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## MAC GUFF : THE PARISIAN STUDIO WHICH CHARMED HOLLYWOOD

by

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## Overview

When Universal Studios bought a studio in Paris in 2011, it intended to make it its animation department. Since then, Illumination Mac Guff has made the animated feature film 'Despicable Me 2' which was one of the blockbusters of 2013. There are various reasons why the Hollywood giant was interested in this studio : Mac Guff Ligne relied on talented people who were already recognised in the business ; the studio was at the forefront of technology ; and it had proved that its method of production was efficient. Mac Guff Ligne was founded in the middle of the 1980s at about the same time as Pixar. After a twenty-year break, it returned to the animation industry as a contractor (and created films such as 'Azur and Asmar : The Princes' Quest', 'Dragon Hunters', and 'Despicable Me') at a time when the French animation market started growing. The arrival of Universal gave the studio a considerable number of resources. The number of employees increased from one hundred and thirty to six hundred, and it now attracts people who have worked with Spielberg, DreamWorks and Pixar. Illumination Mac Guff's current aim is to benefit from Universal's means and methods while not losing sight of the studio's fundamental talents.

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## TALK : Jacques Bled

Behind the phenomenal worldwide success of 'Despicable Me 2', produced by Universal, is a French animation studio, Mac Guff. Why did Hollywood pick this small French company to make its blockbusters ? Probably because of the chemistry which Mac Guff creates with technology and creativity, as well as the balance it keeps between a traditional, practical and European vision of the cinema, and an American vision which is more industrial, formatted and commercial.

### The arts of technology

I founded Mac Guff in 1986 with four friends who, like me, had studied cinema and trained in corporate film-making. Very early on we were interested in computers, even though this sector was still in its infancy. During work experience at the French Atomic Energy Commission (Commissariat à l'énergie atomique : CEA), one of us had discovered a machine which designed digital images. It was obviously extremely basic and there were not many colours or animation possibilities, but we felt that it was a production tool of the future which we had to develop. At that time, only two feature films, 'Tron' and 'Willow', had used digital technology which was harnessed from industrial and military uses. By using a Giximage machine which we were able to borrow every week-end, we made our first home-made digital images in our apartments. At the same time, we started a partnership with Olivier Emery, an Imagix3D animation software designer.

#### *First steps into the advertising world*

Young creators such as Philippe Starck, Jean-Baptiste Mondino and Jean-Paul Goude quickly became very interested in our techniques. They had an original, new vision of the world, and they asked us to create computer-generated images for their commercials (for Kodak and Jean-Paul Gaultier, for example) and video clips (for Rita Mitsouko, Madonna, and so on). As well as this, we made corporate films for technological companies such as Hispano-Suiza and Aérospatiale. We designed very small parts such as the 3D logo, basic characters and virtual 3D sets. These very short film formats were dictated by the limited technological capacities we had then. At that time, we would have been incapable of producing a digital animated film.

The studio grew slowly over ten years. Due to the small technological exploit which we made in the Evian commercial featuring babies swimming underwater, orders streamed in from advertising agencies attracted by our added value on a both technical and artistic level which produced groundbreaking results.

#### *Getting to know the cinema*

Mac Guff made its first steps into the world of cinema with the special effects it created for 'Les Visiteurs' and Jan Kounen's film 'Dobermann'. This required us to make a technological leap in order to produce images which were of sufficient quality to be projected onto the large screen. From the mid-1990s for the next ten years, we worked on a large number of feature films which were mainly French, apart from those with Wim Wenders and Robert Zemeckis, and a few animation series made for television.

Because of our commercials and cinema work, we were able to put in place more sophisticated film-making processes than those which were generally used in animation for the cinema. This sector, however, was changing. In 1998, 'Kirikou and the Sorceress', Michel Ocelot's 2D film which had a very small budget and was unexpectedly successful, helped to relaunch the declining French film animation industry. As a result of the enthusiasm and energy generated by this film, and also the quality of the training given by the Gobelins School of Visual Communication and other similar schools, France has managed to emerge as one of the major national contenders in terms of animation.

Mac Guff launched itself into the production of animated feature films in the mid-2000s with Michel Ocelot's 'Azur and Asmar : The Princes' Quest' as soon as its technologies allowed it to handle larger volumes of images and have access to larger storage and image calculation capacities. At this time, we only used in-house software, not because we mistrusted market solutions, but because of our concern to create something new and to demonstrate our own creative vision. It is one of the studio's characteristics always to have an in-house research and development (R&D) team to design its tools.

'Dragon Hunters', an animated French feature film, presented the opportunity to try out our film-making processes, and more complex means of production using 3D images with sophisticated sets. Unfortunately, although the film was a technical success it was not a box-office hit, and we think that this was because the script was not very refined or well finished, and we were not allowed to do anything about it.

### **Coming to Hollywood**

In 2004, I opened an office in Los Angeles. The aim of this office was solely to produce special effects for commercials. At the same time, Pierre Coffin joined the studio as a film-maker of commercials and television series. He was a graduate of the Gobelins School and an animation genius who was familiar with the American cultural codes of his generation having spent his teenage years in the United States. He was a key factor in our development.

It nevertheless remained difficult to penetrate the impenetrable world of Hollywood. This all changed when I met Chris Meledandri in 2007. This New Yorker, who had co-produced various films at the beginning of the 1980s, was now in charge of Fox Animation, where he had successfully produced 'Ice Age' and 'Ice Age : The Meltdown'. He had bought Blue Sky Studios for Fox and made it Fox's animation department, and it was very successful.

Chris Meledandri was interested in a film project which Pierre Coffin and I had wanted to launch, and we showed him an eight-minute pilot for it. However, during our subsequent meetings, I realised that Chris had another idea in mind. One day, he showed me his idea for 'Despicable Me' which was based on a Spanish screenplay the rights of which he had bought. He asked us whether we wanted to work with him on it. He had sensed that it might suit our technological and creative talents. His larger plan was to introduce Pierre Coffin to an American film-maker, Chris Renaud, who had worked with Chris on 'Ice Age'. These two people were therefore at the heart of the project which was a combination of American and French production logic, and they were able to find the right mix of marketing and artwork.

We therefore formed a working trio : Illumination Entertainment (the company belonging to Chris Meledandri and Universal) produced, Mac Guff created, and Universal financed and distributed the films. This structure gave strength to the creative process, and with it, Mac Guff had found the security which it had never had before.

#### *Why France ?*

Chris Meledandri had to use all his powers to convince Universal to put its money into a French studio. France had a reputation for being a country which had never-ending holidays and a 35-hour working week. At that time, France did not have any attractive fiscal propositions unlike other leading countries for film animation such as Germany, the United Kingdom, Canada, New Zealand and Australia. However, as far as Chris Meledandri was concerned, France was his first choice to make his film.

French talent in film is well-known. The cinema was invented in France, and it has a strong culture linked to images. There are about twenty excellent Visual Arts schools in France which operate in a network. Graduates of these schools are skilled in animation, but are also open to other professions and are capable of working with both film-makers and producers, and are able to assert their opinions. This breeding ground has been widely exploited by

studios throughout the world. A number of French companies have such as BUF Compagnie, Mikros Image, Ex Machina, and Duran Duboi have made a mark in the history of animation and 3D, and have enabled French talent to be recognised internationally.

In addition, the animation sector has benefitted from the constant support of the French government, in particular the National Film Centre (Centre national du cinéma) and the Ministry of Culture since the launch of the 'Plan Image' project at the beginning of the 1980s. Studios such as Mac Guff emerged at this time because of the considerable financial aid given to R&D ventures and film production. Even though the tax credit scheme introduced in 2009 is an additional asset in France, it is still not sufficiently competitive compared to schemes offered to business developments in Belgium, Canada, Germany and the United Kingdom. We are campaigning for this tax credit to become more of an incentive, as without it studios would leave France and take their technology and talents elsewhere.

*How does one work with a giant American studio ?*

Once we agreed on the 'Despicable Me' project, I told the 150 Mac Guff employees in Paris that they were going to start work on an American feature film which would rival any DreamWorks ('Shrek'), Blue Sky ('Ice Age') or Pixar ('Wall-E') production. I was not entirely certain that we would have the sufficient back office and skills, but I need not have worried as the transatlantic collaboration was excellent. Illumination Entertainment sent about ten Americans to Paris (including producers, film editors, and artistic directors) who proved not to be too intrusive, agreed with our suggestions, and trusted our choices without imposing any of their own ideas. In the same way, some of our French team went to the United States to draw and create the characters and sets of future films. These exchanges became friendly and spontaneous and took place in a mutually respectful climate, identical to the relationship that I have with Chris Meledandri. Janet Healy, Chris Meledandri's production partner, was a key person in the project. She is extremely professional, and is a brilliant and experienced person having worked with Steven Spielberg and George Lucas (amongst others), as well as at DreamWorks.

Nonetheless, there are deep cultural differences which set our two countries apart. Whereas in France a writer is constantly present from the early stages of the film to the very end and therefore leaves his specific creative stamp on the film, in the United States, the logic is more complex and, from a French point of view, the film process seems more like a manufacturing line. The stakes are so high – the budget of American films which we are working on may be as much as \$100 million – that marketing considerations impinge on the artistic aspects of the film. The screenplay, for example, is constantly being rewritten according to reactions from a panel audience which is invited to watch the rushes of the film before it is complete, and give their feedback. Consequently, the team of writers changes and those who are thought to have 'reached their limits' are replaced by others. One month before our last film was released, we still did not know how the story unfolded ! We devised ten different endings which were tested on the viewing public. The first 'Despicable Me' was initially supposed to have two main characters. However, Chris Meledandri thought that visually the poster did not work well with two, and that it would not attract audiences despite a good story-line. In the end, we decided to choose one character which was mix between the two initial ones...

*Illumination Mac Guff : Universal's official studio*

During our second collaboration with Universal, they expressed their wish to make Mac Guff its own animation company. In 2011, following relatively complicated discussions lasting eighteen months, we sold the animation side of Mac Guff Ligne to Universal. This studio then became known as Illumination Mac Guff. This company is still based in Paris and its aim is to produce films exclusively for Universal and Chris Meledandri. There are between 500 and 600 employees who, for the most part, are temporary show business workers.

To this day, the three films which we have made for Universal ('Despicable Me', 'Despicable Me 2' and 'The Lorax') have brought in \$1.8 billion at the box-office, without counting sales

of DVDs, by-products, and video games. 'Despicable Me 2' came out in the summer of 2013 and was considered to be Universal's most profitable film, and the fourth most successful film in the history of film animation. It was number one in 54 of the 66 countries where it was released.

At the same time, Mac Guff Ligne's other business which employs about one hundred people still exists. It is completely autonomous and independent from Universal. It produces special effects and animation for feature films as well as commercials.

### **The complicated mechanics of an animated film**

The production of an animated film is extremely complex because a single animated camera shot is composed of multiple layers, and designed concurrently or successively by different teams. Everything begins with the drawings which define what the characters look like, and create the narrative structure of the film. Different departments then make the fundamental elements including the main characters, the sets, accessories and special effects which are natural or which move (reproduction of hair or furs for example). Once this work has been completed, these elements are ready to be animated. In the last phase, about twenty 'layers' which make up an image (sky or scenery, for example) are assembled, and we then light the scenes.

A film employs 350 people over two years. Our organisation has fourteen departments each managed by an artistic supervisor, a production director and three to five section heads per team. The work process is highly formalised. The tasks and deadlines are clearly defined. Every week, we assess the rate of progress of the work in each department, and compare it with the expected timeline, and then we report these results back to Universal.

From a technological point of view, we use external software for half the time and the rest of the time in-house software designed by about twenty of our colleagues in charge of R&D and IT. The in-house software which we use for calculating images and which is the trademark of our films, makes us stand out and sets us apart from our rivals.

However, all this is not enough. Even with the best film in the world, we still have to use large-scale marketing techniques to attract cinema-goers. The Americans excel at this. Nothing is 'off limits' such as the airship ('Despicablimp') decorated in the 'Despicable Me' colours, commissioned by Universal, which travelled around the United States for six months and arrived in Hollywood on the night of the film's première. During the promotion for the film, we inundated Universal's television channels with small clips of characters from the film, as well as commercials and short films. These various communication campaigns were responsible for the work of one hundred people for one year. The marketing of an animated film is therefore almost as labour-intensive as the film itself.

The story of Illumination Mac Guff continues. The film based on the Minions, the little characters from 'Despicable Me', will be released in July 2015. It will be followed by two original creations in 2016, and then 'Despicable Me 3' in 2017. Our order book is quite full for 2018 and 2019, with at least two films per year.

## DISCUSSION

### Freeing creativity from technological constraints

**Question :** *Did your extremely precise method of film-making exist before your alliance with Universal, or was it inspired by Universal ?*

**Jacques Bled :** It is a mixture of the two. Its initial structure comes from Mac Guff. We developed it for an animation series for the French television channel TF1 which needed to produce a large amount of film. Since then, elements from Universal have been added on. We have learned a great deal from Universal especially in terms of cost management and monitoring.

A film has about 1,500 camera shots, and so subsequent mistakes which are not corrected in the stages of production can be catastrophic. If work on five camera shots is delayed, then it is possible that one hundred people are kept waiting until these camera shots are put right and before work can re-start. We cannot afford for this to be the case. Each colleague therefore has a very clearly defined job and within this context he has to show his creativity.

Having said this, the production process is constantly changing at the request of creation teams who are always trying to make it more efficient and fast but also because of new tools suggested by our R&D department. In a way, our work is like technological creation. The creativity is conditioned by tools which dictate whether it is possible or not to translate the creativity into animated images. As a result, the development of software is almost as important as that of graphical elements. The tools must be constantly perfected so that they are easy to use and as efficient as possible. The most important issue is to separate the creative process from the technological constraints. This has been particularly true since we have started working in 3D : in the beginning, this technology was so onerous that it suppressed our creative methods.

The film-making process aims to make the teams as 'free' as possible so that they can best express their added artistic and creative values. Paradoxically, I have to admit that the structure of the organisation and the specialisation of the tasks imposed by the process can lead to the teams feeling less of a responsibility towards their work, which might hinder creativity.

**Q. :** *It might seem surprising that despite the fact that film production has become so industrialised, one still needs 350 people to make an animated film.*

**J. B. :** In 1995, nearly 900 people were needed to work on the film 'Pocahontas' which was 'hand-made', in other words, not created using computerised techniques. There are considerably fewer people needed these days. If the numbers still seem quite high, it is because they are the result of the decision to choose top-of-the-range animation, and high quality graphics, narratives and technology. We make approximately 1.5 seconds of validated animation per graphic designer per week : for an animated television series, this quota may take between 10 and 30 seconds.

**Q. :** *Upstream of the production framework, do you apply any rules to assess the project ?*

**J. B. :** They are more empirical, and essentially come from the film-maker and producer. I also step in if I feel, for example, that a certain scene is not right or if the drawing of a person does not sufficiently embody his character. We test our sketches and ideas over a period of six to eight months. We deliberately give our drawings and animation to different people to get a broad range of feedback. Defining the personality of the characters is a gradual process, as much in their appearance as in how they come to life.

## **When the producer keeps the final cut for himself**

**Q. :** *In the artistic choices for 'Despicable Me', what roles do the producer and two directors have ?*

**J. B. :** In the big American studios, the decision-making power is in the hands of the producer who is the real boss of the studio. In Hollywood, it is well known that relationships between even prestigious directors and their producers can be complex, especially since the producer reserves to himself the right to fire the directors if the film differs too much from his original storyline. In our case, Chris Meledandri plays this role well. Even though he does not formally have the Universal label, he is the person who decides on the orientation of the studio's animated films, and in particular those which target a family audience.

Chris Meledandri has a close and permanent relationship with the two directors, and they work together throughout the entire project. However, he is the decision-maker when it comes to creativity and artistic questions. He may go against the directors' vision if, for example, they are tempted to introduce spectacular or decorative elements which do not add anything to the story. Generally speaking, the animation studio bosses who stand out are those who are able to have both an artistic and a marketing vision. They know that in order for the film to work, it must have certain ingredients.

**Q. :** *When you started negotiations with Universal, did you feel a cultural difference between the French way of treating a film as if it were a work of art, and the American way which sees film more like a product ?*

**J. B. :** It was a shock for Mac Guff to no longer be part of an almost 'home-made' method of production, but it was also the fulfilment of a dream to work in Hollywood. From both sides of the Atlantic, we do the same job without really targeting the same end-goal. This makes it a little bit tricky. We manage to keep within the boundary between a craft industry and full-scale industrialisation. I agree that our production process and our validation tools are more formalised, but we remain craftsmen because we never reproduce anything.

Furthermore, the French tradition which focusses on the author does not always result in good films. Mac Guff has been lucky in the past to have had a few creative partnerships with authors whose vision was clear-cut (such as Jean-Baptiste Mondino and Jean-Paul Goude). We did not need to question their choices : we knew that they would produce absolute gems, but gems only lasting thirty seconds or a minute. This logic cannot be transposed in this way to a feature film whose production process and financial situations are completely different. It is in fact a French trait to produce films without thinking beforehand about box-office success. This clearly protects creation – who today would even think about making a film like Bunuel's 1929 silent short film 'Un chien andalou ? – but I think it is unreasonable to exclude all economic reasoning.

As far as Mac Guff is concerned, I am proud that we have managed to keep a French atmosphere and quality of work, while at the same time we benefit from American backing. My dream would be to create small major studios on a European scale in order to make animated films which are less 'politically correct' and more daring. In the current context, it is unthinkable.

## **What is the future for animation ?**

**Q. :** *What is the state of the animation industry in France ?*

**J. B. :** Technical industries in the cinema are going through a difficult time at the moment. Television channels and film distributors are reducing their investments, and international finance is increasingly difficult to find. Our 'natural' partners, who were Italy and Spain, do not have the money to invest that they had in the past. We are also having to compete with countries which have much lower fixed costs, such as China and India. As a result, the animation industry is starting to leave France and is migrating to more accommodating places. Our politicians should try to do something about this as our industry is inextricably linked to the cinema, and the state of one depends on the state of the other.

**Q. :** *Does the ‘intermittence system’ in France (in which performing artists contribute to an unemployment scheme which pays them when they are ‘between jobs’) play an important role in this sector ?*

**J. B. :** It is essential. Furthermore, Americans work essentially in an ‘intermittent way’ because the work contract between an employer and his employee can easily be broken at any time. Without this ‘intermittence system’, the cinema would have disappeared a long time ago in France. A French production company has barely forty permanent employees whereas shooting a film requires between 100 and 150 people who are all ‘intermittents’ or casual entertainment workers. When one of our departments has no work orders, the people working in this department go and work in France or abroad, and in so doing enrich their creativity with new experiences. It is a virtuous circle which is not as expensive as all that for the State.

**Q. :** *In the animation sector, do new scripts appear targeting an adult audience, for example ?*

**J. B. :** For the time being, the animation series are formatted for a very young audience. However, people want to renew the genre of animated series. Arte (the Franco-German television channel specialising in the arts and culture) intends to finance animated films for adults, as it did with Jacques Tardi, the French comics artist, in 2013. The state-funded company, France Télévisions, announced that the France 4 channel would distribute more hybrid animation series with new scripts. I am a strong believer in this, but the economic model needs more work. This will happen when the distributors are more mature and more adventurous. Already companies like Normaal Animation and Autour de Minuit Production are working on more sophisticated scripts with high artistic standards.

**Q. :** *In the current environment, do you think that the new major studios are Amazon and Netflix, which have a great deal of power and have mastered the technology ?*

**J. B. :** Netflix, Amazon, Google and HBO will undoubtedly change the situation. When Netflix produced the successful television series ‘House of Cards’, its video-on-demand service started a little revolution, progressing from distribution to creation of content. I would like to encourage Universal to think about this, but Hollywood still seems determined never to get off its pedestal. For the first time, however, the major studios are faced with rivals who have greater financial means than theirs, and in addition have the means to reach audiences directly and make them pay for the service they give. Comcast, the owner of Universal, has just made agreements with Netflix for Netflix to increase its broadband speed and to give viewers a better quality of picture. DreamWorks has promised to supply the streaming media provider with 300 hours of animated series every year. When Netflix broadcasts very successful programmes, it represents more than one-third of all American Internet traffic ! Companies which make the content, like Universal, cannot ignore the logic especially since these newcomers will necessarily start producing content. I am not sure whether this will result in alliances or full-scale war.

In any case, in the world of animated film competition will be very tough in 2016 and 2017, with two films from Universal, five from DreamWorks, at least three from Pixar, and two from Blue Sky and Sony. Not a month will go by without an animated blockbuster film. I fear some will not survive.

Presentation of the speaker :

Jacques Bled : founded Mac Guff Ligne in 1986 with four partners. This is a digital visual effects design studio specialising in 3D animation and special effects for commercials and the cinema whose films include ‘Azur and Asmar : The Princes’ Quest’, ‘Irréversible’, ‘Un Prophète’, ‘Welcome’, and ‘Kirikou 3’. In August 2011, he became president of Illumination Mac Guff, a new company created by Universal Pictures. The animation studio is based in Paris and produced ‘Despicable Me’ (2010), ‘The Lorax’ (2012), ‘Despicable Me 2’ (2013) and is currently working on ‘Minions’ which is due to be released in July 2015. He was appointed Chevalier de l’ordre des Arts et des Lettres, and President of the Technical



Industries' Commission in the French National Film Centre (Centre national du cinéma et de l'image animée). He was also named 2013 Personality of the Year by readers of 'Film Français' magazine.

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