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CVFX Topics - Legacy FX

<u>Evolution of VFX In Early Cinema</u>

"The enemy of art is the absence of limitations." Orson Welles once prophesized

these words over a medium that has evolved over the last century into arguably the most

powerful art form - Cinema. The most frequently changed aspects of film production

since the beginning have been cinematography and visual effects. From the emergence

of the Kinetograph to now the Red Weapon 8k camera, the progress of quality in terms of

technological advancement is astounding. This also expands into VFX territory – what

has gone from impossible, to possible is quite extraordinary. From the days of multiple

exposures, in-camera composites, to being able to entire render digital worlds at the click

of a mouse – the industry continues to pave its way through every limitation that's been

placed before it, affording cinema the ability to manipulate almost every aspect of its

creation. To suspend the disbelief of audiences, the industry has had to revolutionize

and push the presentation and process to an increasingly high level of realism.

In the early days of VFX, most of the pioneers in the industry came from either

technological, engineering backgrounds - such as Edison, or showmanship (magician)

like Georges Melies (Walters 4). The early films were created for escapism, trickery, and

pure entertainment. At the turn of the century, films such as Melies' *A Trip To The*

Moon, and Porter's *The Great Train Robbery* pushed the envelope of narrative

storytelling in terms of juxtaposition, and compositing of images. The fourth wall was

broken when a gun was fired at the camera in *The Great Train Robbery*. Audiences were

simply terrified at the images they were watching. Also in these days, time and space

was manipulated by various means, one that included hand tinting the image (blue for night, yellow for inside, etc.). At the time the film stocks were so slow (not sensitive to light), that the productions had to be filmed using the bright sun to get exposure. Edison worked with this limitation by creating the Black Maria, which was a stage built on a rotating base that could move according to the suns position – in order to keep filming during the day and still get exposure (Daldry 7).

Other key factor that went into "selling" the trickery and escapist stories that were produced during the early days of film were makeup and costumes. Some films that relied on these conventions were *Nosferatu*, *Dr. Jeckyll and Mr. Hyde,* and *The Hunchback of Notre Dame* (Hartel). All of these films terrified and mystified audiences with the use of practical makeup effects to transform the actors into beasts and monsters of legend – into a live-action presence. Film actors in the early days came from mostly theater and vaudeville.   The "chops" they had were not suited for a new medium, which at this point was very much in uncharted territory for all areas of production. Many of the performances were over-the-top with dramatic campiness.   Filmmakers alike (before cutaways, juxtaposition, and the close up) captured scenes, much like a theater observer would – in wide master shots in their entirety.   Some individuals, such as Lon Chaney, captivated audiences with his film presence. He had a knack for using his malleable body to become a dramatic character on screen. Whether it was Quasimodo, or The Phantom, he stretched his face and body to perform a wide range of exaggerated character actions (Murray 3).

At this same time, German expressionist films were being produced, of which included *Nosferatu*.   Before that, was the *Cabinet of Dr. Caligari* in 1920 – which

elevated reality with its surrealist production designs and stylizations. Massive sets were built with Dali-like imagery that skewed the story-world enough to really make audiences feel off balance and uncomfortable (Dole 5). Also, at this time, makeup was being used as an accent around eyes, which elevated the dramatic effect of the performances. Fritz Lang was another German filmmaker who pushed the envelope of creativity and the power of visual imagery in cinema – notably in 1927 with *Metropolis*. In terms of production design/value this film had massive, intricately built sets that rivaled DeMille's *The Ten Commandments*. The production went to great lengths to create practical effects that would transport the audience to this city. Another marvel of this film is the costume design, namely The Machine Man. A scene in which Maria is transported into The Machine Man has many VFX techniques at work – that includes double exposures, and early optical printing techniques to composite electricity over the image.   In all, this film was an example of a filmmaker utilizing the technology before him, and using it to elevate and push the boundary's of what was possible at the time – in order to produce a film that encapsulated universal social, political, and cultural ideas of the time. Consequently, it was a benchmark in cinema and VFX (Stiftung 2).

        After the advent of sync-sound capture for motion pictures in 1927 with *The Jazz Singer,* The audiences and industry alike very quickly desired more and more in terms of imagery and production value. Consequently, arguably the biggest breakthrough in film history happened with the addition of Technicolor in the live-action films: The Adventures of Robin Hood (1938), *The Wizard of Oz*, and *Gone With the Wind* in 1939. Although these films are credited with being the first color films, two-strip Technicolor films had been coming out since 1917 with *The Gulf Between*. This film used the

"process one" of Technicolor, which only used red and green color processing (Haines, Basten 5). After some advancements in processing, other films followed in the two-strip method, such as *The Black Pirate* in 1926, as well as *The Gold Diggers of Broadway*, and *The King of Jazz* in 1930 (Movie List). This gradual rise in quality pushed exhibition into a whole new realm. It also created new artistic/stylistic variables to contend with in terms of cinematography and production design. Color added a whole new spectrum of thematic, symbolic, tonal, and virtually infinite possibilities. In the following years, cinema exhibition changed incredibly so with widescreen implementation in the 50's and 60's. This came in the form of Cinemascope, VistaVision, and Cinerama theatrical formats.   Anamorphic lenses changed the way in which films were composed, edited, and styled with films such as *Ben Hur* in 1959 and *Lawrence of Arabia* in 1962. These films elevated cinema to new heights of realism and marvel, in capturing wide vistas and gorgeous sets that could now be exhibited to audiences that were instantly transported to wide-ranging deserts and ancient coliseums – thanks to the formats and presentation quality (Henley 9).

With the integration of sound and color, as well as wide screen formats – filmmakers/VFX technicians now had a larger canvas with more room for possibility and experimentation. Stop motion, from the early days of Willis O'Brien in *King Kong* – had been the main way to animate and bring to life fantastical beasts, creatures, and characters that could not be created with prosthetics, makeup, or costume.   The aspect of scale – usually in terms of large subjects made stop motion the go to for escapist filmmakers like Ray Harryhausen and Eliot Noyes Jr. Harryhausen produced fantasy adventure films like *The 7ᵗʰ Voyage of Sinbad* in 1957 and *Jason and the Argonauts* in

1963. His films based in mythical/fantasy worlds relied extensively on stop motion creatures/characters that were composited in the live-action sequences to large scale. At the time, audiences accepted this VFX work known as "Dynamation" enough to willingly suspend their disbelief to be transported into the worlds brought to life before them. In this process, mattes and rear projected images were filmed while the stop-motion elements were animated – and then exposed onto the live-action footage of the actors. This layering effect gave depth and dynamics to the image enough to composite a realistic image of all the elements put together (Dynamation 2009).   Tadahito Mochinaga was another stop motion animator, who did work for Rankin/Bass (*Rudolph The Red Nosed Reindeer* 1964) (IMDB). One filmmaker who was influenced by these stop motion filmmakers is Peter Jackson, who has referenced and homaged O'Brien and Harryhausen in his early films and more recently in his epic reimagination of *King Kong* in 2005.

Since the discovery of Muybridge and the persistence of vision, cinema VFX have progressed to the level of unbelievable advancement, in terms of technology and concept. Most all limitations have been quashed with the introductions of: editing, compositing, sound, color, and widescreen. From magicians, vaudevillians, and engineers to becoming cinematic founders –the ingenious creativity of inventors and filmmakers like Edison, Melies, Lang, Porter, and DeMille, visual storytelling keeps pushing through limitations, dictated by the drive to move audiences and to bring worlds and characters to life before their eyes. In this regard - Cinema has been, and continues to be the most powerful, transcendent, and the truly escapist medium of human expression.

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