What Does a Visual Effects Supervisor Do?

 Hello everyone! I'm very happy to share my experience with all of you here on The Rookies ! ....and here we go! What follows is the first part of an article on VFX Supervising. I'm really hoping it will shed some light on the art of visual effects, the role of the supervisor and possibly triggering even more of your passion for moving images and entertaining arts in general.

Giving the amount of visual effects nowadays involved on a typical film either for theatres or TV it won't surprise anyone that the role of the VFX Supervisor has become even more crucial. In fact the majority of these films truly relies on visual effects techniques on leading their stories and it means that cinematographers need a trusty asset for a smooth and successful visual achievement.

Yet the every-day increasing demand for attractive contents by major TV streaming providers and their increasing quality that is now levelling up to Hollywood standards has boosted the need of well crafted and appealing images even more. The goal is always

the same since the very first age of this art: engaging the audience and deliver an entertaining and realistic experience.

When I talk about VFX I always love quoting old ancestors friends and among them one says: "The trick, intelligently applied, today allows us to make visible the supernatural, the imaginary, even the impossible" now it comes that it has been said by someone called George Melies.


However now let's go through the topic of the complex, technical and artistic life of a VFX Supervisor.

Personally I have had many experiences on VFX supervising and on compositing, over more than 60 films, either on set and/or by VFX facilities and eventually running my own company for a few years in Italy, but then I moved on and stepped up onto a wider and more exciting market in UK and USA; I have been giving further opportunities as VFX supervisor with a few new film projects that I might start very soon, however even though the scale of productions is quite different we face very similar challenges on doing our job everywhere.

VFX tools, post production solutions and technology in general

are constantly improving every day, it is like an ever-ending race to deliver the most cutting-edge tools for imagery ever, but there is much more you need to know for achieving your goals! Machines are just junk without a pair of trained and critical eyes before them.
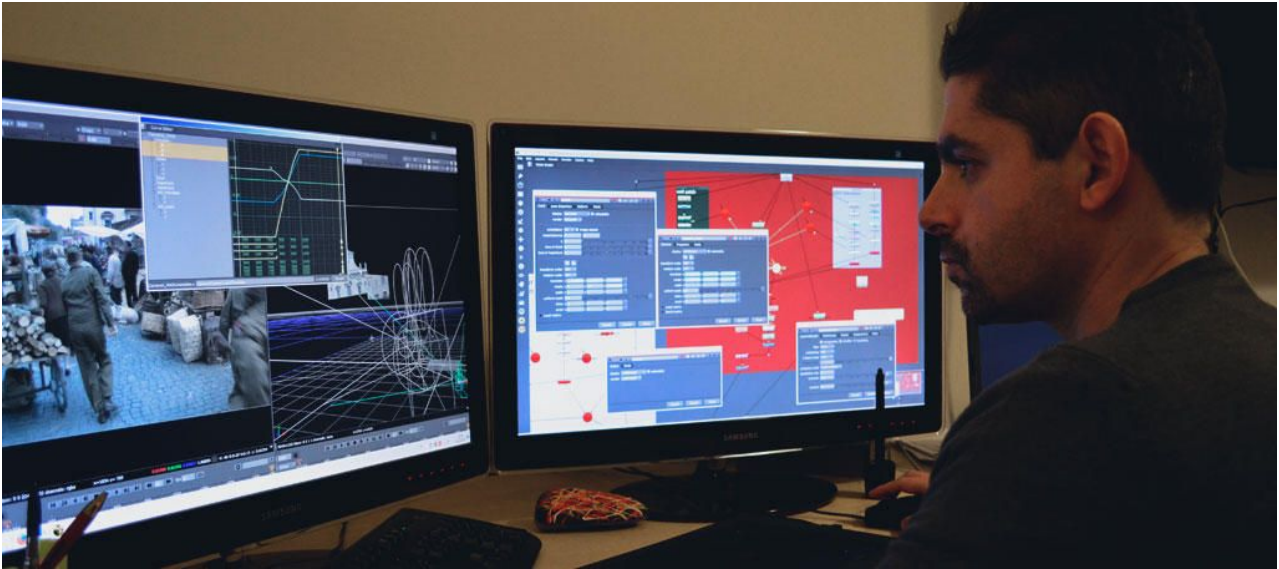
This is exactly what I advice to VFX new starters, don't just focus on software and tools which are undoubtedly important but they are just a 'medium' to express yourself, but you gotta have an idea on what you want to express before clicking that button.

I've met many great technically skilled artists in my career but occasionally they didn't know the principal of the photography and 'how-to-see-the-things' and even though they really knew where to jam on their tool interfaces, they struggled on getting to believable results.

As a matter of fact I've also worked with supervisors and leading artist who didn't have any experiences on set because they grew up within companies and I soon realised that some of them made critical errors on judging artists' work because of a lack of practical experience.

What happens next is that when the shot is reviewed by an experienced cinematographer it is kicked back to the company with obvious notes.
Yes I really do believe that being a good VFX Supervisor means having experience on set and knowing the photography.

You might have heard many times this rant but the first and foremost think to learn is "how to see the things around us", and I mean how the light is hitting the objects, the colour temperature, how the shadows react, the colours of the nature, animals, our own skin and try to figure out what happens when you light something from its side, front lit or behind, how the details come out and what's the best way to improve and shape our subject.

Personally I've been very lucky because I born into the trade as my father Marco Dentici is a famous Production Designer/Set Designer in Italy and I've been massively influenced from his art. I've been strolling set and stages since I was 3 and other than learning tricks and all the roles typically involved in a film production I was really fascinated from the blending of technical and creative things going on set.

Furthermore the film camera itself was attracting me a lot, because everything had to be seen and recorded from that black eye, everyone else has to hide behind it, like it was shooting fire from that eye eheheh... and I was even more impressed with the amount of people swinging around and taking care of it like a baby, after

each take. Finally one day, as as child, during the lunch break on a set I managed to get very close to it as the 'baby' was finally alone and I put my hand on the camera's bar...then I've heard my father shouting at me from somewhere as he had noticed my intentions and his screaming came right at the time I was touching the bar. It was like an electrocuting, then he said to stay still and took a picture to me.

That was my first real contact with the film camera.

Many years later I had the privilege to study with the three times Academy Award Carlo Rambaldi (E.T, king Kong, Alien) at the European Academy of Special Effects he held in Italy by 1999 and we had many different classes on clay modeling, special effects, animatronics, miniatures, practical effects, Special make-up and finally Computer Graphics, which was the discipline I eventually decided going for. Obviously Rambaldi was a "traditionals' art special effects" kind of teacher and I can remember that on doing his lessons he was constantly referencing the nature, even on inventing the E.T. character! he told us that he took his early inspiration from his himalayan cat!
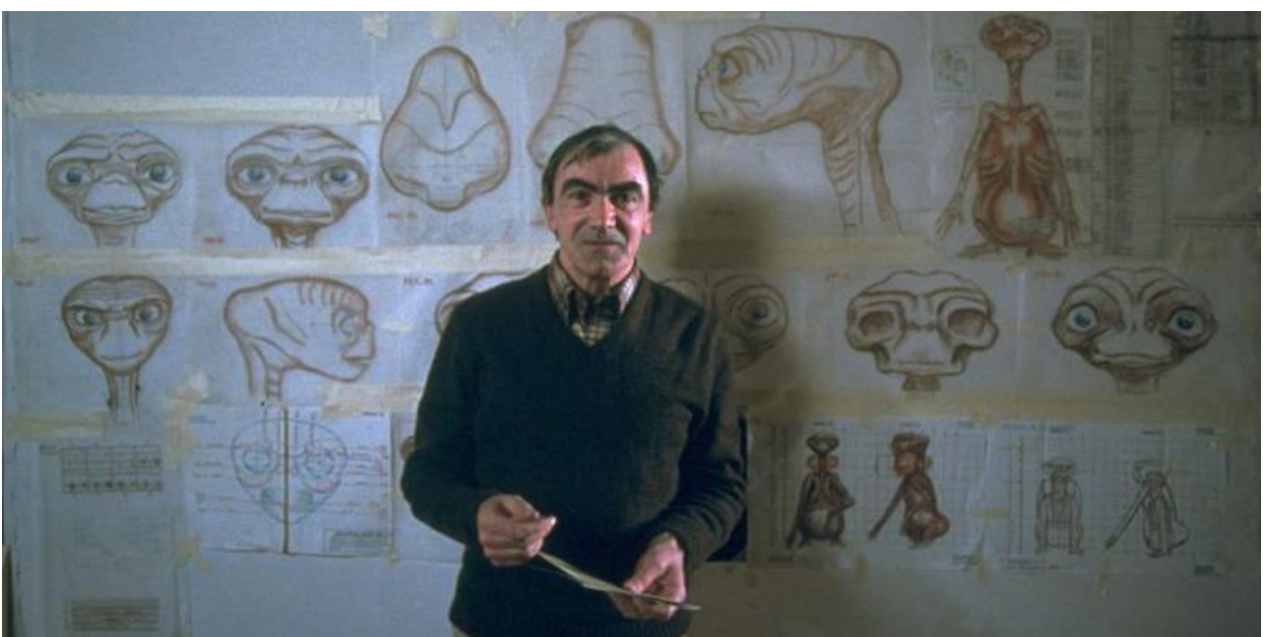
We also had classes on film writing, photography and directing, they really helped me on growing up on my art and images perception.

At some point it depends on what kind of artist you want to become across the wide range of specialities we have in the visual effects industry but however you always need to keep your critical sense alive and get as much visual references as you can.

Personally I always have a reference folder on my Google space that I can occasionally flip through to get ideas or for sharing with clients to assess if we are on the same page or for messing the things up even more ahaha, or at some point your client might realised that there is another whole world of ideas he didn't have consider yet and on that case you have given your great contribution to the pre-production brainstorming.

Honestly most of the time a VFX Supervisor is not required on offering his opinion at this level of the creative process because big productions usually have their trusty concept artists or art directors, but having something in your sleeve can turn very useful on some occasion, at least this was my experience.

In regards on my Google folder, well it is really packed with any kind of concepts created by world-wide most famous concept artists and they call different areas: environments, characters, vehicles, lighting references in general.

Find here a list of few internet pages where you can wrap your head around and grab inspirations for crazy ideas:

ArtStation (https://www.artstation.com/)
Mattepainting.org
http://conceptartworld.com/category/studios/

Other artists websites:
https://fzdschool.com/
http://sydmead.com/
https://www.iamag.co/the-art-of-feng-zhu-60-memorable-illustration/
https://noahbradley.com/
http://www.tyleredlinart.com/HP3Gallery/
https://gumroad.com/jparked
https://www.darekzabrocki.com/
https://www.gillesbeloeil.com/projects
http://www.neilblevins.com/
https://www.tuomaskorpi.com/

http://www.jorgejacinto.com/
http://www.davegibbons.co.uk/film
http://www.marcoiozzi.com/mattepainting

...and the list could be much more longer.

Moreover looking at paintings from most famous painters of our ancient history really helps out on learning some more!

Obviously I would target my attention to realistic painters as they are very focused on detailing, in fact I suggest not just looking at their operas as they appear in their integrity but if you try to lean your head forward as much as you can on their canvases (don't blame me for setting off the security alarm please) it is a good way for investigating on small details.

In fact a trip to a good museum could make your day on learning new lessons! I really love my rounds at the National Gallery here in London, but if you leave on some areas where you can't have the opportunity to see these famous artists you could get away with internet and find everything you need for your inspirations, even buying a good fine arts book might help a lot.

Like anyone else I'm always very impressed by great painters like Caravaggio, Canaletto, Vermeer, Alma Tadema and the way they picture the lighting...

...but if you look for less acclaimed painters like **Frederic Soulacroix, José Ferraz de Almeida Júnior**, **Julien Dupre, William-Adolphe Bouguereau**, or even more contemporary artists like **Iman Maleki** or **Roberto Ferri** you will find out other splendid masterpieces likewise!
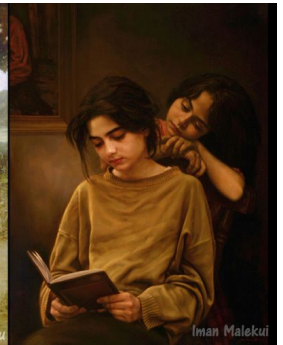
Frederic Soulacroix

José Ferraz de Almeida Júnior

JULIEN DUPRÉ

William-Adolphe Bouguereau

Iman Malekui

Roberto Ferri

…. all these artists belong to different movements and ages but they all aim to realistic looking for their paintings by studying the light and figuring out how to craft their colours and techniques accordingly - most of the time they work out simple but efficient tricks.

For instance, just a trivial one, a tiny slightly darker line behind a simple shape can make it popping out and gaining life as it creates a sort of occlusion which gives you more shape, that sort of stuff. I really love the work they do on clothes by creating believable creases or complex texture tissues. I'm also in love with their work on rendering gold tissues, it's impressive. It's because they have studied the light, the matter itself and how it respond to the light, basically they learned how to see the things.

Now I'm sure you understand how much all these rules - along with many

others - are crucial for the Visual effects artistry and indeed they are for artists like traditional or digital Matte Painters on rendering realistic looking landscapes and lighting by using their colour palettes and brushes.

By the way I don't mean to write an art treatment here, in fact I would just recap with a few words: make yourself receptive from the art in general and the nature that surrounds you.

The World of Photography
Since most of our work is about filming images we really need to understand how these images are captured and stored for us to work. A very good knowledge of film/digital cameras is ESSENTIAL. This really makes the difference on your work, trust me.
I could remember many years ago when I was attending Carlo Rambaldi's Academy, I decided and went for a summer trip in L.A. for visiting major VFX companies and filming facilities. I had been very lucky because since I was in touch with them ahead of my trip and I told them that I was a VFX student eager to visit companies in California for improving my knowledge they eventually granted me an access to their facilities! I learned many things in just a few days.

A curiosity here: I've also visited a company called Silicon Grail who had created one of the first node-based compositing solution for Visual Effects: Chalice, then known as RAYZ.

I've also visited Kodak ! so other than being received by a kind lady in the middle of a triumphant hall surrounded by many dazzling windows literally packed with tons of Oscars and all sort of technical achievement, she brought me to their internal theatre and invited me to a film stock comparison screening session that turned out to be a massive experience! Wow! I was into the L.A. Kodak big Theatre alone with just a couple of colleagues who joined me on my trip and I had the opportunity of learning many aspects of the film chemical features, the workflow and how it affects the principal photography, especially visual effects.

I could remember that at the end of the screening I was gifted two Kodak books on film emulsions and one covering the film workflow along with a posh Kodak bag. At that time those books were like the most precious treasure I could have ! And they are still sitting in my beloved bookcase like a relic !

The same lady also showed me the Cinesite facilities that had a gorgeous studio right beside the Kodak building at that time (then they shut it down around 2004), with many machines and artists everywhere! Other than tons

of Silicon graphics fridge-looking servers they were showing off a huge black gloomy-looking server vault with a stunning 1TB of data! ....well this was happening like 20 years ago actually :)

I'm still in touch with that lady who gave me the treasure of those books and the amazing visit at Kodak ! she is a friend now, retired, but she kept her love for visual arts and travels the world with her paintings....People who loves visual arts never give up.

It's been many years now and today the things are utterly different! In fact at the time we only have film cameras around and the first HD cameras were trying their first steps in the industry, so visual effects people had to deal with just a bunch of film formats and data types.

Today while it is true that digital cameras offers many advantages, like reliability, versatility and unprecedented digital quality, this come with a price: the huge amount of different codecs, compressions, resolutions and storing solutions you have to deal with. We just had to worry about the film plane, the delivery aspect ratio and the standard Cineon workflow in the past, now we have to deal with sensor sizes, cropping factors, compressions, matching different shooting camera color gamuts, LUTs, file types and final resolutions.

Just think about that the Monstro RED Camera for instance can film at 2K,4K,5K,6K,7K,8K resolutions with 7 related REDCODE RAW codecs, plus 3 Apple Prores and further 7 Avid Codecs ! And within all those resolution you can further set your sensor for shooting at different aspect ratios like the followings: 2:1, 2.4:1, 16:9, 14:9, 8:9, 3:2, 6:5, 4:1, 8:1, and Ana 2x, 1.3x; Loads of possibilities ahead of you!

Not to mention what it means visual effects-wise! we need to collect many other crucial informations for our work before the shootings, during the production and also in post! However I will be covering it on the next part II of this article.
But whatever filming equipment you are going to use you need to know photography principles first. So I strongly advise you to browse Amazon and take a look at the following books that might help you on deepening your knowledge on photography and camera systems:

-Motion Picture Camera Techniques by David W. Samuelson (Paperback, 1984)
-American Cinematographer Manual
-Digital Cinematography: Fundamentals, Tools, Techniques, and Workflows
-Lighting for film and TV by Gerald Millerson

-Motion Picture and video Lighting by Blain Brown

Not to mention that obviously in order to improve even more you have to test on your own! This means that having a good camera and lenses is crucial. When I say a good camera I mean one that allows you to manually customise all its settings, please stay away from automatic compact cameras, they are just good if you are parachuting and taking pictures of your scary friends' faces before grounding or if you are on the conveyor by the queen's treasure vault in Tower of London and you don't have time to nerd out with photography stuff because if you don't step down in time they will drag you away and lock you down in the secret dungeons of the castle. So other than this romantic ending you definitely need a good camera to test around.

Whenever I have some spare time I enjoy taking digital pictures outdoor here in London and I go from normal and standard calibrated exposures to something quite extreme - don't be afraid on doing mistakes ! it could be the funny part of the game ! in fact even though overexposing or underexposing too much your pictures is commonly considered a mistake, it might occasionally give you a completely different feeling, especially on B/W photography! yes the lack of details either because too burned out or too crunchy-dense can give the shot a very different meaning. However remember that you need to know the rules before breaking them all! but don't forget that making mistakes at the right time really pays off on your future experiences.

Besides, I always try to look for a suitable framing to my subjects and this might help you to figure out whether it is improving your image by making your subject standing out more and looking charming or, on the contrary, it is weakening and making it less interesting. It is such a good exercise ! By the way we will be covering the picture composition in a minute.

Then if you can ingest your outstanding shots into your computer, studying them, experimenting with curves and raw datas with software like Adobe Lightroom and then slam them onto Photoshop for a further creative work it is going to be lots of fun!

Next, if you try and go during a different time of the day, like at the sunset, you will struggle on finding right exposures but you might enjoy many different colour temperatures. In fact the dawning is that relatively short time of the day where the sun is going down very quickly. It's one of the biggest concern for film DOPs because they have few minutes to pull off the shot before everything gets too blue and possibly flat and dark, so that's the reason for them constantly measuring the light and changing the camera exposure as the lighting condition is escalating minute by minute.

If you have the opportunity to hang around a real film set at this time of the day you won't miss the pressure the DOP exerts on his camera team and Assistant Directors for shortening the time between a take and the next.

Other than that if you are in a good area you might enjoy the amazing sunset colours - Yet this is my favourite time of the day for taking pictures, in fact if you want to take impressive pictures to your fiance' she/he won't be disappointed at all! As a matter of fact other than the romantic fireball itself this is the right time of the day where you can enjoy a very good ratio between the orange colour of the dropping sun's beams and the blue of the sky which is acting as complementary coloured ambient light.

Furthermore the light beams are now coming from a lower angle than the normal daylight hours, hence the shadows are longer and deeper and it might help on shaping your subject/fiance' on a more interesting way. Besides, depending on your location and whether you are brave enough to take pictures at like 20 cm above the sea surface, you could get to amazing results on capturing the crispy- bumpy water details across the surface with this lighting conditions.

Now just a few lines before I mentioned complementary colours... well this would be leading us to another aspect of the colours, really important on creating interesting contrasts that really help on improving the appeal of any picture or graphic. The complementary colours theory is an important principle, also well acquainted by advertising artists.

Now just take a look at the color wheel below:
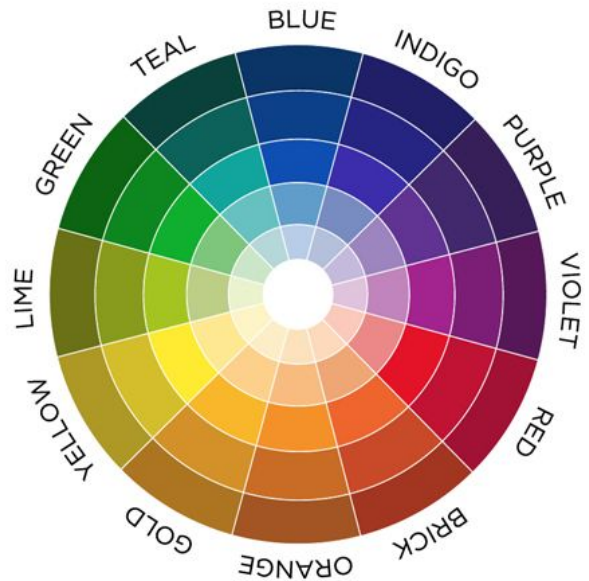
If you choose one colour, let's say the orange and you draw a line to the opposite side you will find out its complementary colour. That specific colour is a good go with the first of your choice. So when you are taking a picture at the sunset and you can have just a tiny help from the sky you are on the track ! you are going to love it!

Think that many agencies who works to improve their clients' advertising use the language of the colours for making their communication and branding more effective. For the sake of completeness I can't help but citing that Monet, Renoir, Cezanne and Van Gogh are among the most famous painters who were very familiar with the use of complementary colours on creating their masterpieces.

We could talk about colour combinations, psychology and perception of colours for ages, but if you want to improve your notions about it just take a look at these websites with free explanations.

-Psychology of colors in marketing
-Complementary Colours

and here there is a colours calculator

"color makes its impact from contrasts rather than from its inherent qualities....the primary colors seem more brilliant when they are in contrast with their complementary colors." - Claude Monet

Let's carry on. Now think that one of the most famous saying in the film industry is 'Less is more' , it is usually referencing that on some situations

showing less to the audience is better than showing more. This is really true for many suspence films or horrors, but the same idea applies very well to photography and images' compositions.

Let's say you want to focus the attention to a particular object or character, a CG one laying against a CG environment for instance and you need it to stand out more...so other than using a longer focal length for creating a narrow depth of field or in general a short focus- hence a defocused background - you might want to make your background less busy (when you can have control of it), in a way to avoid any distracting elements.

This is a very good rule to learn on doing Visual effects; The majority of artists are very details-addicted, which is a good thing but on some occasion we realise that we are piling up loads of details and eventually the shot gets too busy and diverting the attention. So this is why it so important of having a supervisor looking at the shot with fresh eyes, so he can compare it with the context/surrounding shots and trying to meet the director's expectations as much as possible. Therefore when we are saying that a shot is 'too busy' it could be caused by the presence of too many elements, as well as too many lit elements.

Another important and critical factor for becoming a VFX Supervisor is the knowledge of any special equipment for visual effectsl; This is actually another important aspect of our work.

During that trip to L.A. back to 2001 I've also visited many companies who produce special equipment like Motion control (at General Lift), motion capture (at House of Moves), 3D scanning facilities (Cyber FX), servo assisted solutions and show control equipment for Visual effects (Mediamation), film lighting manufacturers and rental facilities (Mole and Richardsons) and many others! and I've learned how this stuff can really affect the quality and possibilities of visual effects and the way you plan on using them for your film.

At time many companies still didn't have good websites and detailed descriptions on their solutions, so figuring out where they were located and finding more infos about them turned very challenging from abroad, but luckily enough I was gifted a 2-years-old Creative Handbook from an american friend and I literally spent nights on screening and writing down all relevant companies details I was interested on visiting. Today you don't need to struggle that much as we have a much more improved Internet experience and very exhaustive companies' web pages out there for you to sniff around as much as you want.

Speaking of which you might benefit my address list of interesting companies right on the 'link' page of my website www.gianlucadentici.com where you can also find many links to magazines, companies, portals on VFX etc..

Many years later my interest and passion on filming solutions and techniques is more alive than it was at that time and it has to be so because I need it for my work ! In fact I use to spend some time over the weekends browsing many websites and going through newsletters for investigating on any new solutions and trends for visual effects and film-making in general.

In regards on these equipment I've been very intrigued by motion control solutions and a few years later I gained my certification at the Mark Roberts Motion Control on Milo motion control.
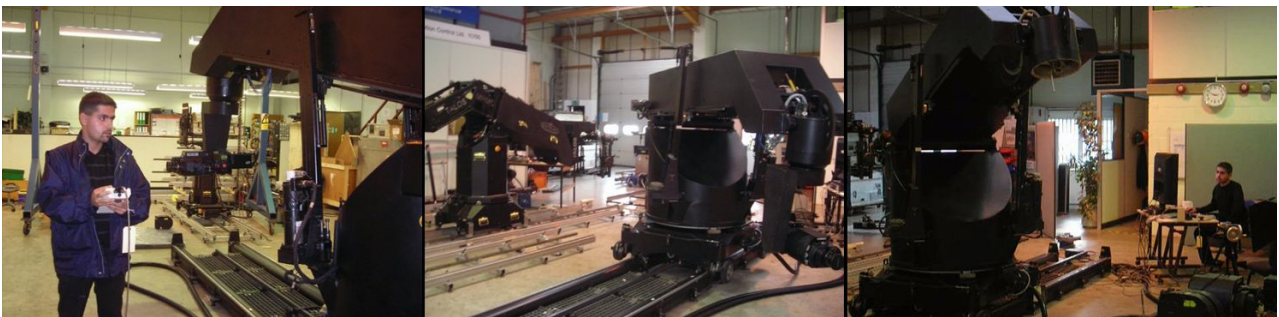
I was really impressed with the amazing things you could do with it and the possibility to export your camera moves into Maya or other CG solutions and using the same camera move on your virtual scene really got me excited. I did similar things with Mo-sys camera control systems and I built a very first CG rig in Maya who allowed me to make my camera move and test it back and forth from camera to CG and back to camera. I'm still collaborating with them on much newer technology for virtual cinematography.


And then finally the shot composition is another matter to be known. This is something that is more related to directing then visual effects but assuming that you are creating a CG beast or even a simple character you've got to know how you should frame it into your shot, how creating an interesting composition and possibly working out a camera move.

Now composition for film is somehow different with the one you could do for your personal pictures during a trip in Paris, this might sounds logic but you know when you want to take pictures of your fiance' with a famous monument ? you tend to capture as much informations as you can in the photo and you might end up on framing for the environment itself more than your fiance'. That is quite understandable, especially if you are in hurry so the only thing that matters is that you can show anyone else that you guys have been there and grab a romantic memory with you.

On a film it is exactly the opposite, you need to make your actor looking as important as you can within the frame, especially on steady shots.
Besides you don't want to frame your character right in the middle of the the frame, it would look uninteresting, weak and without any depth feeling at all.
So unless you want to create something really dramatic by using a forced symmetry like Kubrick did on many of his films, you might want to stage your CG character or frame your scene using the 'rule of third'.
So now what's this new beast ? Basically imagine to divide your frame vertically and horizontally with 2 lines, it should be looking like a tic-tac-toe then you want to use the 2 left or right points in the middle to place the face of your character or in general the body or the object you want the audience being focused to.
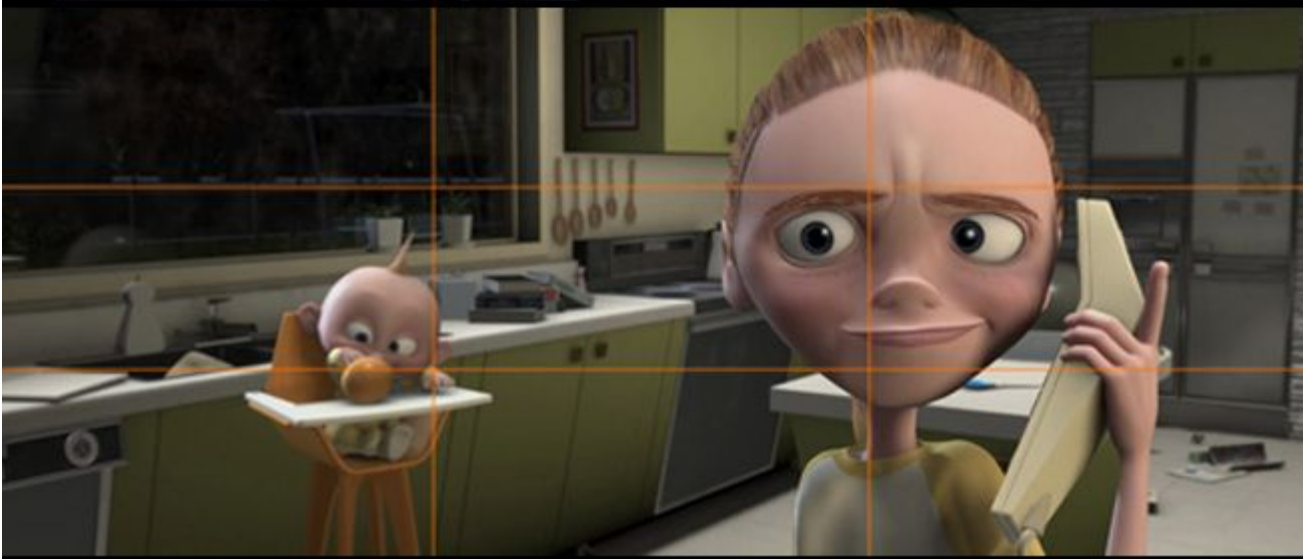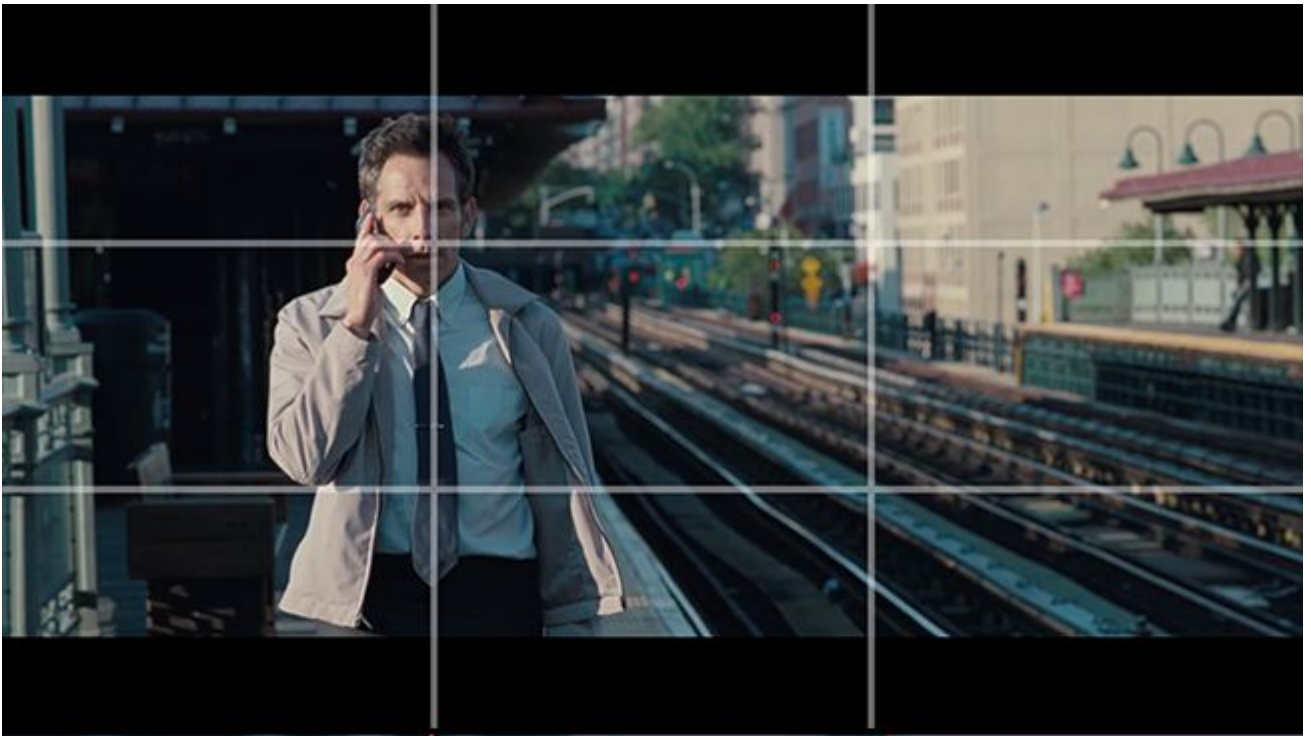
Occasionally on closer shots you could possibly cut out the character's hair, this is allowed, but obviously not the face, unless you cut the bottom side out as well.

Obviously this is just a a first and simple tip but there is much more out there… ...like never taking a picture or filming of an actress from too below her face-line and other shit like that ahaahah. By the way I strongly advice you to grab some good book on composition.

I particularly loved this book: "Digital Cinematography and directing" by Dan Ablan, you can find it right on Amazon.

So far on this article we have covered some of the basics a VFX supervisor needs to know for his daily work, we have been talking about 'learning to see','referencing the arts and artists', 'Photography','cameras and special equipments' and finally the Composition.

Besides I've left the most important thing for a triumphant ending of this article: Curiosity. In fact I strongly recommend you to watch as many films as possible, looking at backstage videos that you can possibly find on websites like fxguide. com, Art of VFX, VFXVoice (the official magazine of our VES society) or even reading great VFX magazines like Cinefex.

... obviously it is just the tip of the Iceberg ! there is much more we need to know. I'll go through many other details and technical stuff over the next article. Hopefully I haven't bored you yet!

Take care !