

## Panel B3

Sala delle Colonne 2

### Animation and the 3D Digital World

Mat Clark

#### Hair; The Development of Simulation. An Historical Account



Over the past four decades' computer animation and computer generated imagery has developed to have an almost ubiquitous presence and in 2016 most screen based media employs, at some level, a layer of computer generated enhancement or it may even be entirely computer generated.... It can sometimes be quite difficult to ascertain what is real and what is not while you are watching a blockbuster movie, your favourite television show or even an advertisement.

I recently walked through a shopping centre where there was an electronic billboard displaying a motion poster for Moana, the latest Disney animated feature. The image followed the main character, centre screen, walking along a beach... A fairly standard promotional piece introducing character, environment and title and, while the animation of Moana's walk was faultless it was the hair simulation that encouraged me to pay more attention to the poster, this was not simply because I had noticed it but because my kids pointed the breeze blown tresses out to me.

While Moana is very stylised her hair appears to act in a manner which is realistic, I say "appears to act" because her hair is really an extension of her personality, a visual signifier which not only distinguishes her from the other characters in the film but also encourages a deeper understanding of her nature and of her current emotional state, it is contrived, it is designed and it is developed. This technique has been in use for many years as a part of the process of character design and storytelling but as technology has advanced so has its effect on the audience. Who would have thought that the hair of an animated character could be used as the hook to catch the viewers eye and encourage further investigation?

It is with this in mind that I offer my proposal to talk at your upcoming 2017 conference. The pioneers of traditional animation are well documented, if you are an animator or have any vested interested in animation it is unlikely that you have never heard of Blackton, Cohl, Cristiani and the Nine Old Men amongst many, many others. Over decades, these artists helped to develop the modern language of animation but it is a mistake to think that this language has stopped evolving since their retirement. Over the past forty year's enthusiasts, scientists and artists have worked on developing simulated hair systems which are being applied in order to reinforce suspension of disbelief and to enhance the viewer experience in modern animated solutions. These technologies appear to have become a subconscious draw for audiences, why this might be the case could be investigated for another talk but for now I would very much like the opportunity to celebrate the pioneers of hair simulation and the contribution that they have made to the modern animation industry.

## Biography

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With a background in computer animation Mat is an artist/practitioner and senior lecturer on the BA (Hons) Animation course at Leeds College of Art. He has been a part of the team at LCA for the past 8 years where he has been involved with the animation programme throughout its initial development and he continues broaden his own skills and understanding of animation technique, process and application as the course has grown and developed.

Through his role as an educator his research has considered the manner in which new users engage with complex animation software and he has spent some time investigating embodied agency in order to encourage interaction through simplified interfaces and the development of physical tools. It is through these investigations that he has developed his interest in simulation and the role that it plays in contemporary animation.

Working primarily with 3D computer generated imagery his work has been selected for a number of international film festivals including the International Festival of Cinema & Technology and SIGGRAPH Asia. He has also presented his work at SIGGRAPH in California as part of their "Dailies" event.

Mat is currently working on a short animated film for his master's degree in animation and visual effects.