

JOE PINGLETON



Digital Art Live talks with Joe Pingleton about the early days of 3D, the technical aspects of the various hair options in 3D, his love of DAZ Carrara, and how to add character to animals.

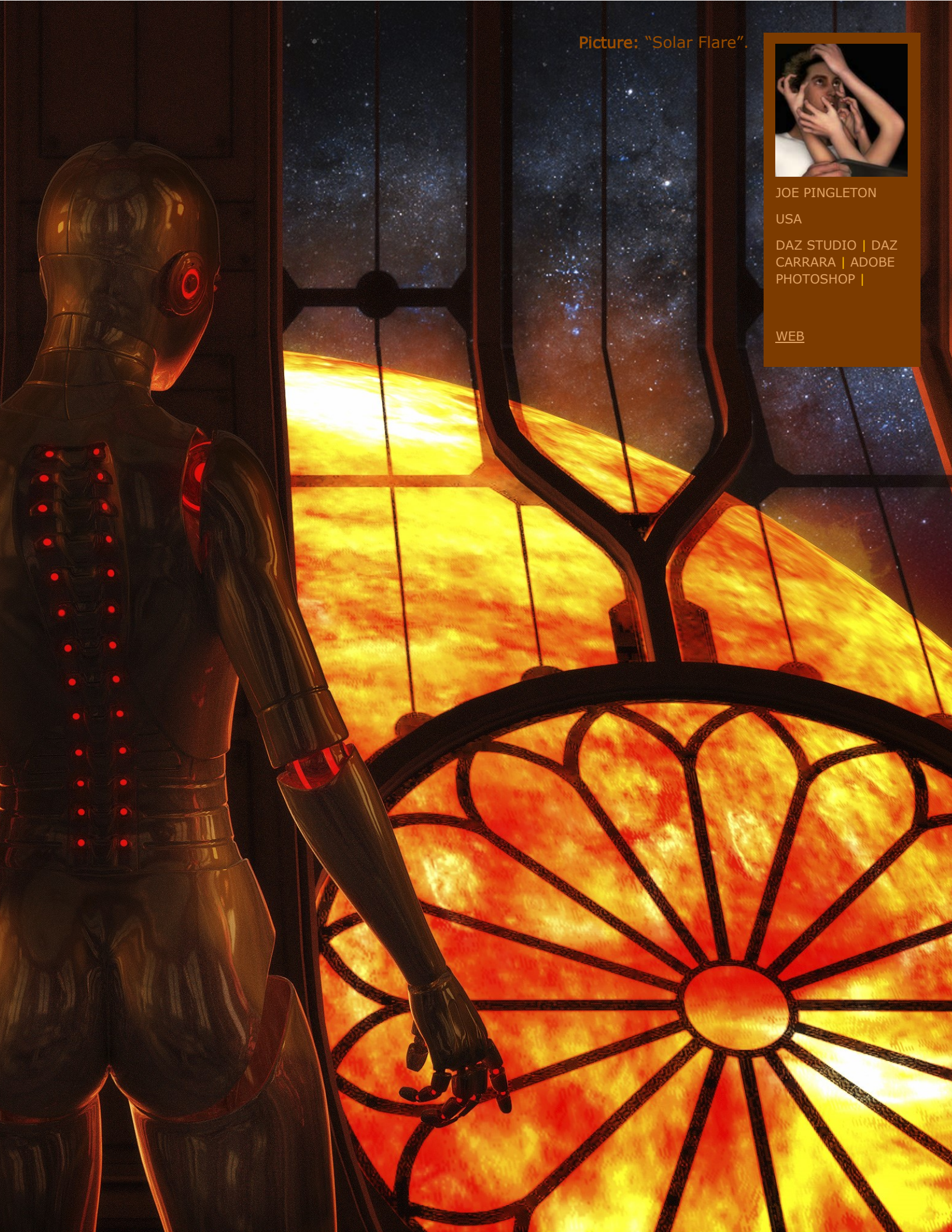
DAL: Hi Joe, welcome to *Digital Art Live* magazine's in-depth interview. You have such a large gallery, with such a fine range of work, that it was really difficult to focus it down only onto this issue's "Lighting for Character" theme — but you have a series of excellent portraits which really fit that billing.

JP: Thank you for your kind words and the honour of being included with so many great artists who have been featured here.

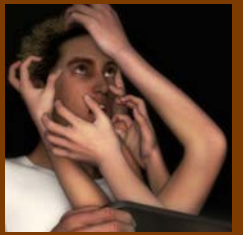
DAL: How did you first 'get into' being creative, and expressing yourself visually? Did anyone help you along the way, with that? Or was it a struggle?

JP: I had wanted to be a cartoonist since I was very young and I always had pencil and paper in my hand. My mother's hobby was oil and watercolor painting, so she encouraged my interests in all types of art. My father ran his own direct mail advertising business and encouraged me to look into commercial art as a career. There have been so many people who helped me along the way — from my teacher, my co-workers, to clients — that it's hard to name them all. I've been very lucky.

DAL: That sounds like a great set of backers. How did you then first get into 3D art? Was it the usual route, encountering a copy of Bryce in the 1990s?



Picture: "Solar Flare".



JOE PINGLETON

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DAZ STUDIO | DAZ
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JP: It was Poser, actually. I stumbled into 3D art with Poser version 1 in 1995.

DAL: Wow, version 1. That was raw stuff.

JP: At first it was just for reference to hand drawing human figures. I soon discovered that it produced results I could never achieve by hand. Then, yes, I found Bryce 2.0 in 1996 and it rocked my world. The unique interface redefined how I looked at user interfaces. Then the amazing landscapes it created made me fall in love with how nature actually creates things.

DAL: Yes, those Kai Krause interfaces still have a great deal of appeal. I can't remember if he also worked on the early Poser or not, but there's an obvious crossover from his Bryce UI.

JP: The other milestone was the discovery of Ray Dream Designer (later to become Infini-D and finally DAZ Carrara). This introduced me to creative power of 3D. All three programs were at a price point which allowed hobbyists to dip their toes in 3D without having to buy the very expensive options at the time. It really revolutionized the industry by bringing 3D to the masses.

DAL: Yes, the big beasts of 3D were — and still are in many cases — thousands of dollars. And often had hardware locks, where you had to have a special big of hardware or it wouldn't run. Were there any initial barriers as you started out with the learning curve in digital art? How did you overcome these difficulties? And what were some of the "breakthrough" images that started to get you a lot more attention?

JP: When I went to college for a Graphic Design course, desktop publishing was just beginning. Most commercial art was still created using exacto-knives and Rubylith. The instructors were learning the software right along with the students. It was a great time to start because we all learned together and the excitement for the possibilities were infectious. This kickstarted a lifelong love of learning new things and sharing knowledge with friends.

I found that I had a knack for digital photo-editing and this allowed me to get a job with a service bureau which supported many large advertising companies. The day-to-day production of digital artwork taught me more than I ever learned in school. I worked in all aspects of digital graphic design from print to presentation to ultimately Web development.

That was when I found 3D. It was the huge trend at the time. Poser, Bryce and Ray Dream Designer allowed us to do things that we could only dream of producing before. I also discovered Macromedia Director at this time.

DAL: Yes, I remember that. It was a nice multimedia authoring tool, in which you could make point-and-click adventure games and also those early retail touchscreen kiosk players. It was extremely powerful but kind of swept away by the Flash craze. And now there are better options for making point-and-click games. And the latest Keyshot has just added tools that look perfect for making self-running kiosk and tablet touchscreen packages. It all comes around again, if you wait long enough. */Laughter/*.

JP: Director led to me finally being able to create and distribute animation. As you say, Flash followed soon after and the creative floodgates burst open. The combination of 3D and animation skills got me noticed enough to start a business with some friends. When we did the 2000 North American Auto Show website and kiosks for Ford Motor Company, using a Poser figure as the main theme, things really started to take off professionally. So much so that 3D started to take a back seat to the technical side of Web design and development. This led me to freelancing full-time.

DAL: Yes, the whole Web development thing of the 1990s was a crazy five-year ride, once the first decent Web browsers emerged in late 1995, along with the new multimedia Windows. And then it spat us all out in the great crash, around the year 2000, I seem to remember. When did you discover DAZ Studio?

Picture: "Sabertooth Mountain".



JP: Years later while working with one of my e-learning clients, they needed some 3D work done. That is when I discovered DAZ Studio and their then brand new Genesis figures. The quality of the figures had improved so much that it rekindled my passion for 3D. I also learned that DAZ had acquired Carrara and that they worked seamlessly together. That is when I decided to try to create a 3D image-a-day for just fun. The idea was to create an image with no real idea on what it would be when I started it. I put a personal restriction on it so that it shouldn't take more than about an hour or two. It also was to have nothing to do with my business. The creative freedom this brought changed my life.

DAL: That's a brilliant idea. Kind of like the speedpainting that 2D artists do.

JP: Not all these experiments worked out as great works of art, but I was able to find something about each one that propelled me to learn more and get better. Eventually others started liking the results and I started to get noticed.

DAL: How did you find 'the ride' through DAZ Studio's development, over the last few years?

JP: 'The ride' has had its high and lows. Thankfully more highs than lows. At first I used Carrara more than DAZ Studio, since I was familiar with it. Carrara has *everything*. Its animation tools are so simple and powerful. Its modelling is very versatile allowing for the creation of landscapes, mechanical and organic objects. Basically anything you can dream of.



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Interesting. I've always assumed Hexagon is a good tool for straightforward DAZ and Poser modelling, although it's a little old now. I'd forgotten Carrara's modelling capabilities.

DAL: There's more, too. That doesn't even touch on the dynamic hair and physics and my favourite feature the Surface Replicator [for replicate and scatter, e.g. rapidly throwing out a forest across a landscape]. DAZ Studio focuses more on using pre-made assets. But with plug-ins it can reach beyond these limitations. When they dropped native lip-sync from DAZ Studio I was ready to give up on it. Then the Reality LUX-based rendering plug-in showed up and I fell in love again. The results were amazing. Then iRay stepped onto the stage and I found myself using Carrara less and less.

DAL: Is the DAZ software in a good place now? What would you like to see in a future version?

JP: I would love to see some of the elements from Carrara make their way over to DAZ Studio. This may be wishing for too much since DAZ Studio is free and Carrara isn't. The thing I would most like to see is an improvement in the dynamic cloth system. Something like what Poser has for cloth is really needed. A physics system would also be a very useful feature for animators.

DAL: What new developments would you like to see in terms of the store content that's available now, on DAZ, Renderosity, Hivewire and suchlike? What would you like to see content makers making, that they're not at present?



Pictures: "System 46" and "Observatory".

JP: The large range of content is the major selling point for me in using DAZ. There are so many great content creators that allow non-modellers like me to create what we do. I am constantly amazed at the quality and creativity of the products offered.

DAL: Yes, once does to rather hunt for the best these days, but there's still a good deal of quality being made for both Poser and DAZ each month. Even Vue still manages to add a must-have to the Cornucopia store roughly each month, although that's mostly own to one veteran content maker.

JP: Dogs. I would love to see some updated dog models. The old Millennium Dog is great, but it is showing its age. With the release of "HiveWire House Cat" it's become clear that we need something more modern. It would be great if it handled more breeds and the LAMH hair plugin in its new form of the LAMH 2 iRay Catalyzer.

DAL: I see that you were quick to get and test the new Genesis 8 Male. What are your thoughts on the Genesis 8 line? Especially the improvements in the facial muscles, in terms of adding more expressive character to the face.

JP: The Genesis 8 line seems *very* interesting. The biggest improvement to me is the ability to use assets from all the other generation figures. I only have the Genesis 8 basic male and female essentials and was able to use stuff I already owned to get working with them right away.

DAL: That's great to hear. I think it's probably a bit offputting for many when a new figure comes out and suddenly there's a dozen scripts and plugins to "make it work with the old stuff". Many casual users must think from that, that it's going to be all fiddly and frustrating.

You're very knowledgeable about the technical and plugin aspects of working in DAZ Studio. What would you say are the top three must-have add-ons for the software, especially for those who want to make science fiction art?

JP: My new favorite is "LAMH 2 Iray Catalyzer". Look at My Hair was always great, but to get it to work with iRay was a too complicated. LAMH 2 Iray Catalyzer changes all that. It is simple to use and amazingly powerful. Hopefully it works with more figures in the future, but it's off to an impressive start.

DAL: Yes, that's only just appeared, and I think there are updated LAMH presets for people who purchased LAMH animals, waiting for download on their DAZ store.

JP: The other plug-in I use all the time is "Animate 2". It is also deceptively simple to use and more powerful than I ever realized. Not only is it a must-have for animation in DAZ Studio, it also works well in giving variety to posing for static images. I just used it to create a group of soldiers and all I had to do was move the frames to give them each unique poses. Hopefully it will be updated to work better with the newer generation figures.

The other must have is "UltraScatter Advanced Instancing for DAZ Studio". It is the closest thing I have found to Carrara's Surface Replicator feature. Say you need a forest, UltraScatter can do it. Need an army of thousands? UltraScatter can do it without blowing up your machine. I have only scratched the surface of its capabilities and need to play with it more often.

DAL: Do you use a render farm? Or do you have one under your desk? Because, looking at your Gallery, I just think: "wow, his PC must be red hot, with all of that rendering...".

JP: I only have an Intel i7 Core 3770k PC, with an NVIDIA GeForce GTX970. It gets the job done for most things, but I could always use a better machine and graphics card. Thankfully the latest version of iRay renders much faster and takes less resources than earlier versions.

DAL: That's good to hear. I think I'm still running on 4.8, and just need to find the time to upgrade and tour the new features and figures. Perhaps 5.0 will be out by that time! /*Laughter*/

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Picture: "Pesticide".



DAL: What is your overall studio setup today, in terms of both hardware and software?

JP: My studio hardware setup consists of the PC I mentioned above, but also an old Mac tower. I use the PC for most things and my Mac is slowly becoming just a coding machine. I use Adobe Creative Cloud for all my graphic design and video work. I use DAZ Studio and Carrara for most of my 3D work. Lately I have been using “Element 3D v2” to get my DAZ assets into Adobe After Effects so that I can animate them quicker.

DAL: Interesting. And what’s the view from the studio window like? I understand you’re in Phoenix Arizona. And does the landscape in that part of the world inspire your art?

JP: The skies in Arizona are amazing, though the view from my studio window only looks out on my backyard garden. Our sunsets have an amazing array of colors in them. Also the desert landscape is a lot more varied than most people think it would be. There’s a wide variety of plants and when it *does* rain everything turns green. There is also a surprising amount of wildlife, even in the city.

DAL: Tell us more about DAZ Carrara and its possibilities, please. I think readers will be curious about that. Obviously it has the ability to import all the DAZ characters, even Genesis 3 I think? And I know it now has a new Lux-based render plugin, akin to Reality, so it can compete with iRay and Poser’s SuperFly.

JP: DAZ Carrara is still my favourite program. It has the power of many higher end programs but at a much lower price. Plus it can use most of the DAZ/Poser assets natively.

Additionally it has that great modeller, which I mentioned earlier, that handles most of all my everyday needs. It has a marvellous landscape, sky and environment creator. I have to mention the built-in ‘element primitives’ like fog, clouds, fire and oceans. Then there are the modifiers that you can apply to any object to animate, constraint and morph to your hearts content.

Its animation capabilities are amazing. The physics based animation is some of the best I have ever used. Its ability to use Nonlinear Animation (NLA) clips is so versatile. Add Mimic Pro for Carrara to this and the lip-syncing capabilities are amazing. It allows for fine-tuning of the phonemes [lip shapes made when speaking] and does a great job out-of-the-box too. Its lighting capabilities are fantastic. Not only do you have all the basics, but every light has effects such as volumetrics and flares built in. Its built in renderer creates gorgeous results without the need *anything* extra. But yes, you can add the “LuxusCore Carrara” plug-in to get super fast LUX PBR rendering. It’s even fast enough to make LUX rendering a viable solution for animation.

DAL: Wow. I’m burned out on the idea of animation these days — way too time-consuming if you’re trying to tell a story — but that sound interesting for demo clips.

JP: With products like “CarrarActors, Janette and Johnathon for Genesis 3 in Carrara 8.5” by MistyLaraPrincess, we can now use Genesis 3 figures in Carrara. It also looks like the great Carrara community is working in getting Genesis 8 figures to work too.

DAL: That’s great to hear. The community does a great job adding the wanted interoperability. For instance, Poser 11 can import Genesis 1 and 2 with no problems via the free DSON plugin, but with community support Genesis 3 and 8 also have a viable workflow to get them in.

JP: I am disappointed in DAZ in that they haven’t yet updated Carrara to work with these figures natively or added iRay support. There are a lot of loyal users out there and they would have a lot more if they updated it to use the latest assets and technology DAZ is developing.

DAL: So would you recommend DAZ Carrara, as a step up for someone who tried DAZ Studio but wants more? A copy of Carrara 8.5 is \$150 at present, though I think it occasionally has a discount in the sales periods.

JP: I would definitely recommend DAZ Carrara to someone who tried DAZ Studio but wants more.

DAL: Great. You have a great love of animals, as seen in your gallery. Where does this love come from?

JP: I have just always loved animals. The animal products available now just let me share this love.

“DAZ Carrara has the best option for adding fur to animals. It has an actual dynamic hair system.”

DAL: I see. Could you tell us more about your opinions of the various options that people have for adding fur to animals. Is DAZ Studio + Look at My Hair (LAMH) the best option? What are your opinions on other possibilities too, such as Poser’s hair capabilities, and of course simply Photoshopping on the hair afterwards with fur brushes?

JP: DAZ Carrara has the best option for adding fur to animals. It has an actual dynamic hair system. I have only used Look at My Hair in DAZ Studio, so I can’t say much about the other options. As I said before the LAMH 2 Iray Catalyzer is a major improvement for adding fur to animals with Iray. It’s simple, fast and the results are gorgeous. It’s still in early development and only works with Alessandro_AM’s models. Hopefully this aspect will improve soon.

DAL: There certainly seems to be enough of sales and user base to justify other vendors starting to offer LAMH presets. What’s your own step-by-step workflow, on a character portrait, with advanced lighting and postwork?

JP: I tend to stay with the basics. I usually start with a three-point light setup (key light, fill light and back light). Then I like to add an eye light to give the figure some life if it is needed.

Sometimes I use coloured lights to change the mood. It’s a lot like how a portrait photographer works. I tend to make all my lights using emitter materials on a plane.

I always colour correct in Photoshop by applying a black and white adjustment layer and then adjusting the curves and levels adjustment layers until they look the way I want them. This allows me to look at the value levels without color getting in the way. Then I adjust the curves layers RGB channels with the black and white layer turned off for colour correction. I always use an adjustment layer to keep things non-destructive and to have the ability to change them later. Things always change later.

The best thing I could suggest for a beginner is to get a light product made by a professional, from whichever store, that you like. Then rip it apart to see *what they did* and experiment to see what works and what doesn’t.

DAL: What are the three most important aspects of “lighting for character” to a newcomer learn, would you say?

JP: The eye light is the thing I wish I learned about earlier. An eye light — also called the catch light — is a light source that causes a specular highlight in a subject’s eye in an image. We take it for granted since every movie and photograph uses it, but not a lot of people notice it until its missing. I don’t know exactly why, but it gives the character the illusion of life. I like to just make a torus-shaped 3D primitive prop with an emitter material and attach it to the camera front. This allows the light to *always* get reflected in the eye no matter where the camera is positioned.

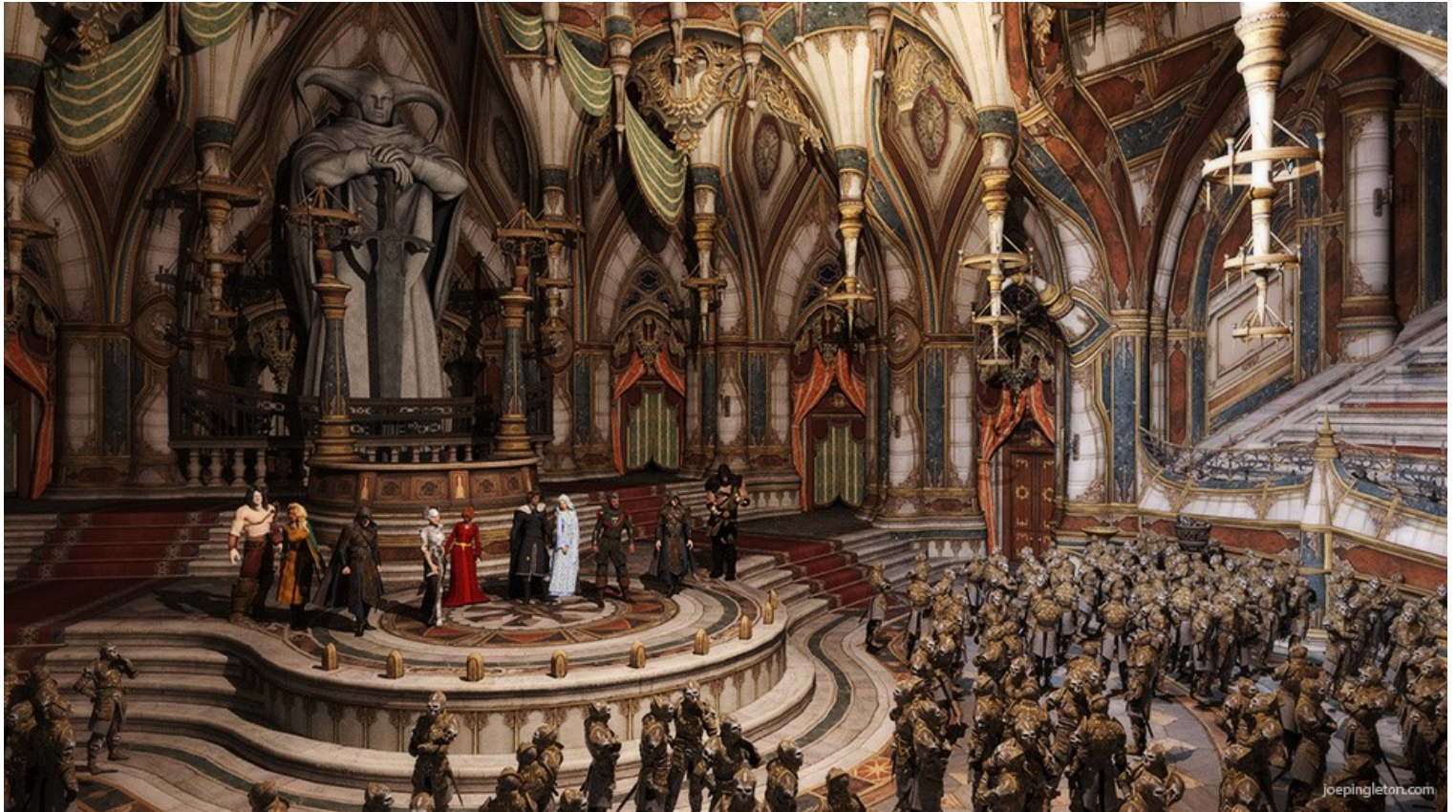
DAL: A fine tip, thanks. As well as science-fiction you obviously have a great love of the fantasy genre and fantasy worlds. Apart from *Game of Thrones*, what’s inspiring for you in the fantasy genre?

JP: I am a science fiction nerd at heart. *Star Wars* and *Star Trek* shaped my youth. I also love the fantasy genre. Maybe it’s my love for

Star Wars that puts me squarely in the sci-fantasy or fanta-sci camp. I read and watch a lot of things, so inspiration comes from everywhere. In the fantasy genre I am very influenced by Robert E. Howard's *Conan*, H.P. Lovecraft's works and lately I have been reading a lot of Jim Butcher's "Dresden Files". Of course there are also the grandfathers of the genre such as the Brothers Grimm, J. R. R. Tolkien, C. S. Lewis and Edgar Rice Burroughs.

The biggest inspiration to me lately is all the great art being created on DeviantArt and indeed all over the Internet. So many creative people and communities have influence now, thanks to the Internet. It's nice to talk to other artists and see what they are thinking and doing.

DAL: Your recent picture "Hall of Heroes" is amazing. Could you talk readers through the making of that picture, please?



DAL: Who are your favourite science-fiction, space and fantasy artists?

JP: Frank Frazetta is my absolute favourite. I saw his work when I was young and it made a big impression on me. This also means that Boris Vallejo's work is another favourite. Being a fan of 80's movies also means Drew Struzan is a major influence. Wayne Barlowe's work with alien and fantasy creatures blew my mind. Brian Froud is another master. I obtained the *Art of the Dark Crystal* book at a kid and tried to copy *everything* in it. I also had a copy of the *Art of Star Wars* by Ralph McQuarrie and devoured everything he ever did afterwards. There are so many others, but these are the giants to me.

JP: It was one of my daily experiments. I found the awesome free 3D model "Summoner's Cathedral Of Sorrow" and had to try it out. First I used the "Architectural Lighting Rig for iRay" to try and light the large space. It was a *lot harder* than I anticipated. I gave up and picked a camera angle that showed most of the model and just tried to light that section. Once that was done I thought "How am I going to *fill* this large space?". I had been playing with "UltraScatter Advanced Instancing for Daz Studio" and thought a bunch of medieval knights might do the trick. I thought that I needed to use an M4 figure to try to keep the poly-count down and so I decided to use Xurge3D's "Lord of Darkness Armor for M4".



I then posed four figures in different poses and used UltraScatter to distribute them on a plane with a distribution map. Since this was just a test and wasn't going to be rendered too big, all the repeats wouldn't be as noticeable. After the crowd was in the scene I needed some characters for the stage. I used every piece of "Fantasy clothes for Genesis" to populate the stage. I used the Genesis figures because I had more clothes for them and the poly-count wasn't *too* bad. I tried to vary the characters, poses and clothing, since they were the showpieces. Then I just rendered it in DAZ with iRay. I was hoping that that it wouldn't burn up my machine — thank goodness for instancing! It only took a little over an hour to render at 960×540px. Finally I colour corrected everything on Photoshop. I was surprised that it became one of my most popular images. It just goes to show you can never tell what people will like.

DAL: I see. And since you have so many animal pictures, I should probably also ask about your favourite animal artists.

JP: My grandma wouldn't have a painting in her house unless it was of either Jesus or an animal — preferably a horse. So I grew up with a love of animal artwork. The funny thing is I couldn't name any of the artists.

DAL: Do you think there's a knack to getting an animal to 'have character' in a picture? What tips would you give someone who's got a LAMH animal and the preset, and is now wondering what on earth to do to give it a sense of character?

JP: The *eyes* are the key to character in an animal. They have to feel alive. Even a slight squint can change the mood. Brows also help convey emotion. Body language also plays a big part. Thankfully most of the animal models come with preset poses to use as a starting point. I find posing animals harder than posing humans.

DAL: Are there any new sorts of animals you might like to work with?

JP: I really want a good dog model with hair. The dog is the most popular animal as a pet, today. There are so many possibilities for dog pictures. The sheer number of breeds increases this even more. Plus, puppies are so darn cute!

DAL: Where do you see your work going in the future? Do you see any new trends creeping in?

JP: I'd like to take some of what I have been learning and create an animated short film. I need a story and have to learn much more on the character animation side of things. I have a bunch of ideas, but my skills haven't caught up with them yet. The trend toward photorealism will dominate movies and games in the future. You can already see its impact. So many people play videogames and watch movies and have come to expect a high level of CGI. They dismiss anything less than perfect very quickly. The graphics of the early days of 3D that we thought were ground breaking are now laughed at. It's amazing that the tools to do photorealistic work have reached the general public. I see it going the way that photography has evolved into since everyone now carries a camera in their pocket. It will soon be taken for granted that quality 3D just happens automatically. The nice thing is that it also means that we can focus less on the technology and more on the ideas.

DAL: Yes, I think that's true, for the mainstream audiences. But I think we'll equally see the ability to make 3D look like hand-drawn / painted 2D. Convincingly so, which is the key. That will become just as common, though probably less used in the mainstream.

Well, thanks so much for this in-depth interview. It's been great. We've obviously only really shown your portrait work here, and a fraction of that, but readers can rest assured that there's a great deal more types of art to see at your online gallery at DeviantArt.

JP: Thank you for listening to my ramblings and for allowing my work to be seen by a larger audience. I hope they find something that makes them smile.

Picture: "Moonlight Rendezvous".



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