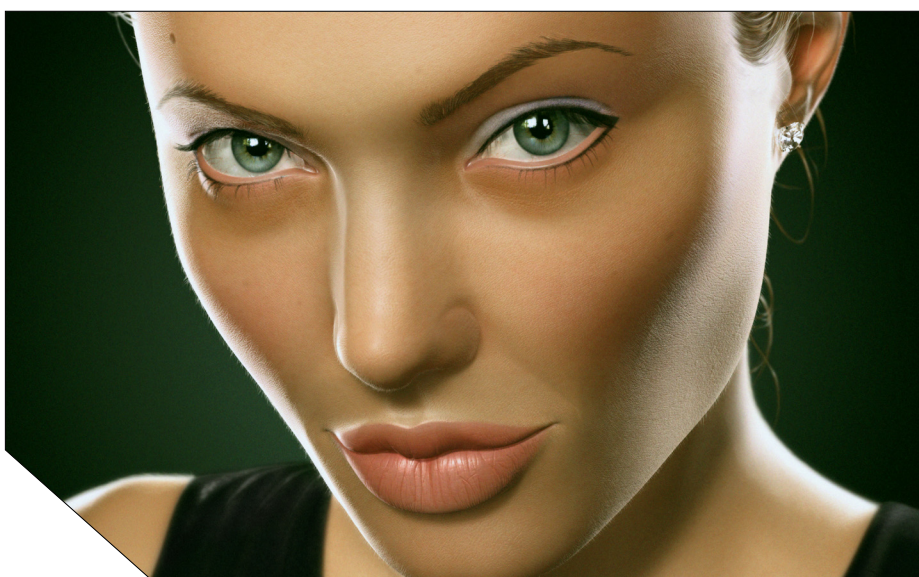
THANKS

to all our readers
and contributors - we

are very pleased to be releasing our 6th issue! Downloadable magazines are still quite a new concept and in the year before the release of 3DCreative we saw other pdf magazines come and go. The good news is we are growing steadily each month and gaining support from more and more online communities. We are working on improving layouts and content every month, so please stay with us and we will endeavour to make your reading and viewing experience more interesting and inspirational with every issue!

SURVEY : on the next page...

We need your opinions! To continue improving and giving you the content you want we need you to help us by answering a few questions. Please give this a couple of minutes of your time, it's quick and easy to fill in and we are even dangling a couple of 'out of the hat' prizes in front on your noses to tempt even the busiest artists!



TECHNIQUES AND TUTORIALS

Richard Tilbury's Texturing Masterclass follows on from last month's unwrapping to this month's painting of the skin texture, showing the uses of layers and brushes amongst other techniques. For the followers of the Joan or Arc series, part 6 is now awaiting you in the additional download. An excellent technical tutorial covering the uses of Mental Ray in Maya also begins this month, Florian Wild gives us the first of three parts of 'DGS Exploited' (diffuse, glossy, specular). As promised last month a new section has arrived : 'Making Of's' dissects images with the artist giving an overview of how they went about creating their image. This month 'This little Pinkie' (Sylvester and Tweety) by Scott organ and 'Evolutionary small Creature' by Hodong La from last month's gallery are put under the scalpel!

INTERVIEWS AND INSPIRATION

Two stunning portfolios are presented in the form of interviews with character artist Herber Alvarado and self taught freelancer Rick Ramos. Read how they found their paths in

this industry whilst taking in their fantastic imagery. Our regular gallery feature '10 of the Best' is here showcasing the very best of what's landed in our inboxes over the past month, remember some of these images will appear next month in the 'Making of' section.

INDUSTRY

Cover Story : Blockbuster 'Underworld Evolution' required a mind blowing amount of CG and effects. The Luma team tell us more! Psyop Studio chases down a demon in their Dodge commercial, read the article on page 26

EXTRAS

This month's competition sponsored by www.e-frontier.com, 4 copies of shade are up for grabs!

ABOUT US

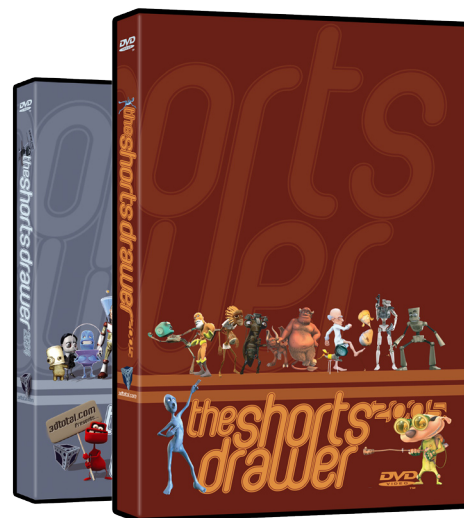
Zoo Publishing is a new company comprising of a small team here in the Midlands UK. This magazine is our first project which we are hoping with the support of the community will build into a great resource and a highly anticipated monthly release. The 'Support of the Community' is an interesting point, where a 'magazine for 3d artists' is not an original idea, the marketing and distribution of this magazine as far as we know is a first. It follows the principle of traditional magazines that are sold on news stands and in many outlets but being a digital downloadable mag the many established web communities on the net are our outlets and newsstands. 3DCreative is supported by 3dexcellence, 3dkingdom, 3dlinks, 3dm, 3dmonkeys, 3dnuts, 3dpalace, 3dtotal, 3dvalley, 123d, cgchannel, cgdirectory, cgfocus, cgunderground, childplaystudios, daz3d, deathfall, digitaltutors, kurv, max-realms, mediaworks, Rendez-vous3D, spinquad, subdivision, the3dstudio, thebest3d and vocanson. We look forward to lasting and successful partnership with these CG

YOUR VIEWS!

ENTER THE SURVEY

CLICK HERE

FOR YOUR CHANCE TO WIN
BOTH SHORT DRAWER DVD'S



3DCreative Magazine is steadily growing each month and gaining support from more and more online communities. We are working on improving layouts and content every month, so please stay with us and we will endeavour to make your reading and viewing experience more interesting and inspirational with every issue!

To help us improve the magazine we need your feedback! To continue improving and giving you the content you want we need you to help us by answering a few questions, please give this a couple of minutes of your time, it's quick and easy to fill in and we are even dangling a couple of 'out of the hat' prizes in front of you. Even the busiest artists!



To fill out the survey please use this link
<http://www.surveymonkey.com/s.asp?u=387171732612>



digital-tutors

Discover the Difference



Check out why over 50,000 artists have made Digital-Tutors their most trusted training resource

"Digital-Tutors training are a great addition to our Studio's Library. They're great tools for our crew to improve upon their multi-tasking and cross platform capabilities."

Gregg Azzopardi
Director, Project
Firefly

"Compared to the other training materials I have experienced, the Digital-Tutors products are better executed, easier to follow, and avoid the vagueness and blind instruction you often run into with many others. Thanks for the awesome training!"

Scott Wilson
Global Creative
Director, Nike



ACADEMIC PRICING

**for students,
instructors
and schools**

visit website for
full details



**Take your skills to a new level with our
Professional trainers and training kits**

www.digital-tutors.com



Interview



an interview with heber alvarado

Born January 2nd 1984, El Salvador, Herber Alvarado now lives and works in British Columbia, Canada for Propaganda Games (Disney) as a Creature Modeller on nextgen action titles. Herber an ex-student of The Vancouver Film School talks to us about himself, his education and his working life.

To see more of Herber works and if you would like to contact him please visit his website www.heberalvarado.com

Hi Heber, can our readers have a little introduction from yourself please, age, location, current employment etc..?

Hi I'm 21 years old living in beautiful British Columbia (Vancouver). I am currently employed at Propaganda Games which is a new studio here in Vancouver that was founded by Disney.

Can you tell us a bit about what a typical day at Propaganda Games is like for you?.

Well I come in grab my coffee and head to dailies (art meetings everyday) where we discuss where the art assets for the game and bring up any issues whether they are design / technical / aesthetic that's 1 hour everyday then I head to my desk and pick up where I left of the previous day.



A bit about your history, when did it all start for you and did you go to art college or are you self taught?

While in high school I became very interested in graphics and web design I absolutely loved the artistic and technical aspect that went into creating an image. Eventually I found myself wanting to incorporate more 3d into my graphics, once I discovered Maya I was

hooked. I found myself completely absorbed in this new world I had discovered so I began reading tutorials from many websites such as 3DTotal (Joan of Arc) the more I learned the more I wanted to focus strictly on 3d so after telling my parents I was not going to study computer science I enrolled into Vancouver Film School and the rest is now history.

Aha! Vancouver Film School, here at 3DCreative we see this name cropping up a lot, so much talent seems to come out of their doors, can you tell us a bit about how they achieve this?

I think 'V.F.S.' is a great 1 year program , very intense and at times rivals some of the 4 year 3d programs that other schools offer.



What makes 'V.F.S.' great is the students by far, they seem to attract a good crowd from all over the world, also the structure for the courses is very organised in that you have constant presentations you have to make to your mentors (in a theatre, you standing at a podium). The constant feedback is what keeps a lot of the students working at a good pace and progressing.

You describe yourself as a character artist, what exactly does this involve? What stages etc.

In my opinion a character artist is someone who can not only model, texture, render and everything in between but also has a good eye for aesthetics and design. Such artist has to be able to understand and breakdown a 2D concept image so that he / she may be able to successfully recreate it in 3d. We always hear how something that works in 2d may not necessarily work in 3d, that tends to be very true in production so you must be able to come up with solutions very quickly and efficiently.

What software do you use, are you happy with



your workflow and why?

My main tools are Maya, Xsi, Zbrush and Photoshop . At work I use Maya and at home I use Xsi. In my opinion Xsi has the fastest

workflow and subd's and I been using it for years now and I've yet to find anything that matches it in terms of speed or quality. Maya also has a lot of nice features and it works so

well in production since its open architecture allows us to completely rebuild any part of it to suit our needs or pipeline.

You mention zbrush, I notice this software is getting more and more popular, do you recommend other 3ders who are yet to try it, give it ago? What do you find best about it?
Zbrush has gained a lot of popularity due to the fact of how organic it is, traditional artists are able to make that transition to 3d a lot less painful due to zbrush and that's why we keep seeing a lot of great work. Having said that I highly recommend all to learn zbrush (another notch on your belt!) But don't get caught up in all the detail that you can put on a model and forget the base foundation of your sculpt. I often see people completely blanket their model in useless detail while not paying attention to the underlying form or anatomy. What I find best about it is how loosely I can work out forms and shapes without having to commit to them. Being able to make changes at the base level of subdivisions and have them propagate up to the highest level is a very powerful feature and imo is what makes it shine.

What projects are you currently working on and can you tell us a little a bit about them?

I am currently working on a fps Turok game for next generation consoles using the Unreal 3 engine.

I am a creature modeller (1 of 3) on this game, my job is to execute the 3d models against the concept images we are provided with. This also includes uv's, texturing, normal maps, l.o.d creation, weighting, preparing the model for the skeleton and also making sure the model works in the game engine. I cant say too much about the game itself as the information about it is being kept secret but expect something for E3.

On top of that I also freelance on various

projects from time to time, I was recently creating some characters for a line of resin sculptures (rapid prototyping) that will hopefully be in stores sometime in the coming year

Well it sounds like your company is making a great game. in the UK I often hear game studio employees complaining of long hours (we here a lot of good things too! But this topic does come up often) how do they treat you over the side of the Atlantic?

I cant vouch for much of the industry in Vancouver in terms of work hours, but the people who founded this company set forth a lot of ideas about how they wanted to run this studio. One of them was work life balance which is very important and is something other studios need to start thinking about, and they have lived up to it to this day. After all a happy employee is a productive one.

Do you have a dream project that you would like to work on?

My dream project would be my own, to

start my own visual fx house or game studio and produce quality content. I suppose it will be a while before I get to do that as I am still very young in this industry, still so much to learn.

Oh really, how young are you Heber?

I recently turned 22, but sometimes I feel I should still be in school causing trouble like most of my friends, but being a starving artist (student) gets old fast.

Away from the monitor what else do you like to do?

When I'm not burning my retinas pushing points around I like to Snowboard and hang out with friends, watch movies, play games , listen to rock music and some travelling when I get the rare opportunity.

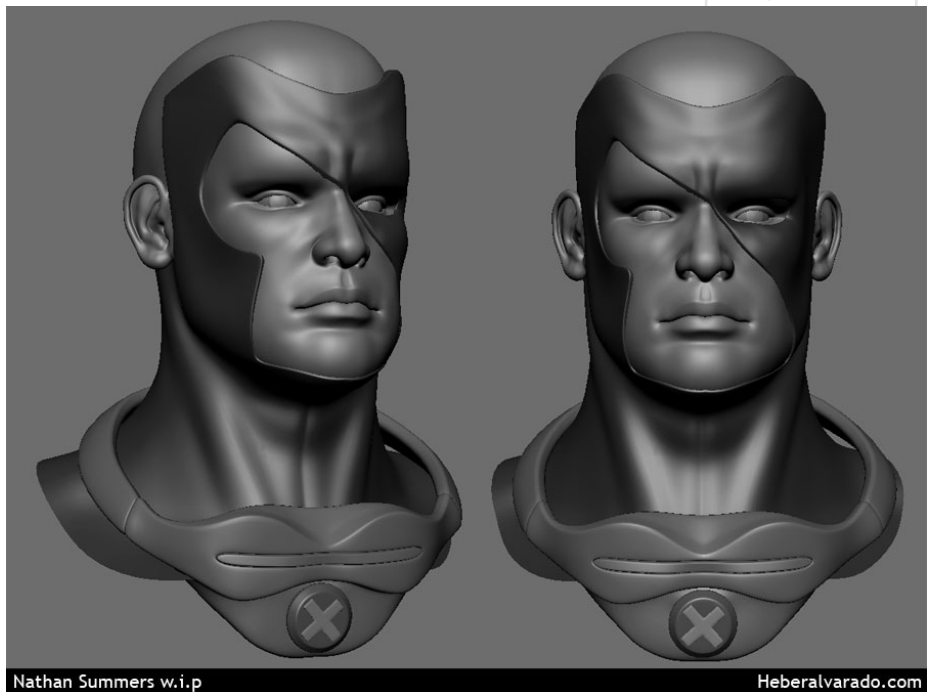
Well I am jealous of your location! We settle for Longboard skating here in damp England because there isn't any snow .. actually there isn't really any mountains either .. it's kinda flat and wet but we like it.



Thanks for your time Herber, it's been great chatting with you . .do you have any one piece of advice for our upcoming student readers?

Was my pleasure, yes I do! Don't compare the level of your work to your classmates, compare yourself to the industry and strive to achieve or surpass that, because that's what you will be judge upon.

INTERVIEW BY TOM GREENWAY



I choose ZBrush because...

"ZBrush's **unique** and **intuitive** tools allow me to **create** complex and **detailed** creature designs that couldn't have been achieved any other way, as swiftly or **precisely**."

Caroline Delen



ZBRUSH
2D & 3D Painting, Modeling & Texturing

ZBrushCentral.com

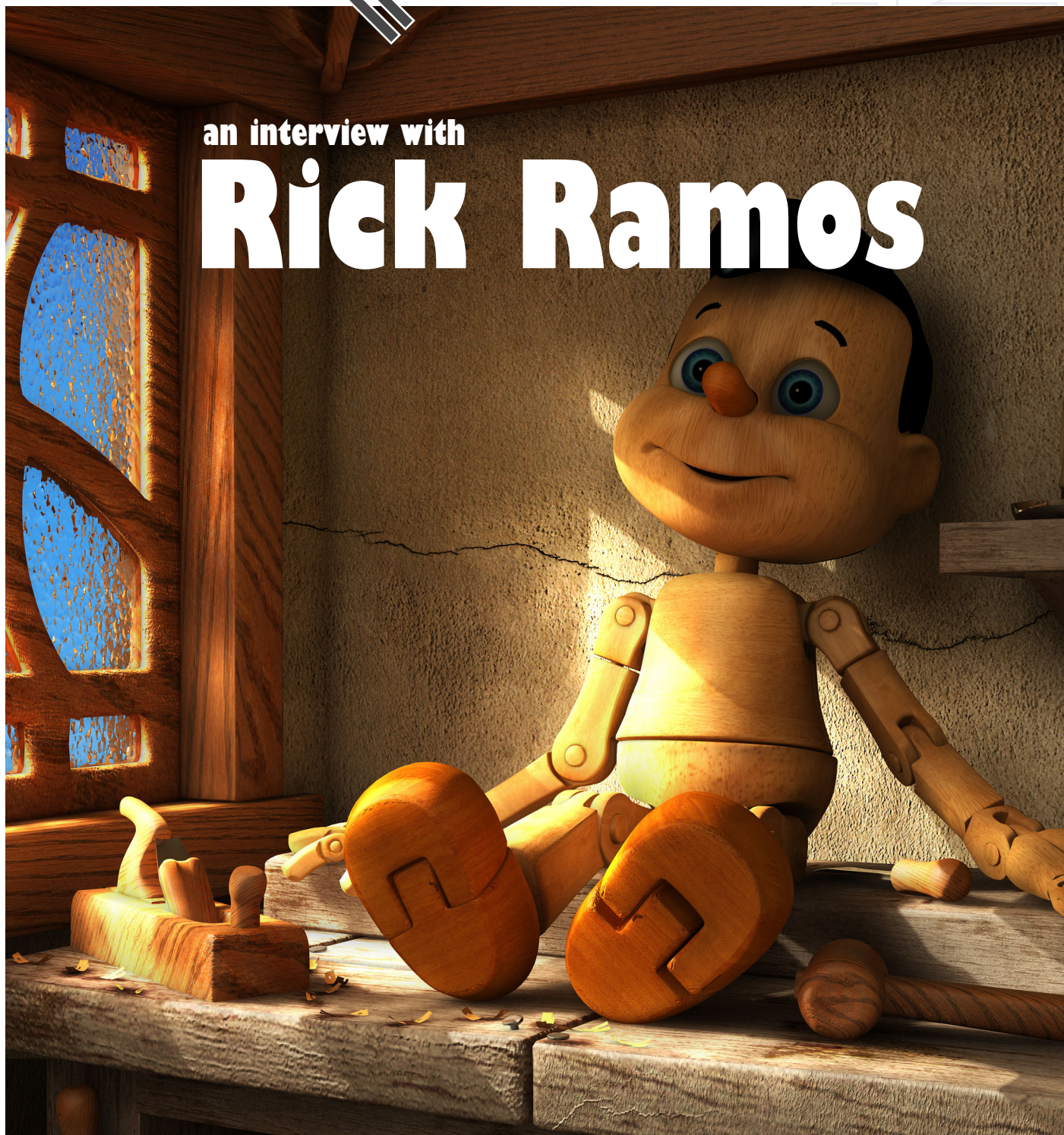
ZBrush.com



Interview

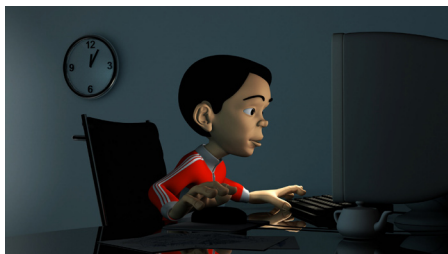
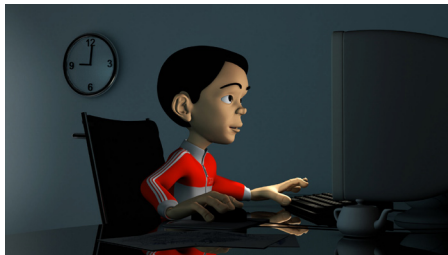
an interview with

Rick Ramos



How did you come to develop an interest for computer graphics and how did you start working in this field?

I always enjoyed drawing when I was a kid. I couldn't help drawing when I saw a pencil and paper and started sketching anything from my mother to my dog and almost anything I saw. I even took part in and won some competitions at school. As a teenager, I had to choose a technician and electronics course, because I couldn't afford to go to São Paulo to study drawing and I really needed to start my professional career. So, I asked



the head teacher if I could be responsible for the computer lab (at that time, the old PC-XT 86), and in return I could use the coordinator's computer, a PC 286, the highest spec in the school with a coloured screen and a version of 3D Studio for DOS. The access to the internet was restricted and it was only later that I came to meet people who also liked 3D. Then, I found a job as a trainee and later



started working for local TV in my home town. I learned how to be an editor and got a job with a political campaign in Ribeirão Preto before going to a new video agency. After some attempts as a free lancer in São Paulo, I was invited to work for an agency that developed animations for the medical industry. Since then, I've contacted several producers and agencies, and since established relationships that still offer me a lot of opportunities and work.

3D is an activity that consumes an enormous amount of the artist's time. How does this affect family life ?

If you are thinking about working in 3D, be aware that it can be harmful to relationships, whether it be girlfriends, family or friends. It is difficult for people to understand why you sometimes have to spend nights trying to reduce render times, or because you still haven't got the animation timing right, or the

software is not working properly. Personally I always try to save some time for the family. The deadlines for delivering work are getting more and more demanding every day. But I try to balance reading, watching movies, dating, travelling, and visiting my mother in Mococa in my home town.

In Brazil, the companies are still looking for professionals who know a little of everything: modelling, texturing, setup, lighting, animation... What do you think about this ?

That's something that is difficult to change in Brazil, and even elsewhere. Some companies work with professionals who are dedicated to modelling or texturing for example or other specialised roles. In Brazil it's not easy because the deadlines are usually short, and also the number of professionals at certain companies are limited. It is a problematic situation: if you are not careful, instead of being good in a particular area, the professional ends up being, "a jack of all trades and master of none". Some producers are implementing the division of tasks, but the professional has to know at a little at least about each discipline so when called upon for urgent work he or she will be able to assist the other artists.



Did you specialize in some specific area of 3D?

Yes currently I'm working as a character developer but am getting more involved with creating, modelling, setup and above all the design of the character. I prefer cartoon styles, but have also done some more realistic characters and low poly versions for games and mobiles. It is a field that has always fascinated me, and I hope to continue developing this work.

Which software do you use to develop your work?

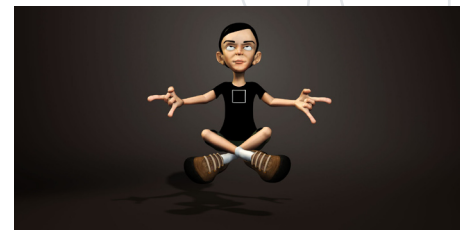
Despite the majority of my personal work being done in Max, I also work with XSI and Maya. I like 3D Max because it was my first introduction to 3D and, among other reasons, it is compatible with some good renderers like Final Render, V-Ray, Brazil and the new Maxwell Render from Next Limit, of which I am part of the team of Beta Testers. I like XSI which is very fast as well as having very good tools for animation. At the moment I'm improving my skills in Maya, which I consider an excellent piece of software, especially when it comes to animating characters. They are all very good really. I never gave much thought to this before as I think software packages are no

more than instruments for you to develop your art and there is no reason to stop you from mixing tools to obtain a good result.

What national and international 3D artists impress you ?

Tough question... Nowadays I'm friends with almost everyone involved with 3D in Brazil, and even outside the country. In each one of them I see a different skill set and try to learn from each of them. I like the work of Alceu Baptista, Gustavo Yamin, Flávio Mac, Fernando Reule, Léo Saints, Márcio Bukowski, Fausto de Martini, Vitor Vilela, Krishnamurti M. Coast, Luciano Snows, Mario Ucci, João Streets, Ricardo Thyele (Zy), Alex Doss, Luiz Adriano, Marcelo Souza, Moisés Braga, Juliano Castro, Carlos Ribeiro, Marcelo Ortiz, Hoists Cube and so many others, that I'm afraid I'll forget someone. Amongst the international artists, I admire Carlos Baena, Fella, Steven Stahlberg, Bay Raitt, Neil Blevins, Rune Spaans, Victor Navone, Cameron Miyasaki, Keith Lango, Peter Syomka and Daniel Martinez. Each one of them has a strong point, either in modelling, texturing, animation or setup.

What material of references do you use for your work?



Research, research, research, research... er more research. Every time I start a job I do a huge amount of research on the internet, in books, magazines, and in my archive of references that I've been collecting over the years. Some of friends turn up when they need some reference because they know that I always have something at hand. I see many works on the internet, and many of them are inadequate simply because the author did not research the subject a little more, and ends up placing English armour on an oriental warrior for example

alongside this I am an unconditional fan of Walt Disney. Over the course of time I have acquired books, DVD's and several other products on Walt Disney Studios, and whenever I can I look for inspiration in that collection. It was with Walt Disney that I learned the lesson that, "if you can dream, you can do".

Do you find it easy to work in the entertainment sector in Brazil?

In spite of the various incentives and laws, I still think it is difficult to produce films and an animation series in Brazil. I've already had the opportunity but unfortunately I noticed that the knowledge of special effects and animation in the area is still restricted. Some directors opt to ignore the use of special effects due to a pure lack of information.

I believe that Brazil has the potential to produce a long running series of a high quality,

but still lacks maturity as the organization and the investment in this field is still limited. The market still demands fast profit; a lengthy project or animation series and something that takes time, equipment and money is often disregarded. It is necessary to promote a better understanding of the resources and professionals that we have available in Brazil to the countries' directors. Most of the artists has that and to establish at the advertising market, that and the great opportunity in Brazil, just for lack of possibilities and investments in the area, or then to seek new opportunities out of the parents.

You are also involved with Melies - School of Movies 3D and Animation - as an Instructor and Mentor. Talk a little about your course and about a Mentor's function.

My course involves addressing the students and encouraging them to develop a cartoon

character from a sketch to a finished model. In spite of the variety of the available tutorials on the net, several artists have difficulty in understanding your modelling style, and at times cannot advise the correct technique to transpose your ideas into 3D. The course has the function of aiding in that sense, teaching





modelling techniques, texturing, setup as well as concepts of how to create a good character. The Mentor's function in Melies is to help the students to consolidate their ideas, and above all, make them feasible. Giving them opinions and clues on how to solve problems and find solutions that don't harm him / her in the quality of the work to be accomplished.

Do you participate actively in the national and international forums? How do you see the 3D community in Brazil and how do the forums aid the artists and companies?

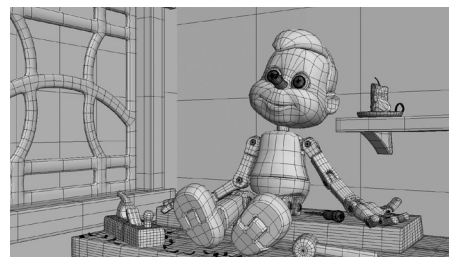
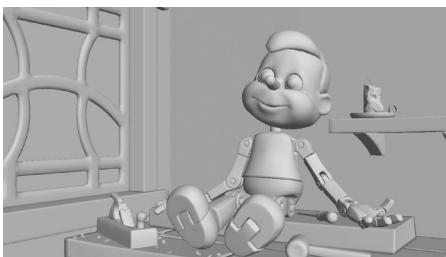
Yes I have always participated in the forums, chat, and all and any type of linked event to graphic mediums within my reach. At the moment, I am a moderator in 3 forums, among

them the 3Donline and the 3D4all. I find it is important to give help to those that are starting out and it is very gratifying to know you are helping someone to learn.

The 3D community in Brazil is growing more and more. There are several Brazilian sites, and several information centers but there is still room for improvement. We need to become aware of the extent and growth of this industry. There is still the lack of a university totally dedicated to this area as it exists in other countries. For the lucky ones there exists an option that and ABCA, that already promotes meetings and debates. But and I need something more I specify for who works with 3D, already nor all are exciting.

With regard to the forums, I think they already aid the artists, be it as study form, or as methods of exhibiting work. They already provide employment opportunities for artists in search of work and this has been of great use to artists and companies alike.

What was your involvement within the area of



medicine?

I made several works to do with medicine for an English company dedicated to medical publications.

Besides that company, I worked for almost one year for University of Medicine of USP on a project called Virtual Man; an union between designers and doctors, that seeks to help students and uninformed people alike to understand medicine better. Besides animations for the picture Subject of Weight with DR. Drauzio Varella, exhibited in the Fantastic of the TV Globo.

The image Blood Control was also included in the book Expose 2 of Ballistic Publishing.

Which works do you consider have had the most impact ?

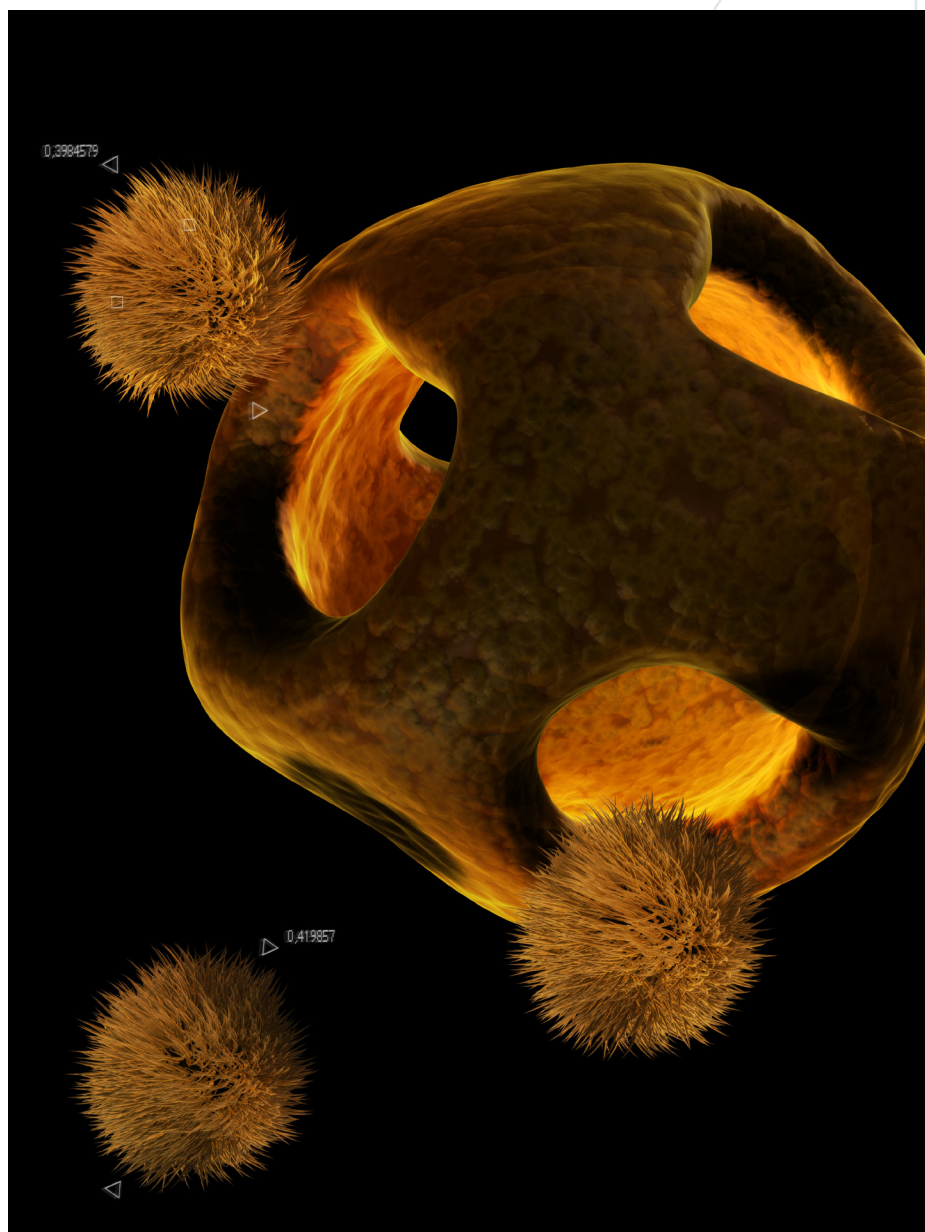
Without a shadow of a doubt, Pinocchio. Besides the national and international contacts, he was chosen as part of the book Expose 2 of Ballistic Publishing, of Renderizador End's gallery to Surrender, as well as numerous CG sites. Pinocchio was also the first film that I saw, and it ended up being branded in my memory. Apart from this the character has to do a lot with my work: the inanimate becoming alive.



And what are your plans for the future?

At the moment I am working as a freelancer for various producers but long term, I intend to specialize, and if everything goes well, to hopefully work in some long running animation project. I have ambitions of producing an animation series that returns to a quality and visual style similar to that of my early years but once again, that takes time and money.

Interview Courtesy of:
SEBASTIÃO P. LAGO JR
www.digitaldesigner.com.br



DOSCH DESIGN



**Dosch 3D:
Flowers**



**Dosch 3D:
Interior Scenes**



**Dosch HDRI: Chrome
& Studio Effects V2**



**Dosch Textures:
Construction Materials
Version 2.0**



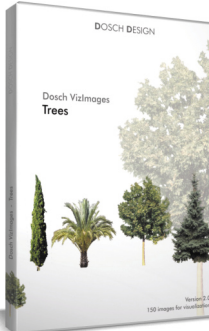
**Dosch HDRI:
Radiant Skies**



**Dosch 3D:
Animals**



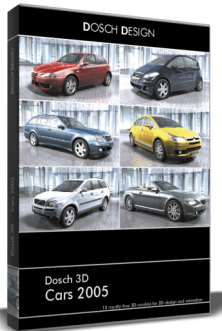
**Dosch 3D:
Job Poses**



**Dosch Viz-Images:
Trees**



**Dosch 3D:
Airplanes**

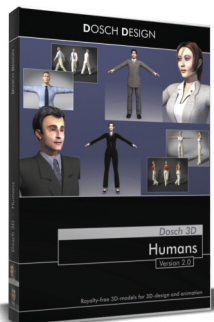


**Dosch 3D:
Cars 2005**

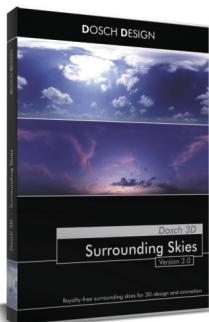
Innovative CG products that are time-savers and easy to use



**Dosch 3D:
Furniture V2.2**



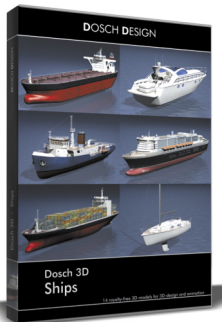
**Dosch 3D:
Humans V2**



**Dosch 3D:
Surrounding Skies V2**



**Dosch 3D:
Utility Vehicles**



**Dosch 3D:
Ships**

3D-Design, Animation, Visualization

Besides complete 3D-models and scenes ►**Dosch 3D**, Dosch Design products contain surface materials ►**Dosch Textures**, High Dynamic Range Images ►**Dosch HDRI**, as well as 2-dimensional objects for architectural visualizations ►**Dosch Viz-Images**.

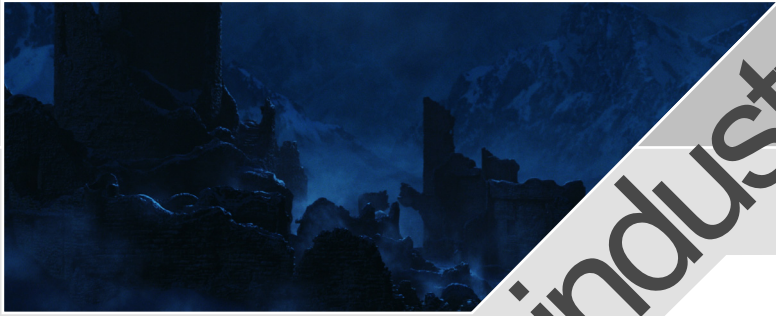
Animated movie sequences ►**Dosch Movie-Clips**, plus quality music and sound effects ►**Dosch Audio** complement this product segment.

Graphic Design, Desktop-Publishing, Webdesign

►**Dosch LayerFX** products offer a comprehensive collection of design 'templates' which are provided as Photoshop™ (.psd) layer images.

***Directly available in Europe:
All books from Ballistic Publishing!***





industry



UNDERWORLD: EVOLUTION

>> Luma Pictures Hits New Heights with
"UNDERWORLD: EVOLUTION" A Lead
House on Sci-Fi Spectacular Studio
Reveals Its Mastery of Creatures & 3D
Environments >>

LUMA PICTURES HITS NEW HEIGHTS WITH “UNDERWORLD: EVOLUTION”

A Lead House on Sci-Fi Spectacular Studio
Reveals Its Mastery of Creatures & 3D
Environments

SANTA MONICA, CA—In the most ambitious project in its 4-year history, Luma Pictures served as lead visual effects house for the new Lakeshore Entertainment blockbuster: UNDERWORLD: EVOLUTION, now screening worldwide. The studio created approximately 200 visual effects shots for the film, including numerous fully articulated 3D creatures who interact with live action characters and who

have the ability to transform into human form—frequently very close to camera. Additionally, the studio designed and produced an expansive and fully CG medieval fortress environment, one of the film's principal locations.

It was a coup for Luma to secure the role of lead visual effects provider on UNDERWORLD: EVOLUTION, one of the most anticipated sci-fi/horror films of the year and the sequel to UNDERWORLD, one of 2003 surprise hits, bringing in more than \$100 million in revenue. The feat underscores the studio's rise from boutique start-up in 2002 to become one of Hollywood's fastest growing suppliers of high-end visual effects for feature films.

Luma earned the confidence of Lakeshore through work on several previous titles, most notably last summer's THE CAVE, where it was the soul provider of CG intensive visual effects involving 3D creatures and environments. The studio also had an established relationship with the film's director, Len Wiseman, through the original UNDERWORLD, for which Luma served as a supporting VFX studio, completing nearly half the visual effects shots in that film.

Still, Luma had to win the assignment in competition with several much larger visual effects providers. “It took some convincing and a projected screening of our CAVE creatures to tip the scales in our favor,” said Luma Visual Effects Supervisor Payam Shohadai. “Once





we won Len's confidence, we were given the opportunity to produce nearly every CG-intensive VFX shot in the film, including all of the 3D creatures and 3D environments."

The key to Luma's success is its ability to generate extremely sophisticated visual effects with high efficiency. The studio produced the effects for UNDERWORLD: EVOLUTION in just eight months with a staff of 50 artists. Luma has built what may well be one of the industry's most efficient pipelines for visual effects production and has assembled a team of very talented and ambitious artists.

"We are very fortunate for the staff we have,"

explained Shohadai. "Other facilities capable of similar work often need twice the time and three times the staff to get the same job done. We know how to pick talent, from management to artists, so there are many superstars on our staff. When you have such a high concentration of talent in one place, everyone feeds off of each other and makes better art and better tools for creating the art."

Luma's CG creature work appears in more than 100 shots in UNDERWORLD: EVOLUTION, and includes creatures representing alter egos of several of the film's principal characters as well as CG body extensions such as wings and talons. As characters regularly transform from human state to bestial form, Luma also had to produce digital doubles of the talent for use in creating the complex transitions. "Many of the shots are so well executed that they are routinely mistaken for practical animatronics. We have had prospective clients ask us to see the preliminary animatics and wire frames because they simply did not believe that they were looking at CG," commented Shohadai.





"Markus, the main antagonist, required a CG incarnation of his human state and his creature state," Shohadai added. "Michael existed in three forms, one human and two creatures, each of which had to be created in 3D. There were also the main CG Werewolf characters; Markus's white werewolf brother William, and a variety of secondary characters who are featured prominently—a peasant who transforms to a wolf, a burning corpse that transforms into a burning creature."

The transformations could not be simple morphs. Rather, they had to occur organically and with great complexity. "The creatures' skeletal systems needed to change, stretching the muscles and tissue with it," explained Luma CG Supervisor Vince Cirelli. "Skin needed to roll over bone mass, veins pop and blood spurt. One of the transitions happens so close to camera that you can see its pores."

Luma accomplished the transformations with a variety of off-the-shelf and proprietary tools.





Artists used Pixologic's ZBrush to define skeletal transformations using just a few low resolution base meshes. Luma's staff created their own plug-ins for character rigging, including a capsule deformer that allowed independent control over different aspects of the character transitions.

"The transformations had to look painful and sporadic," said Cirelli. "For this we devised underlying influence objects that pushed and pulled the skin. That was sequenced with a shader that output passes for compositors to make capillaries burst and skin bruise. We also employed stress maps to raise the creatures to

photo-real level. Even with all this technology, the creatures would not look like they do without the incredible work of the modelers and texture artists here at Luma."

As impressive as are the creature effects, Shohadai is most proud of the studio's work on the CG fortress. For that, artists worked without photographic reference material, creating the environment virtually out of thin air. "It is much harder to create something photo-real without a specific reference and becomes increasingly difficult as you introduce environmental elements, such as a stormy sky, snow, a lake, a cliff, fog and mountains. Each addition raised new questions about lighting and scale," Shohadai observed.

"For the fortress, we only had a sketch from the production designer outlining a general layout," added Christopher Sage, Luma's texture and environment supervisor. "We gathered a large amount of reference materials from various public sources, but the director

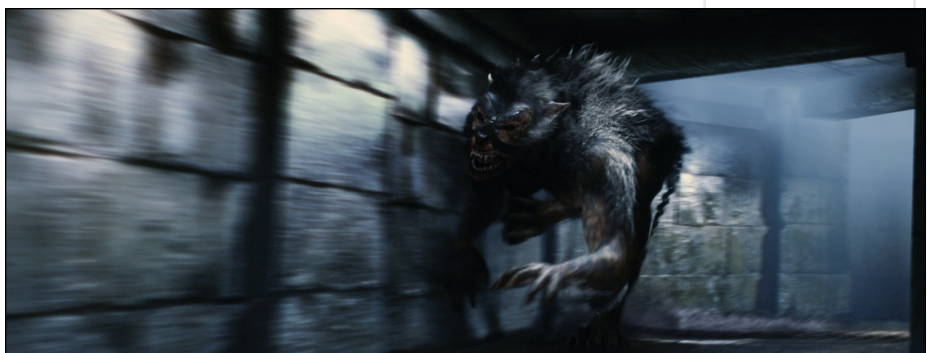


had something very specific in mind and the photos of existing castles that we found were less than ideal. We were able to take generic cues from the material we had compiled and the back-story of the film to develop a language to create this enormous and menacing castle."

In the two years since it worked on the original UNDERWORLD, Luma has not only added resources, it has also learned a lot about what it takes to manage complex visual effects projects. "Aside from the core group of artists and overall philosophy, there isn't much comparison between where Luma was during the first UNDERWORLD and where we are today," said compositing supervisor Justin Johnson. "The staff has grown from 15 to 50 and we have switched to the Mac platform, which has added to the speed and simplicity of our pipeline. Project tracking, render farm submission, file structure generation, reference tracking, image conversion, shot review, multi-pass rendering management and many other aspects of our pipeline are now handled through proprietary technology."

The structural and artistic advances Luma has made are apparent in the product they deliver to the screen. "From the start of UNDERWORLD: EVOLUTION, we wanted to seize the opportunity given us, and we set the bar very high," said Shohadai. "In doing so, we now have a very solid foundation in character work that we can apply to future projects. The next character film we do should produce some very exciting stuff."

Luma Pictures is located at 248 Westminster Ave., Venice CA 90291 For more information, call (310) 888-8738 or go to www.luma-pictures.com

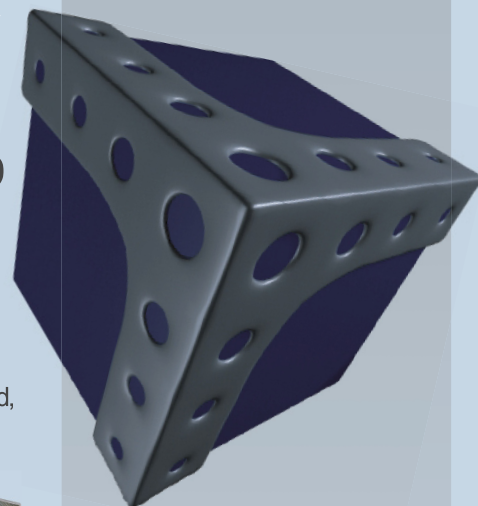


3Dtotal.com totalTextures

15 Amazing Hi-res Texture Collections for all 2D and 3D Applications and software.

Covering a wide range of topics and compatible with both PC and Mac. Don't be fooled by the price, these are NOT lesser collections, just take a look at the large companies who use total textures:

Electronic Arts, Rockstar North, Namco co.ltd, Team 17, ESPN Star Sports, Acclaim Studios, Rare Ltd, Sony Pictures Imageworks, Nike plus hundreds more.



v1

General Textures
A Collection of hi-res seamless textures covering a wide variety of subjects including many bonus features.



v6

Clean Textures
Textures which are 'clean' textures that have little or no 'aged/stressed' elements.



v11

Alien Organic
From the wierd and slimey, to more subtle toned skins, these textures are like nothing you have ever seen before.



v2

Aged & Stressed
Meets the demand for stressed, aged, damaged and dirty textures. Again covering many subjects, being hi-res, seamless and having many bonus features.



v7

Sci-fi Textures
The textures range from Exterior Spaceship textures to decals and Damage maps



v12

Around the World Vol 1
Mostly architectural textures, derived from original photography, taken all over the world.



v3

Bases & Layers
Base textures that are suitable for building up layers or applying straight to surfaces such as stone, plaster, concrete etc. This CD has many bonus features.



v8

Vehicle Textures
The textures range from Tyre bump maps to cool flame decals. Included are .dxf meshes of some of the more 'common' car objects. These include Alloy Wheels, brake calipers, dials etc.



v13

Around the World Vol 2
Mostly architectural textures, derived from original photography, taken all over the world.



v4

Humans & Creatures
Suitable for texturing human and creatures. The textures range from natural, realistic eye, skin and hair textures to bizarre creature skins and eyes.



v9

Ancient Tribes & Civilisations
The textures range from Aztec, Japanese, Medieval, Greek & Roman, Celtic & Viking, Egyptian, Neanderthal, Indian & Islamic, and African.



v14

Fantasy Textures
Mostly fantasy textures some created from 100% original photography and others hand painted by our own texture artists.



v5

Dirt & Graffiti
Dirt masks/ maps and graffiti. These have many uses, the main ones being as a mask to mix two textures together or being placed as a layer over an existing texture to add in detail and 'dirty it up'.



v10

Trees & Plants
This DVD has trees based on the four seasons, and a variety of plants and grasses and leaves with each one with the very own alpha map which makes them ready to pop into any scene.



v15

Toon Textures
Toon and stylised textures. The textures fall into 'sets' hand crafted by our artists, each set has a continuous style throughout and contain colour and bump maps which range from leaves to tiles and from wood to windows.

Permanent Deal from 3DTotal.com:

Buy all 15 CD's and save 25% on individual prices -

US-\$641 (normally \$855)
EUR-€473 (normally €630)
UK-£326 (normally £435)

Any 1 CD only \$57
(Approx. UK £29.00 / EUROPE €42.00)

Plus Savings on ANY 3DTotal shop products

including the Shorts Drawer DVD's, Training DVD's and the Digital Art Masters Book:

Buy 2 items - save 5%
Buy 3 items - save 7%
Buy 4 items - save 9%
Buy 5 items - save 11%
Buy 6 items - save 13%
Buy 7 items - save 15%
Buy 8 items - save 17%
Buy 9 items - save 19%
Buy 10 items - save 20%
Buy 11 items - save 21%
Buy 12 items - save 22%
Buy 13 items - save 23%
Buy 14 items - save 24%
Buy 15 items - save 25%



industry



CHASING DEMONS

PSYOP Chases Down a Demon for Dodge and BBDO Detroit

CHASING DEMONS

PSYOP CHASES DOWN A DEMON
FOR DODGE AND BBDO DETROIT

NEW YORK, NY – January 23, 2006 – For an adrenaline-pumping new spot, New York's PSYOP (www.psyop.tv) created a fearsome, yet fleeing demon being chased back into the underworld by a Dodge. The spot, via BBDO/Detroit was launched December 21st on www.driveSRT.com, Chrysler Group's Street and Racing Technology Performance vehicle (<http://www.drivesrt.com/en/hotpursuit/index.html>).



finally proves no match for the Dodge Ram SRT 10, the fastest production pick-up truck "in this world or any other," and meets a very dramatic, yet fortunate end.

"The Dodge brands idea was truly irresistible," says PSYOP's Todd Mueller, who co-directed the spot with Kylie Matulick. "Dodge is an edgy and powerful brand that allowed us to push the limits of our creativity and craft."

The unique scenario and opportunity clearly brought out the best in the PSYOP team. Asked for the imaginative, yet relatively simple

As the truck pursues the red-hot demon through a burned-out environment, three hell-hounds attempt to slow it down, only to be taken out by an errant fire ball launched by the demon. The amorphous demon flies through steel gates, which are then smashed open by the truck. Still on the run, the demon uses a burned-out bridge to leap across the burning river Styx, but makes no gains as the truck easily follows suit. Although just steps from the closing gates of hell and the relative safety of eternal damnation, the speedy demon





scene described above, PSYOP was able to work with BBDO Detroit, the agency of record for Chrysler Gropu to add to the 45-second spot's storyline in a variety of ways,

Technologies used: Autodesk Flame, Alias Maya, SOFTIMAGE|XSI, Adobe After Effects, Photoshop and Illustrator



ABOUT PSYOP

New York City-based PSYOP is an inspiring culmination of creativity, collaboration and production focused on providing visual solutions in motion for the advertising & marketing, video gaming, broadcast and music video industries.

Founded in 2000 by five creative partners, the company continues its insurgence into these industries with its distinct conceptual approach, collaborative nature and dynamically fresh aesthetics. Seamlessly blending the disciplines of design, animation and live-action directing PSYOP approaches elaborate challenges with extraordinary creative and technical flexibility providing unique solutions and design with meaning.

PSYOP's appropriation of the identity of the United States government's division of psychological operations represents a critical awareness of the power that advertising has and the





importance of accurate and targeted communications. Their motto is "Persuade, Change & Influence"

PSYOP's work has garnered award recognition at, amongst others, the AICP, the Clios, the Broadcast Design Awards (BDA), ID Magazine and British Design and Art Direction (D&AD), and is receiving wide attention in numerous publications around the World.

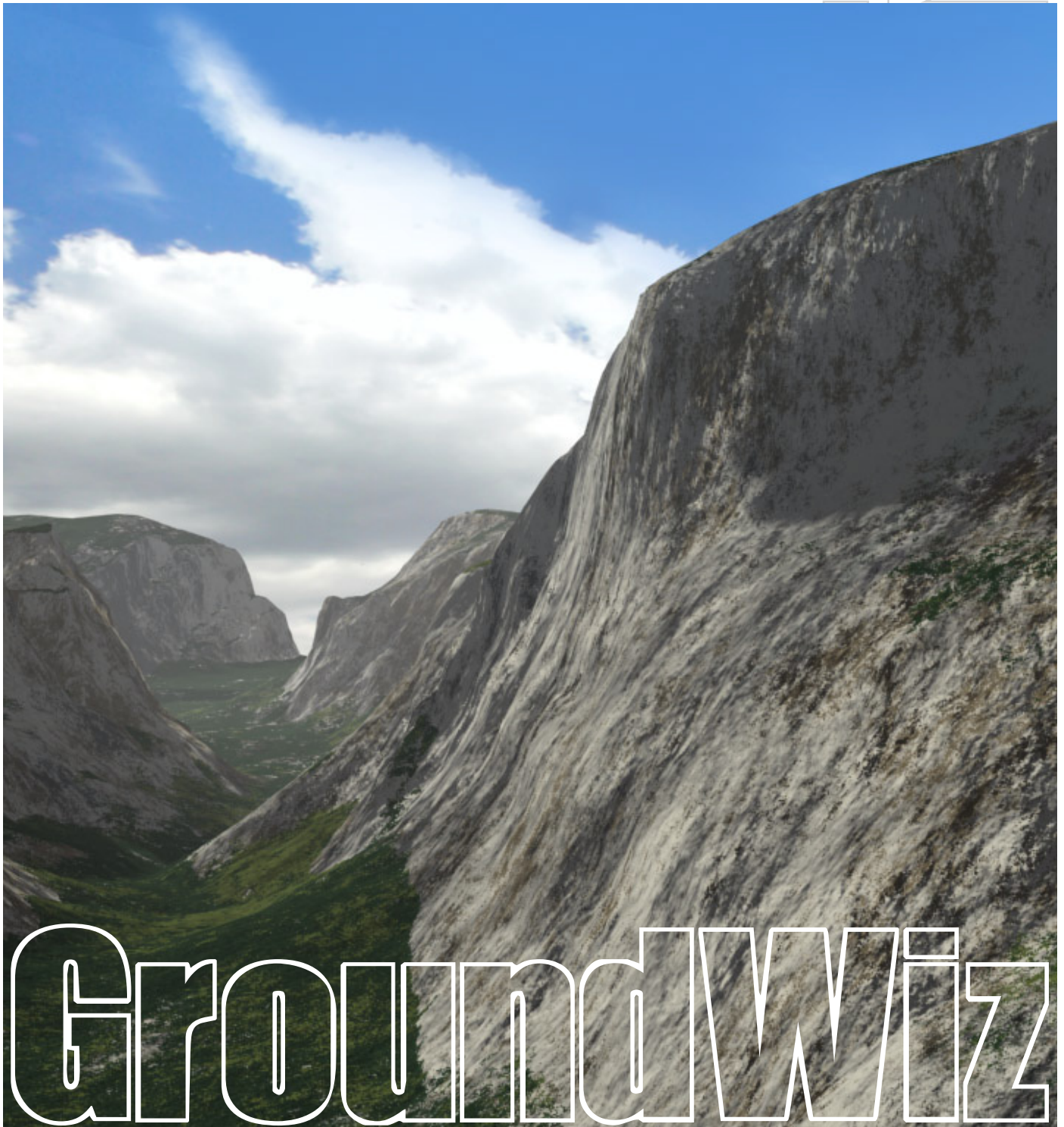
For a company reel, please contact Patricia Claire at 212-255-2252.

For more information on PSYOP please go to the website at www.psyop.tv





review



Groundwiz

GROUNDWIZ

Groundwiz is produced by Gugila and is essentially a package designed to generate 3d maps for various terrains. It is accessible through Max's material editor where it can be applied to geometry through the map channels using a standard material. This is not to be confused with a 3d terrain generator such as Bryce for example which incorporates an editor for creating and customizing 3d environments. Groundwiz uses a few simple parameters to add a procedural texture to meshes using a system of layers combined with fractal

and are blended together using a 3d noise function which controls the random placement of the maps and avoids obvious seams and repetitions (Fig.01). Each layer has parameters to control its colour, bump and distribution levels and can be used as both diffuse and bump maps but can equally be assigned to any map channel for that matter. The maps are shown in a sub-tree and can be re-arranged into any order thus giving more control and improving versatility. To apply the Groundwiz map is simply a case of applying a map to one of the channels and then scrolling down the map browser and clicking on it. You are then

presented with the appropriate dialogue boxes which among other things enable a preview window of the effects of the map which is very useful when working with multiple layers as full size renders will inevitably cause slowdown (Fig.02). This is particularly helpful and assists the workflow as it is very much a trial and error process and results are often hard to predict due to the random nature of the various functions. Below this is where you find the tree structure of the numerous layers with options to move, cut and paste. Further down we find the two main areas namely the Layer Data and Layer Distribution where control is offered over

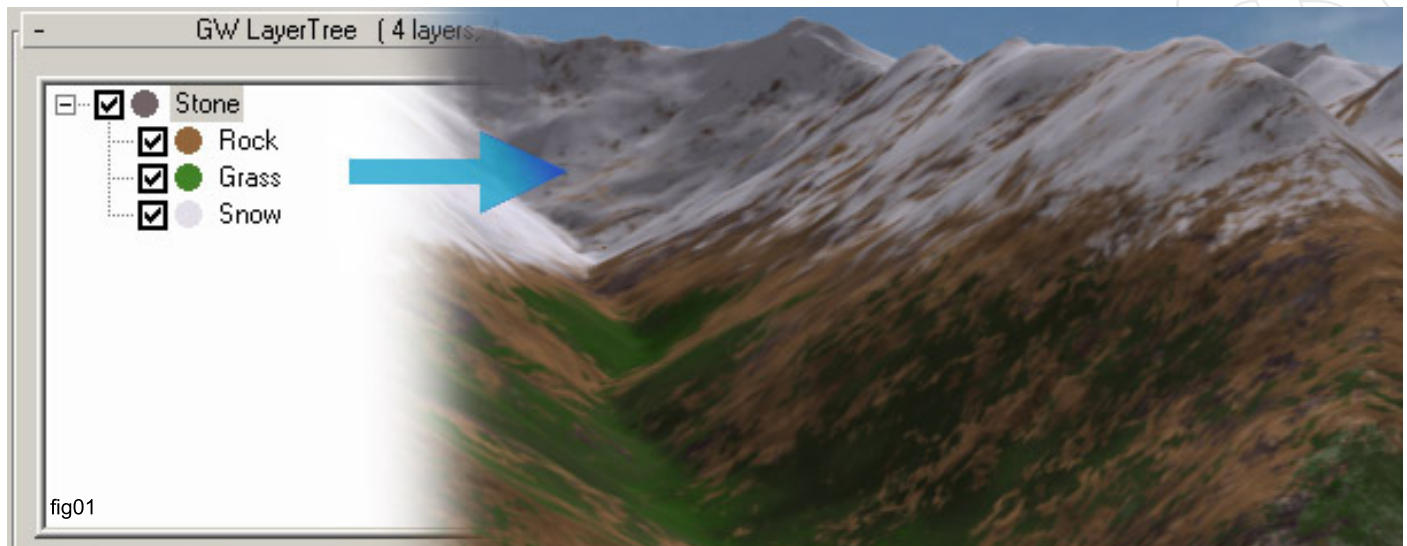


fig01

algorithms that gives the user control over an array of parameters to come up with different types of maps to describe a variety of environments.

The program comes in two versions Groundwiz Lite and Groundwiz Full version. The Lite version is free for personal use with no time limit and is fully functional barring a restriction on the number of layer combinations (5) and no option to use image files as layer colours.

The main way in which the package works is in its layering system whereby numerous maps are created one on top of the other

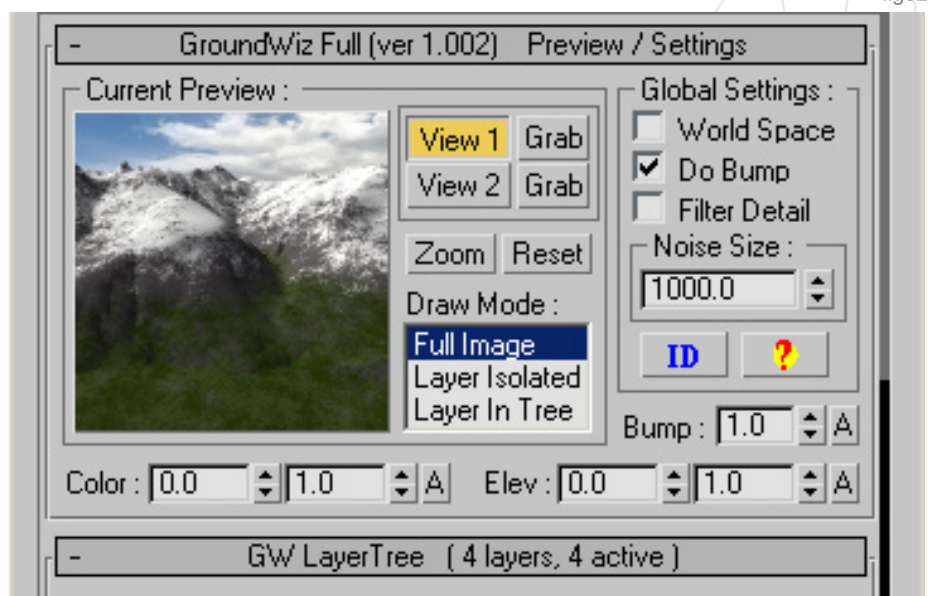


fig02

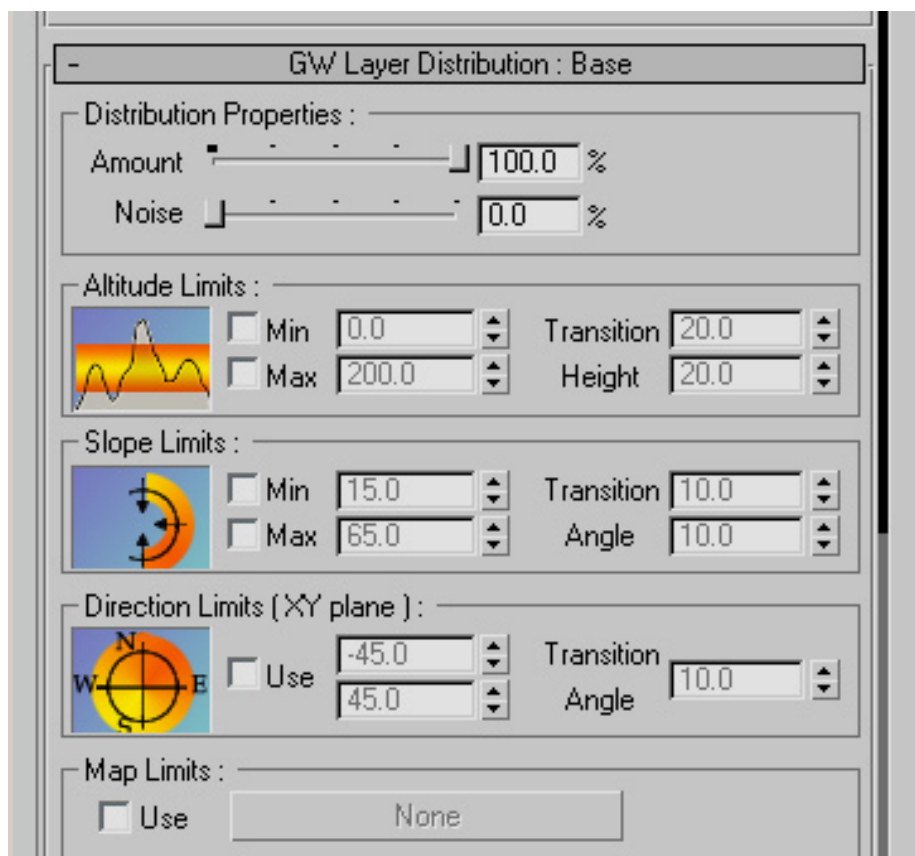


fig03

all the aspects of the map. It is in layer data that the colour of the map can be decided as well as the bump properties along with random seed generators. Directly underneath are the control parameters for the layer distribution which basically controls the coverage and pattern of the given layer across the geometry. Two controls which are self explanatory are Amount which controls the opacity level and Noise which determines the transition between layers as well as patchiness. Below this are three sections that refer to altitude (the height at which the map is located in relation to the scene's scale), Slope limits which uses the angle of the mesh to calculate the map and Direction limits which corresponds with the XY plane and can be used to limit the area of a map to the sides of the terrain that face a certain direction (Fig.03). These are the essential controls and the area that users will spend most of their time. One other feature worth mentioning is the built in importer that



fig04



fig05



can turn terrain files into an optimized editable mesh – excellent for replicating real world geography (Fig.4 & 5).

The package is relatively intuitive and user friendly without too many unnecessary or over complicated tools and you will soon find yourself creating more successful maps more in tune with what you require although it does require a fair amount of trial and error to begin with and can sometimes feel as though things are too random. The tools on offer are limited but as with anything that is thoughtfully designed the possibilities are almost infinite. The maps themselves are procedurally made and so eliminate the need for mapping co-ordinates but the downside is that as flat colours they are somewhat limited. Image maps may be used in conjunction but a UVW Map will need to be applied beforehand in order for them to work. The overall maps may not necessarily bear up to close scrutiny

but for mid distance are very effective in their look and feel and would not look out of place in a number of flight Sims. Groundwiz enables a quick and easy solution to terrain mapping and texture blending which are tasks that often present numerous problems and dispenses

with the difficulties associated with tileable and repeatable textures by producing a non uniform and hence a more natural look to your environments.

<http://www.gugila.com/index.html>





JOAN OF ARC PART 6

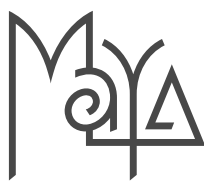
We bring you Part 6 of Michel Roger's famous 'Joan of Arc' tutorial in Maya, Lightwave, C4D & XSI, if you are a Max user and this is new to you the original is free and can be found in French as Michel's site <http://mr2k.3dvf.net/> and in English at www.3dtotal.com.

INSPIRING

If there has been one single tutorial that has educated and inspired more budding 3D artists than anything else, this complete step by step project by Michel's must be it. The community is in debt to him and in our october issue we interviewed the man himself! The tutorials are free to download for 3dcreative customers. For security purposes you will need to email

joanofarc6@zoopublishing.com

SOFTIMAGE® | XSI®



Including your order Transaction ID number in the body text to obtain your unique password for the download area. Your Transaction ID can be found on your purchase confirmation email and looks like this:

Transaction ID: 95F64640VA466563J

If you do not receive your username / password email, please check that it has not been deleted by any email security systems you may have in place. You should receive your link within 1 hour. If you do not receive your link within this time then please email

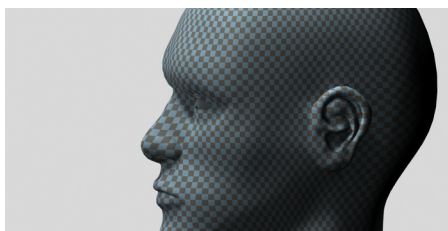
support@zoopublishing.com

immediately so that any problems can be fixed promptly.



masterclass

Over the course of the next few months we will be dealing in depth with various texturing techniques that will relate to numerous topics ranging from a low poly character template and scene to a high resolution skin texture aimed at replicating the human head. The tutorials are intended to show how texturing principals can be modified and adapted to a variety of different approaches and software packages and will detail specific methods particular to each.



01 MAPPING & UNWRAPPING A HEAD January 06

Covering the principals involved in preparing a mesh for texturing. Here we will deal with how to go about mapping the complex geometry of a human head using a guide template and the ways in which we can check the integrity of the mapping co-ordinates. After this we will go on to tackle the Unwrapping stage in which the fully mapped mesh is then flattened into a wireframe template and exported into Photoshop ready for the painting phase.



02 TEXTURING A HUMAN HEAD February06 Part 1 & March06 Part 2

Beginning with the wireframe guide exported from the mapping section. Here we will cover the numerous stages concerned with painting human skin and the levels of detail required to texture a face. The entire map will be hand painted from scratch showing you all the techniques you need to know in order to go on and make your own version.



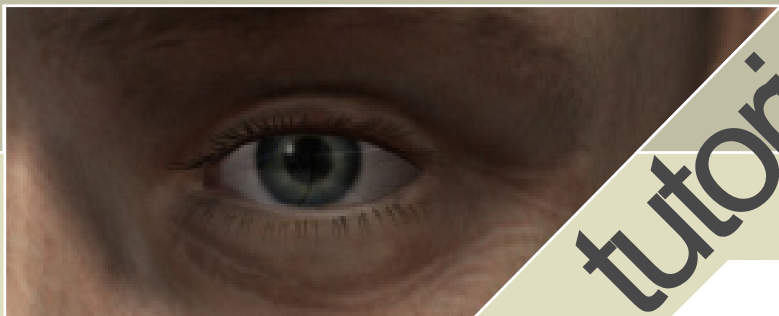
03 TEXTURING A SCENE April06 part 1 & May06 part 2

We will be using some of the techniques outlined in previous editions to texture a scene to house our character. We shall keep the geometry simple so as to ensure its compatability with the character and real time rendering and focus on adding the illusion of detail where none exists as well as integrating lighting effects into the texture to add atmosphere to the scene.



04 LOW POLY CHARACTER TEXTURING June06 part1 & July06 part 2

Describing the ways in which a character suitable for real time rendering can be textured using a single template. During the course of the tutorial we will outline approaches to painting skin, cloth and armour as well as details such as tattoos. We will also show how this form of texturing can be used to describe a level of detail that is not apparent on the mesh and suggest geometry where there is none which is certainly a valuable factor when rendering in a game environment.



tutorial



TEXTURING A HUMAN HEAD

PART 1

This chapter is aimed at showing one way to go about painting a texture intended to be mapped onto a 3D model of a human head.





HUMAN HEAD PART 1

The previous tutorial explained the methods used to prepare the mesh ready for the painting stage by way of an exported wireframe of the unwrapped model which will form our template in the next exercise.

With any type of painting designed for organic surfaces it is essential that one avoids any kind of uniformity and instead strives for as much variation as possible as this will be the key to making rich and believable textures.

When painting a texture for what ever kind of subject matter I find it very helpful to consider how the surface has been created and come to look the way it does. This can apply to almost anything and can be a valuable aid when organising the order in which layers are arranged. For example when producing old painted metalwork it is a good idea to lay down the metal and rust first and then overlay a flat colour that represents the



fig01

paint which is akin to the real life material. Then by carefully erasing the colour we reveal the metal image underneath and the process reflects a similar manner to which the surface is produced naturally. Likewise when we look at skin we see many colour differences and changing tones as well as many details such as pores, freckles, wrinkles

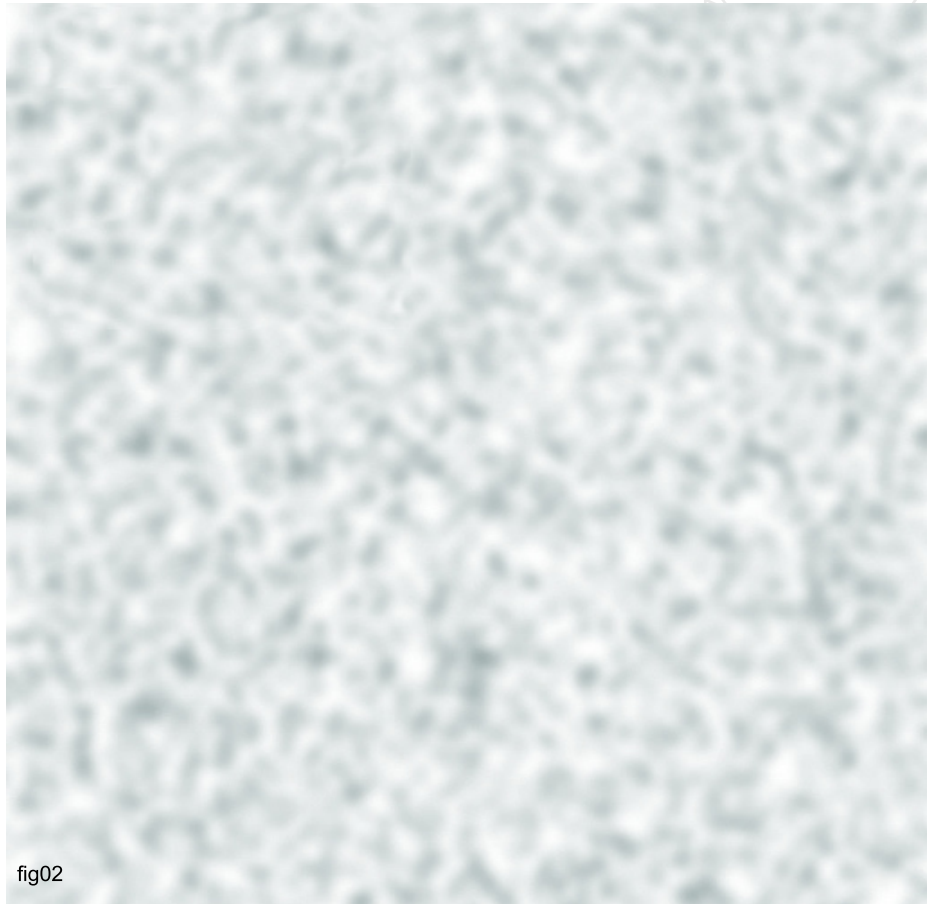


fig02

and scarring and all the marks that climate and age have inprinted over the years. What is always worth remembering also is that skin is far from opaque and is simply a semi-transparent and fragile membrane made up of several layers that covers our bodies and is continually being replenished. As such when we examine it more closely we can see through it to some degree and to the many veins and capillaries that run under the surface. This may all seem at a tangent to the main thread of this chapter but it is important that we understand the nature of our subject matter as it will be an invaluable aid in the way we arrange the many components of the photoshop file and ultimately effect the final render of our character. In view of this I believe that the most effective method of painting a convincing skin texture is to build it up using many semi-transparent layers in a way similar



fig03

to the techniques used by the old masters and their use of multiple glazes to slowly build up the final skin tones. The first stage in any texture painting is to lay down the basic colour and overall tone of the image as this will be applied to the entire mesh and form the basis of our skintone. The RGB values chosen here depend on many factors not least of which is the fact that people have very different skin

tones and complexions and so in this respect it is a highly subjective issue in the end. For the purposes of this chapter I shall pick an RGB value 224 / 179 / 156. Once this is done I duplicate the layer and add some noise, then a small amount of gaussian blur. I do this twice applying slightly different amounts in both cases so as to keep the layers different. Keeping both layer settings on normal I then turn the opacity down to around 45 % which enables us to see something of all three layers but still maintains a consistent colour and tone but with some hue variation that breaks up the surface somewhat. (fig01) Here then is our starting point and base to begin building up the detail adding each level on a separate layer to enable us more control over how the final texture will look. Already we have a decent starting point but our texture is far from convincing and although we do not want our skin to look multicoloured it is necessary to avoid using only hues that are closely matched as this would give our character the appearance of a waxwork dummy. The many veins that run under our skin reveal a number of cooler hues ranging through blues to greens and these shall form our next layer and help breathe some life into our image and add an element of randomness. To achieve this, make a colour range selection of part of one of the layers containing noise. The idea here is to capture a random pattern which we will

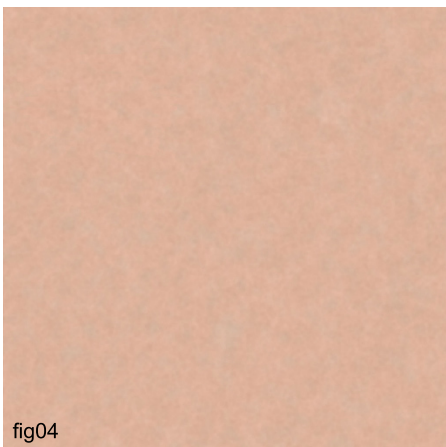
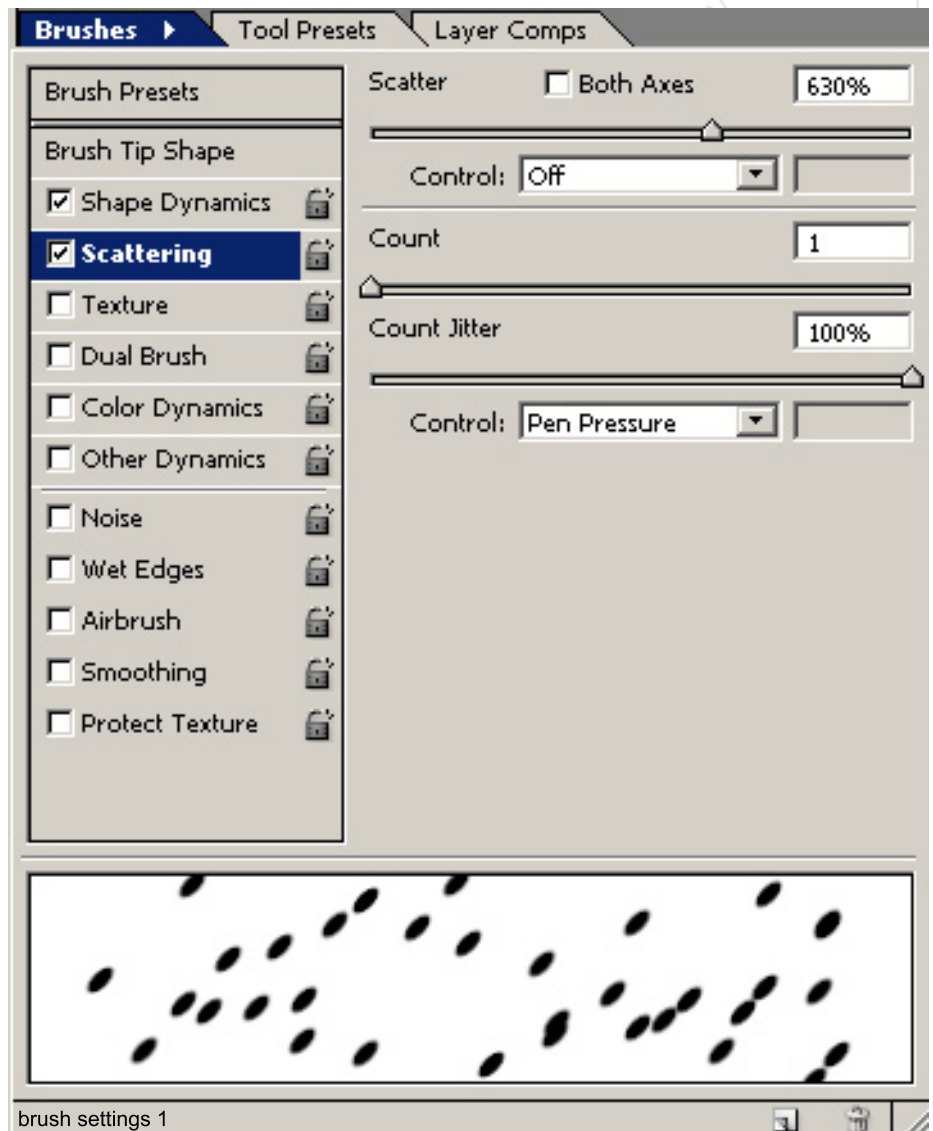


fig04



extract to form another layer and fill with an RGB value of 160 / 212 / 205. (fig02) shows the layer over a white background to illustrate how it looks before we alter the blending mode. When this is placed over our previous layers and set to Darken with an opacity value of around 45% we can see the difference it makes. (fig03) Even though it is subtle it shall prove enough when we gradually add more detail as it is not the individual layers that create the quality we want but the combined effect of all of them working together. If each level of the texture is too obvious and overstated then we shall end up with a skin

tone that looks far from realistic. The next step is to add some lighter tones that further break

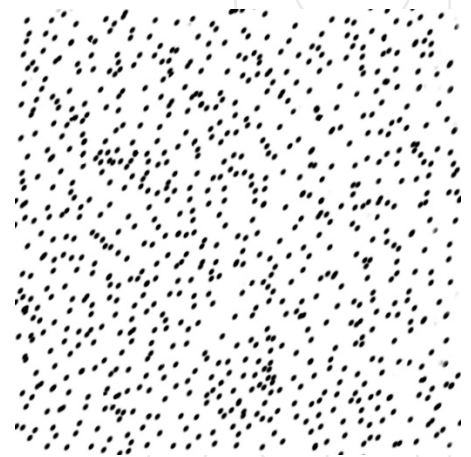
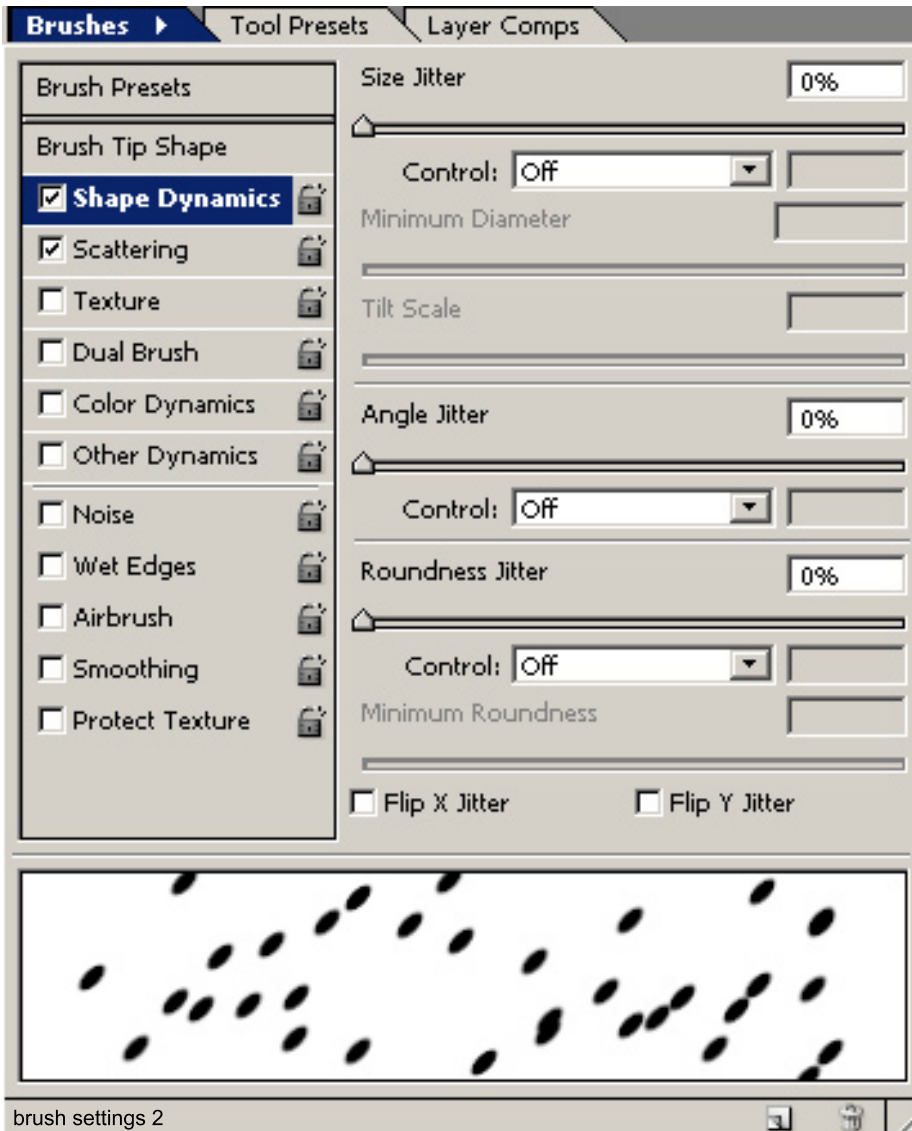


fig05



brush settings 2

up the surface which we do by duplicating the veins layer and setting the blend mode to soft light with an opacity of around 75%.



fig06

After doing so it is worth erasing parts of this layer so that it does not correspond perfectly with the underlying one as this will lessen the effect together with making the veins more noticeable than need be. (fig04) After this stage it is time to add in the pores which is best done by creating a custom brush as seen in brush settings 1 and 2. This provides a quick way of filling up the space and with a little tidying up can look effective, however these settings are only a guide. Once completed the layer looks something like which can then be set to soft light at around 30% opacity resulting in a texture similar to (fig06). We have now arrived at a reasonable stage in the



fig07

development of our skin texture and have the key layers in place which shall form the basis of our final image. By duplicating a selection of the pores twice and adding a motion blur to one of the layers we can add some definition

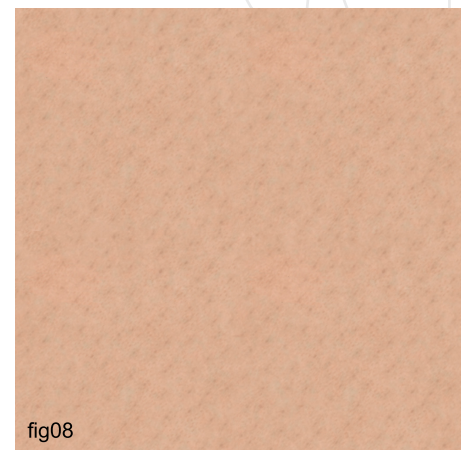


fig08

across the surface. (fig07). With the blurred layer set to a darken blend mode with around 50 % opacity and the other set as a multiply with 15 % we end up with our near finished version (fig08).

All that is really left to do now is tweak what we already have and our base skin is ready to map onto our character. By making a copy of our PSD file so far and deleting the latest two pore layers we can then flatten our texture and do a random colour selection across the whole image. If we lighten these areas a little and then paste the file into our original PSD under these two we now have a few highlights

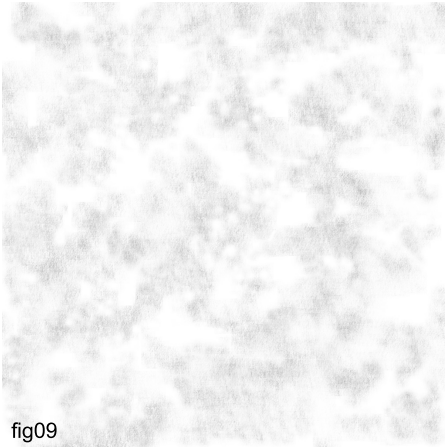


fig09

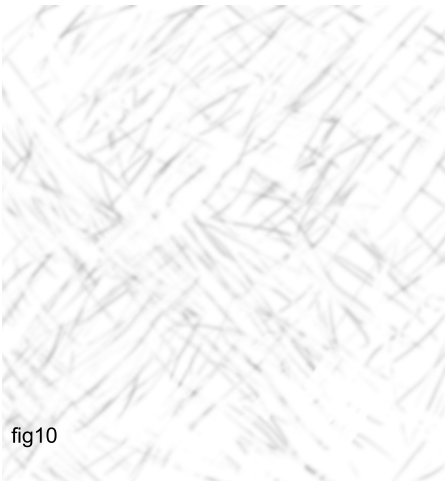


fig10

and are almost there. One more random colour selection which we make into a further layer and set as an overlay blend at about 70% using an RGB value of 210 / 163 / 135 adds a few darker blemishes (fig09). The final layer which will show some evidence of lines across the skin is shown in (fig10) which is simply made up of a few cross hatched strokes at the same RGB values as the previous layer and set at a multiply mode at around 25% opacity - and there you have it ! The finished skin texture can then be flattened and scaled accordingly and then be pasted into the face template ready for us to start painting the features and details. (fig11)

Once we have a general skin base we can now begin to build up our Layer structure which will become quite complicated as we want to have control over all the various levels of detail many of which will be semi-transparent. Even though we can set up a few definitive layers straight away these will inevitably multiply as we increase the level of realism by incorporating more refinements

further down the line. Here anyway are the initial layers that will remain crucial in our process to creating a detailed texture :

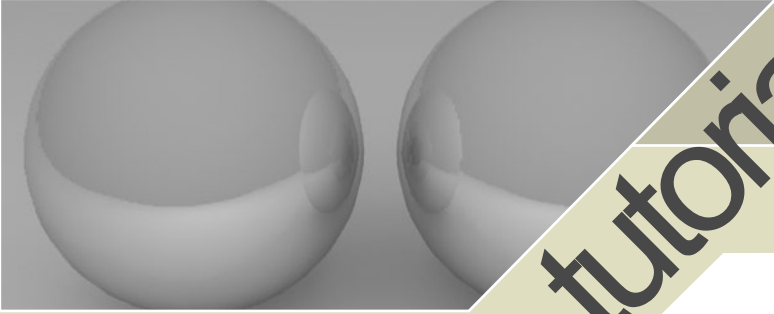
1. Wireframe Overlay
2. Guidelines
3. Main skin base
4. Lips
5. Eyebrows
6. Facial hair
7. Shadows
8. Highlights

You will notice from the list above that all of the various layers that we have created so far for the skin base are in fact included in only one category. They can either be flattened or placed in a sub folder by making a new set which will keep the PSD from becoming over complicated. Next month we will go on to finish the head and add in all the key features and details.

Tutorial By
RICHARD TILBURY



fig11



tutorial

Welcome to the first section of this Maya
MentalRay Exploited sessions by Florian Wild

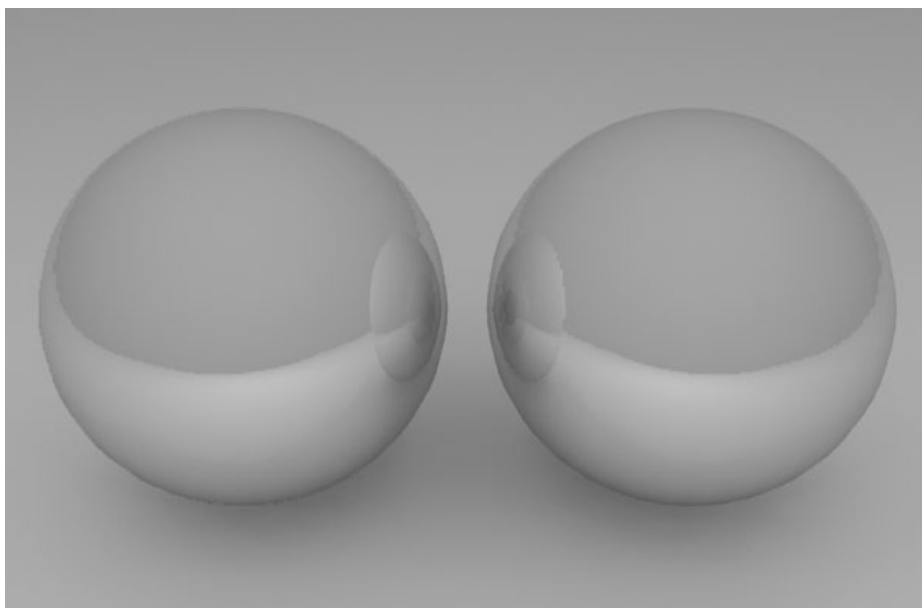
THIS ISSUE:
DGS Exploited

MARCH:
Physical Light Exploited

APRIL:
MentalRay Bump Exploited

DGS EXPLOITED

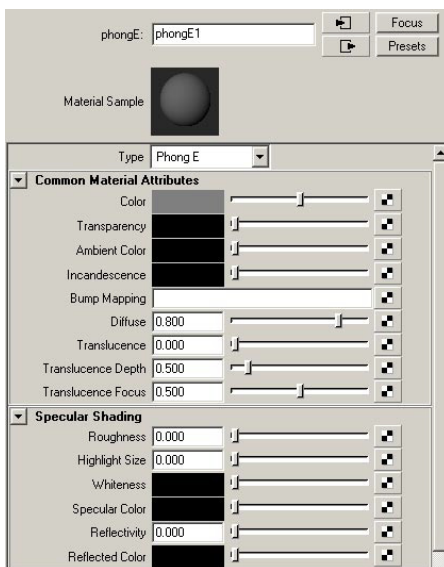
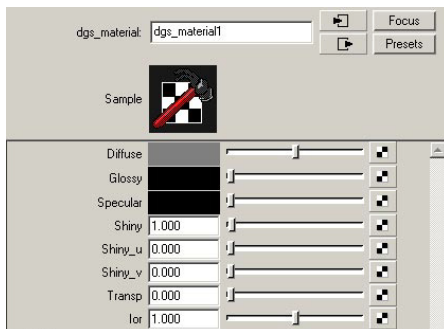
BY FLORIAN WILD



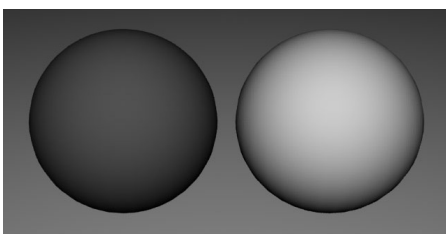
When mentalray users talk about 'physical correctness', in most of the cases the usage of DGS (diffuse, glossy, specular) shaders is discussed. Some people say you should use them at least as photon shaders, just because they're fast and, yes, physically plausible. But how do they act differently than the maya base shaders? If you ever used dgs shaders, you probably asked yourself if it was possible to 'mimic' the dgs behavior somehow - just because they are yet simple, but sometimes very hard to bear with (just think of the glossy reflection samples that can't be set (very annoying). What if we could tell a maya base shader to act like it's dgs companion?

Let's have a look at how 'different' they actually look (without using photons - we're only out for the regular shading for now). I took a standard phongE material without any highlight or reflection (so actually it acts like a lambert material) for comparison:

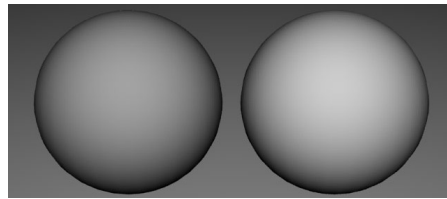
These are the settings:



And here's a render:



The dgs (left sphere) is obviously much darker - just a matter of settings you'd say. So let's tweak them a bit - let's increase the dgs' diffuse to total white:



Better, but still very dissatisfying - and the 'Colour' attribute of our phong is still darker (0.5 value!) than the dgs' diffuse colour. What is the cause of this discrepancy? Having a look at the dgs shader sources, which are freely available we see the reason for this. A line of comment says (and it's also applied later on in the code):

```
[code]* m->diffuse is reflectance rho (0 <= rho <= 1). BRDF f_r = rho/pi.[/code]
```

This means, the radiance (rho), is being divided by pi (approx. 3.1415etc...). Uhm..

INTERLUDE

What does radiance actually mean? Here are some useful links describing the term:

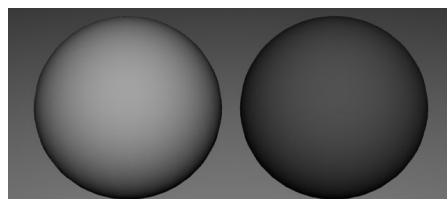
<http://www.dotcsw.com/poy2001.txt>

<http://en.wikipedia.org/wiki/Radiance>

<http://en.wikipedia.org/wiki/Luminance>

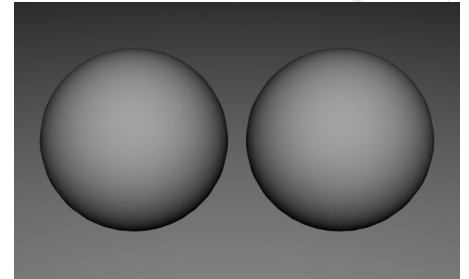
So radiance is used to indicate how much power will be received by an optical system looking at the surface from a certain angle. The division by pi will be explained later on.

How could we achieve what the dgs is internally doing, with our maya shader? You guessed it, let's use the 'Diffuse' attribute of our Lambert material, which acts as a simple multiplier to the 'Colour' value. Since we can't literally divide, we need to multiply by the



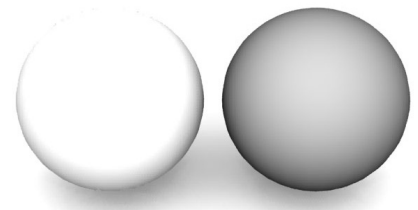
fraction: 1/pi (approx. 0.318). Let's do it: Oops, what went wrong? Sure, we set our dgs'

diffuse colour to white before, let's do so with our phong.



Set the phong 'Colour' to total white: Jackpot!

But what about the indirect illumination (irradiance), like if we used final gathering for example? Let's see:

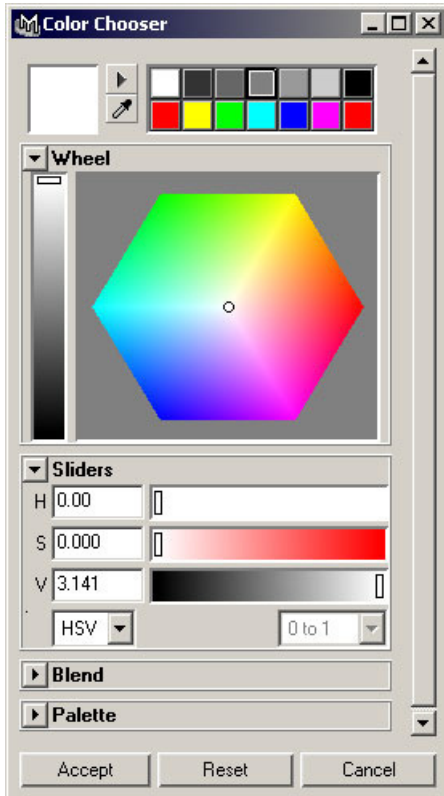


FG on, all settings same as in the last image: Ugh! What happened? Lamrug.org gave me the answer:

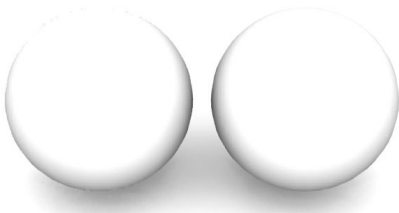
<http://www.lamrug.org/resources/mayaftips.html> When a shader gathers irradiance with `mi_compute_irradiance`, it should normally divide the result by π , since the irradiance is the energy gathered over the hemisphere above that point. Dividing by π makes it a colour at the point.

So the irradiance is being divided by pi already (this does not apply to maya 5 and earlier). Our irradiance is now actually divided 2 times, because 'Diffuse' is multiplying our irradiance as well - not good. But we can overcome this by a simple trick: we just multiply the irradiance by pi again. By clicking on the 'Irradiance Colour' (NOT 'Irradiance!') the colour picker

pops up. We then replace the 1.000 in the 'Value' field by pi (3.1415):

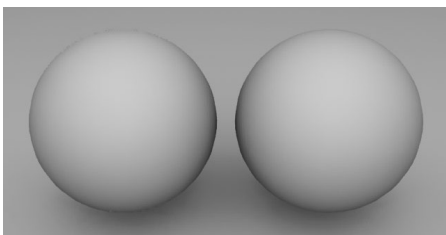


Alright, let's have a look if it worked out:



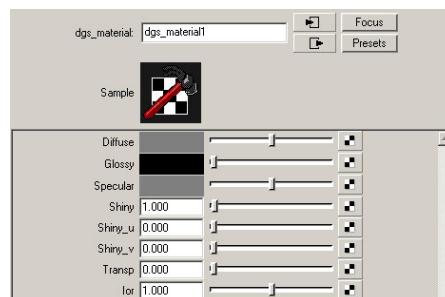
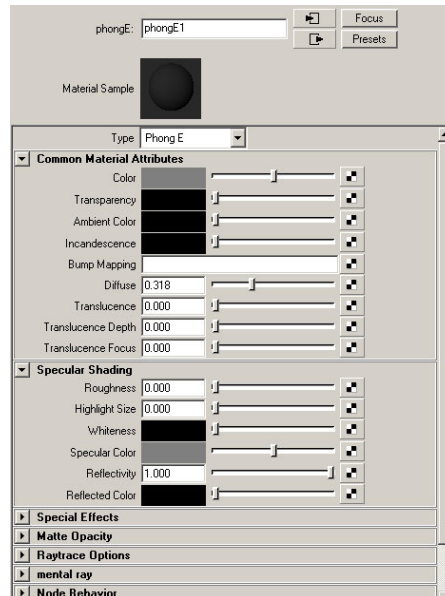
Bingo!

Adjusted light intensity:

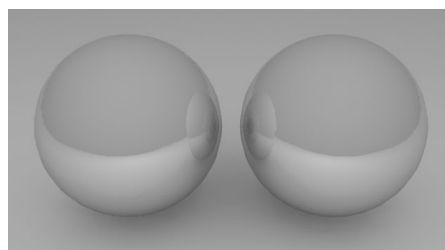


But what about reflectivity? That's way easier, because the phong's 'Specular Colour' acts the same as the dgs' 'Specular' - you only need to

set the (tuned) base shader's 'Reflectivity' to 1. And here's a render:



Note that we set the diffuse colours back



to 0.5, and the specular colours to 0.5 as well. This is because the dgs photon shader enforces energy preserving 'scattering coefficients'. The source comments:

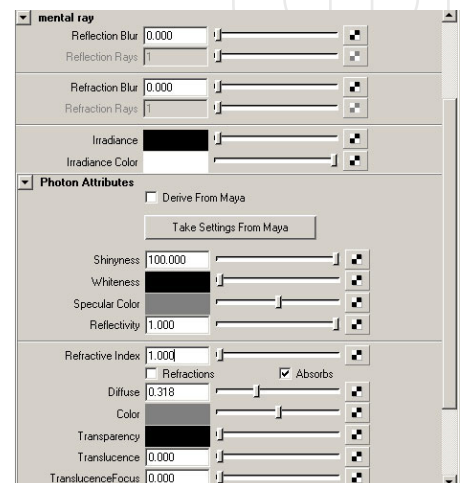
*The dgs photon shader enforces energy-preserving scattering coefficients, that is, the following three requirements: $\text{diffuse.r} + \text{glossy.r} + \text{specular.r}$ has to be ≤ 1 , $\text{diffuse.g} + \text{glossy.g} + \text{specular.g}$ has to be ≤ 1 ,

* $\text{diffuse.b} + \text{glossy.b} + \text{specular.b}$ has to be ≤ 1 .

This means, we would get physically incorrect results if we used photon tracing and a combination of diffuse, glossy and specular values that exceed a total value of 1.0. In other words, the V components of our HSV colours should be smaller than 1.0 in the sum.

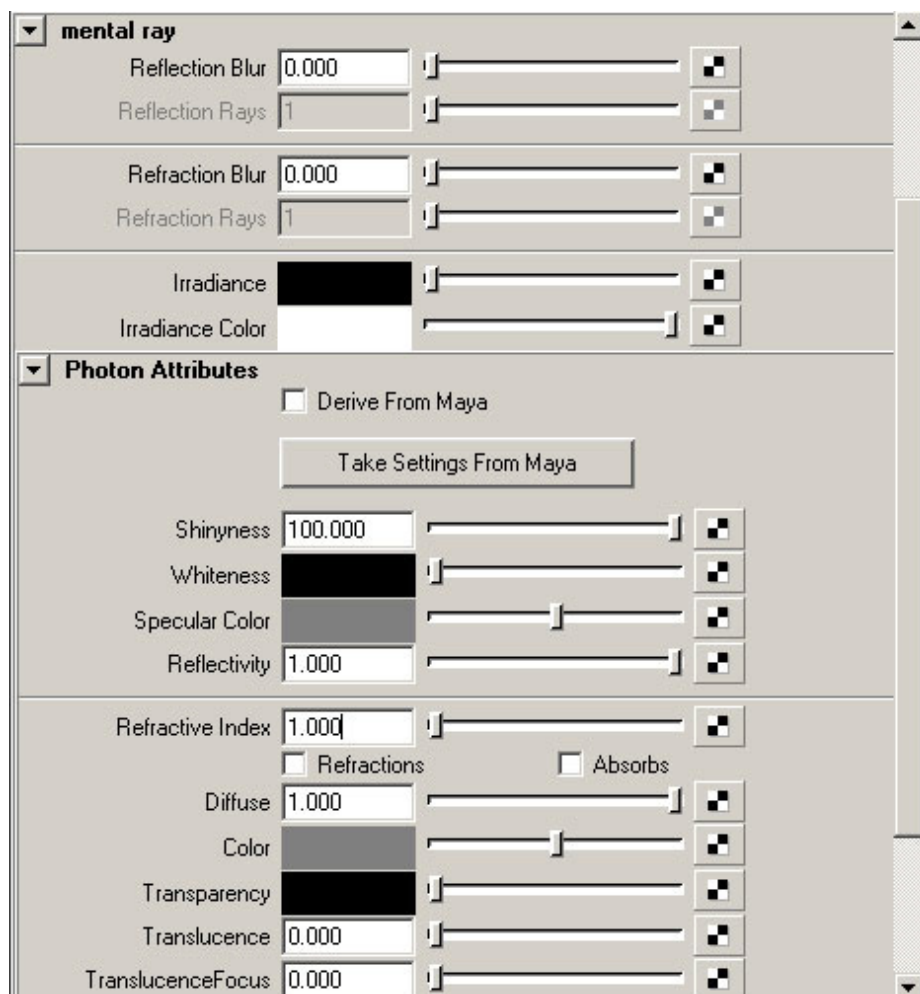
Speaking of photons, what can we do to mimic the dgs' photonic behaviour? Although the solution is easy, it's a bit tricky if don't have any starting point. Well, here it is: We switch off the Derive From Maya checkbox and press the Take Settings From Maya button, to inherit anything we did from the regular shader. It will look like this first:

To recover from the irradiance trick we applied due to internal 'correction-calculations' the shader does, we would need to multiply the



photonic intensity by pi again. To do this, we again use the diffuse attribute, but this time the miDiffuse or photonic diffuse attribute. It's currently at 0.318 (1/pi) - so if we multiply it by pi, it yields exactly 1:

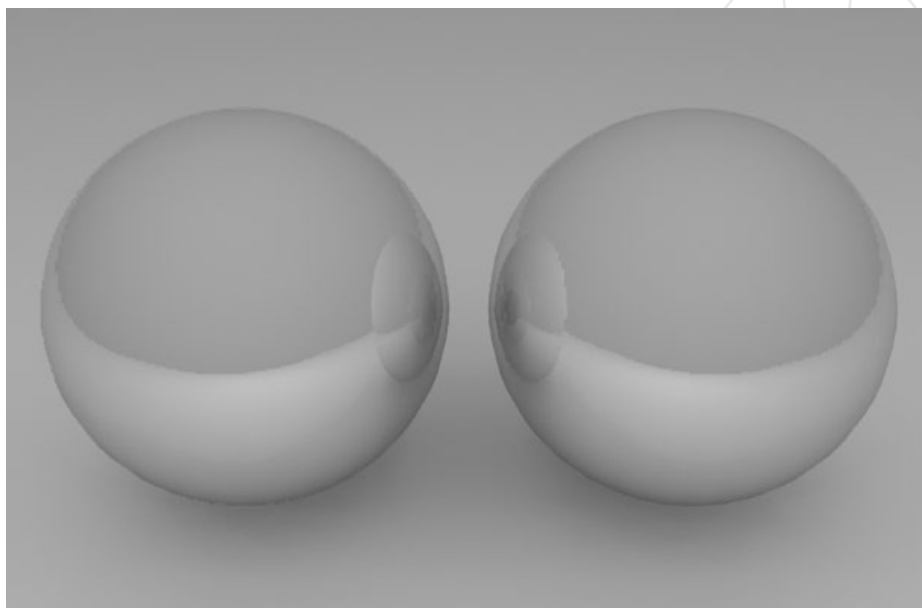
And glossiness? Well, the glossy colour is again the same as 'Specular Colour' (with reflectivity 1.0), the shininess is controlled by

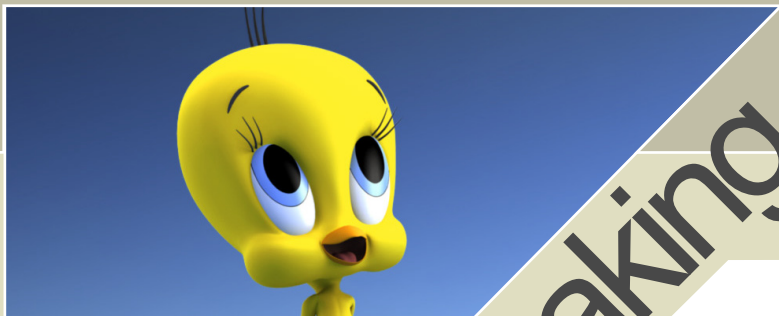


If you ask yourself why the dgs are still faster, specially when using final gathering, there is an answer too. The dgs internally rejects light sample calls on the 'wrong' side of your surface (the side with normals pointing away from the light). In my tests this reduced the amount of light sample calls by about 30%, resulting in faster rendering. Unfortunately, this cannot be simulated by our maya shaders, so we have to bear with it.

That's it! I hope you enjoyed the little brain workout! Much of theoretical stuff and no beautiful pics, but "The noblest pleasure is the joy of understanding." (Leonardo da Vinci)

Contact me via
mymail@floze.de,
or visit my website at





making of

This Little Pinkie

by scott morgan

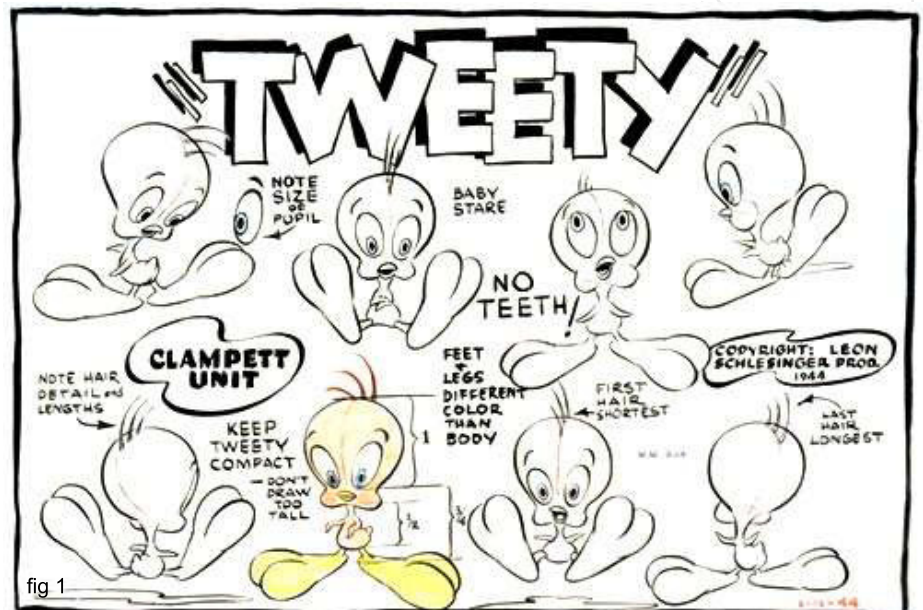
In the article below I will briefly describe the steps used to create "This Little Pinkie..."

The idea was to practise cartoon character modelling. Rather than design my own character I wanted to take a popular cartoon character and recreate it in 3D. I have always loved the Warner Bros. cartoons, and in particular the episodes featuring Tweety Pie and Sylvester the Cat.



RESEARCH

I searched the net for some pictures and info on the pair. What I found was that Tweety had changed quite a bit from when he was originally drawn by creator Bob Clampett to how he was drawn in the 80's. I decided to keep him closer to the compact design of the original (1). Sylvester didn't really change much apart from originally having a black nose.



MODELLING

For this project I used Maya 6.0, but the same techniques can be applied to other 3D applications. Before I started modelling, I roughly drew front and side views of each character to be used as image planes and act as a guide for the modelling process. For

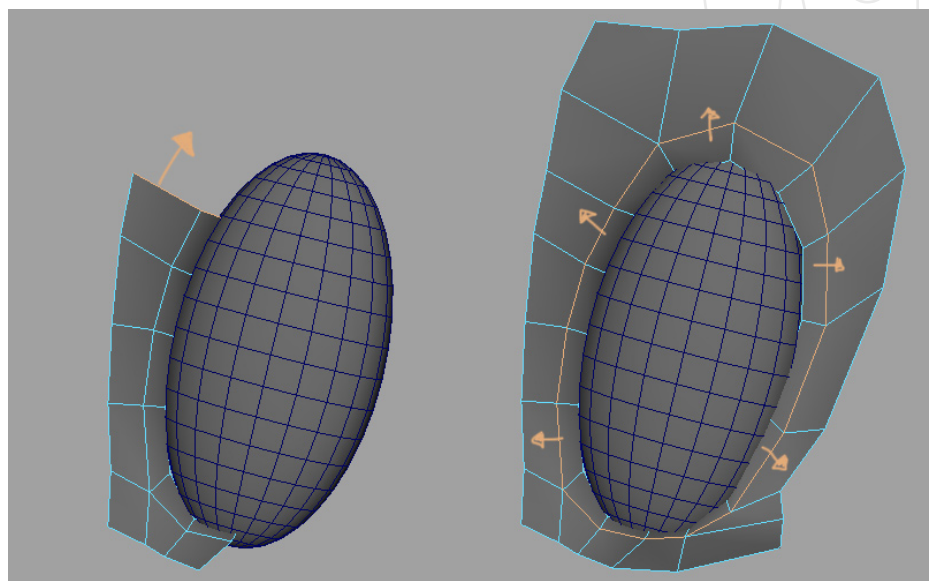


fig 2

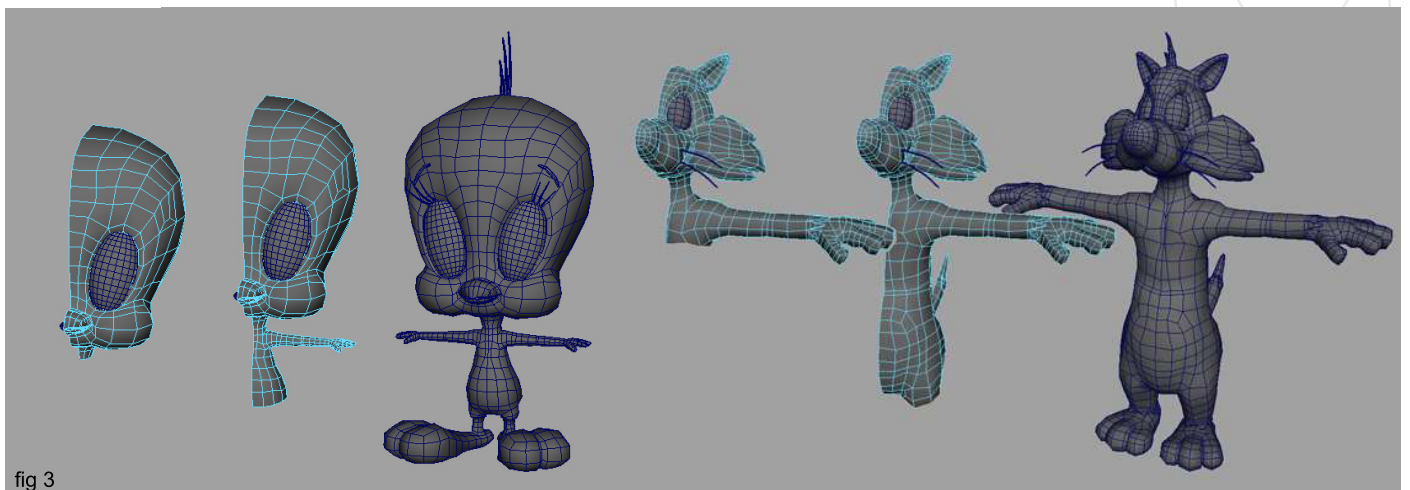


fig 3

almost all of my modelling I use the poly-poly method. For a character I typically start with a single polygon face, and extrude the edges to form to the basic shape of the eye (fig 2). From there I continue to extrude the edge loops and move the vertices to give me the desired shape, and edge flow. I only model using quads as it gives you a nice clean mesh and results in a more predictable surface when subdividing (fig 3).

TEXTURING

I kept this stage of the process really basic. For Tweety I just used simple blinn and

lambert shaders. Rather than worrying about UV mapping, I selected the faces I wanted for a particular shader and saved them as a Quick Select Set. That way I could easily select those faces again and assign a different shader if required. For Sylvester I laid out the UV's into four separate maps, using planar and cylindrical mapping methods. I opened those maps in Photoshop and painted the black, white and red areas. From there I took the model into Deep Paint 3D to fix up the seams in some areas.

RIGGING & POSING

This process was really streamlined by using the rigging tools available with the Maya 6.0 bonus tools. These tools basically automated the rigging process, and gave me a rig that was good enough for what I needed. The eyes on both characters aren't perfectly round, so I used the texture projection coordinates to control the eye direction. As far as posing goes, I wanted to introduce some squash & stretch as used so well in many of the Warner Bros. cartoons. This was done by just moving the joints in Sylvester's arm rather than going to the bother of setting up a stretchy arm rig

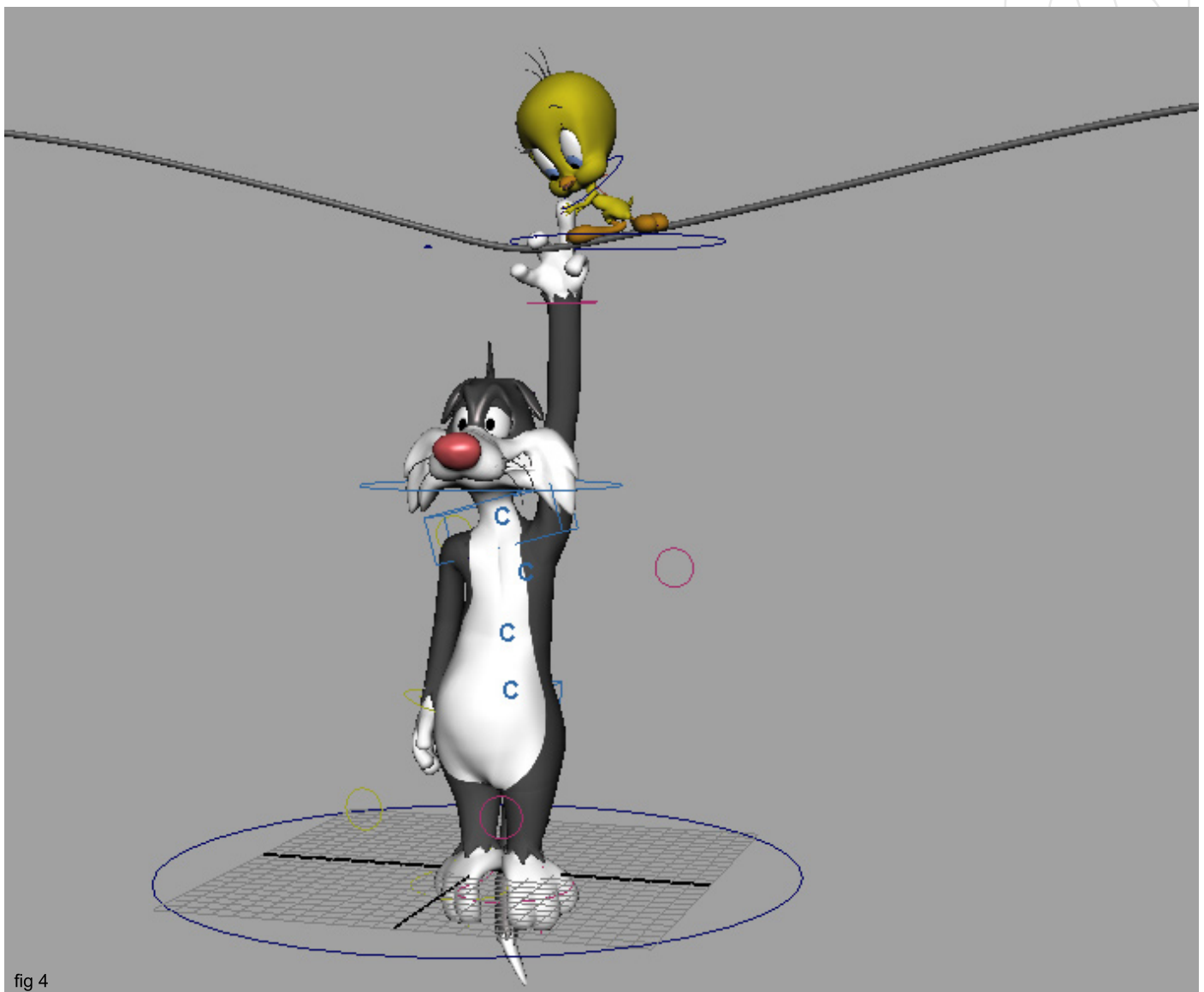


fig 4

(fig 4).

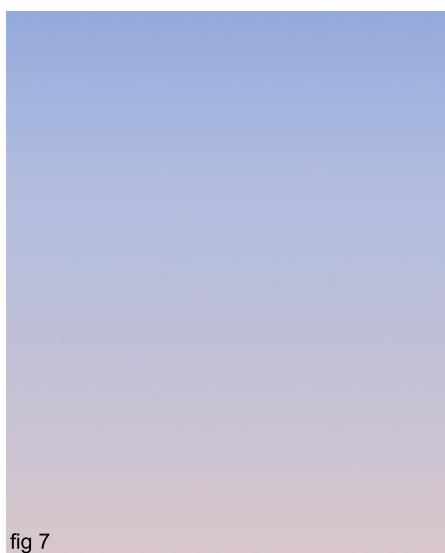
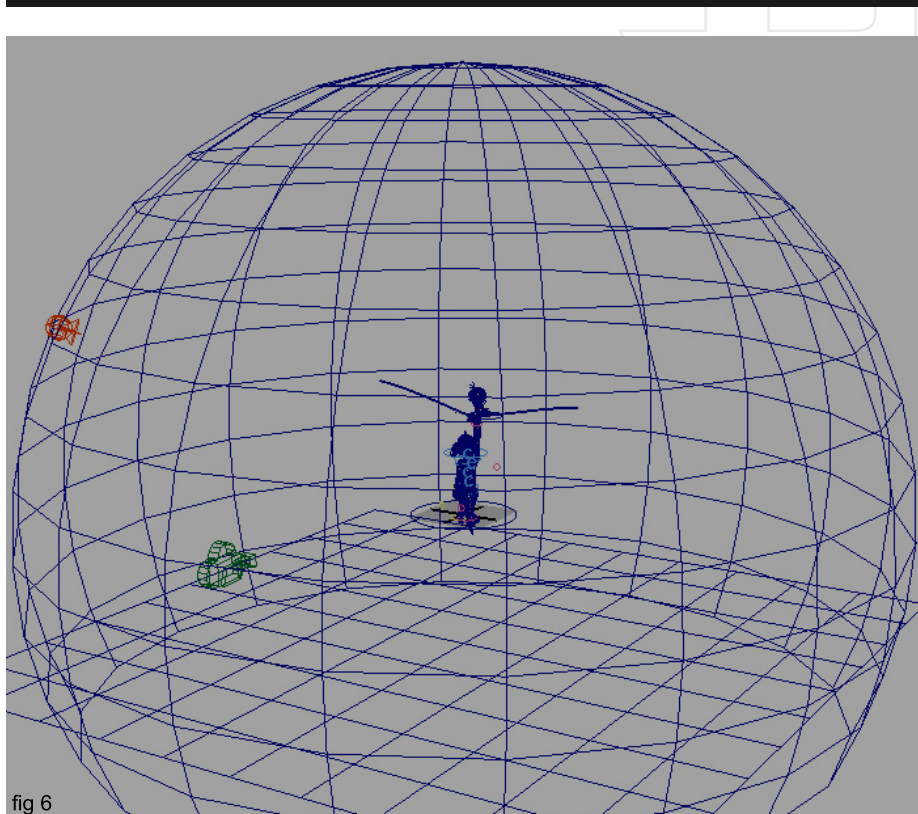
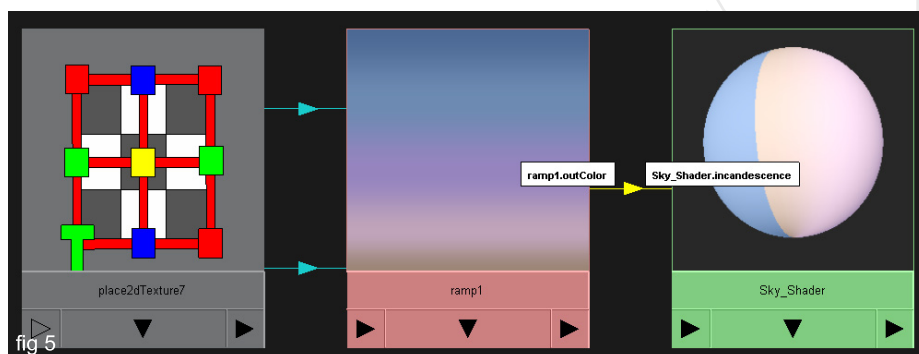
LIGHTING & RENDERING

For lighting the scene I used a basic skylight and area light approach. For the skylight I created a poly sphere, scaled it to surround the scene and then deleted the bottom half, leaving me with a dome to simulate the sky. I assigned a lambert material with a ramp connected to the incandescence channel. This will be used to emit Final Gather rays when rendering with Mental Ray. In the render attributes of the sphere I turned off the primary visibility so that it is not seen in the final render (fig 5).

I then created a polygon plane and placed it below the characters to simulate the light bouncing off the ground. The plane was assigned a new lambert shader with the colour and incandescence channels set to a light brown colour. For the sunlight I created a spotlight with intensity set to 0.850, the colour somewhere between pink and orange and with raytrace shadows checked on. I converted the spotlight to a sphere area light by checking the area light box under the Mental Ray section of the light's attributes. I set the sampling to 10 and the low sampling to 5, though I've later found that a sampling of 8 works just as well and renders a bit quicker. The light is scaled up a little, as the scale of the light affects the softness of the shadows (fig 6).

POST PROCESSING

Finally in Photoshop I painted the sky to place in the background of the render. For the sky I have a layer which is a gradient ranging from a pink to a light blue (fig 7). On another layer I painted some simple clouds using a soft basic brush and smudge tool (fig 8). I then placed the render on the next layer (fig 9) and added a Hue & Saturation adjustment layer to boost the saturation of the render a little. One thing



to note when rendering layers for compositing is to turn off premultiply (under framebuffer section in Mental Ray render globals) so that you don't have the background colour as a halo around the render. Finally I have a Brightness & Contrast adjustment layer to

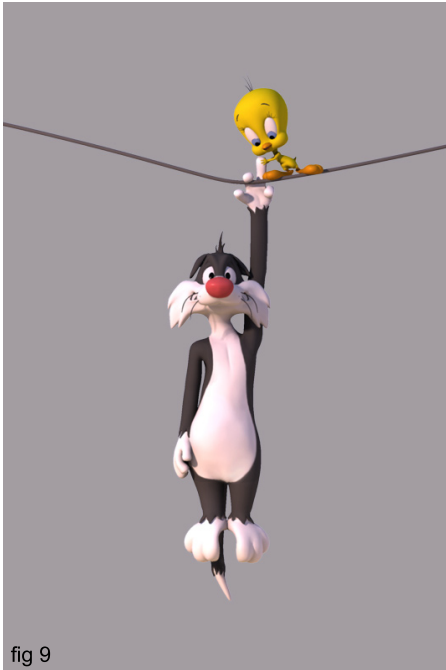


fig 9

increase the contrast and darken the image a little. (fig 10)

And that's it. Thanks for reading and hopefully some parts of this article may be of some use to you on future projects. Take it easy.

Email: spmorgan@tpg.com.au

URL: <http://www.users.tpg.com.au/spmorgan>



fig 10

GOOD HAIR DAY...



HAIR is the first fully integrated CINEMA 4D module for the creation of hair, fur and feathers. Breathtakingly fast, this module also distinguishes itself with its intuitive interface.

Beneath the easy-to-use interface lies a complete hair studio – one that would make any stylist green with envy. Hair can be grown using textures or selections, and can be styled freely using any of the numerous tools such as brush, comb, cut or curl. Options such as color, frizz, clump and specularities let you quickly create anything from a fashion model's hairstyle to a furry teddy bear.

HAIR dynamics even lets you create an animation worthy of any shampoo commercial. Use the collisions, tension or stiffness settings to add even more life to your animations, while always maintaining complete real time control over the look and feel of HAIR dynamics in the editor view.

Not to mention the enormous rendering speed and the minimal usage of memory that allow you to render millions of hairs on an average computer in minutes.

Visit us at www.maxon.net to download a demo or to discover more exciting details about HAIR and CINEMA 4D.

MAXON



making of

THE EVOLUTIONARY

SMALL CREATURE

BY HODONG LA

One day, I went to a bookstore and I looked at a book. It was a picture book about spiders.

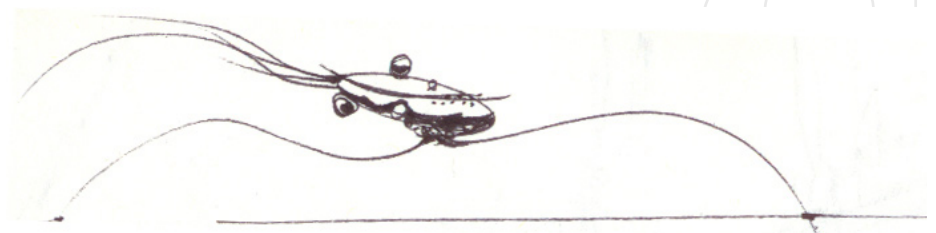
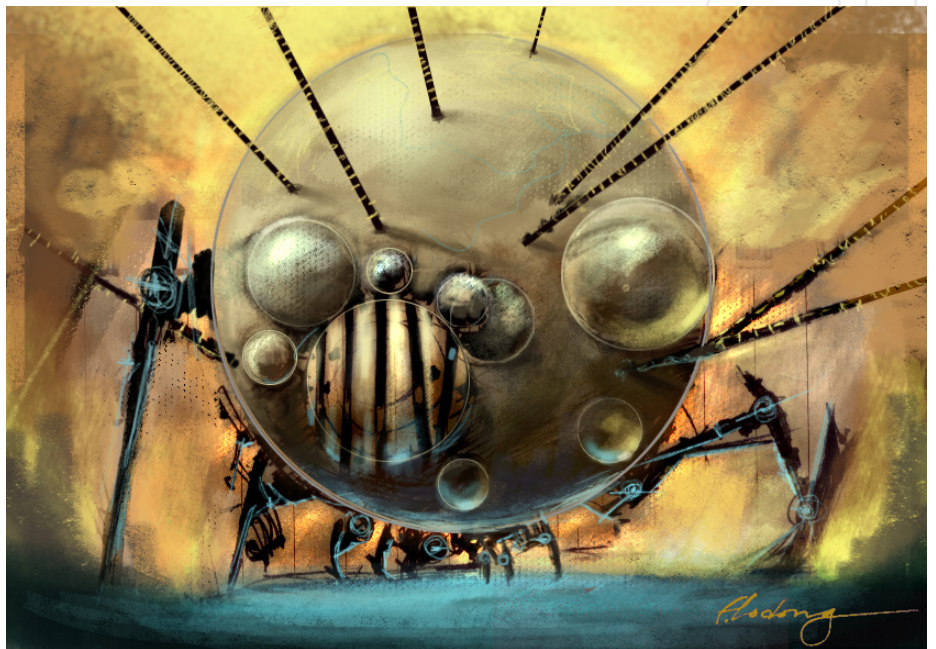
Because I had a lot of interest in the creatures, I was interested in the book. One day one picture from it came into sight that still remains in my memory. It was a scene that depicted a group of spider kids eating their mother's body. It was terrible, but was really interesting. Then, I thought that would fit well with the height concept that I am thinking about...

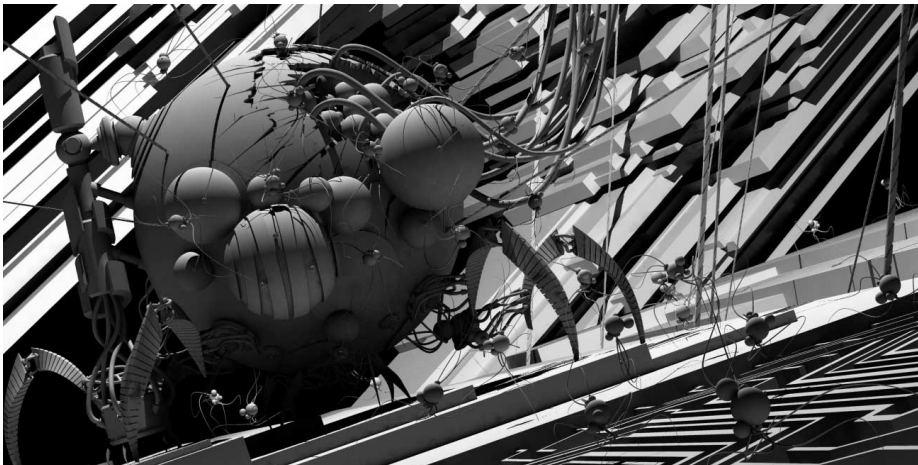
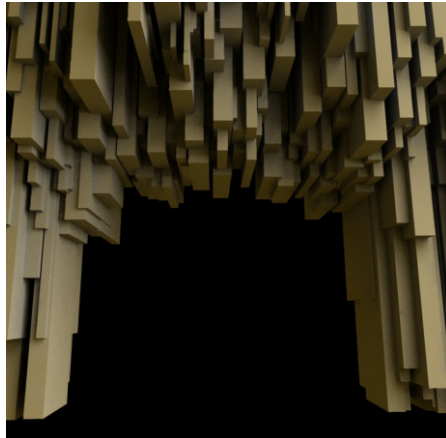
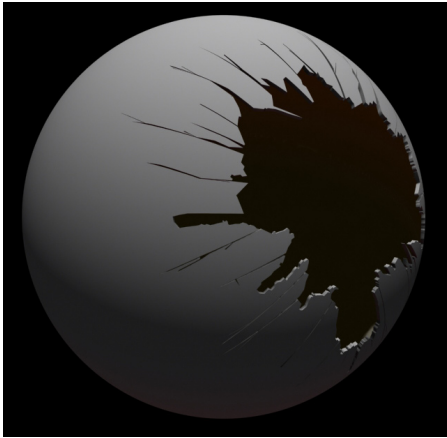
I had thought of a concept of future mankind in a cage-like surrounding environment. This scene gave me a motive to think about a certain image for different creatures of the future.

CONCEPT

How do you change future mankind and its creatures? Mankind will change rightfully through science. In the long run mankind will unite with science naturally as we are living with the aid of science right now. If we put an earphone into our ear and listen to music, we experience the hearing of sound. As time passes, science may be consulted for more help. So, future humans will become living things that evolve over time. There will be a marriage of science and nature that someday will be received without rejection, even if is intolerable now...As future mankind evolves and is renewed by science, living things will evolve scientifically. Robot fish, robot seaweeds .. these are such things that are a step away now. However, other living things may be extinguished by the force of science after a long time, if change occurs like this.

The spider is a very suitable vehicle to express these concepts. Also, I joined this example with an element, expressing the image of the baby spider which comes out through the mothers body to become a changed concept. People nowadays can understand new styles and so the feeling and form of the spider seemed suitable somehow. Geometric shapes can be used to portray science as they are symmetrical and indicative of the intellect. Simple geometric forms however can be combined to create a more natural look. This is reflected by the spider when the geometrical impression occurs. The contrast is strong and I have made an even more persuasive image using comparative color.





MODELLING

There was no special modelling method I used to state the sequence of Boolean, merge shape, FFD Box, loft. Because there were many geometrical matrices, I could make it easily. I began work with a basic form that was modeled easily.

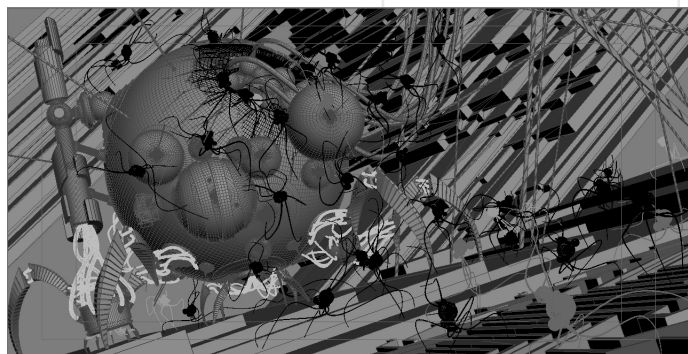
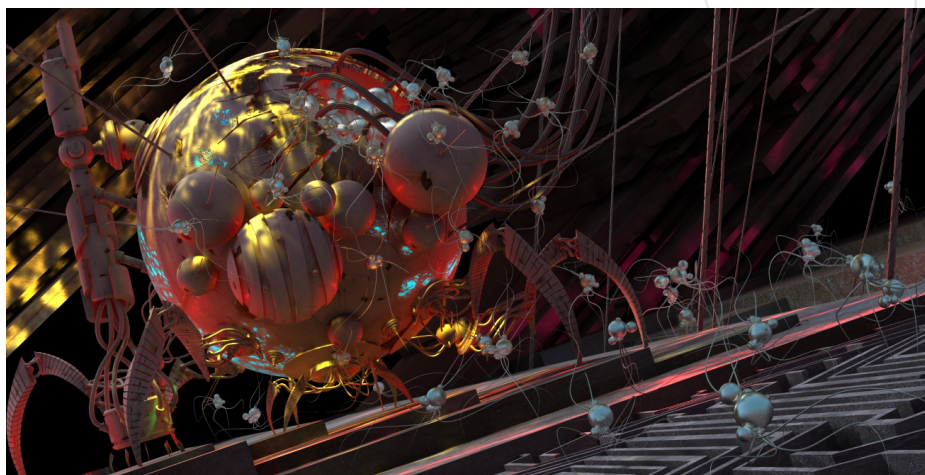
The basic sphere (Fig 1) is given a thickness, using a shell modifier. I created a mechanical look on the boxes that make up the background and arranged them randomly to make the backdrop (Fig 2).

I created a vertical and horizontal quality in the background but altered the angle to create more drama (Fig 3). The modelling of the baby spider's was similar to the mother in order to maintain a unity. I made the shank by the loft's scale control.

MAPPING, LIGHTING & RENDERING

I was not going to make everything in 3D, rather just some of the elements. I judged that modified elements in 2D can be just as effective in the final render. The color or atmospheric effect, strength and weakness of light etc.. can be achieved in Photoshop. Mapping or lighting was done in Max. I used a different and contrasting quality material for the mother spider compared to the the baby spider for a clearer image. I expressed a feeling of discrete light and contrast of parts partly by project lighting and I used Brazil Render's GI for a contrast that was rich in depth..

It changed from a simple composition to a Dynamic composition. As a result, it is more dynamic than a horizon composition and among the living things that move, kith and kit seem to have formed. I could re-arrange objects, as it is fun making changes to the dynamic composition because a lot of objects were made quickly, and arranging them properly enriches the image.

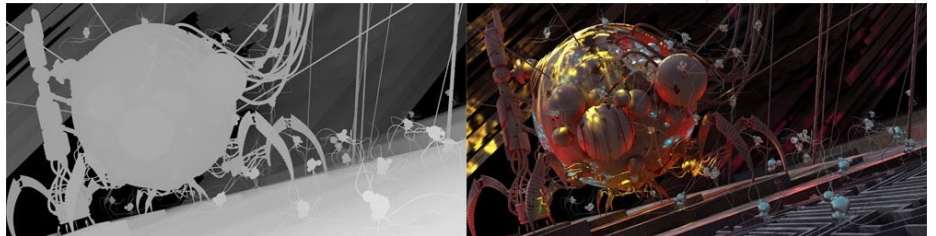
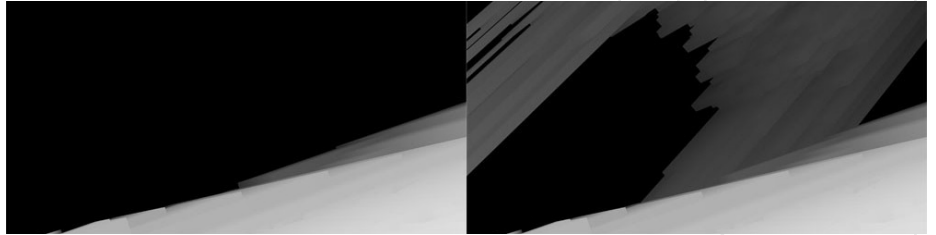
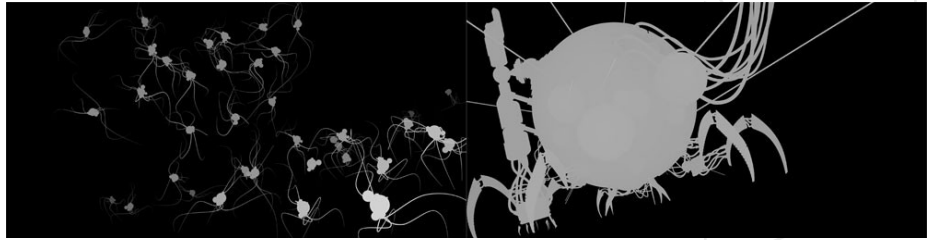


COMPOSITING

Most of this was done in Photoshop.

The whole was divided, layer by layer, baby spider, mother spider, floor, background, atmosphere effect, and lighting effect.

I composed other color tones for the baby and mother spider division. I made whole new color overlays that helped unify the image and add a strong contrast. I created a high chroma which added a dynamic value. I used much curve and color balance, mainly in Photoshop. The lighting effect and gas effect were done using layer blending in photoshop. My work style involves making everything in 3D, and then making multiple images, separating them into layers, and completing it in Photoshop.

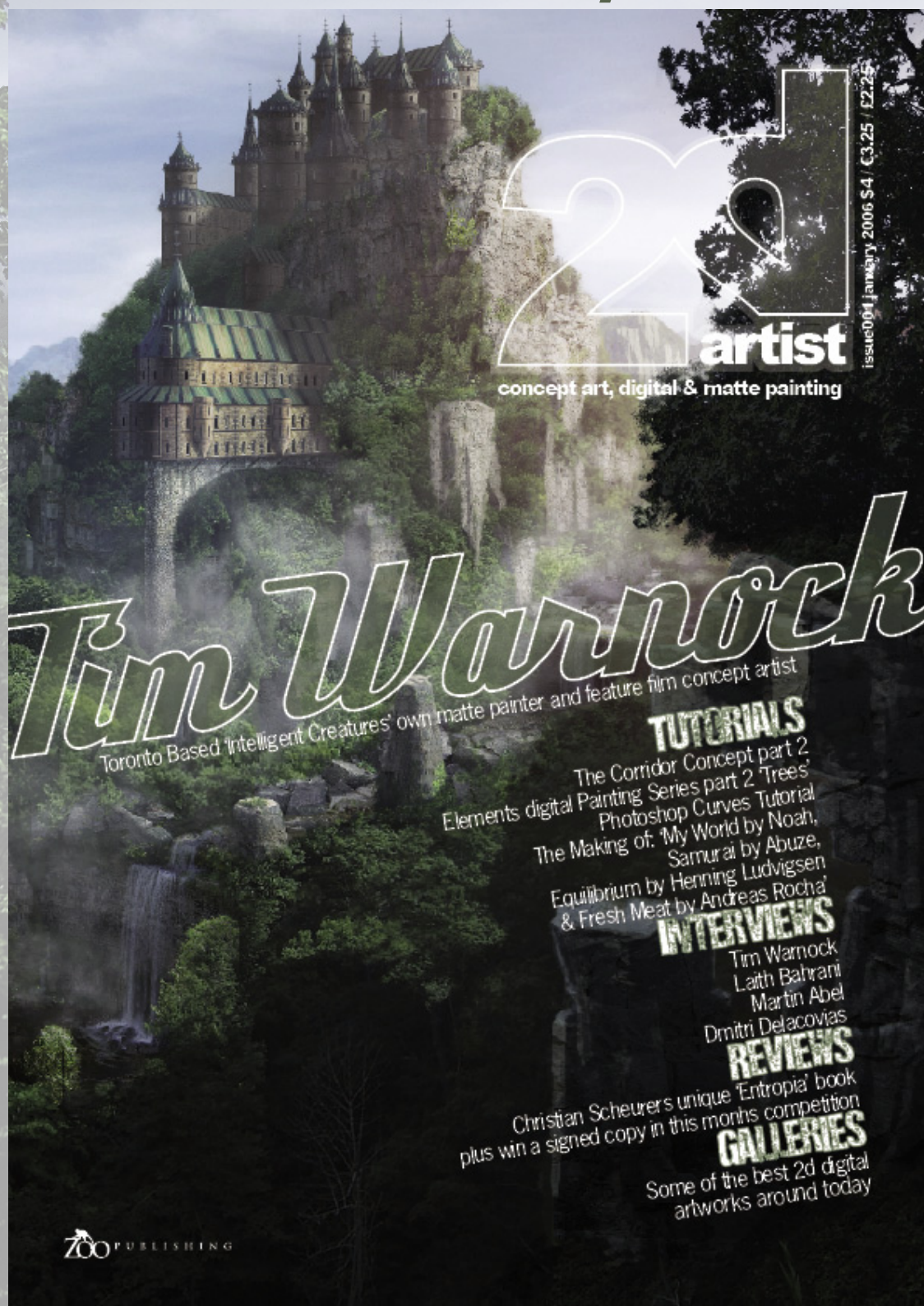


FINAL IMAGE

I could modify the style of this work and alter the color scheme somewhat. I may also make some extra elements, and develop the concept behind this piece of work



Zoo Publishing presents the new issue of **2dartist** magazine a downloadable monthly magazine for concept art, digital & matte painting for only **\$4US**



2dartist
concept art, digital & matte painting

Issue 004 January 2006 \$4 / €3.25 / £2.25

Tim Warnock
Toronto Based 'Intelligent Creatures' own matte painter and feature film concept artist

TUTORIALS
The Corridor Concept part 2
Elements digital Painting Series part 2 'Trees'
Photoshop Curves Tutorial
The Making of: 'My World' by Noah,
Samurai by Abuze,
Equilibrium by Henning Ludvigsen
& Fresh Meat by Andreas Rocha

INTERVIEWS
Tim Warnock
Laith Bahrani
Martin Abel
Dmitri Delacovias

REVIEWS
Christian Scheurers unique 'Entropia' book
plus win a signed copy in this months competition

GALLERIES
Some of the best 2d digital
artworks around today

ZOO PUBLISHING

visit **www.2dartistmag.com**
to download the free 'lite' issue, the full issue, sub-
scription offers and to purchase back issues.





galleries

‘WOULD YOU LIKE TO
SUBMIT YOUR WORK
TO THE GALLERY?

Details here :

www.3dcreativemag.com/gallery



PUPPET

Fabio Zangla

www.mo00z.com

z4n@mo00z.com



MOBILE HOME
Lee Scheinbeim
www.arrakeen.org
lee@arrakeen.org



CHAMELEON
Anna Celarek
www.ania.xibo.at
anna_celarek@gmx.at

MR MISERABLE

Sebastian Schoellhammer

www.sebster.org

sschoellhammer@gmail.com



THE ODDFATHER

Pete Sussi

www.sussidesign.com

psussi@optonline.net



CATCH THE MAKING OF NEXT MONTH



COFFEE ROOM (ABOVE)

Chen Qingfeng

www.chen3d.com

chen3d@vip.sina.com



HANDHELD GAME (LEFT)

Luc Van Gilzen

www.cinema4d.be

Luc@cinema4d.be

PRAYING MANTIS

GRZEGORZ JONKAJTYS

www.3dluvr.com/jonkajtys

jonkajtys@3dluvr.com



READ AN INTERVIEW WITH GRZEGORZ NEXT MONTH

jonkajtys



HANUMAN

Udom Ruangpaisitporn

tucker_3d@hotmail.com



ANGELINA JOLIE

Dave Auclair

www.daveauclair.com

dave@daveauclair.com



Three Pictures by art work CUBE

competition



WWW.E-FRONTIER.COM

have generously offered 4 Downloadable copies of Shade 8!
Create detailed design projects with the richest tool set available,
all at an impressively low price. Shade 8 is the 3D graphics
toolkit for designers, illustrators and architects. Bring your ideas
to life quickly with intuitive Bezier curve/surface modeling and
sophisticated rendering!

Full details: http://www.e-frontier.com/go/shade_hpl



WIN!

4 COPIES OF SHADE 8

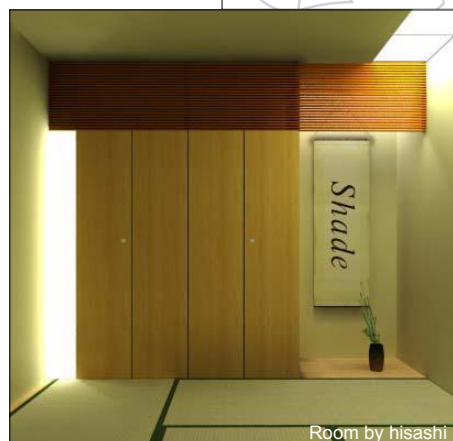
All you have to do to be in with a chance of winning your own copy of Shade 8 is answer the following question:

WHICH OTHER SOFTWARE INTEGRATES
SEAMLESSLY WITH SHADE
FOR CHARACTER MODELING?

Email your entry to
competitions@zoopublishing.com
including the words 'Shade Download'
competition in the subject line. All entries
received by 1st March 2006 will be entered
into a prize draw. The winners will be notified
by e-mail.

Last months winners were:

Jeremy Smith,
Anthony Lopez
Karl Stocker
Andrea Gomez Zimmer
Joost Swarts



Competition Sponsor www.e-frontier.com

Rules: Zoo Publishing decision is final and there are no cash alternatives. No other
correspondence will be entered into. Any entry that is late, illegible, incomplete or otherwise does
not comply with the rules may be deemed invalid at the sole discretion of Zoo Publishing. Your
details will be held on record by Zoo Publishing but will not be passed on to 3rd parties.

NEXT MONTH

INTERVIEWS

Soulpix
the CG Studio's work and
upcoming feature film project

TUTORIALS

Texturing Masterclass
continues with 'Texturing a
Human Head' part 2 by Richard
Tilbury.

Joan of Arc - Continuing
complete monthly tutorial for
Maya, Lighwave, C4D & XSI.
This month part 7 : Texturing &
Hair - Eyes & Skin & Hair

Physical Light Exploited, Mental
Ray Tutorial for Maya by Florian
Wild

NEW SECTION: 'GALLERY IMAGE' 'MAKING OFs'

See how the images from this
month's galleries were created.

GALLERIES

another 10 of the best Images from
around the world.

REVIEW

'Game Art' by Riccard Linde, art
Director for the Battlefield Series.

PLUS

Articles, Industry news and Competition
more.

VISIT WWW.3DCREATIVEMAG.COM FOR FULL INFORMATION AND
TO PURCHASE CURRENT AND PREVIOUS ISSUES FOR ONLY \$4 US EACH!

3D Creative



recruitment

3DCreative Magazine launches the new Recruitment Section.

"YOU'VE READ THE ARTICLES, YOU'VE LEARNT FROM THE TUTORIALS, NOW GET THE JOB YOU'VE ALWAYS WANTED!"

EMPLOYERS! If you have a position that could be potentially filled by one of 3DCreative Magazine's 20,000+ talented readers and would like to advertise here then please contact:
kelly@zoopublishing.com

OPM
response.ltd

**HIGH FLYERS NEEDED
WORLDWIDE VACANCIES**

www.opmjobs.com

General Enquiries: OPM Response Ltd, 15 Peartree Business Centre, Stanway, Colchester CO3 0JN
Tel: 01206 544044 Fax: 01206 547198
Artwork copyright of Stefano Tsai



aardvark swift
NEXT GENERATION RECRUITMENT SOLUTIONS

Established in 1989, Aardvark Swift is the UK's longest established and market leading interactive entertainment recruitment specialist, specialising in the games, mobile and interactive entertainment markets.

We have a huge range of vacancies available throughout the UK and overseas for Artists and Animators with 3D skills (Max, Maya etc.). No matter what your taste there is something for everyone in this exciting industry - whether its RPGs, RTSs, sports or action titles. You'll enjoy a relaxed and friendly working environment with excellent salaries, bonus schemes and benefits available.

Please forward your CV and demo work to colin@aswift.com and quote reference "3D Creative1"

Aardvark Swift Recruitment Ltd, Silicon House, Fairfield Park, Wath-upon-Deane, Rotherham, South Yorkshire, S63 5DB

Check out our current vacancies or register online at:



www.aswift.com




Now hiring... you?

NCsoft is seeking talented artists to join its seasoned team of industry professionals led by famed designer and programmer Richard Garriott. This is an exciting opportunity to work in a highly creative environment at NCsoft's headquarters in Austin, TX or concept art studio in Santa Monica, CA.

CURRENT OPENINGS

- Senior 3D Character Artist
- Senior 3D Environment Artist
- Senior Concept Artists
- Concept Artists
- Senior Animator

To apply, please send resume and reel/portfolio/link to on-line portfolio to:

Jobs-la@ncsoft.com

www.plaync.com



datascope

RECRUITMENT

Top Games Jobs

We are managing all of Sony Computer Entertainment Europe's development recruitment. Their UK studios offer unrivalled development facilities and a creative environment. They currently have art roles available in London and Liverpool to work on the next generation of creatively advanced games.

SONY

COMPUTER
ENTERTAINMENT®

They currently require:

Lead Artists/Art Managers

Animation Director

Technical Artists (MEL Scripting)

Senior Environment Artists

Concept Environment Artist

Visual FX Artist (Maya Particles/Dynamics)

Video Processor/Editor (Final Cut Pro)

Contact Paul:

3dcreate@datascope.co.uk



**Winners
2005**

our expertise: your development

datascope - recruitment specialists for interactive entertainment

London +44 (0) 20 7580 6018 info@datascope.co.uk

Chicago +1 312 587 3020 info@datascopeUSA.com



ZOO PUBLISHING is a new Company, publishing downloadable online magazines. It is based in the West Midlands in the UK. Zoo currently produces two online downloadable magazines, 3dcreative and 2dartist. Zoo's intention is to make each issue as full of great articles, images, reviews, interviews, images and tutorials as possible. If you would like more information on Zoo Publishing or It's magazines, or you have a question for our staff, please use the links below.

www.zoopublishing.com > www.3dcreativemag.com > www.2dartistmag.com

Editor > Ben Barnes > ben@zoopublishing.com

Assistant Editor > Chris Perrins > chris@zoopublishing.com

Marketing > Kelly Payne > kelly@zoopublishing.com

Content Manager > Warin Pismoke > warin@zoopublishing.com

PARTNERS

If you have a CG Community website, and would be interested in reselling 3dcreative magazine please contact kelly@zoopublishing.com

3dcreative
is supported by:



theBest3d.com

Rendez-vous 3D
pour les amateurs de 3D

