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ภาพยนตร์แอนิเมชันในอดีต  
Early Animated Feature Films  
ทักษิณา สุขพัทธ์\*  
Thaksina Sookpatdhee

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บทคัดย่อ

การ์ตูนแอนิเมชันมีวิวัฒนาการมาอย่างต่อเนื่องเป็นสิ่งที่ต้องใช้เวลานานกว่าจะมาถึงความสมบูรณ์แบบในปัจจุบัน ด้วยความวิริยะของผู้สร้างมาตลอด นอกจากใจรักแล้วต้องรักการค้นคว้าและการทดลอง ปัจจุบันแอนิเมชันเป็นภาพยนตร์ที่แสดงเรื่องราวอารมณ์และความรู้สึก โดยกำหนดให้มีตัวแสดงต่างๆโดยสร้างจากจินตนาการของผู้ประพันธ์บทและนำมาเขียนวาด แสดงท่าทาง การเคลื่อนไหว เกิดความรู้สึก มีชีวิต ให้ความสนุกสนานและความบันเทิงแก่ผู้ชม ทั้งยังสร้างจินตนาการร่วมกับเกิดขึ้นจริง แต่กว่าจะมาในรูปแบบแอนิเมชันในปัจจุบัน ไม่ใช่เรื่องง่ายเลยที่จะสามารถสร้างให้เกิดขึ้นภายในระยะเวลาไม่กี่ปี มีเรื่องราวและความพยายามมากมาย จากนักวิทยาศาสตร์และและเชื่อ เมื่อย้อนกลับไปในอดีตของการ์ตูนแอนิเมชันนั้นส่วนใหญ่จะสร้างขึ้นเพื่อเผยแพร่ศาสนาคริสต์ และวิถีความเป็นอยู่ การสร้างนั้นตั้งแต่การใช้แสงและเงาเพื่อให้เกิดภาพบนผนัง การใช้ทฤษฎีภาพติดตา การประดิษฐ์เครื่องพาสโคป (Praxinoscope) การวาดภาพลงสไลด์ฟิล์ม ประกอบกับเทคนิคการใช้เสียงให้สัมพันธ์กับภาพ ภาพยนตร์รูปม้า 12 ภาพของ Eadward Muybridge ที่เรียงต่อกัน เครื่องฉายภาพยนตร์ตู้ไฟฟิล์มของ Thomas Edison จนไปถึงความฝันที่เป็นจริงของวงแอนิเมชันที่พี่น้องตระกูล Lumiere ได้สร้างกล้องถ่ายภาพยนตร์และเครื่องฉายภาพยนตร์ในตัวเดียวกันได้สำเร็จ Cinetographe เป็นต้นแบบของวัฒนธรรมการชมภาพยนตร์ใช้อย่างแพร่หลายทำให้มีภาพยนตร์ในรูปแบบต่างๆเกิดขึ้นซึ่งโดยส่วนใหญ่จะเป็นภาพยนตร์ที่บันทึกเหตุการณ์ต่างๆ หรือใช้คนแสดงละครเวทีไปเรื่อยๆ ไปจนกระทั่งมีการพัฒนาเป็นรูปแบบแอนิเมชันที่สมบูรณ์ที่สุดให้ผู้ชมได้รับชมรูปแบบการสร้างสรรค์ต่างๆ ในปัจจุบัน

คำสำคัญ : การ์ตูนแอนิเมชัน / การเคลื่อนไหว / จินตนาการ / การสร้างสรรค์

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### ABSTRACT

Animation Cartoon' has continuous evaluation and it needed a lot of time and effort of the creators to make it perfect like nowadays. They need not only passion, but also need the love of ascertaining and doing experiment. These days, animation is the movie that illustrates stories with emotions and feelings by creating many characters from imagination of authors and then drawing those characters up to show posture, movement, lively feeling, joy, and to entertain authors. It also creates the imagination as if it actually happens in real life. However, before becoming animation movies like nowadays, it was not easy to be able to create them within few years. There were stories and endeavors from scientists and beliefs behind creating animation in history. If we look back in the past, most animation cartoons were created for dissemination of Christianity and for showing the way of living. The processes of making animation in the past including using Chiaroscuro technique to create picture on a wall, using persistence of vision theory to invent Praxinoscope, drawing and painting on film, audio annotation technique, twelve horse photos of Edward Muybridge that concatenated, Kinetoscope of Thomas Edison, and the dream come true invention of the siblings of Lumier's family that they have successfully created film camera and movie projector in one machine. Cinetograph is the model of watching movie culture that is quite popular, so it is caused producing many types of films. While most of them were the film telling events that go on and used real actors to play the role, until there was an invention of the most perfect animation that we are watching nowadays.

**Keywords : Animation Cartoon / Emotions / Imagination / Create**

### Contents

Animation cartoon is quite popular in Thailand. An animation film is often called as cartoon. Actually, cartoon means the drawing that aims to satire such as illustration picture in a book that intended to imitate realistic picture or describe something that a photo cannot do. Those pictures started to have characters, and habits, so we called it cartoon. The characteristic of cartoon in the early days was created for mocking such as a cartoon version of famous people, and then a cartoon was created more officially and was published on newsletter. When cartoon became more popular, it was made into a comic book. And when motion pictures technology started to used widely, there were more cartoons broadcasting on television and theater. Animation derived from the word "animate", which means to give life or to make it lively. We can see that the word "anima" is an etymology of many words such as animal which means the living things or animated, which means to make objects move. So the word "animation" can be defined as making to appear to move as living creatures do which is not only about to make it move, but also to make it vivacious, and to make emotions. (Piyakul Laowannasiri 1989: 931-932) has described the meaning of animation movie

as the movie that create from the picture or lifeless object and make them move. The key of producing this type of film is to record picture by picture and each record needs to move or slide the pictures a little every time in order to create changes gradually. And when those images projected through the film, we would get realistic animations. It can be concluded that animation encourages us to use our infinity imagination and it could be able to explain complex and difficult things so it becomes more easily to understand. It also used to describe or comment the abstract concept to the concrete concept and used to describe or highlight important parts to make it more concise and clearer.

In the aspect of producing film, animation means the technique of taking picture frame by frame, and then bringing them to connect with each other in order to create a motion picture. For example, “King Kong” movie, this movie had most of the story using actors for life action, but there were some parts of the movie that cannot shoot scene in reality. So they used the technique of moving King Kong model and shoot photo frame by frame in order to make “ King Kong” moving like it’s alive and to make it connect with the picture of Life Action.

Moreover, some people are wondered if graphic pictures or letters on television can be called animation or not. The answer is to design motion alphabet for movie is about the purpose of reading more than about making motion in a story, or about characters that have emotions and feelings. So that is called Motion Graphic because it is mainly about the motion of alphabet so we can notice that the good animation work is not only to make cartoon paintings to move but also to make them lively and full of feelings like human, even though they are just pictures on paper that are inanimate. Therefore, animator is the creator who makes things without life become alive in movie industry so they are able to communicate a story back to the audiences.

During animation film pioneer era, humans are likely to record or make up a story to teach people and to entertain by using different channels to tell the story, such as shadow puppet paintings, or drama. When the world has come to the period of industrial revolution in 17<sup>th</sup> century, there were many inventions that were used as a media to tell story. The first invention in that period aimed to disseminate Christianity.

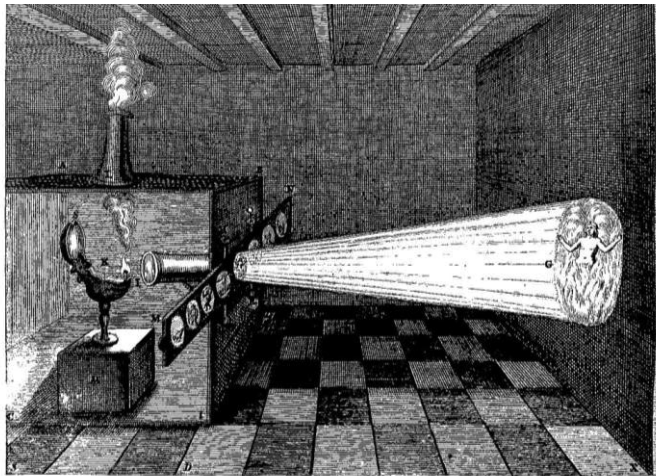


FIGURE 1 THE MAGIC LANTERN BY ATHANASIVS KIRCHER

Source: <http://www.stanford.edu>

In 1645, in Rome, Athanasius Kircher called his invention “The Great Art of Light and Shadow”, which was a Magic Lantern artifact that were reamed and put in a dark room, and then the light shined through paintings on a glass that can move back and forth. The Painting was reflected through lens and enlarged on a wall. This invention was often used to narrative religious stories, religious beliefs, or the stories of angels and demons. It was used widely in Europe. Later, the materials were modified, and change screening techniques and drawing to be long stories version.

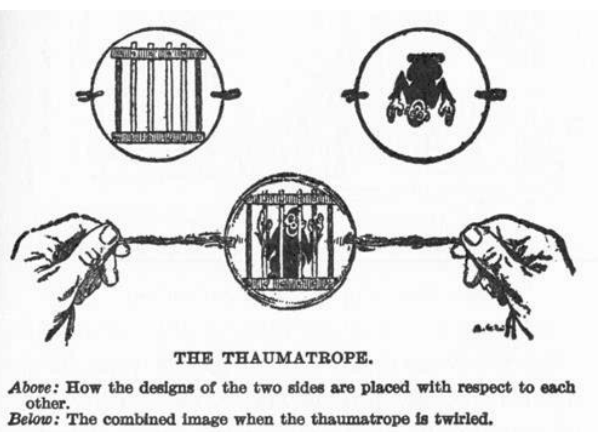
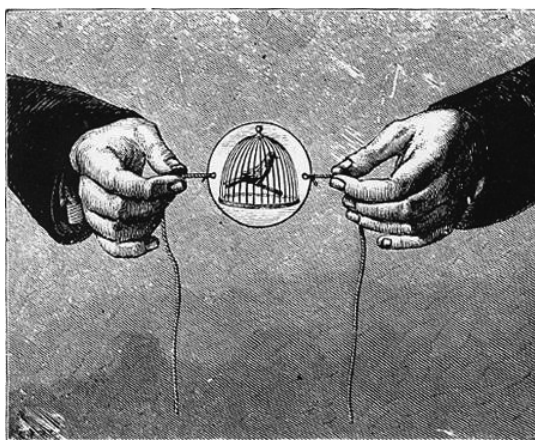


Figure2 Invention Thuematrope by Dr. JohnAyrton Paris

Source: <http://watercatkkk.exteen.com/20130211/entry>

Until 1825, Dr.JohnAyrton Paris has invented one toy named “Thuematrope”, which is a toy made of cardboard that was drawn on both sides with different pictures, but they can

be blended together. For example, one side is a picture of monkey, while the other side is a cage. A disk with a picture on each side is attached to two pieces of string on both sides. To play this toy, we have to twirled the string and let it go, the paper will be flipped over quickly, and then the two pictures appeared to blend into one. The player will see a monkey in a cage.

Later in 1824, a scientist named Peter Mark Roget studied this phenomenon and called this principle as “Persistence of Vision Theory”. This theory illustrated the irrelevant operation between our brain and eyes. Since when we visualize a certain object, the brain will remember that photo immediately, but when the second photo appears rapidly, the first photo is still pending in the brain. So we see the two overlapping photos. What we see is just an illusion. The theory has been applied to make several inventions such as "Flipbook" which is a notebook with drawing of many pictures on each page, when the player flips the notebook quickly, it will appear a motion pictures. Another invention is "Phenakistiscope", which was invented by Belgian physicist named Joseph Plateau. It is a small number of paintings on a paper wheel. A player needs to look through the hole on a cardboard and look at reflection on a mirror, so the motion pictures will appear through that paper hole.



**Figure 3 Invention Phenakistiscope**

Source: <http://en.wikipedia.org/wiki/Phenakistiscope>

In 1877, Emile Reynaud invented Praxinoscope (Thammapapon Leeumnaychok, 2007, 21), it was a phenomenon that Emile Reynaud creating the projector called Praxinoscope, which is an invention that is more complex. This invention needed a painting that must be written down on a sheet of transparent film. Players have to light up in the middle of a lamp for letting the light shines through the film and impinging with the glass on a screen that is designed like a stage play. So the picture is more similar to film screening. This invention used the same principle as Zoetrope, but the audience can see the image from a mirror instead of watching through a hole. Praxinoscope was one of a very successful artifact.

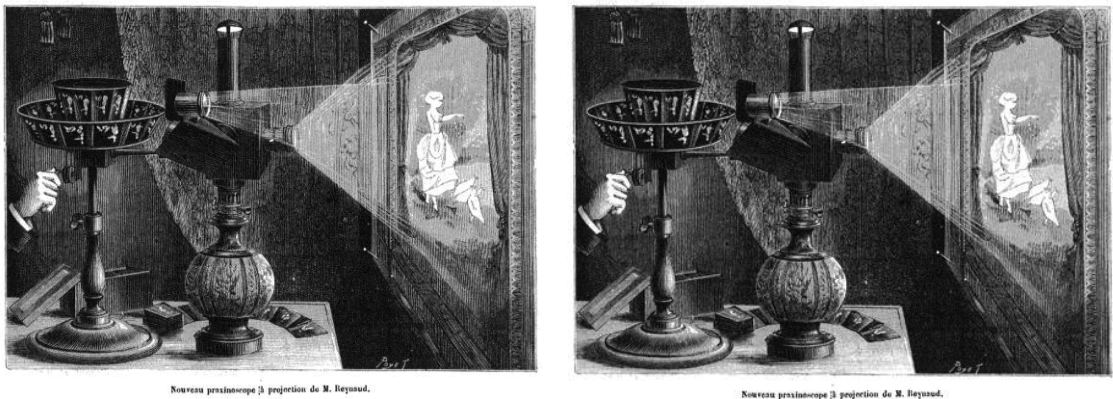
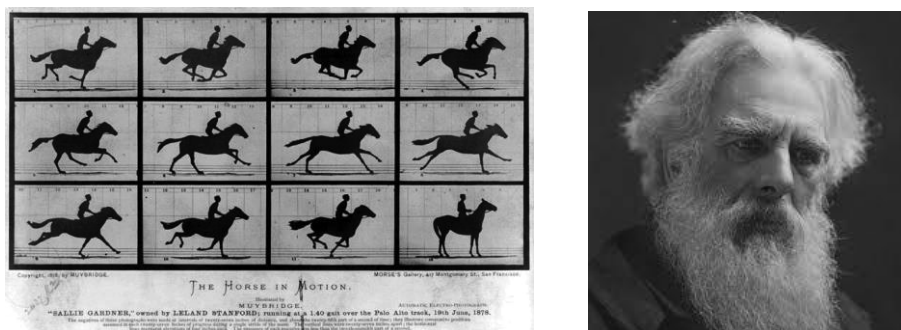


Figure4 Invention Praxinoscope by Emile Reynaud

Source: <http://en.wikipedia.org/wiki/Praxinoscope>

In addition, Emile Reynaud also did an experiment of drawing and painting on a film and accomplished the experiment of an audio annotation technique. He also developed Praxinoscope machine for screening through the magnifying lens which will make the image appears larger and be able to screen in a theater. He has built a theater called "Theatre Optique" in Paris in 1892 which screened many animation movies such as "Poor Pierrot" its length of 15 minutes, "A Good Glass of Beer" its length of 15 minutes, "A Clown and His Dogs" with its length of 10 minutes, etc.

During that time, Photography became more popular. One photographer called Eadward Muybridge, he was hired to take a photo of a racing horse in order to prove in the gambling that when the horse was running, it will float above the ground or not. So Eadward Muybridge prepared 12 cameras along the horse running field and used electrically pressing camera shutter in order to get every stroke of the horse's running. As a result, the image proved that there was one stroke that all horse's legs were floating above the ground. However, the trial did not finished yet. Eadward Muybridge brought the film to concatenate with each other and used the light from a lamp shined through the films with the same technique as Magic Lantern, and then he spin the wheel very quickly. Finally, the images of horse appeared to run constantly as if it was happened in real life. So we called this invention "Zoopraxinoscope" (1872).



**Figure 5 Photographs taken by Eadward Muybridge**  
 Source: [http://en.wikipedia.org/wiki/Eadweard\\_Muybridge](http://en.wikipedia.org/wiki/Eadweard_Muybridge)

With Eadward Muybridge's invention, the dream of making movie became true. Thomas Edison has created the first film camera and movie projector that look like a film cabinet. It used electricity from light bulbs projecting the film for creating pictures on a screenland using hand to make the pictures moved. Audiences had to look one by one and the story was just a repeated short event such as a man splintered a ball and it bounced over and over, which we call this as Film Stripe. Unfortunately, this invention was not very popular



**Figure 6 Movie Kinetoscope by Thomas Edison**  
 Source: <http://en.wikipedia.org/wiki/Kinetoscope>

Until 1895, in France, siblings of Lumiere's family has created a film camera and film projector within one machine, which is called "kinetograph". The siblings also built a big movie theater that can contain a lot of audiences. They were quite successful which later their inventions have become the original culture of watching movie. Now, when film cameras are used popularly, there are various types of movie occurred. Most of them is a movie which recorded some events or using actors to perform continually on a stage.

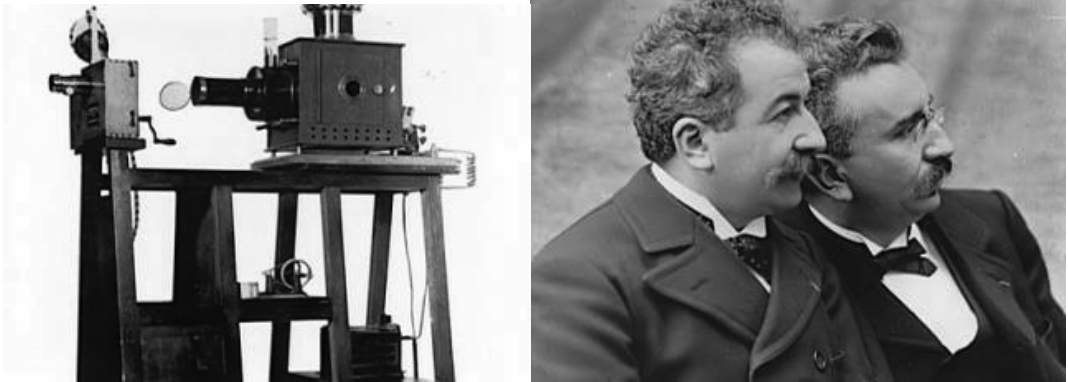


Figure 7 Kinetograph of siblings of Lumiere's family

Source: <http://en.wikipedia.org/wiki/Cinematograph>

The photographer took the video according to the real time of the show until the film was out without any cutouts to change the angle of a camera or scene. We could say that there were no breaking shots which can be implied that no one was able to take one frame picture according the animation technique in that time. At that moment, James Stuart Blackton was working for Thomas Edison's movie production and he was demonstrating to make an animation film from film camera with Stop Motion technique. He created one wood doll character for his first movie called "The Humpty Dumpty Circus", but the animation film that made him famous was actually "Humorous Phases of Funny Faces" (1906). That movie used an animation technique of a white chalk drawing on a blackboard by drawing and erasing some lines and taking with the camera frame by frame until it became a story. That movie had the faces of women and men as a cartoon character and then used black and white film camera to shoot.



Figure 8 Humorous Phases of Funny Faces (1906)

Source: [http://en.wikipedia.org/wiki/Funny\\_Faces](http://en.wikipedia.org/wiki/Funny_Faces)



The Humorous Phases of Funny Faces (1906) was the first step of producing animation cartoon movie as it used an animation cartoon drawing technique. There were many caricature drawer began an experiment of making animation movie by using this technique but using their own cartoon characters that were published on newspaper. Winsor McCay was an Americans cartoonist. He made animation movie from his published cartoon character. It is called "Little Nemo in Slumberland" (1905), which was a story in the fantasy world of princess in the Slumber land. However, the animation that gained a lot of attention was "Gertie the Trained Dinosaur" (1914). It was the animation movie using black line writing on board technique. It was a story about dinosaur cartoons in primitive era. Winsor McCay had studied the movement of animals and people before drawing them. The flexibility and changing shape technique can place the personality of human into the dinosaur. So the character will be similar to a boy who was charming and be able to communicate with body language to audiences without speaking. Besides, McKay was also the inventor of drawing on a transparency technique separate cartoon backgrounds, which is a technique that separate cartoons and backgrounds it saved a lot of animation production time to draw background.



**Figure 9 Gertie the Trained Dinosaur (1914)**

Source: [http://en.wikipedia.org/wiki/Gertie\\_the\\_Dinosaur](http://en.wikipedia.org/wiki/Gertie_the_Dinosaur)

Without drawing background with cartoon characters of every frame, we call this technique as Cel Animation. This technique has been widely recognized. Winsor McCay's invention became the model of making animation for studios further. Raoul Barre Studio is the first studio producing animated film which was established in New York, during 1910. The studio focused to produce an animation film. At that moment, 2 brothers, Dave and Max Fleischer' did an experiment of taking people photos with the film camera and projected them on a mirror and also traced image on paper of every frame for studying about the movement of things. The drawn pictures were used as a model to draw cartoon characters so they could move very realistically. This technique was called "Rotoscope". With this technique, Max Fleischer was able to create the first combination movie between cartoon and life action. That first movie was called "Ko-Ko the Cop" (1927).

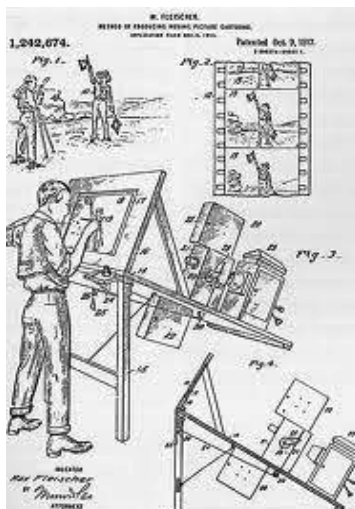


Figure 10 Rotoscope Technique

Source: <http://en.wikipedia.org/wiki/Rotoscoping>

The first most famous cartoon character was born in 1922 in Sullivan Studio. The comic cartoonist, Otto Mesmer, was assigned to study the gestures of a comedian, Charlie Chaplin. As the cartoon in that era was a silent comic, the gestures and actions must be understandable and funny. So he must learn from silent movies or pantomime. He chose to create a cat cartoon and painted over its body with black in order to delete dirty sketch lines that happened from drawing.

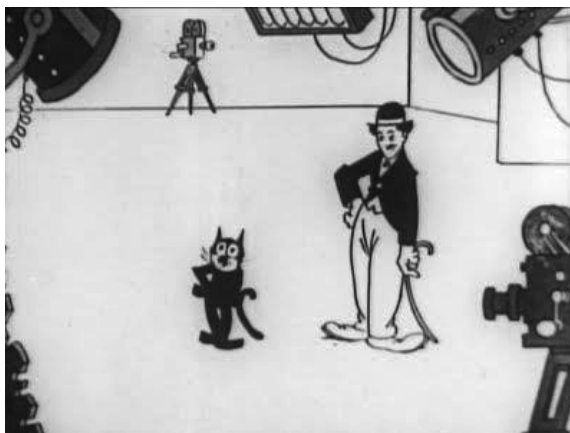


Figure 11 Cartoon Felix the Cat

Source: [http://en.wikipedia.org/wiki/Felix\\_the\\_Cat](http://en.wikipedia.org/wiki/Felix_the_Cat)

But that caused the good result for visualizing. We could see the muscle and felt the weight of a cat better. It was named as Felix which resembles to the Latin word for Felis,

which means cat and Felix, which means lucky. The cartoon character “Felix the Cat” was very successful. The next cartoon character of Fleischer Studio was able to gain popularity as well. She was called Betty Boop, which imitated character from the Jazz singer, Helen Kane. The drawer was Americans, Grim Natwick. There were many more cartoon characters following such as “Little Dog, Bimbo & Koko

### Evolution of Animation Movies in Thailand

First animation movie in Thailand was created in 1937 by the initiation idea of Saneh Klaikluen, the famous illustrator of “Ponnikornngimnguan”. He tried to make an animation from the cartoon picture in “Pimthai” newspaper but he failed because of the lacking of support from government as animation was seen as unpopular and it would draw less attention from the audience unlike making film. However, this dream still belongs to some illustrators in the next generation like Payoot Ngaokrajang, he worked for foreign government and companies including many department stores. He started studying about making animation film by buying sixteen-millimeter film camera for taking a film himself. He also learned the technique from Saneh Klaikluen about using Celluloid for drawing, but during that time, there weren’t any Celluloid selling in Thailand. Then Payoot found a clear film for drawing animation at a hat store. After that, making animation by using Cel techniques has happened for the first time in Thailand.

Payoot Ngaokrajang has established a company called “Teppelfilm”, a production house for commercial and cartoon company. Snow-white and Hexin Anthelmintics were also the advertisement produced by this company. He also made 20-minute-long animation movie that broadcasted in a theater which was called “Rueng Hate Assajannaichao wan nueng” in 1955. Although this animation was not quite successful as it should be, America gave supported money around 10,000 baht and paid for the study trip about animation in Japan. The second animation movie is “Hanumaan Pachonpai” which was financially supported by America to produce this movie in order to ban communist. Yet the movie was not allowed to on-air because it was seen as a mock to Field Marshall Sarit, as he was born in monkey year. However, it was broadcasted eventually in 1960 after changing government. And then, he produced another works which are “DekGubMhee” (1960), and “Chai chanakongsaonoi” (1962)

Payoot Ngaokrajang had a dream to make a long animation movie called “Soodsakorn”. He resigned from being a teacher at Poh Change Academy of Arts in order to potentially make his animation. He hired a lot of workers and found a budget for 3 million baht. “Soodsakorn” was completely done and broadcasted with 66,000 frames for 82 minutes. The first time screening was at Athens Theater in 1979 and this animation earned 2 million baht. It was the movie that could earn the most income during that time. Unfortunately, Payoot had to do surgery for the left eye due to hard work.



Figure 34 Sudsakorn (A.D. 1979)

Source: <http://topicstock.pantip.com/chalermthai>



Figure 35 Khan 'Kluay Movie' (A.D. 2006)

Source: <http://www.narak.com>

It has been 20 years ago that there were not any long animation movies were created in Thailand since then. There were only Japanese animation cartoon like Dragon ball and Slam-dunk that hired Thai people to paint characters according to their original characters that were imposed by Japanese crew and sent back to them. However, there were still some animations in few commercials and short cartoons that broadcasting on television. When new technology like computer has initiated in Thailand especially Computer Generated Holography, it made the Thai comic industry alerted again. As this new technology helped saving cost and was interesting for audiences. Since then, 3D cartoons were produced more and more such as "Soodsakorn" in 2002, "Pang-Pond", and "Ni-tan-ve-taan". Until 2006, Kantana Animation Company used Thai history event during Ayutthaya-era about King Naresuan had a war with Burma to produce Animation called "Khan-Kluay". It is the adventure story of an elephant called Khan Kluay since he was young and eventually he became the war elephant for King Naresuan and brought the victory to Siam kingdom. Later Khan Kluay was named as "Chao PrayaPrabHongsawadee" for honoring him. This animation movie was directed by Kompin Kemgumnird. "Khan Kluay" was a very successful animation movie in term of income and it has alerted long animation movie industry in Thailand. In 2007, Dr. Wallapa Pimtong, the executive of Media Standard Company, cooperated with Chulalongkorn University and got supported from Dhamma Cartoon group to create 2D long animation movie about the story of Buddha called "The Life of Buddha". The animation cartoon told story of Buddha since he was born till he died. It was started creating in 2003 with the budget of 108 million baht. Yet this animation movie was not successful in term of income as it was

expected but it won the award as it disseminated Buddhist and it was useful for youth education.

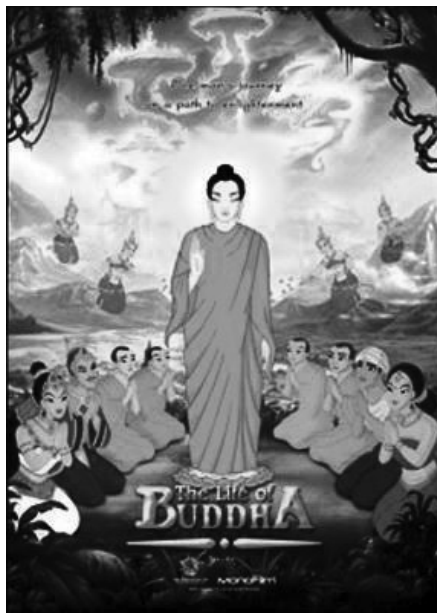


Figure 36 The Life of Buddha

Source: <http://topicstock.pantip.com/chalermthai/topicstock/>

## Conclusion

Animation is about creating motion picture from one object and makes it lively and full of feelings. In the beginning, animation cartoon was created to serve religion purpose. However, from then to now, animation has been created by artists with the evolution of inventions. First we looked at the object through the lights from a lamp to see the motion pictures, next we looked at concatenated pictures. Later there were screening technique, and then it was developed to screening through magnifying lens, until it becomes a film camera like nowadays. We can see that it is not only the equipment's and techniques that create an animation, but also the drawn up characters which have to be impressive and interesting in order to be the first access to make the animation become famous in the future.

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