Ian Hunter discusses the Hunter-Gratzner from *Pitch Black*

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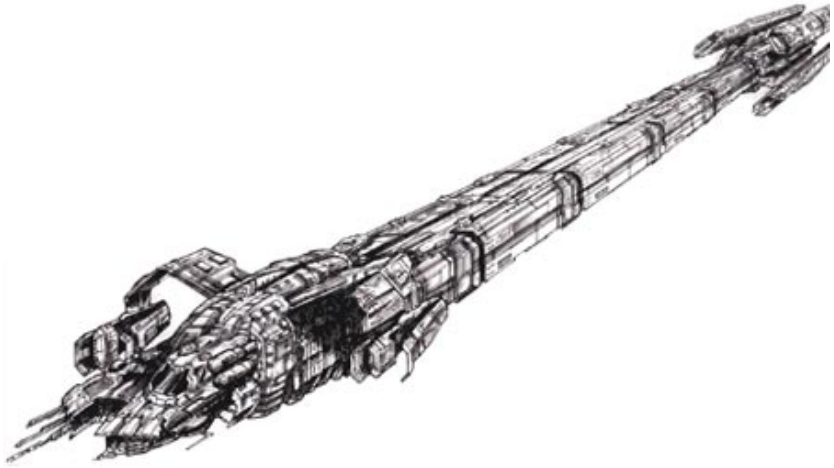
Together with working partner Matthew Gratzner (who we've been chatting to about the Betty from Alien Resurrection), Ian Hunter makes up New Deal, formerly Hunter-Gratzner partners, a highly-respected FX house and possibly the last place Hollywood can still turn to for 'A'-league miniature work. For the purposes of Top 75 spaceships in movies and TV, Ian took time out of working on Martin Scorsese's Shutter Island to explain to us why the spaceship in Pitch Black bears the name of himself and his cohort...

Can you tell us something about the design process and history of the Hunter-Gratzner?

I worked on David Twohy's previous film *The Arrival*, first doing storyboards and later building and shooting models. When [*Twohy*] came to us to work on *Pitch Black*, it was very early on; Matthew, myself and David sat in a room, and showed us the first script-pages of the Hunter-Gratzner crashing, and at the time it was just 'the spaceship', it didn't have a name yet. Originally he had specced out this delta-wing shaped ship with unfolding wings.

As we started talking through the sequence and discussing how the Fry character was going to be awakened first, and then they re-enter the atmosphere and things start happening, we were talking about how to build the tension in this first part of the movie; how to establish her sort- of 'iffiness' as a leader, and what happened was that the spaceship itself needed to change into something that could be taken apart into pieces, so that you could start at the back and work your way forward to get to the point where she could be potentially jettisoning the cargo, which was human beings. From then the ship changed somewhat in shape and we came up with this concept of sort of a space-tug that carried containers.

So we started doing some designs. My design for it was a little bit different from what ultimately got made, and Matthew actually did the final design. But we followed the same trend, which was a long ship with an engine in the back, a control-section in the front and then containers along the way. The thought was that the containers could be jettisoned and that the engine could be jettisoned and incrementally cut off the ship, leading to just the 'survival' section, which is the control pod at the front.



The thing Matthew and myself look for when doing these shows is that we like to get as much realistic style into the ships as we can, and what we'll do is instead of referencing other people's movies and other people's ideas of what a spaceship looks like, we looked at it as: 'Okay, this is a cargo ship pulling containers across space, so let's reference things that are related to that'. So we actually referenced cargo planes like the C130 Hercules and cargo planes, and - of all things - cargo containers and railroad box-cars.

It does have that 'motorway' look too it, which is wrong - but 'right'...

[*laughs*] Yeah! the other funny thing is about the engines. We were reading at the time about this space-plane, which uses internal-combustion wedged-shaped engines, so we came up with these engine shapes that were more reminiscent of what the space-plane was supposed to have. So this was lifting and stealing from real technology and trying to stick it on to something that felt very utilitarian. Like you said, it's got scrape

marks on it, and the containers themselves are painted different colours so they look like they're from different manufacturers and different brands that have been strung together to be run through space.

I can see a certain amount of kit-bashing in the ship, the odd jet-engine, but it seems very custom-finished in terms of shape.

We were lifting shapes and design elements from real life, but quite a bit of the model and even some of the details were custom made, and we moulded and cast them. The main ship was built in 1/36th scale and then for close-ups we built a few 6th-scale oversize pieces, for the air-brakes opening and so on. We built an over-sized container for a close-up of the latches coming apart. So things like the magnetic latches that hold the container together or the air-brakes in the bigger engines we had to duplicate at a bigger scale.



Was there ever the possibility of doing it in CG?

Yes - it was mentioned. In the latter half of the movie there's a little ship that they take off in and escape the planet in, and that was a CG ship. But at the time it was made, the level of detail that we were putting on it, was something that you can get in a miniature very readily. The close-ups were shot high-speed with nitrogen blowing over the model, to get that real chaotic feel...

This is what Matthew [*Gratzner*] mentioned talking about the Betty - that randomness that eludes CGI...

Right. Our camera operator and our DP, she had the camera on a little shotmaker arm, which sort of hangs the camera down, so she could operate. But then I attached a reciprocating saw to the side and an orbital sander to the bottom, and I had two grips running this thing randomly and said to her 'Look, you're going to try and keep focused on the model, and these guys are going to try their hardest to put you off. So it was a battle for her just to keep the thing in frame, and these guys were getting blisters on their hands trying to shake the camera. But that's, like you said, part of the chaotic randomness that we were trying to get with the crash.

Did the the jutting detail on the miniature create any matting issues in shots like that?

No, not really. For close-ups we actually put a backing on, and for the most part we lit a backing for the sky, which was sort of this sunset-red colour, so for the most part, except for some distortion that was done in post, the inserts were pretty much in camera. For the wire shots with the spaceships, since we were shooting motion control, we would shoot a beauty pass against black, lit properly, and we'd usually do another separate pass with the primary light on the front, which they could colour to be the re-entry heat colour, if you will. We also painted parts of the ship with UV paint, and we did a separate UV pass on the ship to get glowing edges for the animators to follow for the plasma coming off the ship. Finally, for the matte, we changed out the black for UV red screens and turned the lights off the ships and just lit the screens, and the red matting process just gives you really nice edges, so anything like antennas or finer pieces of the ship, we'd be able to pull a matte really nicely from it.

We were only able to get that because we were shooting motion control and we could do separate passes to pull mattes against the beauty passes.

What were the specs of the Hunter-Gratzner?

Fortunately for us, we were able to keep the ship; it's about nine feet long and it weighs, I'm guessing, 250-300 pounds...? Two guys can lift it up and put it on the model stand, and I know because I was one of them - not easily but awkwardly. It had a steel structure inside of it and all the containers and everything were moulded, cast and clad to it. Because we were going to be losing pieces of the structure as it went, the internal spine was made modular with joints so that we could take it apart. As we progressed in the shooting, we'd take pieces of it off.

And of course it immortalised you and your working partner!

[*laughs*] The funny thing about that is, going back to *The Arrival*, there was this omnipotent company called Omnicorp in the movie, the company run by the aliens in the movie that were slowly trying to heat up the planet to make it compatible for them to live on the planet. So they're referencing Omnicorp all the way through the movie, with an Omnicorp factory in Mexico, Charlie Sheen's trying to find out what's going on with Omnicorp...throughout the whole script and filming, they were referring to Omnicorp.

Turns out there *is* a company called Omnicorp [*laughs*], and Twohy couldn't release the movie if he referenced 'Omnicorp'. So they had to make up a new company name and go back and change the references. So, bitten by the clearance demon in the past, [*Twohy*] didn't want to go back and create a reference that would cause a clearance issue again. So I was actually on the other side of my desk, and Matthew was there and we get this phone call, and it was like...'Sure, why not? Okay, yeah'. He wanted to know if he can use our name as the company; we hadn't finished shooting - we were still in the process of building it, and so we thought it was going to be Hunter-Gratzner industries, which was the name of our company at the time, and we'd be like the corporation that made the ship.

What we didn't know was that he was literally going to write in 'the Hunter-Gratzner' as the name of the ship. So it wasn't until we saw the film that we realised that.

For us, creatively, it was one of the more satisfying jobs, because it was something we were really invested in; we were not being handed drawings or handed sketches from somebody, but actually investing our time into it. [*Pitch Black*] wasn't a really big-budget movie, and you'll notice that you don't actually see the ship crash. That was a budget constriction. But then we said that that actually works in our favour. We could sort of treat it like Hitchcock's *Foreign Correspondent*, where there's a sea-plane that crashes in that, but you see it all from inside. Literally the plane hits the water and they dumped water through the windshield of the set. So we took the same tack, saying that we'd have enough exterior shots showing how the ship's coming apart, but when it actually does the impact, we'll do that all from the inside. So the scenes of John's character coming out of his cryolocker where the container rips away from him and all the lockers fly away...it puts the audience in the place of the characters, and they really kind of feel the viscera of the impact, as opposed to being an objective person watching it from the outside.

We were on the show before the production designer. David was already working with us, so we had started working on the ship and designing it and building it. Then the production designer gets hired, a guy named Grace Walker, Australian, and he comes over to meet with David and us, and we're really concerned, because it's sort of verboten to start working on something, especially this spaceship in the movie, without the input of the production designer.

So we were really concerned, and he shows up and he's got this big binder full of photographs, and it's photographs of C130 Hercules, cargo planes and so on, so he's on the same page as we are in terms of design, and that really worked out. It's funny, because usually it works the other way, when you build a full size set and then you build a miniature of it; in this case we built a model and they had to build a matching set of containers.

The same as happened with you guys and the Betty then!

Yeah! [*laughs*] So we go to set at Fox and say 'Well, that was just a tank tread or a fifty-cal machine gun that we whipped from something', and now we just see this very ersatz-looking version of it made of MDF and PVC on the walls...

Do you miss the age of miniatures, yourself? Matthew was telling me about the miniature work you're doing on *Shutter Island*, so I know it's still going on to some extent...

Yeah, I do miss it. There's something kind of gratifying when you build it, and then you get it ready to paint, and then you roll it onto the stage and it's in front of the camera for the first time. There's an immediacy to building and shooting something and seeing the results right there.

The other thing...I preach to the choir about this to visual effects supervisors - I call them CG supervisors, because a lot of them really don't do 'everything' - here's the thing, guys: the model is something that actually exists and is being lit with real light and being photographed with real film. It's already 70-80% there, being real. Do CG and you have to think about what makes something real, and put the effort into doing that. A good observer will know what to do, but so often with models, it's immediate and it is real. So, [*laughs*] you can't deny something that's actually reflecting light - there it is!

When you shoot something outside and it's reflecting real sunlight, it's real. It gets you eighty or ninety percent there.

And later on it's something to visit at the Smithsonian.

[*laughs*] Exactly! The other things about models that are great, especially if you're blowing something up, you can put three or four cameras on something - you can get more material. Doing everything completely CG, again, you have to plan the camera move, plan the action. It can take months to develop one shot.

Have you seen *Moon*...?

Not yet.

It's actually a really good movie. It is sort of a throwback to the early eighties type of output. It's fairly low-budget, but you can see there's a lot of homages to other films in it. But what's great about it to me was all the exteriors feature these models of the moon and these vehicles and everything, and what happens is that it becomes less about these effects shots and more about these narrative shots, which are establishing shots of the locations on the moon. The character has to go out in his little rover and explore things and he finds some things that happened. In order for him to do that, we have to have shots of him driving around in his rover. So the shots become less about spectacle and more about storytelling supporting narrative material.

So CGI may be self-conscious by its very nature, then, in your opinion?

Correct. Animators by their very nature ask what can make this special, what can make this an outstanding shot? It's like no, you don't understand. You don't want it special, you don't want it outstanding - you want it *supportive*.

Ian Hunter, thank you very much!