

Ludger Pfanz

Space / Time Narratives – Structure and Style of 3D Screenplays and Documentary-Projects

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LUDGER PFANZ I'm going to give you a high speed lecture, because normally it takes three days and eight hours... [audience laughter] ... to develop the idea of what I call 'space time narratives'.

In the first part, I want to introduce what we are doing and what we are researching. Then we'll come to the part that might be interesting to you as project developers or screenwriters – thinking in 3D. Then I'll spend a short time on the subject of how we have to relearn our craft, and what it means for directors, producers and screenwriters if they really want to make 3D projects. Finally, we'll go into what it means for story development.

Two years ago I founded this institute. It's the world's first research institute for 3D content. Not looking at the question of how it works, but why we want to use it. We have established workflows in 4K 3D, so my students can work with the same equipment that Cameron did on *Avatar*. This is a rare opportunity in a film school, especially because we're mainly an art school and not a film school. We've received the go ahead from our ministry to announce a 3D university, the first institute of its type worldwide to look into creative stereoscopy. We have live training areas where you can, for example, direct in 3D and see immediate results. Normally in 3D production, people film and then they have to go to the studio before they realise something doesn't work at all. From the beginning of June, we will also be able to do live 3D transmission, transmitting live 3D over cable and Internet.

When we started, we immediately got a whole bunch of partners. The first were from the Asia-Pacific region: Hong Kong, Singapore, Vancouver, South Wales. But now all the big national film schools like NFTS in London, la femis in Paris, FAMU in Prague are joining us. Though at first, they all kind of missed the point of what we were doing. They all decided, "It's Disney - why should we touch that?"

I quickly realised that the whole thing was too big for just me, so we built up a 3D alliance where the mathematicians, the technicians, the medical faculty joined us to find out what science, art and entertainment can achieve when we can add the possibility of a third dimension. The main driving force at the moment that joined our 3D alliance is the mathematicians. The alliance now has every university and every research institute in the Karlsruhe region working under an artistic leadership. It's certainly unusual for engineers and mathematicians to join an alliance like this under artistic leadership!

We've built up our own set of equipment. This was the first 3D rig we established. [shows image] You can see it's still really big! This was two Arri Alexas, and we worked on formats for TV and gaming. We work with different sound equipment. This is, for example, a 3D rig for a live sporting event. This is a 3D rig that I used with my students for a full HD film in the Canary Islands.

This is an overview of the equipment. We have 4K 3D for cinema. We have full HD for TV, for performances, for installations, for VJing with 3D. We also work with auto-stereoscopic monitors – monitors where you don't need glasses. They aren't good enough, they are extremely expensive,

but it will be *the* major breakthrough for 3D television when you don't need the glasses any more.

These are some of the things we've been trying. We established the first 3D festival. It's interesting when you find a new market, when you have an interest and it's hard to find others who share your interests. I wanted to take my students to a place where philosophers, gamers, filmmakers and scientists could talk about what could be done with this new technology. There was nowhere in the world where this kind of meeting was happening, so we established it, and last year we held the first international festival in Karlsruhe. It was called 'Beyond', and this June we will have an international symposium under the 'Beyond' logo.

This new alliance between art, science and mathematics is bringing into our infrastructure a new supercomputer, which costs €1.5 million and which eats up around €60,000 in energy a year just to cool it down. [audience laughter]

This opens up the possibility of making highly data-driven simulations, for example of climate, in 3D. They could be interactive, and scientists could even enter visual and audiovisual data, manipulate the data and find out how the things would change. This is a unique idea that nobody in the world has tried before. So we have the festival, the symposium, and now we have two – well, one is already in place, the other is in progress – two European programmes. One is called 'Parallax', which we're doing in Prague and France, and the other is 'Opraxia', [spelling? 6:18] which we are arranging now. This is with the National Film School in London, with la femis, with Ludwigsburg, and with the National Film School of the Netherlands.

This is the symposium. If you are interested, if I *make* you interested in the whole thing, you are invited to come to Karlsruhe in June. We're holding workshops there with Wim Wenders. It's a cool thing: Wim Wenders has invited ten international directors who want to make 3D films to our school, and we're adding in ten of my students. I'll give a talk on 3D storytelling, Wim Wenders will talk about 3D directing. The daughter of Alain Derobe, who died two weeks ago, will make a stereoscopic camera. Erwin Schmidt, the producer of *Pina*, will be teaching 3D production. This is an enormous opportunity for our students, where they can work together with Wim Wenders and people of this calibre.

3D was the driving force behind the digitalisation of cinema. I gave some lectures eight years ago at 'Inside Out' – a great conference on the digital revolution – in Berlin. The question then was "Will there be a digital revolution? Will the cinemas change to digital? Will television change to Full HD?" And at the time everybody said "No." This year was the last 'Inside Out' because the digital revolution is already over. The last cinemas that are not digital will be getting digital soon or be getting closed down. Kodak became insolvent last year, and every television is Full HD, even though it doesn't really work, especially not in Germany. But it's no longer a question *if* we should be doing it.

At first the cinemas didn't want to change to digital because they wanted to keep hold of their investment. And at that time, this was an important thing for 3D, because analogue 3D is terrible. You can never synchronise the two eyes. The previous three waves of 3D in film history didn't work at all, because you can't do good analogue stereoscopic projection. With digitalisation, it became clear that you can only participate in the 3D market when you change to digital. With every release of a big 3D hit, cinema started to change.

Another thing that's quite interesting: Even now, every time a 3D film flops, people say the 3D movement is over. There a lot of really bad 3D films. But I've seen an incredible amount of bad *colour* films, and I wouldn't have said colour film is over. In total, when we look at 3D films, we find about a 20% increase in box office and income, which is very convincing to producers. People are

still happy to pay more for a 3D film. For example, Constantine made their whole film budget on the 3D box office alone. People are still willing to pay €3-4 more for a 3D film than for a 2D film.

A big question for middle-sized producers and project developers is could this also be possible for television. We conducted some polls in 2010, and we found an 'interested' of 70% in USA and Europe, and 'willing to buy' of around 40%. This is funny because when the first polls were conducted about whether people would want to have a mobile phone, it was only 8% of the population that said. "I want to have that." Now almost everybody has one!

What we think is that we'll have a major breakthrough with 3D television in 2014. For me, that's still the main thing, because still at every conference about 3D the questions are about technology. In 2014 I think the whole thing will change focus onto the *content*. The prediction is that 25% of all households – all computer monitors, tablets, and televisions will be 3D ready or 3D, but there will not be a lot of content. If you buy every 3D BluRay that is available on the market right now – and I bought them all – it's around 120 including the porn. And most of them are terrible! If you have a 3D television station and you have 120 pieces of programming, you can broadcast them in one week. And what can you show then? However, in almost every country right now somebody is trying to make a 3D television station.

I think a major breakthrough will also be the World Cup Finals in Brazil, when there will be public screenings in 3D. What we've previously found with Full HD and flatscreen is that every time there was a huge sporting event it was a major breakthrough.

If the consumers buy 3D equipment in the same way they bought Full HD television sets, then we will have a critical mass of 25% by 2014. If we have the same price trends for 3D as we had with Full HD television, we will find that by 2013-2014 a 3D television set will cost the same as a 2D television set. A 3D television set is really nothing more, diamonds no extras; it's just a little bit of different programming of the television. What we found with BluRay is that nobody would buy a DVD player any more because a DVD can't play BluRay. When a BluRay player costs the same as a DVD player, and you *can* play DVDs on it, then everyone will buy a BluRay player. The same thing will happen with 3D televisions. You buy a 3D television, even if you don't have 3D content, because a 3D television can show 2D, but a 2D television can't show 3D. They'll cost the same in around 2013-2014. People will then have the equipment, and then they'll start looking for content.

What are the opportunities when we think about this kind of new technology? This is a completely new future market; there is almost no competition. Today, if you produce a 3D TV series, you can immediately sell it worldwide. Everybody is searching for 3D content, and nobody has it. You know in the media market at the moment, if you are a cameraman, a writer, every place you go is overcrowded. You have to fight for a space for yourself. If you move into the 3D world, you'll find a new continent, and there are not even natives to fight! You just have a new continent and there's nobody there. You're really happy if somebody joins you because there's really nobody there to compete with.

I believe that you can develop completely new formats for television, and that we can find completely new stories and way of storytelling. The risk is that television stations in the future, because they don't want to train their own people, will go to the freelancers and say, "I want a Full HD 3D film, but I only have the same money as for a 2D SD film." This will be a big problem, because I know the people from German television tend to just wait, and when they have a problem they go to the freelancer market to solve it.

For us, a real big problem is fake 3D. A lot of people are making a 3D film out of a 2D film. I haven't seen *Titanic* yet, but I hope that Cameron will do it right because up to now everything has been

complete bullshit. Even *Star Wars 1*, where George Lucas converted it to 3D, was terrible. They never tell the audience that this is a fake 3D film. If the audience sees a badly converted 3D film they say, "Well 3D is still shit. I get headaches." This is a real problem. We have to find an international predicate to say, this is or isn't good 3D, to say that you shouldn't watch with this with your kids, or you'll get a headache. A problem for producers at the moment is that investment is significantly higher. Not because 3D is so expensive, but because you have a complete set of inexperienced people that need an incredible amount of more time. When we have the people trained then a 3D film will not cost more than about 10% to 15%, depending on the subject, than a 2D film.

We have no standards. The main thing that I'm working on is that we have no training and no experienced personnel. When Alain Derobe died two weeks ago, three film producers didn't know what to do, including Wim Wenders. Derobe was the only experienced stereoscopist we had in Europe.

We have to relearn our craft. I want to start with a couple of theses. 3D starts with a script. If in project development, we don't think in terms of a multi-dimensional story and give the space a meaning, then we will get what we mostly already have: 2D films with 3D effects. I recently gave a lecture at Disney, and a funny thing is they still have 2D screenplays on their shelf. And then in comes a producer and says – and this is especially true in animation, where everything is now moving to 3D – "Make it in 3D." So they start to kind of put in effects. And then back comes the producer, and looks at it with the glasses and says, "Make it more 3D!" And make it more 3D always means put more pop-outs in it. And as I will explain later, the pop-out is the most terrible part of 3D.

I recently gave a lecture for DOPs. Everything went fine. I said that we have to think in a new paradigm. We normally learn when we are filmmakers to take a 3-dimensional space and try to frame it in a 2-dimensional picture. What we have to learn is to stop thinking in frames or pictures, and to think in stages. 3D has nothing to do with our normal conception of the world. 3D is like a window to the world, it's like looking at a stage. When the whole crew talk about stages and not frames any more, we have the greatest breakthrough on the set when you shoot a 3D film. What I will come to by the end of my lecture is that we have to also include in the drama structure not only tension in *time* but also horizontal, vertical and what I call parallax tensions. And we need depth dramaturgy, which means depth scripting.

Currently, every 3D film uses the space that is now available in 3D, the depth of the picture, as a metaphor for space. Now they're shooting the Humboldt *Measuring the World*, or *Journey to the Centre of the Earth*. In all those films, the metaphor for that space is space. I haven't seen a single film yet that uses the space as a metaphor for relationships.

When we talk about relationships, we talk about coming closer, drifting apart, others coming in between a relationship. It's all spatial metaphors. Nobody yet has had the concept, for example, of a romantic comedy in 3D where we use the space as a metaphor for the gaps or the attraction between people. And we have no one yet who uses the space as a metaphor for character conflict, for the psychological dimension. People were kind of upset when I said recently that Ingmar Bergman would have made beautiful 3D films, because his main theme was abysses, in psychological terms. This is also a spatial metaphor. What I will come to later is a drama structure that uses those three levels, at least, in a meaningful context in a 3D movie.

I gave Wim Wenders the first 'beyond' award in my festival for *Pina* because *Pina* was the first proof that you can make artistic 3D. The good thing for Wim Wenders was that he didn't have to direct the space, because what *Pina* always did, because she made dance theatre, was direct

space – mise en scène. What he needed was simply to find a technology to get into the camera what *Pina* had already directed.

An interesting experiment was *Cave of Forgotten Dreams*. I don't know if you've seen this Werner Herzog film in 3D. It's technically terrible and incredibly interesting. I would never have suggested making a 3D film in a little cave when there's almost no light. And when you see those cave paintings, you probably have the feeling: Why should we film that in 3D, because it's a flat painting? When you see the film, you see that there's nothing flat at all in those stone age paintings. It's the whole structure of the mountains. These paintings are like a sculpture inside, and we would never have seen this before if Werner Herzog hadn't made this film. With equipment that my students would have laughed at!

One of the few beautiful highlights in 3D was *Hugo Cabret* from Scorsese. He didn't use 3D in terms of 3D storytelling, but he made wonderful 3D pictures like a painter. Has anybody seen *Hugo Cabret*? That's everything I can recommend in the way of 3D films. We'll come to one of the 3D porn films later.

There are a lot of things people say about 3D that are complete bullshit. One of the main things is screen violations. You know what screen violations are? For example, normally when you take an over shoulder shot, you put the shoulder far into the audience. The emotional conception for some people is that this is not possible. Shoulders alone can't be standing on the floor.

People say, "Don't use change of focus in 3D." "Don't use screen violations." It's completely bullshit. If you have stages or framings like this, you should keep them on the screen window, and open the space behind it. And if you use such a picture, you should not take it too far out into the negative parallax. But you *can* use it.

As I already said, we should think in windows or in stages. When Curtiz directed *Casablanca*, there was this theory that normally the eye wanders around a frame like this. They noticed where your eye is concentrating most of the time, this sweet spot on the screen. What they decided was to always put Ingrid Bergman, the object of desire, in this sweet spot. Which brought them to a complicated situation when they shot this scene in Paris. Humphrey Bogart – Rick, of course – has to drive the car. But then Ingrid Bergman wouldn't be sitting in the sweet spot. So what they did was they imported an English car into Paris to make sure that Rick can drive and Ilsa is still sitting in the sweet spot. In this example, they thought about an emotional context towards space. If you always see her at the same point, the object of desire, or when the danger always comes from the left, behind what's in front, the audience immediately grab hold of this feeling, and they wait for the things at that spot. And when you change the spot, you have a reaction.

Another thing we have, this is the concept Wim worked with on *Pina*. Old directors learned to *move* actors. Who comes from behind, who opens the door in the left, who takes the light from whom, who goes in between to whom? This is how they acted out relationships and inner conflicts. Since the cinema crisis in the sixties, directors stopped moving actors. Instead, they moved cameras and they cut it, they edit it. With 3D, we should learn again to mise en scène. In 3D you can watch a good location for a really long time, and then you direct your actors in this space. You can still travel, because then the eye always gets more information.

Here's something I find very interesting. You know these cartoons? When you read these cartoons, the first thing is you look at the picture, then you read the bubbles, and then you search for the dog. In most of the pictures, the little dog is in the background, and he does funny things. It's a special attraction for these stories, to look for Idéfix. In 3D you can make what I call an 'Idéfix effect'. You wouldn't use this sort of framing in a 2D film.

For example, in *Pina*, this lady is in the background somewhere. Immediately the audience recognise that there is something hidden in the picture. There's the little dog somewhere. They start to search for the dog. There can be a completely new, entertaining moment when you do this.

You saw *Avatar*? The timing of *Avatar*, the pictures were beautiful. I would love to have the pictures without story, to wander with my eyes in this beautiful jungle with those beautiful creatures. But I never found time to really watch the cool equipment and the cool plants because the story was always driving me onwards. This is the moment when you have 3D that you wander with your eyes in the picture because you have the space. If you hide little things that come out and find a complete new attraction, this could work perfectly for subplots that work from behind and come into the foreground.

This is new timing. If you ever go to Madrid and see *The Garden of Earthly Delights*, you can stand in front of this picture for a day, go home to the hotel, come back the next day and you *still* haven't seen everything. Whenever you're in 3D you have really interesting pictures – God damn it, give the audience the time to look at them!

Depth budgeting. The only 3D film I know of up to now where they really made a depth budget from the very beginning was *Coraline*. And they made it with a very easy concept. The day world, the normal world of *Coraline*, is very flat and it keeps the depth budget pumping a little bit. But when she goes to the fantasy world, to the night world, we have a kind of 'super depth', more than would be possible in the real world, and a fluctuation of depth. You go like, "Wow, a flat picture... a deep picture..." You immediately have the feeling that this kind of fantasy world is much cooler, until you find out how dangerous it is. I can't understand why this is a children's film; it gave me nightmares!

We come to pop-outs. There are only two popouts I have ever seen in my life which I didn't find disgusting. They were kind of those haywire parts, and in *Bugs* from Phil Streater [producer], when those butterflies fly around in the room. My bodily systems, my nervous system didn't feel threatened. But when they throw spears and stones and blood at you, or wasps are flying around, you know this isn't going right. Pop-outs might be good for horror, or for Europa-Park, or Disney parks, but for normal films it has two effects. One effect is that your nervous system gets really angry. The other effect is that you say, "What! It's just a 3D film!" which brings you completely out of the illusion of being in the story.

I must tell you an interesting story - I come to the porn. I had the rare pleasure to see a pre-screening of the first 3D porn film. There was a guy standing naked, with a cute ass, and he was turning around, and he had a huge erection and it came like a crane towards my face... [audience laughter]

That is too close, I don't want to have this thing in my face! One should be very careful what you stick in your audience's faces!

I'll go through this next bit quickly because you're probably not DOPs or technical people. Camera people, they have to relearn their craft because they have to work with two eyes and with completely new equipment. For editors, you may have jump cuts in depth. You know a jump cut? A jump cut: you film me, then you cut, and then you film me again and I'm standing here. So you edit it so I make a leap in the picture. A jump cut is an artistic tool; we can use jump cuts. A jump cut in depth is when you have a huge depth budget, and then the next picture is completely flat. You may want that, but what happens is that the audience goes [crushing noise]. It might work for a race. For a car race, it might be a beautiful technique. But normally when you shoot like that in 3D, the editor will come in and say "I can't edit this because I have a lot of jump cuts in depth."

We need new rhythms. A big problem is subtitles. When you watch the Werner Herzog film, they sometimes had the action here out of the screen, and then subtitles on the screen, which is impossible to watch. It's really terrible to watch. You have to move every subtitle in front of whatever is the most negative parallax. Which brings costs and new technology. A cool thing is, we can edit cuts in the different depth layers. I know that people are now working on software where you can control every layer of depth separately without influencing the rest of the 3D image. So you could cut the background before the foreground and there's still the negative parallax, the pop-out flying in the room. Some people question what could that be good for? I think young artists will find out what that could be good for.

Sound. Surround sound in 3D you can open up much more than in 2D.

3D errors. At the moment, because they want to keep it cheap and simple, everybody is developing software to keep the 3D in certain limits. So nobody's exploring the possibilities, the creative potential of 3D errors. I'll give you a bad example. If I give you the left eye picture one frame ahead of the right eye picture, it will induce a mild headache. So I could make a commercial, and in the beginning I induce a headache, and then when the headache cure drugs appear, I shift the picture into sync and your headache goes when you see it.

When you think about vertigo, how do you make a vertigo effect? Or with mindfuck films, where you are in the mind of a psychologically disturbed person. With 3D you could create incredible effects, but nobody is doing the research. So this is a thing for the academics. How can we introduce funny 3D effects?

Everybody's working on fear. Fear is easy to produce. Headaches are very easy to produce. But with 3D errors you can produce funny effects. You can produce, well you have to research what kind of effects you could do, and I don't want the software to take away creative tools from future artists before they've even tried it.

The actors have to act differently. Some faces which work perfectly in 2D don't work in 3D at all.

For producers, how do you budget 3D? Everyone says it's a 25% increase. That's completely stupid. It depends completely on your crew. How experienced is your crew? What is the story?

The main problem is when should somebody start on a 3D production. At the moment it's a bigger investment, and you'll need longer to recoup, which a lot of producers can't afford. But I say develop – and this is your part – develop your stories *now*. Until the story is developed, until it's financed, until you can get to a green light for the whole project, this normally takes two years. One project we worked on is now in its seventh year. You have to educate yourself, your work, and you have to start to develop projects.

We come to the screenwriters. We have to... there's a big problem with screenwriting software. You guys work with Final Draft or something like that? So I'm a screenwriter and I want to write a story where a subplot is happening in the background. For example, I write that Marion is sitting in front of the desk, so the attention is on Marion, and then I say- what's your name?

AUDIENCE Sonia.

PFANZ And Sonia is working on her laptop. A director would say 'cut to' because I'm writing about you, and then I'm writing about you, so the director will say 'cut to'. But I want to have you as a subplot story in the background, coming into the whole story development in the foreground. How

can I communicate that with my screenplay to a producer or to a director? We have to find new software tools to indicate what an author is thinking about, how the story develops in space. It's funny because Anglo-Americans hate it when I tell them that, because that means too much power for the screenwriter and the authors. This should all be in the hands of the directors. What I say is, what is not thought through in the story from the very beginning can never be directed or expressed. Effects, yes, of course you can put an effect on it, but it doesn't have a real significance from the very beginning of the thinking. I give lectures on story structure, so I wanted to change this into 3D story architecture. And this means when in America you say film is life without the boring parts, I say space should be space without the boring parts.

We have to organise our stages, our space. This is normally the job of a set designer. Cinematographers and set designers are really interested in 3D. How can we build new rooms where you have the field compressed? What does it mean to sit in an isolation cell in a prison in Iraq? How does that feel? How does your brain work with the depth when you are always in front of a wall, or when you are surrounded by a huge arena? How do these kinds of ideas of space work on your brain, psychologically speaking?

The first person who brought us the terms time and space was Aristotle. He said that space is not just an object, but that space has an including power. Space is always an opportunity. So when we develop documentaries or fiction for 3D, think about what Wim Wenders said: for documentaries, 3D is the perfect new medium. And in the future I think more documentaries will make it back to the cinema with 3D, and will get away from being pushed into a late night TV slot.

The first thing you always have to think about is: what is the purpose of 3D in this project? Why should we do it in 3D? The easiest thing is to take your favourite films and think of them in 3D. Would there be a purpose? It's not always the right decision to make it in 3D. Sometimes it's the right decision to make it without sound and in black and white like *The Artist*.

But it's not a trend. We will not have hundreds of silent movies in black and white. It's the right decision for one film. So you have to think: what is the purpose of 3D on this project?

Now, next thing. What are the two worlds of the project? I mentioned the day world and the night world, the normal and fantasy world of *Coraline*. But we can have a lot of dual parameters. In old screenplays, we have the individual against society, wilderness against civilisation, or whatever. You have to figure out what the two parameters are, and could we use them for different spatial metaphors?

I call it the orientation difference. Every society has an orientation difference. For example, artists go for perfect versus imperfect; in religion the orientation difference is sacred versus profane. If you are in the military community, the warrior community, it's bravery against cowardice, and so on. By identifying the values of the world system in your story, you may find orientation differences. What they have all in common is that the first value is considered an attractor, while the second value is always a term of avoidance to begin with. You as an artist may construct a story where cowardice is a real value. But then you have to know that normally in this military structure, there is a different orientation difference. Then you have to turn that around, perhaps be a soldier in the Second World War and run away from your military groups. You have to fight against them and maybe being cowardly is the right thing to do. Artists need to always think about what is considered normal in society, in the world of my screenplays, and do I want to turn that?

When we have multidimensional stories, and we should produce multidimensional stories, I find it very appealing to use astrology when working on the characters. Not for your real life! If you work in astrology, you can ask the first question of the ascendant – what does this character want in his

life? For example, he wants to encounter new ideas. What opposes him in reaching this goal, outside and inside the character?

You know the idea of inner dialogues. I don't know if it's the same with you, but I always wonder who is talking? There's always this idea that there's the devil and there's the angel, who kind of whisper into my soul. But in *my* soul there's a whole orchestra of people talking, and they have different opinions, and they're opposing each other. When you come to an inner character conflict, if in this character the sun is his energy, then this symbol is incomplete without energy, which forces an inner fight in the character. Characters are metaphors for human beings. They're not human beings. They are bigger than life, they're more constructed than life, they're metaphors. If you construct a really complicated character, where you have a character who's very curious but very shy and introverted, then whenever this character is in the safe introverted shy spot, their curiosity doesn't get any energy. And when the character opens themselves up to curiosity and energy, the safe spot, the shy spot says, "Danger! Danger!" This is just one opposition. Then we have whole complex structures. The more complex you construct your main characters, the more complexly you can later attach those different character parts to spatial metaphors.

I'll go through this quickly. Sometimes what we do nowadays when we work on characters, we think of them in psychological terms, in a lot of Freudian and Jungian ways. I find this really boring. I'll explain why. The idea of what a character is doing at any given moment is that they have erotic energy. Not only in a sexual way, but they want to *have* something – greed. They want to *have*, they want to *have*, everyone is driven by *having*. No one is driven by *becoming*. Do you know the old terms, what is the opposite of Eros in Greek mythology?

AUDIENCE Thánatos. It's death.

PFANZ Yes, but there are two desires. Erotic desires and thumotic desires. Thumos. Thumos is probably the foundation of all that we call moral and religious: to want to be good, to want to be brave, to want to be like a God, to want to be peaceful doesn't make any sense in a world of greed, in an erotic tension. Erotic tension means trying to get your goal. If you have to kill your enemies, if you have to betray someone, you do it to reach your goal. But if you have an inner calling towards something higher, you have thumotic energy.

You've heard of Achilles? When he asked his mother, "Should I go to Troy?", what did his mother say? If you stay home, you will become a huge king, you will have lots of wives and kids and you will become extremely happy. If you go to Troy, you will die, but you will become immortal. And he decided to go immediately and get killed. Where is the erotic energy in that? A lot of wives, a lot of kids, happiness, or being immortal in memory? This is a thumotic tension, and we – especially in the western world – we've lost the idea that we have thumotic tensions in ourselves.

I sometimes like to see a character as an immune system which is put on different levels under a stress test. And then the antagonist and the antagonist's network are the stressors. They don't do it because they are *bad*; they do it because they believe in their own immune system.

So I want to open the whole debate on 3D with a couple of new fresh openings. How do we develop stories? An important thing when I come to my story model is the more levels you have in a story development, the more you can work with metaphors in space. So in a large, developed drama, we should work on at least three levels of conflict: the outer plot conflict level, the relationship conflict and the inner character conflict. So we have three sources of stress.

When we think about what we can do with the space, how can we apply different psychological or visual terms towards our 3D space? People normally say that we have background, we have the

screen window, and we have the foreground. But we have an incredible number of levels in between, shifts in between where things can move around from the subplot, from the subconscious, from the background to foreground and back again. So we have to stop thinking on three levels. There's a lot of new and different shades, like with colour. It's not black and white.

So what I really love is the theory about new tensions. We all know when we work on space time narratives, which normally we call drama, the whole theory about drama structure is how to put tension and suspense onto the timeline, how to suspend answers, keep tension and keep your audience awake with questions. The whole of drama theory up to now works only on temporal tension. It's funny when you read people like Syd Field, who talks about three act structures, and says Aristotle spoke of three acts. Aristotle never spoke of three acts. It was five acts, and it was a completely different kind of structure. Nowadays, most films work with this kind of dramatic curve, and this is not an Aristotelian dramatic curve; it's a *sexual* dramatic curve. It's the first painting of an orgasm curve, from the first book of sexuality. But nowadays most films are in the tension structure like this: build it up, build it up, build it up, get to the climax and then out of the room as quick as possible! Because then the tension is gone. In a lot of books I read, this is described as the Aristotelian tension curve, but it isn't.

So when we think about the vertical axis, how we can build up tension? How can we build up story development, in erecting – and this time I don't mean in a sexual context – this is thumotic energy. This is Thumos. This is what I want to become, where I want to be in my life. Here's a question: why did the whole of evolution get started? Why did this stupid worm want to travel upward, upward, upward in evolution? It's hard to question it just in biological terms, but is there a vertical tension, is there something pulling us up, wanting us to erect ourselves? Is there anything in your character, in a character-driven movie, that wants to come out, which is a higher goal for this character? How can we use that to direct it and build it emotionally into the screenplay, and then later build it into *mise-en-scène*? Use the space, the vertical tension for example. You could shift that, but it would be a good idea for the inner good of your character. His personal goal of becoming, not of having. A beautiful picture.

The horizontal tension. Normally, when we think about the vertical dimension, in almost every culture above is good. The Gods are above, the sun is above, the rich people are above. Everybody wants to be above, nobody wants to be below. We may want to change that in our movie, but we have to think about how normally in every culture, above is good. Hell is always down, and the Gods are always in the sky, or in the sun, or sitting on Mount Olympus. They have always been above. In horizontal tension, it's a little bit different. There's not such a common idea about what is good, left or right.

I was born quite a while ago in Bavaria, and if somebody wrote with their left hand, they would be hit on their fingers until they started to write with their right hand. So we were told that being a lefty is not good. That made me a leftist. I immediately became an anarchist because I wanted to be as left as possible. I just defied it. But there was a clear shift. Nowadays things in our society are not so clear cut, so when you work on the horizontal tension, it's easier to give the left of the right side, or the left behind or the left from in front a very singular meaning inside your story world.

What we normally have when we work on horizontal tension is that when we move in space we move *towards* objects. The apple. I want to have the apple so I move towards the apple. What I call the greed motivation, the erotic motivation, the "I want to have," is easy to develop into horizontal tension. While the "want to become," the inner desire to be, is easier to develop in the vertical line. And you could put a drama line on all those terms, like you normally know when you hire a dramaturge for your screenplay, he kind of works on this line in your screenplay, the through line? You can work on through lines in the horizontal and vertical tension.

And the fourth dimension; this is the only really new thing. But what I love in 3D is that it allows me to rethink the whole thing from the very beginning. What's new is that now things can move out of the screen, be on the screen window, or go deep behind it. For our eyes, everything which is deep behind the screen is very relaxing. It's very beautiful because it's relaxing for our nerves. When you look close up your eyes have to converge and it's extremely hard for your muscles and your brain. You know why we love to be on mountains or at the seaside, looking into the infinite? Your eyes become parallel, your muscles are relaxed, and it's beautiful. So whenever you work in the depth behind the screen, your audience is much more relaxed than when you work in front.

You can keep that in mind if you want to stress your audience. But one other thing, especially with this new z-axis, is that you can change the point of view of your audience. How close does the story come towards your audience? How removed do you want to keep your audience from the story? This is quite a simple thing, and you can change all these parameters into something else, but the easiest thing is to use vertical tension for the inner character, horizontal tension for the relationship, and parallax for the point of view of the audience.

In every story we really have five necessary elements. You even need them in a joke. We need an exposition, a catalyst. We need a climax and a resolution. We don't need a catastrophe but it might be nice to have one! And in between we have progressive complications, which are around 80% of your screenplay. Another thing is, the first time Aristotle, no Plato in his *Physics*, he explained that we have six directions. If you start to think a little bit about what *Coraline* did beautiful with only two worlds, when you think about using six directions in a different metaphor, what comes from the left, from back to front, from below to out? How do things develop? How can we use, for example, visual metaphors?

You know Hitchcock's *The Birds*? You have those cages as physical metaphors throughout the film. The funny thing is, in the beginning the birds are in cages and the people are outside. And by the end of the film, the birds are outside and the people are in cages.

So you might have seen *Chinatown*? In every image, you see a symbol, a visual element of dress or of water. In every image. Nobody tells you about it, but if you put in this sort of visual system, you can use it to tell a story very easily. It's going from animals, beasts are in, humans are out, towards changing to the opposite. So think about this when you move, you position visual and story elements so that they always have meaning in your story.

I recently worked with a student at the HFF [Hochschule für Film & Fernsehen] in Potsdam, who had a story about a hunter who had to hunt some kind of magic animal. The whole story is that at the end of the day he is able to catch this magic being, but then all the beauty is gone from the world, the fantasy is gone from the world. It's a very simple idea, so we made a very simple concept around it. The closer the hunter comes toward the object of desire, this magic animal, he gets more control over the world, over the space. So, we subtly shift it. We open up the film, the whole of time and space. We increase the depth budget of the film more and more and more. But at the same time, we reduce colour. And it conveys the meaning that the closer you get to what you want, you gain more control, you become more powerful, but the world loses all its magic.

That's the idea: you see a beautiful butterfly and you think, "I want to have it! I want to have it!" Then you have it, and then it's gone. This is a very easy concept for a short film. You can't make it too complicated for a short film. So we've seen coloured spaces. What I mean by 'branded spaces' is that some spaces need no explanation. There's a cultural memory when you show some stages, some places. When I was young if someone produced a picture of Venice, what did it mean? Marriage. It was *the* place to go for a honeymoon. It has lost this brand. But when you work, work

with branded spaces which immediately bring back a memory.

When you look at our planetary system, which is not too complicated, imagine your main character like a sun with this complex movement of other forces around it. They retreat, they return, they come to something. This opens your mind a little bit to what we could really do when we have not just effect but also meaning.

What I've found is that when we really work on three complex levels of conflict, then this so-called three act structure doesn't make sense any more. The three act structure comes from Syd Field.

AUDIENCE Not Aristotle!

PFANZ Only Syd Field said that. Aristotle has a five act structure. But he also said something that was really wonderful...

AUDIENCE Aristotle said that the number of acts depends on the length of the play.

PFANZ Yes. Aristotle said something very beautiful: that every story has a beginning, a middle and an end. The beginning is something which need not necessarily have something before it, but necessarily needs something behind it. A middle is something which necessarily needs something before it, and necessarily needs something behind it. And an end is something which necessarily needs something before it, but nothing behind it.

This is really good. I know a lot of screenplays that never reach an end where they need nothing else behind it, and don't have an exposition where you need nothing before it. This is really complicated, but it's brought about the idea that a film has three acts. When we come to a multi-layered, multi-dimension film, for three conflict levels I propose a four-act structure. This is the structure of a 3D movie we worked on.

So this isn't always the case when we work on a 'game over, restart' movie, or a mindfuck movie, or an ensemble movie, or a pluriprotagonist movie, then we may of course need another structure. But when we travel on a normal story arc with three levels of conflict, it might be a good idea to use the first act to really develop the outer plot conflict. Where we have our exposition, our catalyst, the reaction of our main character towards the catalyst and a crisis that brings us to a threshold to cross. Which is the normal structure of a normal film.

All those different story parts, except for the catalyst which is random, normally have a drama structure which is not 'and then' but it's 'because of'. It has a drama structure. It's always when things come to a 'because of' relationship. And I know of only one film that tried to start with the inner character conflict and go to the emotional network and by the end of the film to the outer plot, because it's very complicated to start with the inner character conflict. The only possibility is to use voiceover. One of the most intelligent writers, I think, is Charlie Kaufmann, who did exactly that when he wrote *Adaptation*. It starts with the inner character conflict, then we get into the emotional network, and by the end of the film in the last act we get an outer plot story.

But usually it's easier to work it the other way round, because the audience need to understand what is at stake on the outer plot level before they get really into what we have as an emotional network and a character conflict.

I'll quickly run you through what could have become an incredible masterpiece. I really loved the picture, the 3D technique was great, the set design was great, the characters were great, everything was great, but the story was a little bit dumb. We saw *Pocahontas* hundreds of

thousands of times, and what was great was that it was PocPocahontasahontas with a feminist matriarchal ending, which was new.

I already felt that Cameron worships the great god and is a pagan when I saw *Terminator*. Because there the mother was the goddess, sender of her son to solve a problem, and she was behind everything. And who was on the side of her son? A man? No, a monster that didn't even have a penis. It was just a machine. So there are some matriarchal elements in Cameron's work right from the very beginning.

One thing that I really didn't like with the use of 3D in *Avatar* was that it was cowardly. It was a great structure, it had everything there, but if you buy the 3D DVD of *Avatar*, and then watch it in 2D, it works. The whole time, the whole film, the major event, the major guys speaking, the major thing happening is permanently on the screen window. And you have something happening in front, and something happening behind, but when you watch the 3D film in 2D you see it blurred – the things in front are blurred and things behind are blurred, because you have a negative or a positive parallax. But you can watch the film perfectly, because the main thing is always on the screen. Which says it was immediately planned as a 2D release later, because they wanted to milk the 2D cow after the 3D cow. I can understand if you put \$750,000,000 into a film, you want to make it safe. Cameron said, "I even put in the right amount of war for the men and the right amount of love for the women to make it successful."

Everybody knows *Avatar*. So we have the exposition, where we build this possibility that somebody offers him the opportunity to fly. He wants to have his legs back, and he gets into this twin circumstance...

AUDIENCE Excuse me, may I just interrupt for one second. I think there was one point that really interested me and you skipped it, and I'm coming now to it because of the expressions of the animated character. No, you can just go back where you were when you said 'acting in 3D'. In *Avatar* I really couldn't connect to the computer animated characters, because if you look through them it's just a stereotype. It's all stereotype mimicry, and it really didn't fulfil me. I want to see humans, because I know what their expressions are, and I've seen them animated like this before. But the really interesting thing when you come to it, but if not I will just ask you for a few words - how should acting in 3D work, and what's the difference to 2D? I think that's really fascinating.

PFANZ You have to experience it in a live 3D studio, and you start acting. Actors try to do what they've learnt. And then they see it in 3D they say, "That wasn't what I wanted to reach the goal." Another thing is, did you see *Pina* in 3D?

AUDIENCE Unfortunately not.

PFANZ You should. When he interviews different dancers in the *Pina* group, most of the time you see those people for a minute or two and they talk off screen. So you see just a face. You don't move the camera, and you hear what they think about *Pina*, how they remember their private goddess.

And you can watch those faces for 5 minutes, no need to move the camera, no need for anything. It's just very interesting faces, and that's one of the things with a documentary in 3D. If you have an interesting face, and you film it in 3D you can watch it for such a long time, and there's so much more to see.

AUDIENCE So you mean in 3D, as an actor you're even more reduced. When you're a stage actor they say, "reduce for a movie", and as a movie actor if you do 3D you should reduce it for 3D. So

it's really...

PFANZ And one thing I will come to later to 'mind the gap'. I love being in London, because when you work in art, art always works in the gap. What Hollywood tries to do with 3D is to give you a completely immersive feeling. When you go to Disneyland you even get 'RAAAAH!'... a rollercoaster of the whole thing. Immersion. But art is always in the gap. You give the people a story, and leave a gap where they can fill in their own experiences, their own feelings. So when acting in 3D, as an actor you have to know that you are interesting enough. Not for 7 seconds and 'cut', but for 35 seconds. Let a thought enter your mind. A nerve is flickering. That can be incredibly interesting. This idea of acting as doing nothing well. And I think in 3D, as an actor you have to really feel into the space. Because normally as an actor you know that everything behind you is flat, you feel these proportions and you move in them. But when you move in a 3D space you have to feel what comes from it. And what brings you here.

You have to start, like a stage actor again, to really control the space. This is the same when a stage actor takes to the stage. He knows he has to reach the last guy in the audience, the last girl over there – you really have to get your energy up there and be present in the whole room, the whole room has to feel you. As a film actor, you think differently about what you do. You work more in front of the mirror. That's the expression, right? And in 3D when you work with actors who can see the result a minute later, they're like, "Oh no! I didn't want *this* expression!" So they have to get a feel for it again. It's simply experience.

A good actor gets it after a while, but they have to be experienced. When you put them on stage very quickly, and you say now we're going to shoot in 3D and they do what they have learnt, you have to give them time to really get the feel of it. Then they come to watch the dailies and say, "Hey, this doesn't look good. It doesn't express what I wanted to express."

For example, the feel of a room when being imprisoned, or the idea of being exposed, is really different in 3D.

So I just want to go back to the idea of threshold crossing. Whenever we have a threshold crossing in the outer plot, it's a promise to the audience that the main character cannot go back to normal again if you cross this threshold. You have the outer plot, and your character's movements and your first act really develops when an actor goes over this threshold where there's no turning back to the beginning. It's not possible any more. For me, a good example of a threshold crossing are those sphinxes. When I go for a desire, I want to become something or I want to have something. And there is the sphinx sitting there, and you can't go forward or it will kill you. And I say, "Well, I think I'll go home again." Then the audience immediately knows this wasn't a real desire, because you gave up at the threshold. At the moment when she says, "Solve the riddle," if you solve the riddle you can pass through, but if you don't solve the riddle you get killed.

And you decide to cross the threshold. To risk it. Then the audience immediately is bound to the character because they know he or she is *really* going for it. And this is the threshold crossing, where the audience has the feeling it really will become a story because this person, this character, will go right to the end. If you go into the second act, you cross the threshold and the character is established, the catalyst at the beginning of the story is clear, the forward movement, how the character reacts to this kind of challenge shows the normal mode for this character. It doesn't solve everything, because if it did the story would be over. Once the threshold is crossed, you can not only go forward but deeper.

So we use the whole second act to put the relationship conflict into the foreground, put the outer plot into the subtext and create the inner character conflict in the background. In the first act, you

would have the outer plot conflict in the foreground, the relationship in the background, and the inner character conflict in the subtext. So you go to the emotional network, you build up a huge second level because now the audience is ripe to go with the character and see the impact of emotions, or of love, or antagonist forces, or friendship, or buddies, because now they feel with the character. So what we do is we shift. We don't go in forwards but we keep the outer plot in the subtext and shift to another conflict level in the second act. The big problem is that we have to keep in mind that the audience always have to remember that there is still the outer plot conflict at stake. So what we do is at least once in the second act build in a reminder which brings in the audience, reminds them that there is still the outer plot at stake.

In *The Matrix*, for example... *The Matrix* is so beautiful because the screenplay is really written as a screenplay. The threshold crossing is, do you want to take the red pill or the blue pill? If you take the red pill, you can't go back to your normal life. So he takes the red pill, and then he has this kind of rebirth process, and then Morpheus goes, "Welcome to the real world." This is the threshold crossing, and there is no way back. The second act is completely in the submarine, and then you have all these relationships, the love, the betrayal, and the guru, etc. But we might forget that these agents are still hunting them. So what happens is they get attacked in the submarine, so you have a reminder.

The same thing with *Avatar*, for example, when he starts to become a warrior and falls in love, he has to get back and report to the colonel, who becomes the major antagonist, about the secrets of the tribe. So we have a reminder that he still has a promise to his old society. The two worlds are very easy: it's the military industrial complex against the native natural indigenous blue monkeys!

Then we have forward movement in the discovery of the hero, which is very much the same thing in *The Matrix* and *Avatar* – that a nobody is built up during the second act into a superhero. Jack is a handicapped person, and by the end of the second act he is a warrior of the Na'vi. Not Morpheus, who is the main character in *The Matrix*?

AUDIENCE Neo.

PFANZ Neo. Neo lives in two worlds, but he is nothing like a superhero. The whole second act they build him up to be a superhero. He's just a hurt baby. The same structure: they create the emotional network, and they build up the character to really be able to get into a confrontation.

And then we have what I sometimes consider the fifth act. Do you know *Crouching Tiger, Hidden Dragon*? I really worked hard on this structure until I found out that there's a fifteen minute film exactly at the midpoint, which introduces the back story. And then it almost becomes a single act. But normally you might use the midpoint sequence as a resumé of all the different things the audience knew up to this moment. I like to call it the 'Harry Potter cauldron'. You throw all the different things into your story until the midpoint, and then you show the whole cauldron to your audience. And then in the second half of your film, you have to eat the soup. You build in those conflicts.

Another thing that you can use a midpoint for is to foreshadow the finale, the resolution. When you want to have a big emotional impact, you want to use as much contrast as possible. So if you have a positive ending, you want to have the midpoint with a very high, positive feeling. Then you have the whole third act to bring it down, really deep, and you can use the whole fourth act to bring it back to a really beautiful, sunshine and strawberry end. But if you have a really upturned, a really bad ending, a really terrible ending, you may want to move the whole thing totally differently. You may want to get rid of the climax here, and have a real high point, have a real low midpoint, you go up to... well, this character might reach his goal, and then you have the last act to really push him

down towards your black ending. You may have a running structure where some of the levels of the character, the emotions that worked in the outer plot story, are in a positive and a negative and then they change. But if you use it as in most popcorn movies, that by the end of the day all three levels are positive, then this is the ideal structure for having a midpoint that is close to the goal.

Another things with the midpoint, when we use the first act as a threshold crossing, a point of no return for the outer plot story, then we might use the midpoint as a threshold crossing as a point of no return in the emotional network, in the relationship conflict.

And the point of no return in *Avatar*, in the emotional network, is what?

AUDIENCE The kiss?

PFANZ The kiss is not the point of no return. He's sleeping with the princess of the Na'vi.

AUDIENCE When he decides to get rid of his body?

PFANZ No. It's when he decides to fuck the daughter of the leader of the tribe! He becomes a complete warrior of the Na'vi, and then they make a sacred marriage. And he has become a full member of the tribe. And now he's sleeping with the daughter of the chief of the tribe. I lived for three-and-a-half years with native Americans in Amazonia, and when you sleep with the daughter of the chief of the tribe it's a point of no return. [audience laughter]

You can't say, "No, I didn't want it!" In the emotional network, you are now a Na'vi. You are a male warrior of the tribe.

Which brings us into the third act, which has the main idea of character conflict in the foreground. But now, as we go forward, our story becomes multi-layered and we use 3D space to express these layers. We still have the outer plot conflict. Is he able to do his job, and get the Na'vi moved so that the industrial complex could get at the cool stuff they want to find there, the gold of this planet?

Then we have the emotional network question: will he become a Na'vi, and what will come from this love for Neytiri? Then we have to build up the main gap, the main polarisation of values in him, because now this whole third act is the question: where do you belong?

You are a partner with and member of two worlds, and now you have to decide. The whole major structure of the third act is the question of making a character decision. And normally what we have, especially in American movies, is that both those values lead to a dilemma. A decision between good and evil is not a decision, not for a human. But a decision such as do I want to die from the plague or from cholera? Sometimes when I go to vote in elections I have that sort of dilemma between two things I don't want, or four things I don't want. Or the dilemma that you have to choose between freedom and love, or love and career. Things that you value really highly, but you have to make the decision and that brings you to a character conflict. And a real conflict brings out the real character for the audience. Now they see who this guy is or who he or she is.

Now when we use those metaphors and we put them into space, we shift the levels of the different depth cues toward the inner character conflict. We have to keep in mind that we still have to keep this relationship conflict and this outer conflict rolling, so the third act structure has to shift the different levels of conflict in the space.

So with every step it becomes more complex and more complicated to write. And if we go for a

catastrophe, this leads to what I call a 'ripple catastrophe'. Because the character is not able to change at the right moment, their relationships cannot change. And because the relationships cannot change, the world cannot change. So it goes into all the levels. Will he become a real avatar? Will we have a real love relationship? Will he save his planet? We can put this all into the negative mode. Or vice versa: because the outer plot doesn't change, the relationships get destroyed, and because the relationships get destroyed the inner character breaks down. This is what we have in *Avatar*, because he cannot decide at the right moment where he belongs, and he gives all the secrets to that guy who had eyes like a jujube.

They attack the village. They destroy the home tree. Because they destroy the home tree, Neytiri's father dies. He feels guilty that the home tree and her father are dead. She doesn't want to see him any more. He's not a real soldier because he betrayed his own people, and he's not a real Na'vi because he betrayed the tribe. So we have a negative, negative, negative to all three levels of the conflict. Which brings us to a threshold crossing in the inner character conflict, a point of no return now, on the third level of the story molecule.

Which brings us to the fourth act, which is mainly a 'ripple climax'. Normally, we have this when the character is breaking down and taking the only step possible. If we are in a character-driven drama, you have a drunkard who gets sober. In an action-driven drama like *Avatar*, it's always when the character breaks down. The whole idea in story telling is to say that there is always one more chance. Janice Joplin was the guru for this idea when she sang "Freedom is just another word for nothing left to lose." At the moment you've lost everything, you've destroyed all your goals, all your relations and yourself, what could hinder you from doing the one cool thing? My grandmother always said in German, "Wenn Du denkst Du kannst nicht mehr, kommt von irgendwo ein Lichtlein her." "When you think you cannot go forward anymore, from somewhere comes a little light in the darkness of everybody's life."

This is mostly in fairy-tales. And in those huge fairy-tales we have this crossing point when the character breaks down completely. We have the part called the eye of the storm. This is the moment of making the ultimate decision, the transition to 'become'. Which leads us into the ripple climax.

When we have the outer plot coming into the relationship to the character, we change it during the ripple climax. In *Avatar*, we have 25-30 minutes of just fighting, but it starts to answer all these questions. The first conflict is where he takes over this huge flying dragon, and makes the decision that we are the sky people and we will show them. He makes a decision about where he belongs. And then he starts to get a tribe together, they attack, they are almost in love, then they are almost winning, then it goes down to the ground. Then he has to fight together with Neytiri against the major antagonist, so then we are in the relationship network. And then when this is solved, we are in the moment of who he has become, because then he's almost dying. And then he's transformed in the resolution into the Avatar, into the Na'vi world.

This is exactly the same structure that we have in films like *The Matrix*. The structure is completely the same. So when we look at this, we see when we really get the different levels of conflict. When we're working here with just three levels, and with not really very complex characters, when you position them into the main space which is able to be 3D, with every story step we come into a bigger and more complex structure, which is really good for film because we love a progression with film. The last part is more interesting than the first part. And we come into a structure where in the last act we have a matrix or helix of DNA, where the three levels of the story intervene and move in space. This is not the structure of every film; if you work on a different story idea you can use the space in a very different way. But for an arc plot, you may want to have a meaningful use of space with a meaningful use of story. So, mind the gap!

Time for questions and answers. Or beer? Beer is good! [audience laughter]

AUDIENCE I was fascinated to hear you encouraging the use of 3D in documentary films. I have seen *Pina*, which is so staged and so controlled. Unfortunately I've not seen the film in the cave, yet.

PFANZ It's out on BluRay!

AUDIENCE But the documentary films I produce normally are more observational documentaries, films where you can't know exactly where it leads you, and where you can't plan as well what's going to happen. So my question is, how should I start when I'm developing this sort of film? Should I first...?

PFANZ Same thing. What is the purpose of 3D? Where do you put the two different levels in your story? For example, I made this documentary for some friends for a Greenpeace campaign, and when I made the interviews with the protagonist I filmed every Shell guy in his office and every Greenpeace guy in front of the sea. Nobody really notices, but you feel those people are from different environments. You may want to use the space – who has the confining part and who has the opening part in this environment? Who is the oppressor and who is the liberator in your environment? What are the two worlds? Is it a nature against civilisation conflict?

AUDIENCE So, a very silly question. If I do the research with a camera, should I take one of these small cheap little 3D cameras with me in order to answer the question?

PFANZ And you can get them now for €900. You can't change the interocular distance, so you have no control over depth, but with an auto-stereoscopic screen you can immediately see 3D, and you can watch a face and say, "Wow, this is cool in 3D." You see some locations, and you see that they won't really work, or you'll have to work at it. It really helps to work on the different meanings and the depth dramaturgy because even in documentary, even where... what's the saying, in fiction films the director is God, and in documentary God is the director! You have no control.

When you go with a story, you want to try to keep at least the idea behind it with every picture you make. Your idea about the place or about the people is revealed. But you have to take what you can get. The first thing is to decide what is the purpose of 3D? Why do I want to shoot it in 3D? For example the BBC recently shot an animal movie in 3D. They made it very easily, because normally with big equipment you aren't quick enough to do that. So the main protagonists are elephants. They are big, easy to film in 3D and they don't run away. And the second protagonists are chameleons. You can get really close and they don't run away because they can change colour. So it's really easy. Filming a leopard in 3D hunting a gazelle, that's quite complicated. But also, there is... don't tell anybody because I have this kind of contract when companies show you something that you cannot talk about it. For example, Disney is working on a computer system for 3D where you... [audience laughter]

But I don't think Disney will watch Campus TV [from the university in Tübingen, where Pfanz's lecture was being broadcast]! Where you place a cross on your nose and you say to the computer 'remember' and when you move the 3D is always converged on your nose. It's all done by a computer with little motors, so for example when you have a lion hunting, you tell the camera... it's not a big camera, but it has a big brain, big memory and a couple of motors, when you have the lion sharp, you say 'remember' and then the camera moves quickly and has the whole 3D, the convergence, the interocular distance, ready for you. So a lot of things that are still problems when working with this equipment, I know that they will be solved in the next two to three years. If we can

afford them... that's another question.

The main thing, really, the first thing is to equip yourself with a small camera and try to find out what you really like. Think about the whole development. Where might the space have a meaning? In a film about globalisation, of course, a lot of those space metaphors are in space. A film about a problem of an alcoholic worker in a garbage company, you may want to have a whole complete setup about how you use depth. I'll show you later when we have a beer a clip of Wim Wenders talking about 3D documentaries. In this I have all these people giving lectures in my symposium or at the festival. I always take a clip of the lectures. If it's Peter Sloterdijk, philosopher, or Bazon Brock, cultural historian, or Wim Wenders... I can put them on the website and then people can research them on that.

So, that brings me to the website, www.beyond-symposium.com. There's a lot of those lectures, and a lot of those statements from mathematicians, from philosophers, what they think, what could happen with 3D. For me it's enlightening to work with people like Peter Sloterdijk, or Bazon Brock on such things because they gave me completely new input. To work with mathematicians or doctors is what I really want. I want mind openers. not just bottle openers. That's what we need now – mind openers.

AUDIENCE When you told us about scriptwriting in 3D, you said there's more power to the writers than to the directors. My question is, from your experience when you write a script for 3D, how much space is left on the set for improvisation? Do you really have to plan all the shots, how to do it in 3D on paper, and then you're very strict on the set, or do you have all the freedom that you want?

PFANZ No, what I don't mean is that a screenwriter does the work of the director. You never should put in 'zoom in to', 'track far', ... but you should create an intelligent, emotional significance in your story. When your story is coming together, you have to use your writing so that the images and the directors and producers immediately go in the right direction. This is how we write. You don't tell them...

AUDIENCE So there are no technical limitations? That it's so complicated to film in 3D that you have to plan everything...

PFANZ Whatever is not really intelligently placed in the story cannot be directed. When the character development has no spatial meaning and development, relationships, then you can just put some effects on it. Any director could do that. So now there's a chase, so now we put a lot of visual 'raaaaar!' in it. Now they're going into the centre of the earth, so now we have a roller coaster. Now the Na'vi are shooting arrows into our heroes, so the arrows can come pop out. This is just idiocy.

When you build in a lot of complex dimensions on the different levels, the whole story has different dimensions, the characters have different dimensions, and the subplots have different dimensions. You write it visually, so that the producer and director, even if they are stupid, immediately see your picture in their mind and then they do a great job. And then you are not totally dissatisfied when you see the movie you wrote.

Beer?

[applause]