CG GARAGE PODCAST #262 | OLCUN TAN OWNER, GRADIENT EFFECTS/SECRET LAB

Frustrated with working at visual effects companies, Olcun Tan started his own. He reveals the de-aging secrets of some of the huge projects he's worked on.

Originally, Olcun Tan wanted to be a car designer — but seeing *Jurassic Park* ignited a passion for VFX. Today, he runs Gradient Effects, a global studio that has provided effects for *Game of Thrones*, *Watchmen* and *Stranger Things*. Olcun's career has been defined by finding his own solutions to problems — whether it's creating procedural effects in Maya, using forbidden programming languages at animation studios or setting up his own businesses.

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Chris Nichols	This is very exciting. Thank you for making your way over to Culver City. Where are you guys? In Santa Monica or-
Olcun Tan	We're actually in Playa Vista.
Chris Nichols	Okay.
Olcun Tan	Where the Google building is. The big one. Yeah.
Chris Nichols	Yeah, the big-
Olcun Tan	Where all the tech companies are now, like Yahoo is, or used to be, I don't know, I have to double check.
Chris Nichols	Riot.
Olcun Tan	Riot.
Chris Nichols	Right?
Olcun Tan	Yeah.
Chris Nichols	Riot is over there now, right?
Olcun Tan	Exactly.
Chris Nichols	Digital Domain's not far from there.
Olcun Tan	No, we are right around the corner.
Chris Nichols	Yeah. Okay.
Olcun Tan	Five minutes from them.
Chris Nichols	Right, right, right. Okay. That's interesting.
Olcun Tan	Yeah.
Chris Nichols	All right, so let's talk about how this all started. So first, let's go to the backstory. You said you're from Germany, right?
Olcun Tan	Yes.
Chris Nichols	You're German.
Olcun Tan	Born and raised.

Chris Nichols	Born and raised in Germany. I've had several Germans on the show that have come through in the visual effects world. When I first started in visual effects, I sat next to Rainer Gombos at DD.
Olcun Tan	Right.
Chris Nichols	Reiner and I were talking and we were talking about all these Germans that got into visual effects, and there's a lot of them in Los Angeles. So what's your story? How did you get into it?
Olcun Tan	Wow. Okay. I started out, it sounds crazy, in 1993, two.
Chris Nichols	Okay. Around Jurassic Park time.
Olcun Tan	Yeah, that was one of the movies which I have seen, and I was blown away by because I always wanted to be actually a car designer.
Chris Nichols	Oh right.
Olcun Tan	Because I'm from Frankfurt.
Chris Nichols	Frankfurt. Okay. I was going to say, you're either from Frankfurt or Stuttgart, right?
Olcun Tan	Frankfurt, Stuttgart, Berlin or Munich. And in Frankfurt they always had international car exhibitions. It was called IAA. There would be all the latest cars to see every two years. I would go there as a kid. And we would be mesmerized by these new cars each year. That was the thing to do. And I loved cars. So I always wanted to be a car designer. And then when I saw Jurassic Park, by then I already was playing around with 3D software, trying to get into designing stuff. And then I saw things suddenly moving in 3D. That just blew my mind. Then, I just got hypnotized and then from then on I'm like, "This is what I'm going to do."
Chris Nichols	Okay. So you decided that's what you were going to do, but there must be a transition between that decision-
Olcun Tan	I was still at...
Chris Nichols	You were still at school that period?
Olcun Tan	I was still a student. Yeah. I was still at school. And I was then starting to look around, where can I do this? And there was the film academy in Stuttgart, and I applied, and it didn't work out for me. And I'm like, "I'm not going to give up." And then I looked for a company which was near Frankfurt called VideoComp. They had an SGI sitting there.

Chris Nichols	Oh, nice. Yeah.
Olcun Tan	And it was one of these machines back then, you had to do 3D, because everything else was incapable of running productively. And how do you get onto that machine? That was this big question mark.
Chris Nichols	You get a job as an intern or something?
Olcun Tan	Yeah. But they were not looking for one, so I had to convince them they needed one. So I was calling them and really pestering them. "Hey, I want to be working for you. I want to learn this. Can you just hire me? You don't have to pay me. I will just show up and do whatever you want me to do, just to earn the right to sit on this machine." And I did, and I went there, and I had to do cables, clean things, and eventually... They made it, of course, not easy because they had other people who were in front of the machine. And they would tell me, "Well, before you can use the machine, you need to know how to use UNIX." And I'm like, "Okay, great. So it's not going to be easy to get to the level where somebody is willing to let you use the machine."
Olcun Tan	I had to prove to them that I can operate the machine outside of using 3D, like a systems guy. So I started learning UNIX, and this and that. And eventually I got the chance to run the machine.
Chris Nichols	It was IRIX, actually.
Olcun Tan	It was IRIX.
Chris Nichols	Yeah.
Olcun Tan	And I had to also install-
Chris Nichols	What were you using on the... Were you using Softimage?
Olcun Tan	I started with very much. It was also the time-
Chris Nichols	Or Alias, probably.
Olcun Tan	It was Alias. Yeah. And they were also distributor back then for LightWave on Amiga.
Chris Nichols	Okay. Oh, wow. Okay.
Olcun Tan	They had that, too. And MAXON was our next door neighbor.
Chris Nichols	Oh, right. Okay.

Olcun Tan

That wasn't all that was in this building. It was on the left-hand side there was VideoComp, in this white building, and on the right-hand side there was another white building, that was MAXON. That was the German company, very much, who was doing Cinema 4D back then and is now a big deal.

Chris Nichols

It's now a big deal.

Olcun Tan

Back then it was infancy.

Chris Nichols

The start of. Yeah.

Olcun Tan

And it was a good software, but it wasn't well known like it's today.

Chris Nichols

No. Absolutely.

Olcun Tan

And so that's a small CG corner in Frankfurt, where technology was invented next door and I was sitting there at VideoComp. VideoComp was selling these big SGI Onyxes. Back then these machines were, what, $2- or $3-million? And they would sell these machines to do weather casts. That was insane.

Chris Nichols

The big ones, the big refrigerators?

Olcun Tan

Yeah, they are like refrigerators.

Chris Nichols

The purple refrigerators. Yeah.

Olcun Tan

Oh, yeah, yeah. And you could chain them together.

Chris Nichols

When my wife first learned Flame, she was doing it on one of those big purple refrigerators.

Olcun Tan

And then we had the Indigo, I can remember that one. It was like a coffee machine. That was one of the machines I started working on.

Chris Nichols

Same here.

Olcun Tan

It would sound like you're cooking coffee all day long. It was really funny. And no OpenGL shading. All wireframes, so you had to quickly develop a sense for how lines look like. And you would constantly use the mouse to rotate your window-

Chris Nichols

So that you could try to get some sense of parallax-

Olcun Tan	Sense of parallax, as the line laced behind the front line. So that's how 3D was. And super slow. And of course polygon wasn't the preferred way on the software like Alias. It was all NURBS spline, and I found myself quickly in the situation where the industry was so young that I would go and teach other people who were clients of VideoComp. And then sometimes production companies would borrow me out. They bought the technology, but they'd had nobody to operate it or use it and to execute their vision of their clients. So they would buy the equipment and then they would also ask, "Do we have somebody who can do the work? Now we have the hardware, but we don't have anybody who can use it."
Olcun Tan	And eventually, doing this for a couple of years, I met people at NewTek, because I also was then teaching LightWave for a little while, when they were doing the transition from Amiga to Windows. And to the DEC Alpha Windows. And for the first time they had LightWave running on the IRIX, on the Indy.
Chris Nichols	Right. Oh, did they really have LightWave running on an IRIX machine?
Olcun Tan	Yes, they did.
Chris Nichols	Interesting.
Olcun Tan	And that was actually running pretty cool. I mean, I thought it was a really cool application next to Alias. Alias was very hard to model with because of NURBS, especially organic characters.
Chris Nichols	Well, I learned on Wavefront, which was even worse.
Olcun Tan	Just the interface?
Chris Nichols	Yes.
Olcun Tan	Like typing.
Chris Nichols	Like typing the cube. X, one, five, seven, oh my God.
Olcun Tan	Exactly.
Chris Nichols	Yeah. It was horrible.
Olcun Tan	Maya still has that little window which is left over from Wavefront.
Chris Nichols	Mm-hmm.

Olcun Tan	And yeah, and eventually I met them doing this, then helping production companies, commercials, I eventually made then the full transition into production. I was still... When was it? '96, I just turned 20. I mean, I was a little kid running around doing this high-end thing on these $300,000 computers, and then I ended up, in '97, I went to my first SIGGRAPH. Actually, NewTek invited me over to be one of the demo artists at SIGGRAPH '97.
Chris Nichols	'97 was in LA?
Olcun Tan	It was in LA. Back then it always was in LA. It didn't have different-
Chris Nichols	Yeah, but there was a couple of New Orleans and things like that.
Olcun Tan	I think that came afterwards.
Chris Nichols	Right.
Olcun Tan	I might be-
Chris Nichols	Well, that was definitely in '97. I was at that SIGGRAPH.
Olcun Tan	Yeah. Yeah.
Chris Nichols	I think my first one was '95, so I was pretty close to you.
Olcun Tan	Yeah, pretty close. I'm two years later, that was my first and I was so-
Chris Nichols	That's a big trip, to come all the way from-
Olcun Tan	I just didn't know what... And I came all by myself. I had nobody.
Chris Nichols	Wow. Okay.
Olcun Tan	So I was here.
Chris Nichols	You came on a whim?
Olcun Tan	I was by myself, knowing I'm going to do some demo work for NewTek. You know, on their stand, which I was doing. And then at the same time I had interviews with Imageworks back then, here and there, but they all said I'm too young.
Chris Nichols	They didn't say that. They said, "You don't have enough experience." That's what they probably said.

Olcun Tan	Yeah.
Chris Nichols	Right.
Olcun Tan	That's probably what it meant. And then I got back to Germany and I did a show called HeliCops.
Chris Nichols	Okay.
Olcun Tan	Also all on SGIs. That was done in Babelsberg. HeliCops was the first major CG TV show ever done in Germany, where you had CG helicopters flying around.
Chris Nichols	Was that done with... You said LightWave?
Olcun Tan	No, that was all on Alias.
Chris Nichols	It was all on Alias.
Olcun Tan	Yeah. That was the crazy part. I mean, it's all NURBS models. So you had to be really good at NURBS modeling. Surface layouts, which I call. And you had to plan everything out properly. Animation was all done in it. The rendering was all done. And it was a small crew, Hartmut Engel was part of it, one of the CG supervisors who did Independence Day. And he very much also helped me get the job back then.
Olcun Tan	We worked on this show for like six months in Babelsberg. Completely run down back then. The wall was down seven years. Not even six years. So everything is still untouched, the way it used to be in East Germany. And it was slowly like, things were starting to move from Babelsberg, it was regaining. You could see, it's like an elephant coming back up to life again. And so we were in this run-down building a company had rented, but they had this high-tech equipment, they had Onyxes and all that.

The Thirteenth Floor

Olcun Tan	I was in my element. I have all the things. Right after that Hartmut... You know, you always have a mentor when you're starting out. Hartmut was one of those people for me. He then got a job offer, since he worked on Independence Day, to go to Oberhausen, and there they were doing a project called The Thirteenth Floor.

Chris Nichols	Right. Volker did that, didn't he?
Olcun Tan	Volker, not really. He wasn't involved in the sense of-
Chris Nichols	The Thirteenth Floor was the... Yeah, I remember that movie.
Olcun Tan	It's a Roland Emmerich movie, but he was more producing it. He wasn't directing it, but he was a creative advisor, and Marco Weber was the producer. Okay. He did also, Igby Goes Down, and he was actually spearheading the whole thing. And Oberhausen had promised to give them... I think they got some financial support. That's why it was then at the end. And they had, for the first time in Germany — you have to imagine this is a very small town and they are sitting in this high-tech building. Onyxes, SGIs, insane, and it's empty. So that project was meant to be getting life into this investment. So we all moved into the small town.
Chris Nichols	How big? I mean, what was the population approximately of this town?
Olcun Tan	It's not big. Oberhausen, if you Google it, it's a really small town.
Chris Nichols	Interesting.
Olcun Tan	I mean, it's in this area where Dusseldorf is and it's close also to the Netherlands. That area. And it's a really small town.
Chris Nichols	Western Germany?
Olcun Tan	Yeah. But Roland was interviewing people for the show, with Marco, in Cologne. That's where they were set up in this hotel and Hartmut Engel said, "Hey, I'm going to go there and I'm going to suggest they interview you as well." So we went there, we had our interviews, and I found out later that Marco Weber, the producer of the movie, very much hired me because he was intrigued that I was such a young kid showing up on the interview like that, whereby the other team members were not quite so convinced and he had overruled them and hired me into the team, because he saw something in me. And we are still friends. He told me the story years later. And he very much gave me my chance to show what I can do.
Chris Nichols	Interesting.
Olcun Tan	So that's how I started then working on my first feature film.
Chris Nichols	Right. So 13th Floor.

Olcun Tan	You know, it's knowing the right people at the right time. And it's sometimes just fate.
Chris Nichols	It's a little bit of talent, too.
Olcun Tan	That probably helps.
Chris Nichols	Yeah, of course it does.
Olcun Tan	But I think back then, it's motivation. When you have motivation, you want to do something so much that talent maybe reflects to the outside world. That intention transforms into talent eventually, I think. And so I ended up working on the show, and I was in charge of doing the opening sequence, where the tram goes by, with a full-CG hotel. The hotel was miniature, but the trees were all full CG and that was done in the first version of Maya.
Chris Nichols	Wow. Okay.
Olcun Tan	Beta version. So we had Maya-
Chris Nichols	Maya 1.0.
Olcun Tan	Not even, it was completely beta. It didn't even-
Chris Nichols	It wasn't Windows either?
Olcun Tan	No. It's all IRIX, and all typing still. The old interface wasn't completely developed like we know it today.
Chris Nichols	Maya was the merger of Alias and Wavefront, right?
Olcun Tan	Exactly right. And then we were using Alias to model. I had Studio Paint to texture paint, because Studio Paint is now called Sketch, I think. But you could bring in your 3D model and then you could already paint on it. It was like '97, '98, and if you think today it's normal, back then it was really unique.
Chris Nichols	And revolutionary. Yeah.
Olcun Tan	Yeah.
Chris Nichols	Painting on 3D was a pretty big deal. Yep.
Olcun Tan	So we had Studio Paint, Alias and the first beta version of Maya. In the beginning, I disliked Maya because it was very limited. But soon it turned out it was very powerful because it has this particle system which came

from Wavefront, and you could write much more complicated expressions, and you could code stuff, automate stuff. So I found myself quickly in a situation where we had this motion control downstairs for our miniatures and I had to do tracking with equalizer, and then take that data and turn that into motion control movements.

Chris Nichols   Movements? So you could take your data from Maya-

Olcun Tan   Yeah.

Chris Nichols   ... and take it to the motion control?

Olcun Tan   Motion control. And then also program the motion control where we had the laser pen on the control arm to position and point with the motion control head where the models need to be in 3D space. So we could place them like we had the delay outs in CG, so that we can replicate very much the position, how high the model needs to be off the ground. Because this was like an oil rig field, and it was not a planar, a plane. So the models had to be arbitrarily spaced, like position and space in the studio.

Chris Nichols   That's cool, though, the miniature stuff like that, too.

Olcun Tan   I found myself quickly out of the need of the project, doing all these different things and gaining all that experience very quickly.

Chris Nichols   That's awesome.

Olcun Tan   And I had great mentors, too, though. I mean, I had good people who were very helpful and pointing me in the right direction and helping me learn. There was our motion control guys. There was Joachim Grüninger. We did the Patriot later on together, for Roland as well. And he is a great motion control miniature VFX supervisor.

Chris Nichols   Interesting.

Olcun Tan   I learned a lot from them, especially from him. And Joe Bauer was also one of the VFX supervisors on The 13th Floor. And that's how I met Joe Bauer for the first time.

Chris Nichols   Interesting. Yeah, that's pretty cool.

Olcun Tan   So that was the early days. And then I got a job offer from Das Werk, because they were setting up a feature film department and they expanded really fast. They bought up a lot of companies in Germany back then and they were very much in every city. And they were doing German movies first and then the German European co-production deals, they found themselves on a project called Enemy at the Gates. And for that we

rented a not-functioning gas station in Dusseldorf, and set up a VFX facility there because the state was financing it. Giving tax credits so that the work had to be done there. So what they did is they very much shipped us into this different city where we had no friends, nobody we knew and had to start very much a new life for the period of the project.

Chris Nichols   Wow. Okay.

Olcun Tan   And that's how I met Peter Chang, because he was the overall VFX supervisor over at Double Negative. We had someone from The Mill over there who was with us doing compositing. Back then it was on Shake. And I was the CG supervisor, so to say, for Das Werk. And then we started writing tools for how glass can break. We wrote a whole C++-based system where you have falling glass in the movie, and how it breaks into pieces and into sub-pieces. That was us playing around and coming up with these ideas. I'm mentioning that because eventually that turned into tools I used at Mill Film on Tomb Raider and Black Hawk Down. There, after we were done with the movie, I had this British guy very much telling me that Mill Film is hiring and I should-

Chris Nichols   You should go to London.

Olcun Tan   And I should give it a go. "They need talented people," he said, and I'm like, okay, London. Should I? I don't know English. It's all so different. Why not? That sounds to be the right thing. And they just had also done Gladiator. In Europe, they were, I would say the VFX house who was doing the closest thing to what Hollywood was doing. So instead of moving to LA, that was like, "Hey, plane flights are two hours. It's manageable."

Olcun Tan   I got the job over at Mill Film, and then found myself working with a whole group of young people. We were all about the same age. Because London was just developing. It wasn't really in place.

Chris Nichols   Yeah. It was still young.

Olcun Tan   We all were young kids.

Chris Nichols   What year is this, approximately?

Olcun Tan   Let me just think. This is now 2000 to 2001, somewhere there. And they were working on Tomb Raider when I came in. And I was so excited. This character, RenderMan. We were on Windows at that point because I think SGI was already no longer the relevant-

Chris Nichols   Yep, it was gone.

Olcun Tan	It was all Windows Intergraph machines. So they were all now Intergraph machines at this point. And we hated windows. So everybody had a UNIX shell installed so we can continue using UNIX shell, because that's what we would use at this point. I ended up, because I had done the breaking glass for Enemy at the Gates, taking all these ideas and writing a plugin for Maya, in C and C++, for Tomb Raider, how all these stone characters are falling in these pieces. Fully procedural. But we modeled the pieces back then. All in NURBS.
Chris Nichols	You modeled it completely broken up.
Olcun Tan	Yes. And I had a friend who is a fantastic character designer today. His name is Nick Lloyd. He was sitting next to me.
Chris Nichols	I know Nick.
Olcun Tan	Nick is a really good friend. We spent, I would say in the trenches together.
Chris Nichols	Nick, Nick, he was at DD.
Olcun Tan	He was at DD.
Chris Nichols	Yeah. I know Nick very well.
Olcun Tan	He's a really good friend. We became really good friends since then.
Chris Nichols	Oh right. Yeah.
Olcun Tan	Yeah. And because it was all done in NURBS, so we would have scan models from the creatures, he would then go back in and then remodel the whole thing in NURBS. It was like texture reprojection for displacement maps so we can get the details back. It was a whole insane process.
Chris Nichols	I did something similar with him on I, Robot. On I, Robot we were breaking up and doing the damage levels for the robots and all this different stuff-
Olcun Tan	Okay, cool.
Chris Nichols	... and cool texture exchange.
Olcun Tan	Yeah.
Chris Nichols	Yeah.

Olcun Tan

So while he was doing that, I was writing this tool where you could select an arm of the character and then it would build you an arrow where the impact point comes from. You could rotate that and if you release it, it would then set up-

Chris Nichols

The explosion.

Olcun Tan

The explosion, and it would put in the time and the input values. And then if you hit simulate, it would run the simulation and you would have your character break in pieces and in smaller pieces. The only comparable thing we had seen was The Mummy back then. It would crumble. And so we were now doing something which we thought, ourselves, "How are we going to do this?" And we were making it a reality just by believing that we can do it. That was the first project over there, which I was being thrown into and I found myself developing this tool.

Olcun Tan

It was not like somebody assigned me that directly. It was really like, "I think I can do this and I'm going to do a test." And I did the test and then people saw the test. My supervisor, Karl Mooney, was supervising the show. And once I presented him what I was doing, he became really supportive of it.

Chris Nichols

Nice. Nice, nice, nice.

Olcun Tan

And they gave me the freedom to continue. And then, eventually, we did this whole sequence where Angelina Jolie is destroying these characters and pieces. And this was in 2001 and there was nothing like that. Right? I mean, Houdini couldn't do that. You know? And we had Houdini artists in town when we would go out to the pubs. Of course, if you are a young kid, a little bit like, "Yeah, I did the..." Proud about your stuff. And it's your first achievement. Right? And we would have Houdini artists asking us, "Hey, how did you guys do that?" And you're like, "Ha, ha, it's all in my... We write our own software." Which we did, but it was feeling good that you could do something.

Chris Nichols

Sure, sure, sure. Especially Houdini people who are always doing the effects anyway.

Olcun Tan

Exactly. It's always done in Houdini. And there you are, you have done something in Maya which Houdini can't do.

Chris Nichols

If you'd done it in Max, you would have just pissed everyone off.

Olcun Tan

Probably. I don't know. So that was actually cool. And then what happened is the next project was Black Hawk Down. There was a helicopter crash going on. And because of the tool I had developed for

Tomb Raider, it turned out to be a perfect application for these auto blades hitting the ground. And since I also had programmed the motion control in Germany at Enemy at the Gates, I had a good understanding of how to now combine simulation, motion control and model movers.

Chris Nichols   Oh, right. Okay.

Olcun Tan   And Tim Burke, who was the overall VFX supervisor, and Emma Norton was VFX producer for Mill Film, we were discussing the sequence, how we can do it and he empowered me very much to be very much his assistant throughout the shoot. And then later on we were working together on how to do the simulation. And how to put that onto the motion control rig. So I was with Tim throughout the whole process. And then later on, even in the studio, I was combining the motion control now with the results, then again with the CGI. Mill Film was the place to be for me. But then after that they closed because they decided that film is not the place to make money with.

Chris Nichols   Right. So they focused on commercials.

Olcun Tan   They then pulled completely back. And I thought, "We were doing so great. I'm working for my dream company. We are building something here in London, which hasn't been done before. We are all young and motivated." And then it just got shattered. So I found myself now looking for another job. Londoners can be competitive because most people were very young when this all happened, we were all in our twenties, and different companies had different... Or early thirties. Different companies had different people who were the core teams, and they would be very protective. So somebody coming from the outside, becoming part of a core team, was always a big deal.

Interviewing with DreamWorks

Olcun Tan   So I ended up working for MPC Commercials. And then I couldn't really find fulfillment doing commercials, and I always wanted to be back in feature film. At that time, I also had DD making me job offers, and DreamWorks, Imageworks. And so that was the first time when I decided, "Hey, I might want to go to LA," because Mill Film is no more, and becoming part of a new core team, it's not that simple. And so I had an interview with Ann Daly. Ann Daly was very much running DreamWorks Animation back then, with Jeffrey Katzenberg, together. She then invited

me over to LA, because they had seen my work or had scouted me out. So some people, headhunters-

Chris Nichols   Once you start doing little weird things like creating your own tools and stuff like that, you start to pop up on people's radars.

Olcun Tan   Yeah. That's what happened. They have real scouts, scouting for that. Between artists. And that's how they found me. And I found myself sitting, very much, first at Aardman Studios one morning-

Chris Nichols   Oh, right. Wow.

Olcun Tan   ... talking to Ann Daly, and she was showing me the artwork of the next animation project, and that also explaining they thought I was a really good fit for effects development, because they thought I can write software, but I'm also artistic, because I can bring both together.

Chris Nichols   Yes, which was a really special skill back then, right?

Olcun Tan   Yeah. And I think it still is.

Chris Nichols   Still is. Yeah.

Olcun Tan   Yeah. And then they called them effects developers, because it meant you are creating the effects, but you're also creating the code to create the effect. So you have to have the vision and the skills to write a code to get what they're looking for.

Chris Nichols   Right.

Olcun Tan   So I ended up then interviewing with Jeffrey. When you interview with somebody like Jeffrey Katzenberg, and you're sitting in front of him, he says, "We want you to work for us," you just say yes.

Chris Nichols   Sure.

Olcun Tan   Again, like, "Okay, what can you say?" I then came to LA, very much.

Chris Nichols   So where were you working?

Olcun Tan   In Glendale.

Chris Nichols   In Glendale.

Olcun Tan   Yes. I got hired into Glendale. Not San Francisco. That was also a difficult time back then because you had PDI just merged with DreamWorks.

Chris Nichols   Right. That's what I was getting at.

Olcun Tan   And they had a little bit of competition going on between Glendale and DreamWorks over the PDI team, which was now all part of DreamWorks. My first task was to work on Over the Hedge. I was in charge of redesigning the foliage system.

Chris Nichols   The foliage. Yeah.

Olcun Tan   Yeah. Because the one they had before, it was more a script and they needed something much more bigger, sophisticated, which can-

Chris Nichols   I think that movie is really funny, and people should revisit that movie because it's really funny.

Olcun Tan   Yeah, I think that was one of the better ones. Yeah.

Chris Nichols   It's a really good movie. I haven't thought about it for a while until you brought it up. But yeah, you guys, go check out Over The Hedge, because it's basically a story about wild animals that live on one side of the hedge, and then domesticated animals on the other side of the hedge. Right?

Olcun Tan   Yeah, exactly. It was a project. But I started missing live action, so after being there for about three years, I was like, "I miss live action. I want to do filmic-"

Chris Nichols   But you've always been in the 3D world at this point.

Olcun Tan   CG. I've always been CG. CG, and then miniature motion control through the other projects I worked on. Then I said to myself, "I want to do my own company before I turn 30, and have kids, and become inflexible. Now it's the time to risk it."

Chris Nichols   So in Los Angeles at this point?

Olcun Tan   Yeah, it's just me and I can't hurt anyone if something goes wrong. Only myself. You know, homeless in LA. I'm going to try it. And so Marco Weber then helped me out. That's the producer who had hired me back in 1998.

Chris Nichols   Right, I remember. Yeah.

Olcun Tan   Who was doing Thirteenth Floor. So he had the production-

Chris Nichols   So he was in Los Angeles?

Olcun Tan	He was in Los Angeles. He has a production company here. So I called him, I would say, "Hey Marco, I need help. I want to do my own company. I need a little bit of support here and there, and can you hire me while I figure this out? Because I have to leave DreamWorks to do this, but you might need help with your current projects." So I started working as this VFX supervisor while he let me figure out how to set up my own company, which I then did.
Chris Nichols	That's really nice.
Olcun Tan	Yeah, he was really supportive.
Chris Nichols	Yeah. That's awesome.

Setting up Gradient Effects

Olcun Tan	And then, end of 2005, beginning of 2006, I eventually set up Gradient Effects.
Chris Nichols	Nice. Yeah.
Olcun Tan	And I didn't know what I was getting into, because working somewhere... Today, I joke that it was like a golden cage.
Chris Nichols	A golden cage?
Olcun Tan	Yes. Because when you run your own company, now it's the jungle. You can get eaten any time by a wild animal. You don't know where it's coming from. When you're working for somebody, especially like a big Pixar or DreamWorks, you have this make-believe world. Everything is great. You're in this cage and you're being protected from the elements outside. But it can happen that that cage can be pulled off anytime. There's no guarantee for it. And it can also, I noticed, make people comfortable. I got comfortable. And when you get comfortable, you stop innovating. And I found out quickly that running your own company or building your own company is super competitive, the competition out there is super tough. And you have to be innovative.
Chris Nichols	Yeah. Honestly, my experience was very similar around the same time that you're talking about. I was at Sony, and it's a huge company. At the

time, there were a thousand people that were working in the facility in Culver City.

Olcun Tan   Yeah, I remember.

Chris Nichols   Yeah, it was crazy big. And there was a lot of, "Well, if it ain't broke, we're not going to fix it." But I came into... I mean, it sounds like I was very much in the same attitude as you. I came into visual effects to do cool new stuff.

Olcun Tan   Yeah.

Chris Nichols   And I wanted to make new things. The whole point of visual effects is to make something you've never seen before. So you have to innovate things, you have to try new things. And it was like, "No, we're just going to retire," you know? And that was not satisfactory to me. That's why I left. So I left and I went to work for a small company that, et cetera, et cetera. But that's a different story. But it sounds to me like you said, "I'm leaving the very comfortable DreamWorks and starting my own company." That's a huge step. Yeah.

Olcun Tan   People thought I'm crazy, because they said, "You're coming all the way from Germany and you have to think about... When you come 15,000, 20,000," I mean, how many miles? 15,000, 20,000 miles?

Chris Nichols   Yeah.

Olcun Tan   To start a new life. You're coming to work for a company who you believe is taking care of you. It's now your guardian, so to say. At least it's how it feels. But then you realize when you work, there's the corporate culture, things are not going fast enough. And I've always been a fast thinker. And I felt so much put into... I would feel like put in a corset. You know, where you can't move.

Chris Nichols   Or a straitjacket.

Olcun Tan   A straitjacket, but intellectually. You're not allowed to do things because it doesn't fit the bigger picture. but I could have been actually really good for the company. I mean, one thing I did is I started using Python at DreamWorks. And I got in trouble for it.

Chris Nichols   Yeah, of course. Because they were using Pearl or something.

Olcun Tan   No, it was called Script.

Chris Nichols   Just Script. Okay.

Olcun Tan   And it wasn't even working. It had no garbage collectors. Nothing.

Chris Nichols   Right, right, right.

Olcun Tan   And so that's why I started using, in this foliage system, Python as the new scripting engine, and I remember I got in trouble for that. That was not a good thing to do because it wasn't Script, in our scripting language.

Chris Nichols   I had to use [inaudible] at Sony to do all the lighting on Ghost Rider, and it was painful. And they were just like, "Well, that's our standard." And it's like, "But it takes forever." "Okay, well you're getting paid so what are you worried about?"

Olcun Tan   That's exactly, that's what... Yeah.

Chris Nichols   No, this is not the right attitude.

Olcun Tan   Yeah. Because we are doing the extra hours, or long hours, because we are motivated. It's not just for money.

Chris Nichols   Right. I know.

Olcun Tan   It's for, we are trying to create something because we're excited about it. We want to break new grounds and stuff like that. So I thought I could probably do that through my own company much more freely.

Chris Nichols   Well, that's great. That's great.

Olcun Tan   But I didn't really know what I was really getting into.

Chris Nichols   Well, who does?

Olcun Tan   But that was the good thing, because if I would have known

Chris Nichols   If you would have known, you wouldn't have done it, you'd have been scared to do it.

Olcun Tan   I would probably not do it. I would have not done it.

Chris Nichols   Okay, well, you did it. So now it's been a while. Right?

Olcun Tan   That's been now close to 14 years. Next year will be 15. Let me just calculate. Yeah, '21 it will be 15 years.

Chris Nichols   Right. That's amazing. That's amazing.

Olcun Tan	But I can tell you, the first 10 years were just hard work. That's why I always joke, building a company, it's like kids. You have a young child. First two years it can't speak. and then it can barely walk and it falls, and you have to always help and get it up, and it's not supporting you, you're supporting it. It's quite the opposite way. And it's about the same timeline too. When they get eight, nine they start to become more sophisticated. 10, 11, they seem to be now-
Chris Nichols	They can do more.
Olcun Tan	They can do more things.
Chris Nichols	More advanced mathematics.
Olcun Tan	Yeah. They can do things independently now. A company is very much the same thing.
Chris Nichols	Yeah. You don't need a babysitter anymore.
Olcun Tan	Yeah. When you do your own company, you are the person who in the beginning has to put so much energy in. And that is the most difficult part, I think.
Chris Nichols	So what were some of the first big projects that your company got involved with?
Olcun Tan	We did projects like The Box. I have to go back quite a bit of memory lane. Our first project was Chocolate, it was called. It was with vampires.
Chris Nichols	Okay.
Olcun Tan	We had our own fluid solver which I had custom developed and it could do cold breath. And that was a unique thing because there were no fluid solvers in any other software. It was a full-on volumetric solver with Mental Ray shaders and all that. We were using Mental Ray back then, until 2010, '11 I think. Even '12. It was all Mental Ray-based at our company. With our custom shaders. Blood & Chocolate, now I got it. That was our first project.
Chris Nichols	It was a vampire film?
Olcun Tan	It was a vampire, yeah, not a big budget. Who was it? I forgot the production company, but it was called Blood & Chocolate.
Chris Nichols	Interesting.

Olcun Tan   Yeah. Framestore was on it, and then we were taking very much
                   secondary effects, just to get in the work and to stay busy. And we started
                   out on Abbot Kinney. Yeah, right-

Chris Nichols   Next to PLF. Probably around PLF, probably?

Olcun Tan   PLF actually gave us the space.

Chris Nichols   And Blur was across the street, I guess, or not far from there?

Olcun Tan   Blur was not far from there. And PLF actually helped us very much in the
                   very beginning. They had these two spaces, one on the right that was all
                   PLF themselves and then one on the left, there was another office space,
                   two floors. They were renting that out and I started with one office in
                   there, and then at the end we rented out the whole building on the left side
                   of it. And then we outgrew it.

Chris Nichols   The [inaudible] at PLF was on this podcast as well. Did you know Ben
                   Proctor as well? He was at PLF for a bit, that's where I met him. I didn't go
                   to PLF but I met him there.

Olcun Tan   I didn't meet with Ben. Help me out with the founder's name. I just, my
                   brain just froze.

Chris Nichols   Green. Colin.

Olcun Tan   Colin Green. Yeah. We go way back because of that. I met Colin in 2006.
                   Actually, he was recommended by a friend and he very much helped me
                   with the space.

Chris Nichols   Interesting.

Olcun Tan   Yeah.

Chris Nichols   Interesting.

Olcun Tan   He didn't have to rent out space but he still rented it out, and that's how I
                   started out. I had one desk which I bought from Craigslist. I had $5,000
                   investment in there and I had a partner. He was also a reason. We had
                   two people when we started out, Thomas Tannenberger and myself, and
                   then he was the effects supervisor on Blood & Chocolate. So that was a
                   little bit the benefit of that, we could do overflow work because of that
                   through Gradient to begin with. And then we did another project called
                   The Box for Richard Kelly. We did like a Two-Face kind of effect where we
                   removed half of the face of one of the lead actors. That was in 2009. That
                   was one of our bigger projects. And then tax credits happened in

Vancouver, and the financial crisis started to kick in. Then the next two years were quite difficult.

Chris Nichols   Really?

Olcun Tan   Yeah.

Chris Nichols   But you managed to stay around, right?

Olcun Tan   Yeah. We managed.

Chris Nichols   So what were things that helped save you through that process? There must've been some shows that just kept your-

Olcun Tan   I mean, it's really persistency, I think. Not giving up. I mean, you always have sleepless nights when you run your own company. It was all the responsibilities. And at the end of the day it's persistence. And I think what really helped us is we can always jump on the machine ourselves. All the way today, I'm always involved in the creative, how we go about a show, how we do things. And develop the tools. But I tend to hire people who get more of the framework, and then they can fill in the missing parts.

Chris Nichols   Right. So that's pretty cool. Well, that's amazing. And almost 15 years. That's pretty good. From a desk from Craigslist and a small office in Abbot Kinney.

Olcun Tan   Now, our second office was The Other Room. Because you have to have a pub where you go, like in London. One thing we took away from Mill Film, or at least I did, is you have to have your local pub.

Chris Nichols   Yes. You have to have that.

Olcun Tan   That was The Other Room for us.

Chris Nichols   Oh, wait. Okay, so you were next to The Other Room.

Olcun Tan   Yeah. We were just around the corner so we would work and then we would go to The Other Room to have our business meetings.

Chris Nichols   Yep. Business meetings.

Olcun Tan   Especially on nice days.

Chris Nichols   When I was at DD and I was supervising, because we'd had several buildings and stuff, and the supes were running around. They gave us

walkie-talkies to communicate and then we would have meetings at the Flame Bay 13, which was the Firehouse.

Olcun Tan   Of course, I know the Firehouse place. You know [Jan Vita?]

Chris Nichols   No.

Olcun Tan   Yeah, he was at DD. He was one of the engineers. And then Remy Torre?

Chris Nichols   Yes. No. Yeah.

Olcun Tan   He's a good friend.

Chris Nichols   Remy. Yes.

Olcun Tan   Remy. And we would all hang out together at the Firehouse.

Chris Nichols   Yeah. Remy, he left the industry completely, decided to become a doctor or something.

Olcun Tan   He did. And now he's in Japan somewhere.

Chris Nichols   Yes.

Olcun Tan   He's a pilot, too.

Chris Nichols   He's a pilot?

Olcun Tan   In Japan, doing computer games, I think. He's a very clever guy. I mean he was doing a lot for Nuke.

Chris Nichols   Oh yeah, yeah. Very smart.

Olcun Tan   Still clever.

Chris Nichols   Very funny guy, too.

Olcun Tan   Yeah. Yeah.

Chris Nichols   Very funny. Yeah.

Olcun Tan   So, you see the industry is quite interesting. And then Marcos was at Imageworks doing the renderer for Imageworks Animation. I don't know if you remember Solid Angle?

Chris Nichols   Yeah, of course. Marcus has been on this podcast.

Olcun Tan   We were a small group of people who would always hang out together. Especially... It was actually quite interesting times.

Chris Nichols   Well. Cool. All right, so I do want to talk a little bit about the aging stuff because that came up in some of your work recently, right?

Olcun Tan   That's correct. Yeah.

Chris Nichols   Yeah. So tell us about the project first of all.

The Righteous Gemstones and The Revenant

Olcun Tan   We worked on a TV show for HBO called The Righteous Gemstones.

Chris Nichols   Yeah.

Olcun Tan   And the show in the beginning had the goal to take John Goodman and make him about 20 years younger, because they have a flashback episode. 20. And they were worried that that's not going to be that easily doable for the budget especially. You can do a lot these days as long as you throw money on it. But yes, but the question is can you do it in your means?

Olcun Tan   So we got involved when they were exploring and doing tests in town. And by then I already had... Since this is actually who we are, we are... I guess has to do more with me, who I am. And that's why it reflects on my company, is we always write our own tools — or try to. And I mean, I'm not just wasting time. You look out there. If the tool doesn't exist, we will write it ourselves.

Olcun Tan   I had written this tool over the last eight years called Shapeshifter, and we used it on The Revenant to make DiCaprio skinnier, for example, lose weight. And on a couple of other projects. We made, on Tarzan, there was a flashback sequence. We developed it originally for that where we were pitching on it to make the Margot Robbie skinnier. And... Who's the other counterpart in Tarzan? Who's playing the role again? The tall Swedish, I forgot his name.

Chris Nichols   I don't remember.

Olcun Tan	Yeah, we made him skinnier, too, but in the end we lost the work to another vendor because of relationships they had. They had stronger relationships than we did. But the outcome was we had this tool now. And then we used it on The Revenant, and now here comes a TV show. And we use it all the time on our Marvel shows where we have similar stuff.
Chris Nichols	Now, you're making people skinnier. Is that mainly for beauty work or is it plot-specific?
Olcun Tan	Plot-specific most times. Yeah. On The Revenant, we were not supposed to talk about it, and it hurt us really bad because as a smaller company, if you can't speak about your work, you're losing potential clients.
Chris Nichols	Sure.
Olcun Tan	They didn't promote it like the bear, they didn't let us speak about it. They were talking to everyone in the industry that everything was shot in-camera in a way. If they could say the bear was shot in-camera, they would have said that.
Chris Nichols	I know. It was very interesting because I was at the bake-offs for the Revenant and I remember them saying, "Yeah, we're barely able to talk about this," because they want to make everyone believe that this was all in-camera. But all the backgrounds were done this way. So much was done in CG.
Olcun Tan	And we did 33 minutes of the movie.
Chris Nichols	Why is it such a bad word?
Olcun Tan	I have no idea. I can't understand that quite.
Chris Nichols	This was during the Life of Pi aftermath.
Olcun Tan	I just can think of, you might be scaring people. They don't want to talk about their scares.
Chris Nichols	Yeah, I guess so. Anyway, you did how many minutes of The Revenant?
Olcun Tan	We did 33 minutes of the movie.
Chris Nichols	That's amazing.
Olcun Tan	Yeah, there was ILM, us, and Cinesite.
Chris Nichols	Right.

Olcun Tan	And I think MPC was part of it, too. And at that point I had formed a second company called Secret Lab, focusing on feature film and R&D. So Shapeshift was used right away to make Leonardo more skinnier, because he was supposed to be weeks in the open nature, and now he's back in the fort. He didn't look skinny enough for somebody who has spent, without eating food in the open nature for so long. And so that was our first big use of the technology. And then, since we don't market so much, we haven't used it in a while. And there comes Gemstone along, and we know that, "Hey great, that's Gemstone. They want to do that on a whole episode of Shapeshift, that was designed for rapidly applying this type of effect. And let's do a test."
Olcun Tan	So we told production, "Start the watch. Give us some material. Then when we send the work to you stop the watch." You cannot just judge the quality of the work by the end product. You need to measure the in-betweens, how long it takes, what does it mean if you have a whole show like that? So we started that, we turned that around in a couple of days, sent it back and then they were like, "Oh, this looks awesome." And then they said, "That's a great idea that you guys are doing a test. Let us get some other tests." So then they reached out to other companies in town and then two weeks later, again we got another call.
Olcun Tan	It's like, your process, it's exactly what the filmmakers want. They really are convinced about this. Can you come over? And I was working with Peter Crossman, and he invited me over for a couple days on set. And we didn't use three-camera setups. It's just all free cameras and no markers on the face.
Chris Nichols	Yeah, I know. There was a lot of fluff in that piece.
Olcun Tan	When we do R&D, we focus on the essentials, and running a company also means you understand the fact, what it means. How you need to reduce the process to a level where it makes business sense. So in Shapeshifter, we try to bring all that together. And reducing makeup time is a big deal. Not only budgetarily but also for the mood of the actors. You don't want them to sit for hours in makeup and then come out, and they are out of their muse, you know? Now they have to get them back together. Motivated. We very much did in about seven to eight weeks, 30 minutes of de-aging footage. And I mean 30 minutes of John Goodman in a 40-minute episode.
Chris Nichols	Right. That's a lot.
Olcun Tan	I was surprised myself how well it was translating on a large scale like that. And the cool thing was we were not even aware what's happening in

parallel, in the industry while we were doing this. For us, we're just doing our jobs.

Chris Nichols	You didn't know about The Irishman going on?
Olcun Tan	Not really. We just found out much later that all those things were happening. And actually, it wasn't even us who brought up, we didn't even promote it ourselves. It was coming more from Roadhouse, the production company and HBO, they were like, "Hey, we have done this, too." And I then got a phone call through their introduction from The Atlantic, saying, "We're making this big piece."
Chris Nichols	Nice.
Olcun Tan	And then suddenly it started to unravel itself.
Chris Nichols	Well, this is cool because right now, obviously de-aging is going to become a big thing, right?
Olcun Tan	It's one of these things where people are realizing it's possible now, and they are starting to-
Chris Nichols	People are like, "Why is everyone doing this?" It's like, "Well, because it's possible, right?" Flashback sequences.
Olcun Tan	They happen all the time.
Chris Nichols	They happen all the time.
Olcun Tan	Exactly.
Chris Nichols	And if you can get someone to look 20 years younger to make that flashback sequence work, it works. I think it's really cool. I think it's interesting to see all these different techniques, right? From the very overly engineered systems to the very simple systems. You know?
Olcun Tan	I have a very simple way.
Chris Nichols	A very manual system, sometimes.
Olcun Tan	I keep it simple.
Chris Nichols	Yeah.
Olcun Tan	That's always the methodology. I have a rule at my company, when we do research. If you can't come up with an idea which makes sense in a reasonable time then it's a bad idea. If you're thinking too hard, certainly if

you're considering something and you're trying to make it work for too long, that means you're working too hard on something which is not meant to be. So if it doesn't resolve itself, then you're on the wrong path. You know, you're on the right path when you find answers quickly, then things seem to be more reasonable and doable and executable than things which are just a pipe dream. And you can get lost quite quickly in such situations when you have people who haven't... Especially the R&D field when you don't have... What do you call it? Vision, I think. It comes together at the end.

Chris Nichols   Yeah, absolutely.

Olcun Tan   And that can cost a lot of money, a lot of time and tends to lead to over-engineered solutions.

Chris Nichols   Yep. Indeed. Well listen, I know you've got another meeting to get to and we're just about an hour, but so far it's been an amazing conversation. Can you tell us about some cool projects coming up or where people can get more information about your company?

Olcun Tan   Yeah, on our webpage. Currently we are bidding on shows. It's hard to say what we're working on currently because a lot of the stuff is very sensitive.

Chris Nichols   Sure. Of course.

Olcun Tan   Even though if I would say what we are working on, it might lead to conclusions, what will be in the show. I'm trying to to avoid any kind of-

Chris Nichols   But is there something coming out soon that you can say, "Oh, this is going to be... Look out for our stuff," or just go to your website and check it out?

Olcun Tan   I mean currently it seems to be there's a lot of interest with our de-aging, and then we're working on our regular type of effects work. A lot of the stuff is filming right now, and so we are in the stages of pre-planning. And so I can't really go into too much.

Chris Nichols   Don't say anything. It's fine. It's absolutely fine. It sounds very exciting though, and it's really cool that you guys are still based in LA and that you guys are doing some amazing work here right in the Playa area, which is a great, great little technology hub these days. Right?

Olcun Tan   It is, yeah. I like the area.

Chris Nichols   Good internet speeds around there.

Olcun Tan   Oh yeah. Spectrum is our provider because we are very much encircled by them.

Chris Nichols   Right, right, right. Which is great. Well, thank you so much for doing this. It's been great.

Olcun Tan   Thank you. Thank you for having me.