

History of Special Effects in Mythological Genre of Indian Cinema

A Special Project report
by
Gautam Vijay Karnik
02625011

submitted as partial fulfilment of
requirements for the degree of

Master of Design in Visual Communication

Project guide
Prof. Shilpa Ranade

Industrial Design Centre
Indian Institute of Technology
Bombay
2002-2003



Approval sheet

The Special Project titled '**History of Special Effects in Indian Cinema**' by Gautam V. Karnik, is approved as partial fulfilment of the requirements for the Post Graduate Degree in Industrial Design.

Guide: Prof. Shilpa Ranade

Acknowledgements

I thank my guide Prof. Shilpa Ranade for giving me guidance in going about researching such an interesting project.

I am also indebted to all people in Film Institute Pune, and National Film Archival, Pune.

I am also thankful to Mr. Ajit Damle, son of filmmaker, V. Damle and Mr. Mane, owner of Spectra, video films, Dadar for their support.

Project Guideline

The aim of the project was to collect information about history of special effects in context of Indian Cinema. A need to document the history of special effects is observed. The Indian filmmaker has been content in experimenting with topics and ideas, but the efforts by these pioneers, the techniques used, and the social implications in the choice of subject have not been steadily recorded in a single place. The project was to have an output that would give an overview of the factors in the advent of special effects in Indian Cinema. Due to time constraint, the research has been limited to the mythological film genre, which was the first genre to grace the Indian film scene, and which relied heavily on special effects for the storytelling. A similar research could be carried on for the entire genre that followed.

Index

- Advent of Cinema in India	06
- Pioneers in the Indian Film Scene	07
- Mythology - the first genre	09
- Special effects- definition and understanding	10
- Visual inspirations for Cinema from existing art forms	18
- Special effects in other genre	19
- Shots from 3 films	20
- References and Credits	56

Advent of Cinema in India

In 1889, Eastman brought out the first transparent roll film. After experimentations and efforts over a period of 5-6 years, the first film was shown in Paris.

Auguste and Louis Lumiere are credited with the world's first public film screening on December 28, 1895. Their work consisted mainly of moving images from scenes of everyday life. Their film sequence of a train pulling into the station reportedly had audiences screaming and ducking for cover as they believed that the train itself was about to rush onto the audience in the theater.

In 1896, the Lumiere brothers screened their films in Bombay at Watson Hotel.

Within one year, screenings had started in Calcutta and Madras, and Bombay started having daily screenings of films.

The first Indian attempts at filming was by Hiralal Sen, Amritlal Bose and H.S.Bhatawdekar. A wrestling match at Hanging Gardens, Bombay was filmed by H.S.Bhatawdekar, which started a documentary style of filming.

With the interest that was generated through such attempts, some independent companies got established that filmed events and special occasions.

However, there was no effort for a feature film or a commercial film till 1910.



The Lumiere Brothers

1889: First transparent roll film by Eastman

1895: First film shown by Lumiere brothers at Paris.

1896: First screening in Bombay at Watson Hotel, by Lumiere brothers.

1897: Screenings in Calcutta and Madras. Bombay screenings daily.

1899: Actuality film or documentary style film by H.S.Bhatawdekar

1910: First efforts for commercial cinema [1]

[1] - <http://www.indiaheritage.com/perform/cinema/history/history.htm>

Pioneers in the Indian Film Scene

In 1910, Dhundhiraj Govind Phalke happened to view a screening of 'The Life of Christ' at the American-Indian Cinema in Bombay. Phalke had seen films earlier, but this screening made him believe he had found the vocation of his life.

"In the year 1910, I happened to see the film 'Life of Christ' in a picture palace called America India, in Mumbai ... While watching 'Life of Christ', a feeling of veneration for Christ began to rise in my breast; and as I was clapping my hands at the depiction of the noble episodes from his life, something strange was happening within me. It is difficult to describe that feeling precisely. But it is indeed a fact that while the images of Christ were passing rapidly before my eyes, I began to visualize Bhagwan Shrikrishna and Ramchandra along with their cities of abode such as Gokul and Ayodhya... Will this illusion ever become a reality? Will we, the sons of Mother India, ever get to see our own Indian images on the screen? This anxiety kept me awake that whole night." [2]

- Dhundhiraj Govind Phalke

His efforts were painstaking towards the pursuit of film making. Learning the basic techniques in filming and editing to make small demo films proved dangerous enough to almost make him lose his eyesight due to the strain. But his attempts to shoot a growth sequence of a pea plant astounded some people, and he got the first support for funds from a dealer in film material.

His mythological films were full of special effects, which brought the story to life on screen and inspired further filmmakers like Baburao Painter, V. Shantaram, V. Damle and S. Fatehlal.

[2] - <http://www.upperstall.com/people/phalke.html>

Pioneers in the Indian Film Scene



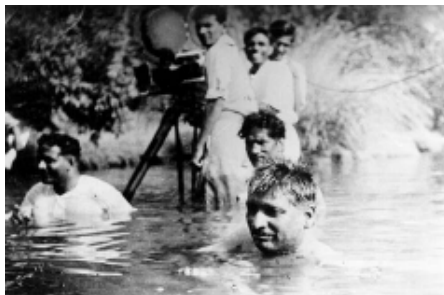
Dhundhiraj Govind Phalke
[3]



Baburao Painter [4]



V. Shantaram [4]



V. Damle
[4]



S. Fatehlal [4]

[3]-<http://www.upperstall.com/people/phalke.html>

[4]- <http://www.santabanta.com/cinema.asp?pid=829>

Mythology - the first genre

Phalke was convinced that his films should have mythology as the subject. He believed that these stories would reach out, as they are stories that people had grown up listening to. The stories are also not region specific like folk tales. Instead the whole nation is familiar with them, and is inspired by them. He felt that a historical story of Shivaji would not be as appreciated in the North as it would be in Maharashtra. Mythology also offered ample scope for rich imagery and interesting visuals, as they are full of colourful characters and incidents. D.G. Phalke was well versed in drawing, painting, architecture, photography, drama, painting and magic. He knew that his knowledge of all these fields will only make mythological portrayals even more convincing.

Thus, Mythology was the first genre that started the mainstream cinema.

Special effects made the storytelling especially effective.

Some areas of rich imagery in Mythology

- Gods showering blessings.
- Demons and spirits doing magic.
- Flying bodies, gandharvas, magical mid air fights.
- Divine darshan, suddenly appearing and disappearing.
- Scaling of people, objects, making them tiny or huge.

Special effects- definition and understanding

A special effect in a motion picture is any technique or device that is used to create an illusion of reality in a situation where it is not possible, economical or safe to use the real things.

A number of techniques were used for getting the needed effect. Though the techniques themselves were not difficult in terms of technical complexity, they required considerable skill in filming and editing to get that correct effect.[5]

The techniques used to achieve the special effects were

- Matting
- Cell animation
- Stop Block shots
- Film overlays
- Transition
- Tinting

These simple techniques brought a fervor through visual storytelling that the people had already been associated with through rich form of storytelling like the keertan, bhajans, morning narrations by Vasudevas etc.

[5]-<http://www.indiaheritage.com/perform/cinema/history/history.htm>

Matting

This technique was used in scenes to show characters flying in the sky. Mythological films had many scenes where gods, demons, demigods, and huge creatures were shown fighting, traveling, in air.

Eg: Hanuman carrying the mountain and flying in the sky.

The actor carries the “mountain” in his hand and is shot against a blue matte in that posture while on a stool- like swimming dry.

Another film is shot showing moving clouds and these negatives are exposed in a third negative on editing table to show Hanuman flying in the air with “mountain” in hand, clouds flying in opposite direction.



Cell Animation

The gods and demons had magical weapons, lightning strokes, divine rays emanating out of them. The technique of cell animation was used to effectively create this effect. Rays coming from the palm raised in blessing were perfectly created by painting dashes of rays on each frame, so that rays move from the hand to the devotee.



Tukaram's son is suffering from a high fever, but the saint as usual is busy in devotion to Lord Pandurang. Tukaram's wife, in anger drags the kid into the temple and challenges the authority of the God. In the meanwhile, divine rays cure the kid.

Stop block

These shots were used to show pantheon of Hindu Gods appearing and disappearing, demons vanishing, boons appearing out of thin air, snakes appearing as if by magic to save a child, illusions of the mind...

These shots replace a shot with an element added or removed from the next frame immediately without smooth transition.



When Shivaji comes to visit saint Tukaram, enemy soldiers attack. By divine intervention, all the devotees present start appearing like Shivaji and the soldiers get confused helping Shivaji escape unscathed.

Film overlays

Used to show spirits, souls departing the body, or gods and goddesses having an ethereal effect as they appear.

These are shot as either two shots merged at the editing table or re-exposure of the same film rewound with the additional actions happening.



Wives of the Snake king
Kalia begging for
forgiveness from the
victorious Krishna

Transitions

The transitions are used in effects for titles, or effects like wipe or dissolve. In places where a passage of time has to be shown, or an event over a period is being shown, these convey a sense of time. A happening such as waiting for a long gone warrior, or a fast that lasted for 13 days, still shots or moving shots are mixed to have a blend while they play sequentially. In Sant Tukaram, a deep philosophy of presence of the creator in each and every bit of the Universe has been shot beautifully, showing the growth of vegetation in a field. The saint sings of how a single seed grows into a small sapling, further into a cluster of plants, further into a whole field, becoming countless images of emerging plants, ...but in this whole growth, the one that exists is the one and only one creator.



The song sequence in Sant Tukaram, where the field grows in front of viewers.

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Film titles in wipe effects



The 13 day fast sequence shot through transitions

Hand Tinting

Tinting involves laboriously coloring some parts of the film for additional effect, like toning parts of film to simulate sea and sky.

A famous shot from 'Krishna Janm' by Dadasaheb Phalke, shows the nightmare that King Kauns gets. The king is a sinful and evil king torturing all people. Destined to be killed by Krishna, this dread of King Kauns results in a nightmare that his head has been severed. The shot shows the head separated from the body, floating in the air. This was achieved by tinting the actors head with colour and adding a separate floating head on to the same frame.



The nightmare of King Kans

Visual inspirations for Cinema from existing art forms

Much of the visuals experienced on the screen were derived from existing art forms. Art forms like dance and music had already been well versed in expressing ideas, thoughts and stories through abhinaya and vocal expression. Sculpture, and painting had also been depicting these stories extremely effectively. Paintings of Ravi Verma had caught the imagination of the nation, and the sets of films were often based on these references.

Local art forms like Keertans were also prevalent in villages. Keertans are storytelling sessions, where the keertankaar narrates stories from puranas or from lives of saints in poetic forms. The art form relies more on vocal expression. Bhajans were another form of vocal expression for devotion. Cinema tried to get in the same fervour through visual translations as the technique for sound was not yet known.

Dance forms all over India had elaborate getovers in form of masks and dresses and these also provided ample inspiration for cinema visuals.

Special effects in other genre

The start of the Indian Cinema was with the mythological genre. The imagery of gods, goddesses, demons, and magical scenes brought onto the screen due to special effects gripped the imagination of the society. The nation is a highly devotionally oriented one, and this made the mythological stories such a huge success.

The genre however gave way to newer genres over time. By 1950s the mythological genre had almost completely disappeared.

The audience was hungry for newer ideas in cinema and ideas such as comedy, horror, suspense, double roles, action flicks and fantasy films like the Nagin series took place of mythological films.

These other genre did however continue to surprise, interest, and even shock audiences by hugely relying on special effects.

A low budget film 'Jai Santoshi Maa' in 1975 that was not expected to be a success became a blockbuster standing besides Sholay in its box office success. The actors were unheard of, the budget was low, even the special effects were not really refined but what clicked hugely was the subject which had seemingly died down as a film genre. The mythological stories found its way to the hugely successful TV serials 'Ramayana', 'Mahabharata' and later 'Uttar Ramayan'. The serials used special effects grandly and the whole nation remained glued to the tv sets when these serials were on air...

The techniques of special effects have however greatly changed now, and dedicated special effects studios have been established to work in just these areas. The digital possibilities are so immense that one is unable to distinguish between a real shot and a special effect. The manipulation imagery is entirely soft now, with computer graphics coming in, and so the special effects come and go out in the blink of the eye, completely blending in with the scenes.

Irrespective of the methods used, special effects will always be an integral tool of storytelling in Indian Cinema.

Examples of special effects from 3 memorable films

This documentation contains still shots of special effects from 3 prominent films.

Krishna Janm

Dadasaheb Phalke

Sant Tukaram

Damle and Fatehlal

Sant Dyaneshwar

Damle and Fatehlal

Krishna Janm

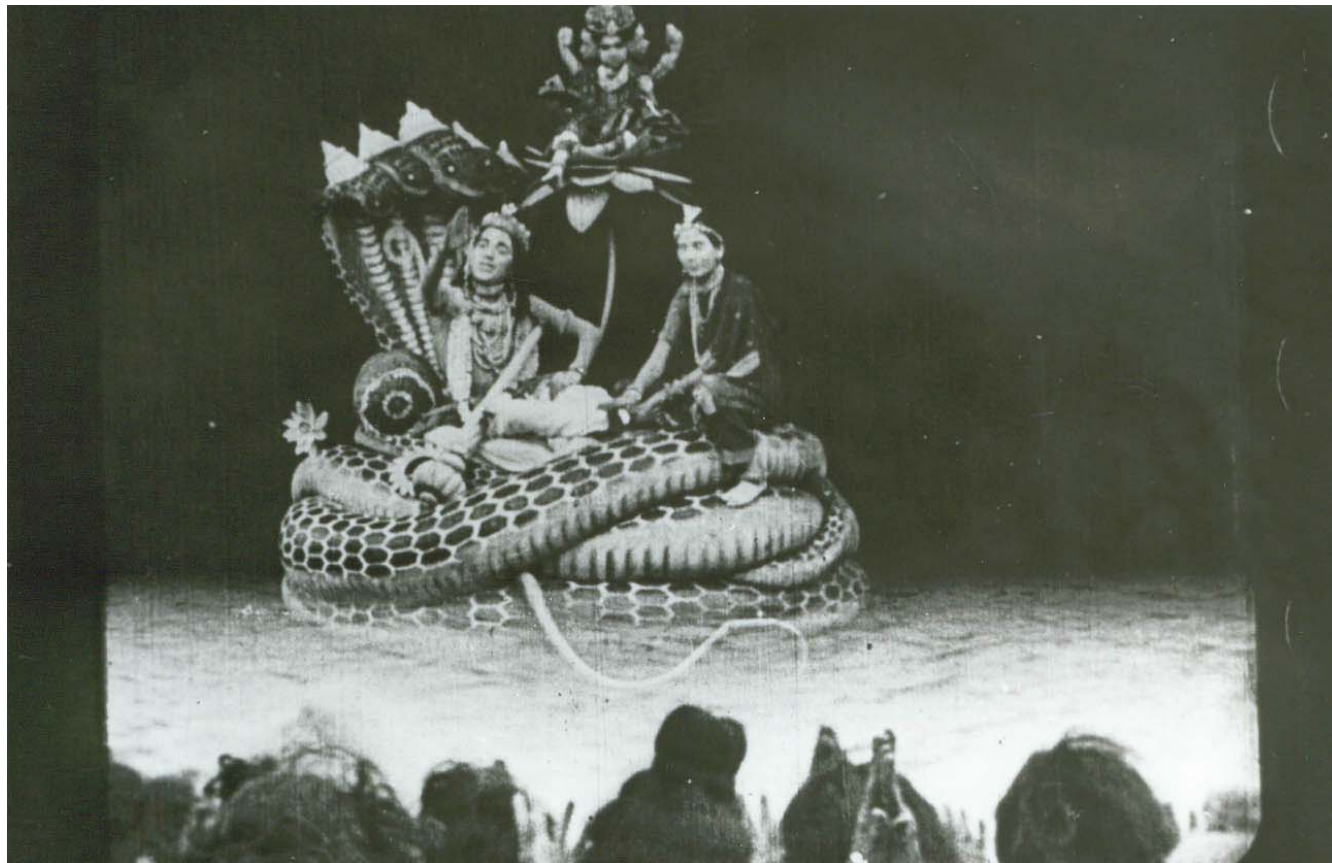
Dadasaheb Phalke

Year- 1913

It is one of the first of the mythologicals by Dadasaheb Phalke. It is based on the story of Krishna and the death of King Kans. Krishna is the avtaar of Lord Vishnu, which he takes after gods beseech him to come on earth and destroy the evil Kans.

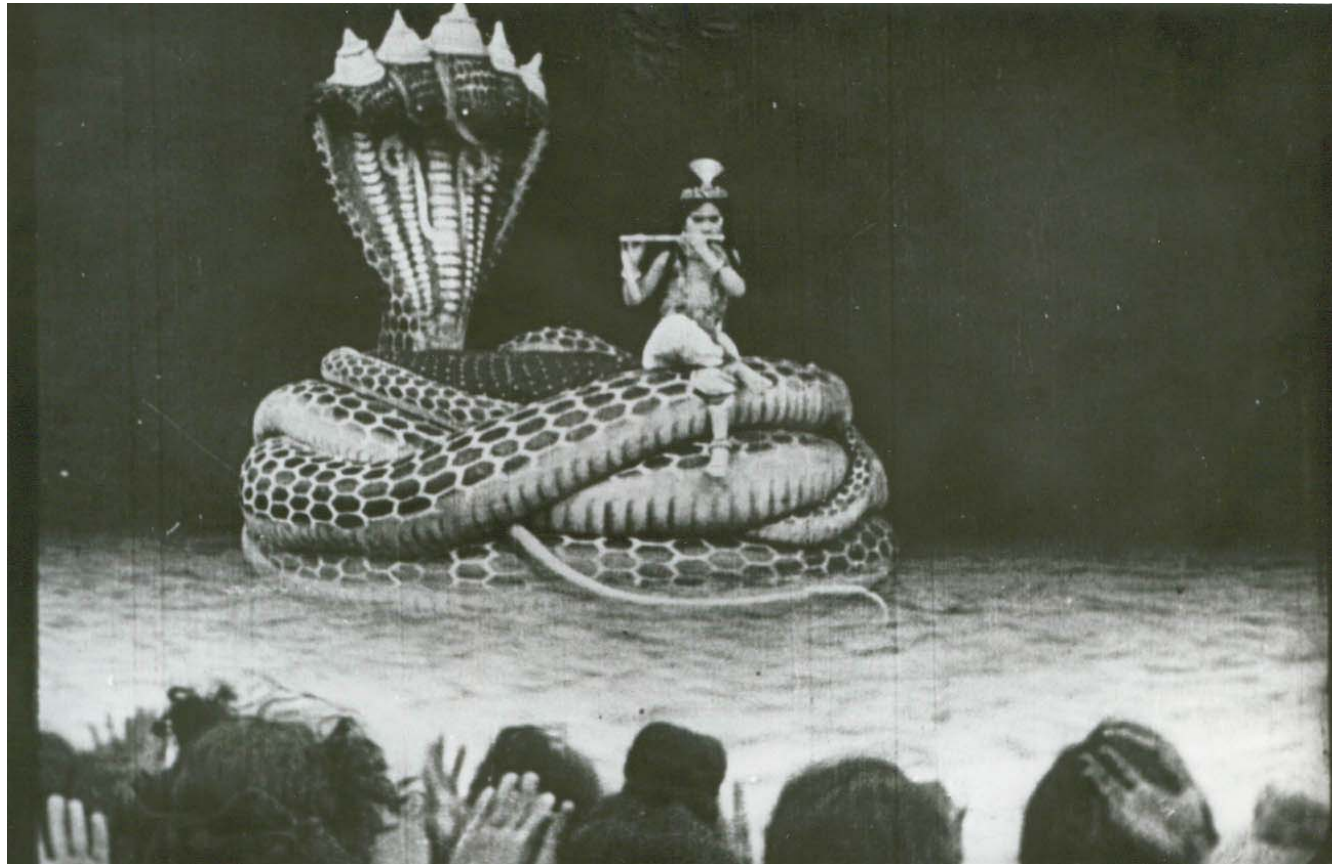
As a child, Krishna also saves a village from the serpent King Kalia by fighting with it. Kans is destined to be killed by the eighth child of Deviki which is Krishna. Nightmares of his oncoming death haunt Kans and the final scene shows many images of Krishna attacking and killing the evil King.

Image courtesy: National Film Archive, Pune



The Gods and the sages pray to Lord Vishnu to come on earth and kill the evil king Kans.

Image courtesy: National Film Archive, Pune



Lord Vishnu gives them a glimpse of the form of his avtaar on earth. The original image of Lord Vishnu is replaced with the vision of Krishna.

Image courtesy: National Film Archive, Pune



Lord Krishna with a divine radiance and halo

Image courtesy: National Film Archive, Pune



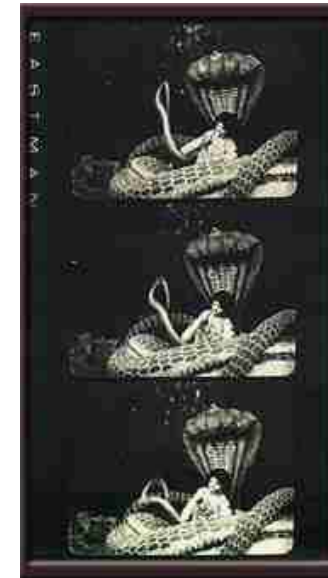
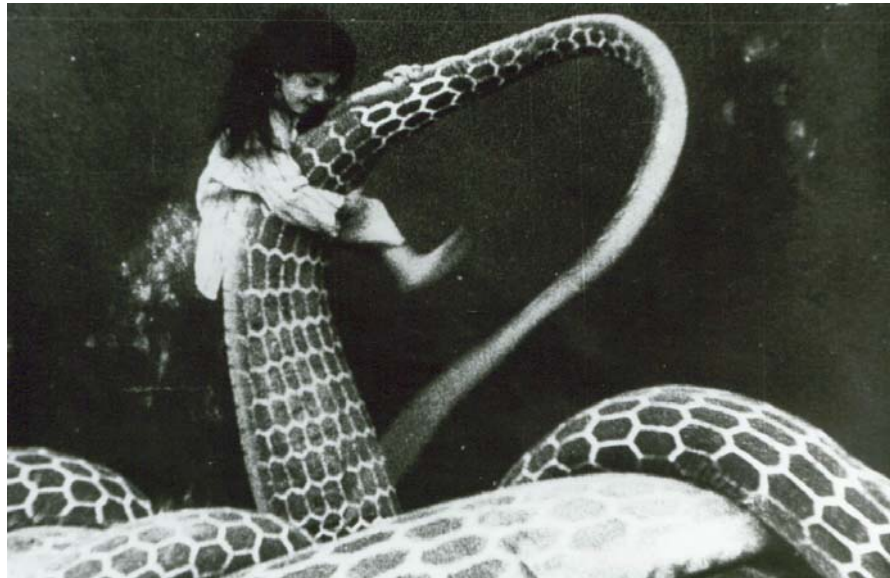
Krishna and his friends play a game of ball, but lose it as it falls in a huge river. Krishna searches for the ball, walking on tree.

Image courtesy: National Film Archive, Pune



The King Serpent that has been troubling the villagers attacks Krishna and a fight ensues between the two.

Image courtesy: National Film Archive, Pune



The fight with Kalia is shot using a huge model of a snake, moving it little by little and shooting to give an effect of a moving and alive snake. Krishna grapples with it.

Image courtesy: National Film Archive, Pune



Krishna is victorious and dances on Kalia's head

Image courtesy: National Film Archive, Pune



Kalia's wives ask for forgiveness from Krishna Two images are superimposed on the same frame to give an apparition like effect.

Image courtesy: National Film Archive, Pune



Kans is destined to be killed by Krishna. The nightmare of King Kans shows his head being severed. The head floats in mid air for sometime detached from the body. This was achieved by hand tinting the frame and adding a separate head.

Image courtesy: National Film Archive, Pune



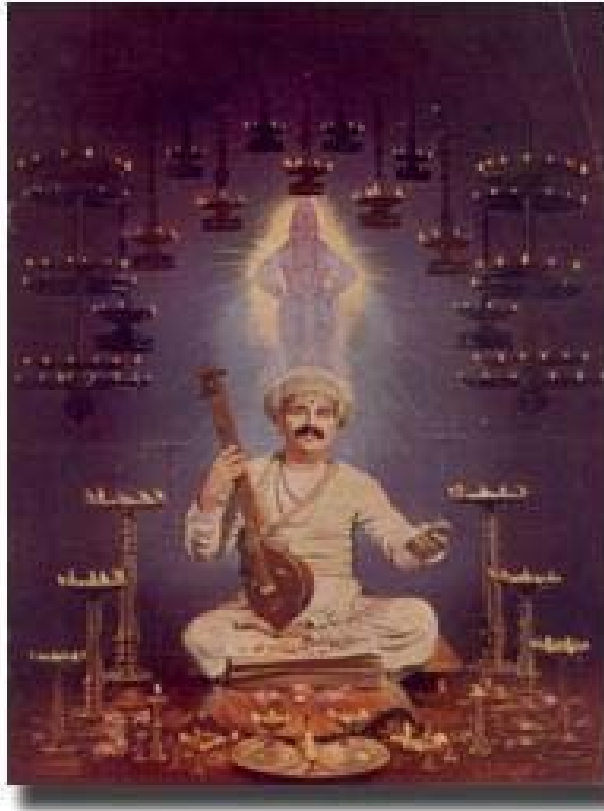
Multi images of Krishna attack the evil King Kans and kill him in the final scene.

Image courtesy: National Film Archive, Pune



Multi images of Krishna attack the evil King Kans and kill him in the final scene.

Sant Tukaram



V. Damle and S. Fatehlal

Year- 1936

The film was on the life of Sant Tukaram. Extraordinary performances by the actors breathed life into the characters in the film. The film also was noted with great interest for its special effects. The film was pathbreaking in its efforts of special effects, and holds audience spellbound even today. The film was sent to the International Film Festival of Venice in 1936, where it was adjudged one of the three best films of the year.

Image courtesy: <http://www.upperstall.com/people/phalke.html>

Image courtesy: Damle and Fatehlal



The film starts with titles swiping into each other.

Image courtesy: Damle and Fatehlal



Tukaram's son is suffering from a high fever, but the saint as usual is busy in devotion to Lord Pandurang. Tukaram's wife, in anger drags the kid into the temple and challenges the authority of the God. In the meanwhile, divine rays cure the kid.

Image courtesy: Damle and Fatehlal



Tukaram had a great ability to compose poems at ease. His poems emanated like a brook of water with the filmmaker showing divine grace as the reason of inspiration for the poet saint.

Image courtesy: Damle and Fatehlal



Tukaram's wife Jijayi talks sense to him, and he starts working as a field tender to earn money for his family. But he keeps singing devotional songs while working too. In this song, the saint sings of the omnipresent God. He sings that a seed becomes a sapling, then a group of plants, then a whole field, countless images of growing crops, but in all of them is the one and only one Paramatma. The shot shows images of fields transitioning sequentially and we see the field growing right in front of us.

Image courtesy: Damle and Fatehlal



Tukaram starts working to earn money for his family by tending a field. But his enemies destroy the field with cattle and the saints house gets mortgaged to compensate. Lord Pandurang intervenes by replenishing the crop ten folds and Tukarams house is saved.



Chatrapati Shivaji comes to meet Tukaram and the enemy soldiers come to attack the temple. Due to the saint's demand to save them, Lord Pandurang radiates hundreds of images of Shivaji from his body. All the devotees in the temple start appearing like Shivaji and the illusion totally confuses the enemy soldiers helping Shivaji to escape unscathed.

Image courtesy: Damle and Fatehlal



Lord Pandurang gives darshan to the saint in the temple. The filmmaker used his own son as the image that appears before Tukaram. God appears as Tukaram sings, the idol getting replaced by the divine presence in human form, and starts dancing, ecstatic because of the saints abhang.

Image courtesy: Damle and Fatehlal



Tukaram's enemies Salomalo and company plot against Tukaram, poison Ramshastri's ears and get an order passed that Tukaram should drown all of his poetic compositions. The saint is devastated at the news but he has no options and the whole village turns up to witness the sad scene.

Image courtesy: Damle and Fatehlal



History mentions that Tukaram devastated because he had to drown his works, started a fast on the river bank that lasted for 13 days. The filmmaker shows the passage of time through wipes of shots titled with days.

Image courtesy: National Film Archive, Pune



The Goddess pleased with Tukarams devotion emerges out of the river to return the poetic compositions to Tukaram.

Image courtesy: National Film Archive, Pune



The works come flying back to Tukaram. The family and the village witness this miracle and word spreads.

Image courtesy: Damle and Fatehlal



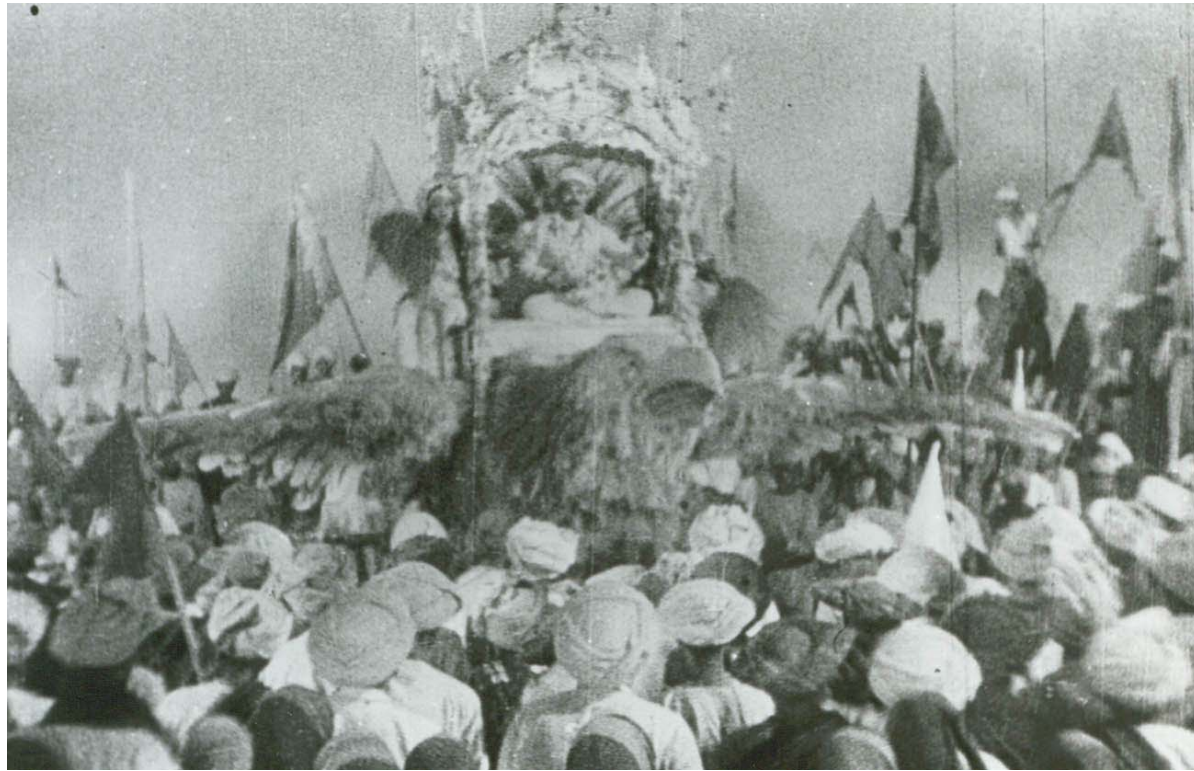
Shivaji comes to meet Tukaram and the scene shows a temple sequence. Enemy soldiers attack the temple to capture Shivaji, but Tukaram demands a save from Padurang, and hundreds of images of Shivaji come running out of the idol. Suddenly everyone in the temple start appearing like Shivaji and the enemy soldiers get completely confused.

Image courtesy: Damle and Fatehlal



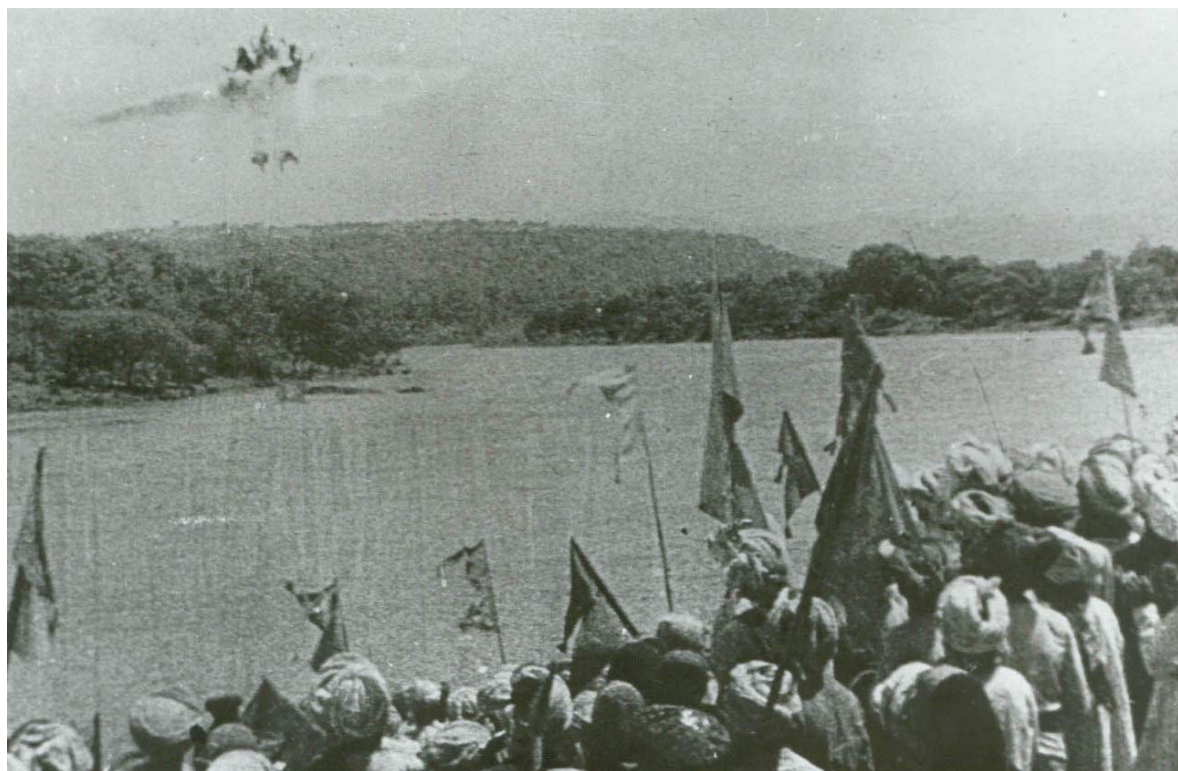
In the last scene, we see Pushpak vimaan coming from heaven to fly Tukaram to Vaikunth, the abode of Gods. The vimaan is the huge bird Garuda, Lord Vishnu's vehicle. Tukaram's last verses are picturised here as he describes his experience to the village when he about to leave for Vaikunth.

Image courtesy: Damle and Fatehlal



Tukaram bids farewell to the villagers and is ready to leave the world of people.

Image courtesy: Damle and Fatehlal



The Pushpak vimaan leaves for the heavenly abode taking Tukaram as the villagers view the departure.

Sant Dyneshwar

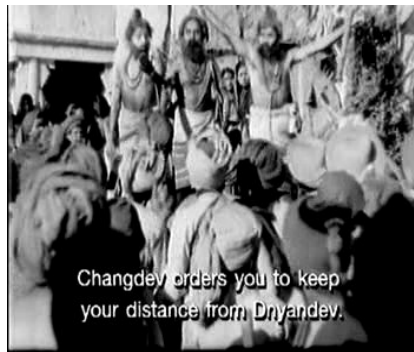
V. Damle and S. Fatehlal

Year- 1940

The film portrays the life of Dyaneshwar, a poet saint of Maharashtra. He advocated the doctrine of equality among men. He also preached ' Bhagwat gita' in Marathi so that common man could understand.

This film was the first film to be commercially exhibited in America. Trick photography is the highlight of the film.

Image courtesy: Damle and Fatehlal



Disciples of the arrogant sadhu Changdeva come into the village to preach that the villagers stay away from Dyandev, or Changdev would be angry. The villagers pursue the disciples to beat them up. Changdev from his place of meditation captures the people in mid air flight, freezing their movements.

Image courtesy: Damle and Fatehlal



To free the villagers from midair capture, Changdev's scheming disciples tell Dyandev to give up his own life. The saint's family lock themselves in their home and set it to fire, praying to the holy book Gita. A miracle occurs where all the fire gets absorbed into the holy book and the family emerges unscathed.

Image courtesy: Damle and Fatehlal



To brag about his huge prowess, Changdev starts out to meet Dyaneshwar on his tiger with all his followers with him. When Dyaneshwar hears about the tiger, he playfully decides that he shall go to meet Changdev on a wall. The wall on which the the family is sitting starts to glide ahead.

Image courtesy: Damle and Fatehlal



The filmmaker shows the flying wall in all angles. The shots also show the viewer's perspective from the ground as well as the view from the wall looking downwards.

Image courtesy: Damle and Fatehlal



In the last scene, when Dyandev takes samadhi, he is blessed. Images of a god and goddess appear besides him, bless and slowly fade away. A halo appears behind Dyaneswar.

Image courtesy: Damle and Fatehlal



Dyaneshwar with the halo that appears after the god and the goddess fade away from the scene.

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Regards

- Ajit Damle, son of filmmaker Damle
- Mr.Mane, Spectra video films, Dadar