

Development of Animation in Disney's Short Films and How it Affected His First Two Feature-length Films

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Preddiplomski studij engleskog jezika i književnosti (dvopredmetni)

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Završni rad

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Zadar, 2018.



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1. Introduction

Animation has its beginnings in the 20th century and one of the prominent names¹ connected with it is Winsor McCay. He was a newspaper cartoonist who created a number of shorts, his prominent achievement being *Gertie the Dinosaur*² (1914). Solomon puts stress on importance of the animated short by remarking that *Gertie* represents the prehistory of life, as well as prehistory of animation (17). *Gertie* has emotions and identity; she was made by using a concept of character animation. McCay was ahead of his time in quality and complexity of his work; additionally, he perceived animation as an art form, not as a trade like his contemporaries (Maltin 1).

McCay drew *Gertie the Dinosaur* on pieces of paper, which means that his assistant had to draw or copy the background every single time,³ making the process of drawing extremely long. To shorten the process significantly, J.R. Bray patented celluloid sheets on which the background was painted on in 1914. Earl Hurd improved the process by putting the characters themselves on cells and by doing so, created the way in which the animated movies are made today (Beck 12). This paper partly focuses on innovations that happened in Disney's studio, particularly on those that enabled creation of feature-length films.

Walt Disney was the prominent figure in animation business during the period known as the "Golden Age of Animation", which lasted from 1928 to 1940 (Solomon 55). He was not the most successful in all the fields;⁴ however, his studio produced visually the best content and made the most progress in the field of technology. His directing and the fact that

¹ Other notable person is French artist Emile Cohl. Most of his shorts have black background and the characters are white stick figures that usually transform into numerous forms. *Fantasmagorie*, which was made in 1908, was the first animated short he made (Maltin 3).

² *Gertie the Dinosaur* was the third short he made (Beck 12).

³ Since he could not make identical lines on every paper he used, they shimmer in the final product.

⁴ The Fleischer brothers were his biggest rival during the 1930s. Betty Boop and Popeye were more popular than any of the Disney's characters (Beck 17).

his employees received formal education⁵ in their designated fields ensured the sophistication of his films. Other studios sometimes simply copied Disney's work, for example, after Disney and Stalling established *Silly Symphonies*, Warner Bros made *Merrie Melodies* and MGM followed with *Happy Harmonies* (Beck 17). The very fact that others copied him signifies the originality he introduced into the business.

Before he began climbing to his superstar status, Disney worked on *Laugh-O-Grams*, *Oswald the Lucky Rabbit* and *Alice in Wonderland* (Barrier *Hollywood* 37-38). Disney's shorts⁶ that led to the biggest development of animation techniques are: *Steamboat Willie*, *The Skeleton Dance*, *Three Little Pigs*, *The Band Concert* and *The Old Mill* and they are analysed in the paper. One notable that is missing is *The Flowers and Trees*⁷ (1932).

Disney is credited for few innovations himself; the two most important procedures he introduced to his animators are shoot tests and obligatory use of assistants. Shoot test were used to determine if the work that animators done went in the direction they had intended. Assistant's job was to finish the drawings of their superiors by adding details and clearing smudges and other signs of sloppiness. Since that was the nature of their position, they were dubbed "clean up men" by the experienced animators (Thomas, Johnston 21).

2. Steamboat Willie

2.1. The Process behind the Creation

Steamboat Willie is significant because it is the first Disney's short with sound synchronised to the characters' movement. It stars Mickey Mouse; the character that replaced Disney's Oswald the Lucky Rabbit⁸ after he had lost all rights to it (Thomas, Johnston 40).

⁵ In 1932, Disney opened an art school for his employees (Thomas, Johnston 21).

⁶ Refers to a short film.

⁷ First Disney's short in colour (Barrier *Hollywood* 80).

⁸ Charlie Mintz, Disney's distributor, took over the rights to the character. After this, Disney was left with four animators, as staff went to Mintz as he offered employment (Thomas, Johnston 39).

Steamboat Willie is not the first short with synchronised sound, Max Fleischer of The Fleischer Brothers studio was producing them four years prior to the release of *Steamboat Willie* (Maltin 51).

Steamboat Willie was half-complete when Disney decided to add music. The test screening is one of the most notable moments in the animation history. It was held in two rooms, one filled with people watching the short, other crowded with musicians who had to perform the musical segments without seeing the action. After several failed attempts, they managed to synchronise their music with the movement. Sound usage had extensive, positive influence over the audience, which showed the possibility of using speaking, music and other sound elements in animated pictures (Maltin 34).

Mickey Mouse appeared in *Plane Crazy* and *Gallop in' Gaucho* before he made his public debut in *Steamboat Willie*, however, distributors rejected the shorts because there were too many similarities between Mickey and Oswald (Solomon 40). Animator Dick Huemer stated that: “*Without sound, animated cartoons, in my estimation, would have gone the way of the dinosaur or a trolley car*” (Maltin 26). This statement signifies the importance of sound usage, which enabled the medium of animated shorts to progress further.

2.2. Examples of Innovation in Sound and Usage of Rubber Hose Animation Technique through Plot⁹

The plot begins with Mickey, who steers the boat. While tapping his foot, he whistles the tunes of *Steamboat Bill* and the melody is in perfect synchronisation with the movement of his lips. Mickey's body is not solid, as it appears to be; his limbs are flimsy and extremely flexible, which leads to the notion of “rubber-hose animation”.

Rubber-hose animation differs from squash and stretch; movement is loose as opposed

⁹ The plot follows Beck's commentary (78).

to compact. Rubber-hose technique captivated the broader audience, as it looked ridiculous, especially appealing to children. In other words, rubber hose animation can also be described in a way that limbs of animated characters are boneless; making them flexible enough to move at every angle (Thomas, Johnston 46). For example, in the following segment of *Steamboat Willie*, Pete wants to kick Mickey, but Mickey dodges his foot. Consequently, Pete kicks himself in the rear as his leg was flung across his shoulder. In the next segment, the boat reaches a small port, where animals are waiting to be transported onboard. Ducks and the cow are producing their natural sounds, while their body parts connected with the sound production are emphasized; ducks' necks are prolonged and they wobble¹⁰ when they quack. The same principle appears in numerous other shorts in the *Silly Symphonies* series, beginning with *The Skeleton Dance*. Although this information may seem trivial, the mentioned style of drawing animals implies the importance of sound in upcoming animated films, where sound production is not only to be heard, but also to be seen.

The following segment of the short introduces Minnie, who had dropped her guitar and the sheet of paper with the notes for *Turkey in the Straw* after getting onboard. This leads to numerous instances that make this short film so appreciated. Innovative use of music in animation process found in *Steamboat Willie* is a cornerstone to all Disney's animated films. J.P. Telotte comments that the sounds in *Steamboat Willie* are used in a naturalistic manner and adds that this will lead to the notion of illusion of life¹¹ (24).

Minnie's sheet music falls down and is eaten by the nearby goat, which foreshadows the musical segment that follows, as music notes fall out of her mouth. Minnie approaches its tail and cranks it like a lever. Suddenly, an outburst of music is heard, to be precise, the melody of the *Turkey in the Straw*. Notes fly out the of goat's mouth, representing the melody both audibly and visually. Mickey uses this chance to roam around the boat to find objects on

¹⁰ An example of the rubber-hose animation principle.

¹¹ Refers to the type of animation that appears more natural and realistic, as opposed to synthetic.

which he could play music. He wraps his tail around a hammer and bangs it onto a barrel, while banging couple of spoons on a trash bin. Music and movement are in perfect synchronisation, which has been a challenging task for the staff, especially because this was their first attempt to create a film in this way.

Moreover, *Steamboat Willie* is also a display of animation skills of Ub Iwerks, who was, along with Les Clark, Johnny Cannon and Wilfred Jackson responsible for animating the movement. Iwerks was the lead animator and is credited with majority of animation in the short (Beck 78).

3. The Skeleton Dance

3.1. Disney's Collaboration with his Colleagues

The Skeleton Dance is the first short belonging to the *Silly Symphonies* series and there is one major difference between it and *Steamboat Willie*. Firstly, it is important to mention Carl Stalling, a newcomer to the studio. Carl Stalling was a theatre organist and Disney's acquaintance. While Disney was on a business trip to New York, he stopped at Kansas City to visit Stalling, who supported his business ventures. This visitation is an important piece of animation history, as Stalling will come up with the idea for the *Silly Symphonies* series (Barrier *Life* 68). Their professional relationship was riddled with difficulties, as Disney demanded that songs should be either shortened or prolonged to fit the shorts perfectly and Stalling, on the other hand, disagreed with him and he was opposed to adjusting the music to Disney's wishes (Barrier *Life* 69). However, Stalling's firm opinion on music influenced Disney to a point where he allowed adaptation of the short to the music, not vice versa, as was the case in the *Steamboat Willie*. This was possible because Stalling suggested creating a short with pre-existing music and since there was no pre-existing animation at the time, Disney accepted his suggestion (Maltin 35). This was not possible in *Steamboat Willie* since there

were many animated segments already existing before the music was added (Barrier *Life* 90).

Moreover, *The Skeleton Dance* is the first Disney short film without lead characters and elaborate jokes. Characters that appear in the short are nocturnal animals and two pairs of skeletons,¹² who are the primary source of gags. Before the analysis, it is important to say that *The Skeleton Dance* came out in 1929, meaning that the society was different from the one in which we live in today. Nowadays, we are used to seeing all manner of violence, gore, sexually explicit content on screen and majority of people would probably describe *The Skeleton Dance* as neither disturbing nor shocking, which was not the case in 1920's.

While making this short, Iwerks discussed animation processes with Disney, who wanted Iwerks to animate the first and the last segment of the movement and leave all the segments in between to less experienced animators. Iwerks was opposed to this idea, as he wanted to ensure the quality of his work. However, Disney would not budge, forcing his will as a director. Although he has been a less talented animator than Iwerks, his true genius was in storytelling, organisational and management skills (Maltin 99). The mentioned concept of animation was necessary in the following animated shorts and feature-length films because it allowed greater production yield; it enabled creation of more content in less time.

3.2. From Risk to Success

The Skeleton Dance brought confrontation about “extremes”¹³ and “inbetweens”¹⁴ to the Disney studio. Animating in this manner increased productivity and significantly shortened the time needed to finish a project. Disney was pleased by increased productivity and Iwerks was disappointed and angered because he would lose direction of the action (Barrier *Life* 70). Nevertheless, since working with inbetweeners is considerably faster,

¹² Maltin describes this short film as a mood piece (35).

¹³ Drawings of the first and the final position of an animated character that performed movement made by senior and experienced animators (Maltin 242).

¹⁴ Transitional drawings between two extremes made by novice animators or assistants (Maltin 242).

Iwerks¹⁵ was forced to work in the manner that opposed his wishes. *The Skeleton Dance* is set on a desolate graveyard and “stars” nocturnal animals and skeletons. Animals are animated in the same way as they were in *Steamboat Willie*. For instance, when they produce sounds, the body parts that are responsible for the sound production expand, for example: when the dog howls at the moon, its torso expands and neck prolongs. The same principle is applied to the other animals. One can deduce that Disney takes successful animation principles from older projects and applies them into his new ones. The next notable segment of the short is an instance where a skeleton stares into the screen and jumps towards the viewer, creating an eerie sensation that it will fling out of the screen. The first experimentation with three-dimensionality can be found in Otto Messmer’s *Felix the Cat*, where the character interacts with the “screen” or the paper he is drawn on (Beck 92).

The Skeleton Dance is similar to *Steamboat Willie* in segments where characters use animals as instruments. A cat is used as a fiddle in both shorts and in *The Skeleton Dance* skeletons use each other as xylophones, putting the stress on the music. Four skeletons emerge behind the grave and start dancing to Grieg’s *March of the Dwarves* (Telotte 30). Their dance is choreographed but simple: they walk and make simple movements until the moment where “an invisible hand” catches their skulls, lifts them and stirs them. Their bony limbs are flimsy, animated in the rubber-hose technique.

4. *Three Little Pigs*

4.1. Character Animation

Although Walt Disney was satisfied with the developments in his studio, his attention turned to the concept of character animation. He believed there was room for improvement,

¹⁵ This incident led to more conflicts in the future and the result was Iwerks' resignation in January 1930 (Barrier *Hollywood* 68).

primarily in the aspect of giving his characters individuality and secondary, making them more likeable and appealing to the audience. The process began with animating animals, more specifically, with the short film *Three Little Pigs* (Barrier *Hollywood* 87).

The director, Burt Gillett, understanding Disney's intentions, tried to adapt the short to suit his wishes. The pigs look alike, have curly tails and are the same height and weight; nevertheless, there is something distinctive about them. The key was in the way they act towards other characters and react to their surroundings; additionally, the way they move and speak is also important (Maltin 40). While building their shabby houses, two pigs have fun and sing, while the third one is hardworking and dedicated to complete its task. Its seriousness is not only visible in its facial animation, but it can also be heard in its stern voice. As opposed to the three shorts mentioned before, the characters do a considerable amount of talking, primarily in verses with rhymes, which are mostly followed by a tune.

4.2. Influence on Feature-length Films

When looking at *Steamboat Willie*, Mickey, who is a hero, and Pete, who is a villain, both move in exactly the same way. Disney wanted to diminish all unnecessary similarities between characters, with the goal to make them as special as possible, giving characters their own identity. The animator responsible for character animation is Albert Hurter, whose special talents were used in *Snow White and the Seven Dwarfs* and *Pinocchio*. He drew preliminary sketches for the characters in both *Three Little Pigs* and *The Big Bad Wolf*. Maltin claims that Hurter's honed skills that brought the characters to life (40). Other main animators, Norman Ferguson, who is famous for his depiction of Pluto, drew movements for *The Big Bad Wolf* and Dick Lundy, a specialist for drawing dances, drew all instances with dancing (Maltin 41).

The most important principle of animation is squash and stretch.¹⁶ Usage of the principle can be seen when The Big Bad Wolf huffs and puffs, trying to destroy the pigs' houses. His chest fills with air, having its fullest form (squash) and when he blows the air out, his chest appears to be protracted, having its longer shape (stretch).

The element that made *Three Little Pigs* extremely famous and well liked was the song *Who's Afraid of the Big Bad Wolf*¹⁷ by Ted Sears and Frank Churchill. The tune, mixed with the outstanding storytelling, animation and characterisation, ensured that the short earns its place as one of most popular animated shorts of all time (Maltin 41). *Three Little Pigs* has two layers of messages, one for children, the other for adults. The story has didactic nature; it teaches children that work and play do not mix and when one does something, it must be done properly. Nevertheless, wanting to attract the adults by making the content of the short relatable, Disney used The Big Bad Wolf as a symbol for the Great Depression. The meaning he tried to convey was that Americans have to be prepared for it (the brick house) and that the wolf (foreign influences or hunger or poverty) will try to unbalance their lives (Beck 73).

Another very important aspect of this short is creation of storyboards.¹⁸ *Three Little Pigs* is Disney's first short with complete storyboards, which were devised by Win Smith (Solomon 53). Storyboards are important because they will be used in all Disney's feature-length films, creating a clear overview of the plot and characters.

Novelties in *Three Little Pigs* and *Skeleton Dance* are more subtle than the ones mentioned in *Steamboat Willie*. Primarily, we cannot see if the concepts such as storyboards or character animation were used while making an animated film, therefore, novelties in making animated films are not only visual or audible. Nevertheless, the fact that we cannot

¹⁶ Thomas and Johnston used a sack of half-filled flour to explain the principle. When the flour is dropped on the floor, it will squash, taking its fullest shape. When the squashed sack is lifted, it will take its longest shape (51).

¹⁷ This instance taught Disney the importance of having a great music score. The song inspired Disney to create *Fantasia* (Telotte 30).

¹⁸ A small drawing pinned on a surface with short captions beneath them (Solomon 53).

see them does not mean that they are less important, as the mentioned concepts are a crucial part of the animation industry.

5. *The Band Concert*

5.1. Mixture of Successful Elements

The Band Concert is on the list of prominent Disney shorts due to a combination of all the other elements mentioned before. However, it also brings a novelty; it is the first Mickey Mouse short made in three-strip Technicolor (Beck 42). Mickey and Donald are animated in a way where the character animation is stressed. Mickey's face while he is conducting the orchestra goes from pleased to furious, his anger is seen when he confronts Donald and shows his hotheaded personality (Maltin 28). *The Band Concert* heavily affected Disney's future, not only because it is the first Mickey Mouse shorts in Technicolor, but also due to the success of Technicolor usage.

Experimentations¹⁹ like those were allowed and even encouraged in further shorts. The knowledge the studio personnel gained was used in his first feature-length film *Snow White and The Seven Dwarfs* (Beck 43). Donald is an antagonist even though he is a likeable character, his motivation to act as he does spurs from rivalry. However, his personality drives him, which is connected with the concept of character animation. He does not join in to the melody that was played, he starts playing *Turkey in the Straw*, which is an apparent homage to *Steamboat Willie*. One could conclude that Disney's focus here was on character animation and numerous gags, as Donald's personal concert looked a lot like a magician's performance,²⁰ creating a hilarious instance.

At the beginning, the short consists of gags, music and great atmosphere. The fact that

¹⁹ In their books, Thomas and Johnston, as well as Barrier, often mention Disney's open mindedness and eagerness to create new techniques with goal of improving quality of content by experimenting.

²⁰ Every time his flute was broken, he skilfully replaced it in various ways that resembled a magic act.

the studio decided to use something as terrifying as a storm to be the base for humorous instances is unusual. When they are lifted by the tornado, the musicians continue playing like everything is in perfect order, soar through the sky and they complete the concert against all odds. The segment is so rich in detail that the viewer can watch the tornado concert like a whole, or focus on band members as though they are specific episodes.

The Band Concert does not belong to the *Silly Symphonies* series; however, the music is stressed. Emphasis on the music is so strong here that it cannot even be interrupted by a natural disaster (Telotte 50). Additionally, as mentioned before, music was adapted for the short in *Steamboat Willie* and the opposite happened in *The Skeleton Dance*. Considering this, it is difficult to conclude how *The Band Concert* was made; the orchestra members are interrupted while playing and the melody strays²¹ from the original. On the other hand, when Mickey turns the page on his music sheet, it has “*William Tell: The Storm*” written on it. It foreshadows the storm, during which the melody is played perfectly, meaning that this segment of the short was adapted to music, unlike the segment mentioned before. One can conclude that Disney allowed mixing of the elements and techniques used in previous projects in his newer ones.

6. The Old Mill

6.1. The Multiplane Camera

The Old Mill is an important short film to mention before analysing the feature-length films because it introduced the multiplane camera. It was created in 1937 and has no plot; it is a mood piece²² and focuses on a mill and its inhabitants caught in a storm (Solomon 58). All

²¹ This segment happens before the storm.

²² *Skeleton Dance* is described as a mood piece as well, however, the difference between the shorts is extensive. They share common characteristics, but the most unorthodox element in *The Old Mill* is an almost complete absence of gags.

the mentioned shorts are in chronological order and *The Old Mill* was made last. It shows the progress of Disney's studio, how the process of animation matured to a point of sophistication. *The Old Mill* proved that the studio was ready to create feature-length pictures. Beck (80) states that multiplane camera increases the three-dimensionality and depth of animated films and that *The Old Mill* served as a test for the camera before using it in *Snow White and the Seven Dwarfs*.

Bill Garity created the multiplane camera by following Disney's schemata. It is a tall and large device, around 4 meters tall, operating on multiple levels, which store animated segments; backgrounds and overlays on glass surfaces, which are then moved to produce depth (Barrier *Hollywood* 249). The camera operated in the way that the individual layers were moved, producing illusion of depth, making the need to draw other objects on cells smaller or larger obsolete. The multiplane camera was not used in the entirety of the short; nevertheless, it was a huge success (Barrier *Life* 143). The multiplane camera was used in numerous Disney shorts and feature-length films. It is considered one of the most important technical innovations in animation. Critics recognised the potential and awarded *The Old Mill* with an Academy Award, ushering the new era of animation (Solomon 459).

As mentioned before, Disney encouraged experimentation in his studio and *The Old Mill* represents the pinnacle of the process. The short itself was considered an experiment, a test for the multiplane camera. Every experiment carries a certain risk and failures lead to missing deadlines and financial loss. Fortunately for Disney, his risks mostly lead to profit and a new, better way of making animated films, showing the skill and maturity of his personnel.

6.2. An Undeniable Success

Thomas and Johnston (79) elaborated that the key to success of *The Old Mill* is artwork, which was enabled by the multiplane camera and the advancements in technology. It is unorthodox because Disney's shorts attracted an enormous audience that expected certain comic elements and their favourite characters. Additionally, comedy was replaced by empathy toward the animals that were in life threatening situation.

The Band Concert was made in Technicolor as well, but if the shorts are compared, several major differences are visible. While the colours in *The Band Concert* are vivid and expressive, the colours in *The Old Mill* are more realistic and colder. Additionally, Disney's artists experimented with colours and realized how to make a certain glow, which enabled efficient portrayal of emotions (Thomas, Johnston 79). Both shorts contain a storm, but each storm has different effect on the characters. For example, the storm in *The Band Concert* is not something that worries the musicians, while the animals in *Old Mill* react to the storm in different, frightened ways. The illusion of three-dimensionality exists in *The Band Concert*, nevertheless, it is achieved by drawing characters or objects on a different place on a cell in different sizes, which is not as effective as using the multiplane camera.

Another difference between *The Old Mill* and all the other shorts is that the animals are drawn realistically; there is no personification or anthropomorphism. This was the uncommon practice, as majority of characters in Disney's short films are in fact animals. Not only they looked like normal animals, but they also have fitting reactions to the storm.

7. *Snow White and the Seven Dwarfs*²³

7.1. The Situation at the Studio and Personnel

The focus of the previous parts of the paper was on animation techniques and their analysis, as well as on innovation in filmmaking, without any particular reference to the

²³ The plural for dwarves was dwarfs in 1937.

processes at the studio or Disney's interaction with his employees. Analysis of *Snow White and the Seven Dwarfs* without mentioning these elements would only be partial. In 1934, the public was informed to expect a feature-length film in colour from Disney studio. During that time, the studio, Hyperion, underwent changes in structure (Smoodin 32). As popularity of Disney's work grew, so did the demand, which led to the growth of personnel that was needed. With more people working for him, Disney needed both more space and people.

Changes in structure of the Hyperion included adding new buildings to the original studio, then adding a passage connecting the two, adding a story on the new building, buying more land that was nearby and connecting it with other buildings, thus a whole interconnected system was created (Thomas, Johnston 143). These changes were gradual,²⁴ Disney did not build on impulse of megalomania, as he built only when he needed to.²⁵

Even with the expansion, animators still intentionally worked together in confined spaces, side-by-side. Such environment may be undesired in normal professions, however, not in Hyperion, as this enabled exchange of ideas and creation of gags (ibid. 144). This gives an insight in Disney's way of thinking and reaffirms all previous statements connected with his desire to improve the quality of the work. He was aware that this environment allowed experienced animators to help and give advice to junior animators and assistants, as well as establish a creative atmosphere. Due to the fact that staff grew continuously and there were no more available parcels to purchase, Disney decided to buy new land in 1940, thus leaving Hyperion behind (Solomon 62).

Naturally, Disney could not possibly oversee the work of hundreds of people or to inspect every sketch for *Snow White and the Seven Dwarfs*, *Silly Symphonies* and other shorts (Solomon 62). In period from 1935 to 1937, the number of his employees doubled, leaving him in dire need of somebody who would oversee his employees, under condition that the

²⁴ Thomas and Johnston made time charts that show when the changes occurred (21, 25).

²⁵ When the number of employees rose drastically (Thomas, Johnston 21, 25).

candidates could meet his demands and know what his expectations are. Disney had close to 700 people creating *Snow White and the Seven Dwarfs*. 66 inkers, 178 artists,²⁶ 32 animators, 102 assistant animators and 107 in-betweeners were hired for the project (Smoodin 34). The overseeing position was assigned to his directors: Wilfred Jackson and Dave Hand, who replaced Burt Gillett after he had left Disney (Thomas, Johnston 81). Without the support of his senior staff and their skills, Disney would have never been able to produce a film like *Snow White and the Seven Dwarfs*. It was years of experience and lessons learned through making short films that enabled the studio to create a masterpiece.

7.2. Success through Marketing and Quality

Disney made a great effort to inform the public that a new, feature-length film, following the Grimm brothers' tale, *Snow White and the Seven Dwarfs* is in production. His dedication of promoting the film is visible in his interview with *Time* magazine in 1935, when he talked mostly about the film, avoiding other topics. He was also supplying the stores in areas where film was about to arrive in cinemas with goods that had Snow White and dwarves featured on them (Smoodin 26). It is possible that Disney knew that people were well informed about his film. Nevertheless, he used such unprecedented tactics to stress how important and groundbreaking this film is going to be. People were attracted to it because they were curious; what made this film so important that it has to appear on their groceries?

One of the elements that made all the previously mentioned Disney's shorts so appreciated was style. Naturally, styles of the shorts with gags and *Snow White and the Seven Dwarfs* differ, while still both have a certain charm, *Snow White and the Seven Dwarfs* is visually more highbrow. Smoodin (57) describes the opening of the film as an example of virtuoso animation, an elaborate style that is visible in the book *Snow White and the Seven*

²⁶ Don Graham was given one year to find artists suitable for the project (Solomon 58).

Dwarfs,²⁷ drawn in a charming and picturesque style, which is also found in various aspects of *Pinocchio*.

The Old Mill served as a test for the multiplane camera, the usage of which is apparent in the film. The most notable sequence is when Snow White runs away in terror after Huntsman decides to spare her life. She runs through the woods, falls into a pit, dodges alligators that attack her and has her path blocked by the trees. These terrible instances showed a full range of effects achieved by the multiplane camera, which allowed spatial richness by zooming in and out during those sequences.

Another important element to mention is the usage of colours in the film. It is made in three-strip Technicolor, which enriched the appearance of the film. Walt Disney stressed the importance of having more neutral background colours; however, the colours must be similar to those of characters'. Moreover, the characters had to be portrayed more vividly, so the audience's focus would be on them (Smoodin 68). In other words, multiplane camera's ability to create three-dimensionality was so sophisticated that characters and backgrounds could blend on a certain level, which was an undesirable occurrence, because the audience would lose focus. Disney was hoping that *Snow White and the Seven Dwarfs* will earn more than 3 million dollars (Gabler 367), but the profit exceeded his expectation with astounding 8 million dollars, which was an enormous amount of money at that time, considering the inflation (Solomon 62).

7.3. Character Development and Difficulties in the Process of Creation

²⁷ What is unconventional about this is that Disney used this book as a form of exposition: after explaining who the characters are and elaborated their backgrounds, the book told the viewers that this movie will deal with the conflict between Snow White and Evil Queen, so people knew what to expect, even if they have not head the fairy tale.

The most prominent character in the film is the protagonist, Snow White herself. Other notables are The Evil Queen and the dwarves. The previous part of the paper mentions the concept of character animation in *Three Little Pigs*, which heavily influenced the process of animating the dwarves. The personalities of the dwarves match their names and some of their distinctive²⁸ features. Not only do they differ in clothes and facial expressions, but the difference is also apparent in their movement.

Shamus Culhane remembers his difficulties while animating the scene with the dwarves marching home. He stated that along with his five assistants, he needed 6 months to animate the scene that has less than a minute of screen time. The problem originated from the fact that they had to stay in a row²⁹ and in even height, which was difficult because every dwarf has an individual walking style (Maltin 54).

Snow White and Evil Queen are very different characters; however, there are some similarities that can be discussed while concerning the process of animation. Both fit their archetypes: Snow White is good, Evil Queen is evil, and therefore, Snow White looks pleasant and modest, while the Queen is menacing. Both characters are human females, and both are created in a certain, feminine way, judging by their figures. Blair (10) deals with principles of animation and focuses on animating characters. He states that when animating adult females, animators must focus on face, chest, and pelvis. All of these elements are interconnected, making a complete character. Maltin (57) explains that animating them was far more difficult than animating the dwarves, because eyes that are in open space, are unconnected with other parts of the facial structures.

²⁸ The most distinctive dwarves are Dopey and Doc. Doc is taller than the rest and Dopey has a beardless face. This stresses that Doc is the leader of the dwarves, while Dopey is the youngest member.

²⁹ In his simplified projection, Blair (90) explains that characters have a line of action, a line that goes through the prominent points of a solid mass. Line of action simplified the process of animating dwarves by showing animators the optimal position of the character in movement.

For animators, problems rose from the difficulty of drawing aesthetic characters and meeting Disney's demands. Dave Hand, a director in Disney's studio elaborates:

Our entire medium is transference of thought. The thought is first in the mind of storyman... then transferred to the director, who attempts to transfer it to the animator. This is where the big problem of transference comes, because the animator then attempts to transfer it pictorially... (Thomas, Johnston 83).

Disney wanted his animators to understand his thoughts and being the perfectionist he is, made this challenging process even harder. When he was satisfied with appearance, problems have occurred in animating. Numerous animators spent hours with him in the sweatbox,³⁰ creating the final product by process of trial and error. Prominent animators in *Snow White and the Seven Dwarfs* are: Fred Moore, whose touch was felt throughout the film, Bill Tytla for animating shift from one emotion to another³¹ and the most difficult task was assigned to Frank Thomas, who had to animate grieving dwarves (*Barrier Life* 140). The creation of *Snow White and the Seven Dwarfs* started the separation of animators, which was finished in *Pinocchio*. Moore, Tytla, Luske and Ferguson, who were senior animators and worked on main characters encountered problems, due to incompatibility of their drawing styles with Disney's vision (*Barrier Life* 178).

In a certain way, all the shorts that were released led to *Snow White and the Seven Dwarfs*. Studio depended on the success of the film, as failure meant bankruptcy. Disney's serious approach to it can be seen in his directive to use live action, whose purpose was to guide the animation. By doing so, he saved a lot of time and resources, as there was no need to spend countless hours in the sweatbox (*ibid.* 144). The cost of making the film was

³⁰ Jargon in Disney's studios, which was a reference to a room where pencil tests were conducted. Pencil tests were conducted so that Walt or other senior members could see the rough sketch of movement to determine if the animator's work looked as it was intended.

³¹ Especially with Grumpy.

astounding \$250000, which is equivalent of ten *Silly Symphonies* shorts. Walt Disney was devoted to artistic aspects of his company, while his brother Roy managed the financial aspects. Roy often had to beg prominent animators to convince Walt to spend less money, as he would never listen to his demands to spend less (Barrier *Hollywood* 125).

8. *Pinocchio*

8.1. The Story behind *Pinocchio*

Pinocchio began as a serial publication in the journal³² *Giornale per i bambini* written by Carlo Lorenzini under a pseudonym Collodi. He was an Italian nationalist, participated in both wars for Italian independence and was politically active. His political views and beliefs are expressed in his work and as time progresses; Collodi matures and leaves personal elements out of storytelling. The result of including politics and ideology in his work are stories that are powerful and dark. In *Pinocchio*, the original ending included the death of the main character, Pinocchio, by hanging (Kaufman 13).

Due to public pressure, Lorenzini decided to continue the story by resurrecting Pinocchio, creating numerous holes in the plot. For instance, characters who died returned without any explanation and story continued just as nothing had happened (ibid. 14). The story was adapted for the theatre and Disney attended one of the plays made by Frank Yasha. As a result, he was inspired by the changes Yasha made to the story, believing that he could properly adapt it as well. Prior to his attendance Disney registered *Pinocchio* to MPPDA,³³ which indicates that Disney intended to make this film even before seeing the play. However, it was the play that provided Disney with real enthusiasm about the project (ibid. 22).

³² Unlike *Snow White*, which has only one source, *Pinocchio* was published in a journal, which means it was published piece by piece, making it harder for Disney and his storymen to create a proper storyboard due to large amount of information.

³³ Motion Picture Producers and Distributors of America.

Ironically, during the production, *Pinocchio* caused so many problems at the studio that Disney intentionally worked less on it and focused on *Fantasia* because the work involved with *Pinocchio* was too unappealing to him (Barrier *Life* 172).

8.2. Difficulties in the Animation Process

Originally, *Bambi*³⁴ was planned to follow *Snow White and the Seven Dwarfs* and it was in production at the same time as *Pinocchio*. The team that was assigned to create *Bambi* reached numerous setbacks, primarily in animation. Their lack of originality and inability to solve problems led to postponing the film for several years. Numerous members of the team that created *Snow White and the Seven Dwarfs* were tasked with creating *Pinocchio* and many of them thought the production of *Pinocchio* would be easy, as they have honed their skills, were used to working hard and had no problem with necessary production yield (Solomon 62). Their self-assurance has proven to be destructive since they encountered several major problems and did not devote enough time to mend them. Believing that the experience they acquired meant less hard working sessions, they were not able to honour the deadlines.

Moreover, numerous problems spurred out of the number of narratives found in the original *Pinocchio* and the most challenging problem was to select and adjust narratives that will be featured in the film. In addition, character development department had major difficulties in creating the characters. Namely, at the beginning of the project, *Pinocchio* was a childish, mischievous and sarcastic boy and Jiminy Cricket was not even involved in the film at all. Considering this and adding the fact story was told poorly, the quality of the first version of the film was abysmal. Consequently, Disney decided to discard more than 1500 meters of film and start almost from the beginning. He stated that it was easier and cheaper to start over than to do “repair jobs” and that the final result will be far better in quality

³⁴ Disney thought that the animators were in favour of making *Bambi*, because they have had far more experience in drawing animals than humans (Barrier *Life* 138).

(Kaufman 31).

What is unusual is that Walt told the story of Pinocchio to his hospitalised nephew, who afterwards commented that the story was far better than the film (Solomon 51). This may seem trivial information, but it is important to mention this because Disney knew the story well and he knew how to tell it properly. This information entails that it was not enough to visualize and have a firm grasp of the story, but it was important to be able to transfer it on paper. Not all segments were erased, numerous gags stayed for comic relief, nevertheless, those were only small portions of the overall movie. The Grandfather Tree sequence, where Geppetto appears as a sentient tree, Coachman's pursuit of Pinocchio and the Menacing Octopus sequence are long segments, which were a huge loss of time and money as they were discarded entirely. Still, their creation had some positive sides, as animating Geppetto as tree led to some experimentation with animating forest fires, which was used in *Bambi* (Kaufman 30). Previous segments of the paper speak of development of animation in shorts. However, every project, including feature-length films, leads to new and better animation techniques. Therefore, all the short and feature-length films possess a certain value, even though audience or critics do not always recognise them.

The work and effort resulted in success, as *Pinocchio* was highly praised by the critics. *Snow White and the Seven Dwarfs* was so successful and well liked that people believed that making something better is next to impossible (Maltin 35). One element of *Pinocchio's* success lies behind the series of unfortunate events. When one watches the film, it feels like watching a thriller; Pinocchio is a little boy thrown into the world, is kidnapped, manipulated, turned into a donkey, something horrible is always happening to him and as a viewer one can only cheer for him to overcome adversity. If Pinocchio was depicted as it was originally intended, the film would not have been successful. When watching the film, the viewer sympathises with Pinocchio and hopes that he will reunite with Gepetto. If Pinocchio was

unlikely, it would not entice the same emotions from the audience, leaving the film without an important element.

8.3. Development of Major Characters

The notable characters in *Pinocchio* are: Pinocchio himself, Geppetto and Jiminy Cricket. To begin with, Pinocchio was supposed to be a character that resembles the one from Collodi's novel. In the novel and first drafts of the film, Pinocchio was a harsh and arrogant prankster, too stubborn to listen to anyone. Disney pursued the idea of an unorthodox character, but was forced to discard it, as the character was disliked by himself and the staff. Disney changed his mind and decided that Pinocchio should be a character that instigates sympathy from the audience, making him naive and defenceless (Solomon 63). His character is built by numerous misadventures he encounters, teaching him how to behave and conduct with others. He is not purposely disobedient; when he does something wrong it is because of his lack of knowledge of the world he lives in. For example, when Cricket talks him out of going to the theatre by using complex words and sentences, Pinocchio misunderstands his intentions and goes with the Honest John instead. Pinocchio is a perfect example of *tabula rasa*. When comparing him to Snow White or Evil Queen, he does not belong to a specific archetype, for he is neither good nor evil, as he does not know about the abstract concepts. This is the reason why there were numerous problems in developing him as a character. In order to make Pinocchio more human, Disney relied on his voice actor and animator Milt Kahl,³⁵ whose skills in animating cuteness and lifelike creatures even overshadowed Moore (Solomon 67). Ollie Johnston shared his memories connected with additional creative issues. Disney did not like the way Pinocchio moved, he was animated in a stiff way, because he was wooden, but the realistic concept proved to be unappealing, so animators switched to the

³⁵ His work of animating Pinocchio put an end to a 6 month stall (Barrier *Life* 140).

squash and stretch principle instead (ibid. 63).

Geppetto was originally extremely rude, grumpy and he hated children. What stands out in the creation of his character is the number of Disney's veteran animators who were designated to animate numerous expressions and movements, depending on the situation. Tytla was in charge of animating sequences where Geppetto is anxious and scared, Babbitt animated sequences where Geppetto's pleasant character was notable through his warm eyes and Moore's work is visible throughout the film; he made Geppetto half "cartoony", half realistic, making him even more likeable. His voice actor changed as well, due to changes in character development (Kaufman 56). Using more animators to work on the same character is reoccurring process in Disney's studios. As mentioned in *Three Little Pigs* and *Snow White and the Seven Dwarfs*, Disney tasked several animators to work on one character with the goal to use animators' areas of expertise. Disney used those skills to create the content of highest quality, therefore, we can conclude that he had exceptional management skills as well as knowledge of his employees' abilities and affinities.

Finally, Jiminy Cricket is the Talking Cricket from Collodi's novel. He was initially an unimportant character,³⁶ even unwanted, as he was an unappealing insect, unsuitable to be a Disney's character. However, as *Pinocchio* changed so considerably, so did his appearance and his role. He acts as Pinocchio's conscience but without any particular success. He was changed and redrawn numerous times. Cricket's final version was so likeable that Disney decided to expand his role to the narrator of the film. Kimball, who was new to Disney studio, animated him and consequently made himself respected and an important member of staff tasked to make *Pinocchio* (Thomas, Johnston 223).

Disney's *Pinocchio* is different from the stories written by Collodi. First ideas and their realizations also differ from the finished version, as many segments were discarded.

³⁶ Originally, he was supposed to be killed by Pinocchio (Solomon 63).

Numerous variables affect the characters and the finished product, making even small details important. Senior members of the team that animated *Snow White and the Seven Dwarfs* and the newcomers that animated *Pinocchio* left their trace in the film. During the creation of the film, two generations of Disney animators segregated themselves; the old and the young. However, even if they were dubbed the older generation, the animators were not as old as the name suggests, but they had different styles of drawing and more experience. This division only boosted Disney's production and enriched the styles (Kaufman 106). Difference between the two is described by Barrier, who stated that "older" animators liked to put parts of their own individuality into the drawings, while younger generation only did as Disney requested, without imposing their personal style (*Life* 140).

8.4. Style and Animation Techniques

Disney highly depended on his conceptual artists, who made diversification of styles possible. Conceptual artists, according to Kaufman, were responsible for creating a sense of atmosphere (105). Their drawings were extremely rich in content and colour, standing as works of art by themselves. A prominent conceptual artist in *Pinocchio* was Albert Hurter, who had rich education in European arts. Hurter set his dominance in the mentioned style of drawing in *Three Little Pigs* and *Snow White and the Seven Dwarfs* (Solomon 63).

Furthermore, *Pinocchio* led to important innovations in the field of visual effects connected with nature. Examples of those effects are: water ripples and flows, flames and smoke, raindrops, lighting flashes, and shadow loom. Although this might seem less important and easier to animate, animating mentioned instances was so difficult that Disney studio had animators whose sole purpose was to make them. The prominent animator of that department was Sanford Strother, whose specialty was animating water. His animation can be seen when the whale Monstro opens his mouth and water surges inside (Kaufman 138).

Animating segments like those is problematic because water is not compact like characters; it is a mass with numerous elements that have to be happening simultaneously to achieve realism.

Moreover, additional innovations in the field of effects occur in *Pinocchio*, primarily connected with colour, special cels and lighting effects. Mary Weiser is the most notable staff member connected with production and colour application. To ensure consistency, the studio had to produce special blends of colour on their own (Kaufman 140). Artists always strived to find a new, simpler way of animating, which would be as good as or superior to the procedures used before.

The studio paid particular attention to details in all its pictures; however, in *Pinocchio* they improved the animation process even further, by making reference models that were subsequently used by artists. The best example of a reference model in *Pinocchio* is a statue of the whale Monstro, which was painted in oils, allowing artists to see where they should put highlights (Solomon 78).

Pinocchio outshines *Snow White and the Seven Dwarfs* in aspects of style, art and other visual elements. Nevertheless, *Snow White and the Seven Dwarfs* proved to be more successful. The reason behind *Pinocchio*'s financial failure is the Second World War, since approximately 45% of Disney's income came from European countries (Solomon 79). This caused major problems at the studio, because funds gained from *Snow White and the Seven Dwarfs* were spent on making the Burbank studio and *Fantasia*, leaving the company on the verge of bankruptcy.

9. Conclusion

This paper covers the period from the creation of *Steamboat Willie* to the premiere of *Pinocchio*. *Steamboat Willie*, *The Skeleton Dance*, *Three Little Pigs*, *The Band Concert* and

The Old Mill were selected due to breakthroughs in animation and the impact they had on feature-length animated films. Numerous Disney shorts were made in that period, with all of them adding something new to the world of animation. However, few are as important as the mentioned shorts. Other studios created shorts that were extremely popular due to great gags and likeable characters, but none were capable of creating stories on Disney's level, making him one of the most prominent names in film history.

In their books, Barrier, Solomon, Maltin, Thomas and Johnston all mention that the progress in the world of animation on this level would never have happened without Walt Disney, who instigated the change. He did not create the medium, he defined it.

Many elements in this paper are reoccurring because innovation is always used, and if possible, improved in the next project. Additionally, this proves that the shorts highly affected the feature-length films, as we can notice similar elements. Disney's success derives from the risks he took, which enabled so many innovations. His management skills led to quality, because he appointed highly qualified personnel to work on suitable projects. Finally, Disney kept on using elements that were liked by the audience, for example, picturesque style in the first two feature-length films to ensure the positive feedback.

Works Cited

Print

1. Barrier, J. Michael. *Hollywood Cartoons: American Animation in its Golden Age*. Oxford, Oxford University Press, 2003.
2. Barrier, J. Michael. *The Animated Man: a Life of Walt Disney*. Berkeley, Calif., Univ. of California Press, 2008.
3. Beck, Jerry. *The 50 Greatest Cartoons: as Selected by 1,000 Animation Professionals*. North Dighton, MA, JG Press, 1998.
4. Blair, Preston. *Cartoon Animation*. Laguna Hills, CA, Foster Publ., 1997.
5. Kaufman, J. B. *Pinocchio: the Making of the Disney Epic*. San Francisco, CA, The Walt Disney Family Foundation Press, 2015.
6. Maltin, Leonard. *Of Mice and Magic: a History of American Animated Cartoons*. New York, Plume, 1980.
7. Gabler, Neal. *The Triumph of American Imagination*. New York, Knopf, 2006.
8. Smoodin, Eric Loren. *Snow White and the Seven Dwarfs*. London, BFI, 2012.
9. Solomon, Charles. *Enchanted Drawings: the History of Animation*. New York, Wings Books, 1994.
10. Thomas, Frank, and Ollie, Johnston. *The Illusion of Life: Disney Animation*. New York, Hyperion, 1995.
11. Telotte, J. P. *The Mouse Machine: Disney and Technology*. Univ. of Illinois Press, 2008.

Films

1. *Pinocchio*. Dir. Luske, Hamilton and Sharpsteen, Ben. Prod. Disney, Walt. Walt Disney Production, 1940. Film.
2. *Snow White and the Seven Dwarfs*. Dir. Hand, David. Prod. Disney, Walt. Walt Disney Production, 1937. Film.
3. *Steamboat Willie*. Dir. Disney, Walt and Iwerks, Ub. Prod. Disney, Rob and Disney, Walt. Walt Disney Production, 1928. Film.
4. *The Band Concert*. Dir. Jackson, Wilfred. Prod. Disney, Walt. Walt Disney Production, 1935. Film.
5. *The Old Mill*. Dir. Jackson, Wilfred. Prod. Disney, Walt. Walt Disney Production, 1937. Film.
6. *The Skeleton Dance*. Dir. Disney, Walt. Prod. Disney, Walt. Walt Disney Production, 1929. Film.
7. *Three Little Pigs*. Dir. Gillett, Burt. Prod. Disney, Walt. Walt Disney Production, 1933. Film.

DEVELOPMENT OF ANIMATION IN DISNEY'S SHORT FILMS AND HOW IT AFFECTED HIS FIRST TWO FEATURE-LENGTH FILMS:

Summary and Key Words

This paper can be divided in two parts: the first focuses on developments in the animation process that originate from Walt Disney's studio in period from making *Steamboat Willie* to the creation of *The Old Mill*. Those developments are afterwards mentioned in Disney's first two feature-length films: *Snow White and the Seven Dwarfs* and *Pinocchio*. The second part focuses on making of the feature-length films. The paper itself is focused on the process of creation and innovations that enabled high quality content.

Key words: Walt Disney, *Steamboat Willie*, *The Skeleton Dance*, *Three Little Pigs*, *The Band Concert*, *The Old Mill*, *Snow White and the Seven Dwarfs*, *Pinocchio*, technical innovation in animation

RAZVOJ ANIMACIJE U DISNEYEVIM KRATKOMETRAŽNIM FILMOVIMA I KAKO JE UTJECAO NA NJEGOVA PRVA DVA DUGOMETRAŽNA FILMA: *Sažetak i ključne riječi*

Ovaj se rad može podijeliti na dva dijela: prvi se fokusira na razvoj procesa animacije u studiju Walta Disneya u periodu između izrade *Parobroda Willieja* i premijere *Starog mlina*. Razvoj je kasnije razrađen u prva dva Disneyjeva dugometražna filma: *Snjeguljica i sedam patuljaka* i *Pinokio*. Drugi dio rada se fokusira na izradu dugometražnih filmova. Rad se bavi procesom izrade i inovacijama koje su omogućile sadržaj visoke kvalitete.

Ključne riječi: Walt Disney, *Parobrod Willie*, *Ples kostura*, *Tri praščića*, *Koncert za orkestar*, *Stari mlin*, *Snjeguljica i sedam patuljaka*, *Pinokio*, tehničke inovacije u animaciji