# Andrey P. Diachenko INVENTIVE TECHNIQUES IN SILENT FILMS

There are such techniques in silent cinema, which were called gadgets since the turn of the 20<sup>th</sup> century. In Russia they were called film tricks. Since 1895 till the beginning of World War I the film-makers invented a world of highly interesting techniques: multiple exposure, freeze frame, combination of live-action film with animated cartoons, hand-colored films. Cinema as entertainment was becoming an effective sight and filmmakers became innovators.

## MAGIC OF GEORGE MÉLIÈS

Severe competition between film-makers was typical for that period. It made them improve their products all the time, making the films more attractive for the spectator. The filmmakers tried to master new tricks and in doing so they were oriented at the world of entertainment: the art of circus, pantomime and aviation amusements (trying to shoot films from the flying balloons).

The Russian film directors of the silent film epoch were largely inspired by the innovative techniques of the famous French master of trick shooting George Méliès (1861 – 1938). This tireless inventor and innovator devoted his whole life to cinematography. Having created a film studio in the backyard of his house, he tirelessly experimented with film sequences, saturating his movies with a whole cascade of tricks. He actively used multiple exposure, which enabled him to show semi-transparent ghosts on the screen and made old engravings come to life. He personified the objects of everyday life. The characters of Méliès "knew" how to get dissolved in the air, hang in the air without support and to jungle with their own heads.

He worked in the genres of a fairy tale, mystical story and adventure story. But it was a series of screen adaptations of Jules Verne's works that brought him real fame. The films "Voyage to the Moon" and "The Voyage across the Impossible" became early signs of space theme in the world cinema.

The secrets of certain film tricks proposed by Méliès have not been found out till the present day. And certain sequences from his films have become a symbol of the epoch. We encounter them on covers and bindings of modern editions of Jules Verne and other science fiction authors. Book illustrators of different epochs paid homage to the modern film magician, imitating the style of his fairy tale films while creating book covers and decorative book bindings. Film posters of Méliès epoch contained pictures of submarines, balloons, rockets in the form of iron cans and planets with human faces. It was the reflection of naïve world perception, which implied that it was possible to walk on the Moon without a special costume, and to travel in a submarine without any navigation aids. However the spectators never thought about that. They came to the theater to watch fairy tales and to admire cinematographic miracles.

## SPACE JOURNEYS OF SEGUNDO DE CHOMON

Already during the first years of existence of cinema the film directors learned to make their characters get dissolved in the air, make them weightless and convert them into midgets and giants.

While writing about Méliès, historians of cinema always mention another talented film-maker, who largely contributed to the evolution of silent film – Spanish film director Segundo de Chomon (1871 – 1929). It is known that the prose works by Jules Verne inspired Méliès to create epic films about space travel and the Spanish counterpart of Méliès started to work on the same topic.

This talented Spaniard started as a specialist on coloring of silent films and it has to be noted that he reached great success in this. He was a pioneer of color cinema and placed contract for coloring films of other film-makers. After that he got fond of a profession of cameraman and the young film-maker, trying to imitate Méliès, started to create one trick film after another. He

got fond of space theme and in 1908 a parody of Méliès film "Voyage to the Moon" was created (with Chomon the film was called "Excursion to the Moon").

Work with contrasting shadows was among his favorite techniques. He largely used the achievements of Chinese shadow theater and created silhouette black-and-white characters alongside three-dimensional characters. De Chomon was especially fond of images of devils and sometimes made them horrible and sometimes funny. The world of De Chomon's films was densely populated by demons, devils and ghosts and different film tricks made these characters still more expressive. The characters could materialize from nothingness, get disintegrated into parts and dissolve in the air and sometimes could be easily converted into black shadows.

### EXPERIMENTS WITH INSECTS

Surprising film-shooting techniques, introduced by Méliès, took the public by storm and it is quite natural that this talented film-maker became popular not only in Western Europe and USA, but also in Russia. In those years Russian film studios were experiencing a period of severe competition and *inventiveness* was a badly needed quality. The owners of film studios sought for initiative people with rich fantasy. Demand for creative personalities, able to introduce novelty exactly to shooting tick films was rather great.

Vladislav Alexandrovich Starevich (1882 - 1965) was exactly such a personality. He was born in Moscow in a well-to-do family. His parents could not give the boy much attention and for several years the boy lived at his grandfather's in Kovno. While studying at school, the boy developed interest in entomology and learned a lot about the life of insects. Having graduated from school, the future film-maker worked as a photographer and revealed the talent of an artist.

Starevich was always interested in entomology. He decided to create films about insects, in which his talent as a film-maker was fully realized. For example, he used the method of frame by frame shooting, attaining the illusion of actual motion of beetles, caterpillars and butterflies. These movies shocked the spectators. The public got used to animated cartoons and suddenly a new type of film – animated puppets – comes into existence! If pictures can move on the screen, why can't objects from everyday life also move as well as stuffed animals and mockups of insects? And Starevich started to reflect such types of motion on the screen, which were heretofore unknown – the motion of performing artificial insects (one cannot call them puppets in the full sense of the word).

At first Starevich tried to shoot films with actual insects, but unfortunately, they were bad actors and did not succumb to training. The talented film-maker would gladly work with real beetles, but they were unable to do what the film director required from them. It was necessary to manufacture puppets and to work with them. The optical illusion was striking. The spectators took artificial insects for real ones.

Starevich quickly mastered the techniques of trick film. He combined almost scientific recognizability of insects, created by him, with humorous treatment of his characters. The famous film-making factory of Khanzhonkov became the basis for his innovative experiments.

In 1912 Starevich shot the film "Liucanida the Beautiful or the Battle between capricorn beetles and stag-beetles". The battle on the screen took place because of the beautiful wife of Cervus, king of beetles. The behavior of insects on the screen is truthful, the spectator sincerely believed in what took place on the screen. "Liucanida" was the first puppet film in history, which contained a battle scene. The battle of the beetles looks a little bit archaic today, but there is no doubt that it was staged by a person with a very vivid imagination. This film remained in theatrical release till 1926.

### MODELS OF THE FUTURE

In 1926 well-known German filmmaker Fritz Lang issued the film выпустил в свет фильм "Metropolis", in which a city of the future was shown with its contrast between the life of the rich and the poor. Vertical structures alternate with transport arteries, which are arranged on

several levels. The spectators wondered how this magnificent city was modeled and the sense of truthfulness of what was shown on the screen was overwhelming.

The city was shot with the aid of mockups. The motion of cars was shot using the method of frame by frame shooting. In this case an important gadget was the use of many mirrors, due to which the fragments of mockups were multiplied. In spite of the fact that the use of mirrors made the film cheaper, this film was still the most expensive movie in the history of the German silent film.

Another model of the future, which required high degree of inventiveness from the film-makers is seen in the film Aelita by Jakov Protazanov. It is difficult to believe that it was shot more than 90 years ago.

The story of a Martian woman – Aelita and about an uprising on the Mars largely influenced the world science-fiction.

The film-director boldly used the techniques of futurist art, first of all the transformation of the human external view through unusual costumes. Famous film set designer and costume designer Alexandra Exter was assigned to create a costume of a Martian woman – Aelita. An unusual futurist hat with metallic rods, protruding in different directions made Aelita (actress Julia Solntseva) a real Martian.

The film shot by Protazanov was not the first movie about space life, however, it was the first full-length film in the genre of space science fiction. It is considered to be a masterpiece of science-fiction movie. Original music was composed for the first show of reconstructed version of the film.