

Stop-Motion Animation and Contemporary Feature Animation

Brajković, Matea

Master's thesis / Diplomski rad

2023

Degree Grantor / Ustanova koja je dodijelila akademski / stručni stupanj: **University of Zadar / Sveučilište u Zadru**

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:162:931551>

Rights / Prava: [In copyright](#) / [Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2025-01-13**



Sveučilište u Zadru
Universitas Studiorum
Jadertina | 1396 | 2002 |

Repository / Repozitorij:

[University of Zadar Institutional Repository](#)



Sveučilište u Zadru

Odjel za anglistiku
Anglistika; smjer: znanstveni

Matea Brajković

Stop-Motion Animation and Contemporary Feature Animation

Diplomski rad

Zadar, 2023.

Sveučilište u Zadru

Odjel za anglistiku
Anglistika; smjer: znanstveni

Stop-Motion Animation and Contemporary Feature Animation

Diplomski rad

Student/ica:

Matea Brajković

Mentor/ica:

Izv.prof.dr.sc Rajko Petković

Zadar, 2023.



Izjava o akademskoj čestitosti

Ja, **Matea Brajković**, ovime izjavljujem da je moj **diplomski** rad pod naslovom **Stop-Motion Animation and Contemporary Feature Animation** rezultat mojega vlastitog rada, da se temelji na mojim istraživanjima te da se oslanja na izvore i radove navedene u bilješkama i popisu literature. Ni jedan dio mojega rada nije napisan na nedopušten način, odnosno nije prepisan iz necitiranih radova i ne krši bilo čija autorska prava.

Izjavljujem da ni jedan dio ovoga rada nije iskorišten u kojem drugom radu pri bilo kojoj drugoj visokoškolskoj, znanstvenoj, obrazovnoj ili inoj ustanovi.

Sadržaj mojega rada u potpunosti odgovara sadržaju obranjenoga i nakon obrane uređenoga rada.

Zadar, 2023.

Table of contents:

1. Introduction	5
2. Historical overview of stop-motion animation.....	9
3. The making of and the types of stop-motion animation.....	13
3.1 Behind the scenes.....	15
3.2 Importance of lighting.....	17
3.3 Types of stop-motion animation.....	19
4. Research Methodology.....	22
5. Analysis of popular stop-motion animation features	23
5.1. <i>The Nightmare Before Christmas</i>	24
5.2. <i>Coraline</i>	29
5.3. <i>Fantastic Mr. Fox</i>	35
5.4. <i>Isle of Dogs</i>	42
6. Conclusion.....	46
7. Works cited.....	48
8. THESIS TITLE IN ENGLISH: Summary and key words.....	51
9. NASLOV RADA NA HRVATSKOM JEZIKU: Sažetak i ključne riječi.....	52

1. INTRODUCTION

The evolution of the film industry follows a transformative journey that continues to develop today as society and technology progress. Film technology development extends from the initial fixed-front camera perspectives to dynamic movements, from the black-and-white film to a spectrum of vivid colour and films in colour, from the apparent transition from silent narratives to the incorporation of sound, and finally, the shift from two-dimensional to three-dimensional perspectives and CGI (Leslie 25). Simultaneously, as the film industry refined its editing techniques and perfected the acting style, it experienced a rapid growth. Somewhere along the way, throughout the 20th century, a technique in the field of animation known as stop-motion animation was introduced (Ajanović *Lutka* 16). As the technological advancements emerge in the film industry, this technique within the field of animation will continue to experience its growth and development.

Stop-motion animation can be considered as a special type of filmmaking, unlike any other animation technique. It is characterized by its deliberate and time-consuming nature, requiring a lot of effort and patience. This distinction does not mean that other animation techniques demand much less effort, instead, stop-motion animation technique sets itself apart through its distinct creation process. Even the creation of a brief film using stop-motion necessitates a significant allocation of “resources, patience, and unflagging energy” (Purves 7). The various resources include camera equipment and editing tools, as well as materials for building sets and the characters. Additional time consumption within this process occurs when the physical objects that will be filmed need to be hand sculpted. The character creation process can be physically demanding, necessitating focus from and dedication both the animators and the filming crew to achieve the desired effect. This process involves capturing of each individual frame with minimal adjustments to achieve an illusion of movement.

Stop-motion animation is a very specific technique within the broader category of animated films. Animated films in general encompass a wide range of techniques, including traditional hand-drawn animation, computer-generated imagery (CGI), 2D and 3D animation, and stop-motion animation. Each animation technique has its unique characteristics and visual style. According to types and forms, there is a distinction between drawn animated film, collage animation, and so-called puppet animation which is the equivalent to stop-motion animation (Munitić 75). Likewise, Ajanović differentiates two animation categories, the one being *animated images* and the other *animated objects* (Lutka 16). While both stop-motion animation and general animation (animated images) involve creating the illusion of movement through a sequence of images, they differ in terms of the methods and processes used to achieve that movement. The animation of animated objects, the stop-motion animation technique, refers to “moving objects in front of the camera and capturing "frame by frame" shots of real three-dimensional models in an actual three-dimensional space” (Ajanović Lutka 16). Stop-motion animation is specific for its physical manipulation of objects or characters in small increments between frames to create the illusion of motion after the frames are played in a sequence.

During a certain period, animated films were mostly undervalued and misinterpreted in the film industry. They did not receive the recognition and perceived value that the other film forms did. Two opposing perspectives developed: one dismissing animated film as part of the cinematic art, seen as non-serious, and not valuable, and the other, which elevated animation as an independent artistic form distinct from traditional film but as a part of the same realm (Ajanović *Animacija* 27). Both perspectives share similar creative processes that occur between a director, and animator, and their work which is why the perspectives became intertwined. When it comes to animation within film theory, in the realm of animation studies, scholars often approach the subject as an extension of other disciplines, particularly cultural studies, languages, literature, and art history. While historical and contextual insights were commonly

provided, there was a scarcity of research-focused or theoretically comprehensive books on animation.

During the 1990s, there was a surge in animation programs in universities and art schools, leading to an influx of animation-related publications. The programs included surveys of history, national styles, and production systems, as well as examinations of specific studios, eras, and filmmakers. Experimental film theory also delved into animation, considering aesthetic implications beyond traditional techniques, intersections with the avant-garde, and the experimentation conducted by fine-art practitioners (Buchan 112). Through the view of stop-motion as an art form, rooted in a rich history yet perpetually evolving with technological advancements, film theorists can delve into topics ranging from the aesthetics of movement and the embodiment of characters to the interplay between reality and illusion. Theorizing about stop-motion animation can also be seen as an extension of film theory. The methods used to create stop-motion animation features can be theorised as a technical part of the film theory. Meanwhile, the products of this technique and the narratives created within the stop-motion technique can be connected to wider contexts of other disciplines such as cultural studies. The understanding also reaches into the relation between the creator, the audience, and the work, more precisely the stop-motion product.

Regarding stop-motion animation, the term “animation” refers to a conventional manner of its usage within film studios. It depicts an image that is created through a sequence of movements achieved through the application of a particular cinematographic method or technique (Ajanović *Lutka* 16). The animation technique which purposely focuses on the physical manipulation of objects is the stop-motion animation technique. The real-life physical objects are manipulated and photographed to create a sequence of still images. In this technique, the object is moved and photographed within a single frame of a motion picture film, giving the impression of independent movement. Between each photograph, the object is

slightly moved and manipulated which creates the “illusion of movement” when the frames are played rapidly in sequence (Maselli 54).

Barry Purves says that “motion is created when the camera is stopped” (7). The illusion of motion is possible due to alterations made once the camera is off the object, between takes and between frames. These alterations are later played in a sequence and create a moving performance. This is a fundamental aspect of filmmaking, where the aim is to deceive the viewer’s eye and make the inert objects seem alive. Similarly, regarding the stop-motion animated film, the object or the puppet exists even outside of its context while the movement is non-existent, this notion gives a paradoxical essence to artistic performance (Ivins-Hulley 61). In essence, the stop-motion technique is the creation of the visual illusion of motion within a static image with characters that were made physically or by altering existing real-world or physical objects. It basically represents cinematic artistry that evokes life and dynamism from otherwise inert visuals.

In summary, stop-motion animation represents a specialized subset of animated films. It employs a distinct physical process to achieve movement unlike other films that encompass various techniques, both traditional and digital, to create motion in visual storytelling. This MA thesis aims to provide a comprehensive review of the topic of stop-motion animation followed by concrete examples. The exploration of various aspects, including historical overview, types of stop-motion animation, and methods of creation, will illustrate what differentiates stop-motion from other animation techniques. These different elements will be compared and applied to an analysis of four stop-motion feature films: *The Nightmare Before Christmas* (1993), *Coraline* (2009), *Fantastic Mr. Fox* (2009), and *Isle of Dogs* (2018).

2. Historical overview of stop-motion animation

Stop-motion has been around since the early beginnings of film. The historical overview of stop-motion will show its development through time, and its most famous representatives. Nowadays, the competition in the film industry is greater than ever, especially considering the existence of CGI technology. While CGI is typically preferred for its faster production, stop-motion has not lost the battle and its place in the world of cinema. The fundamentals of stop-motion animation remained unchanged. However, currently there is a capacity to showcase stop-motion with utmost clarity using computer-generated imagery. The new technologies allow stop-motion to be shot in 3D as well (Priebe and Selick 18).

The earliest animated films combined the influence of puppet theatre traditions with the evolving cinematic language. By utilizing the aesthetics and techniques from puppet theatre, film animation marked the end of a historical era in the advancement of stage puppetry and simultaneously initiated a new era in the evolution of visual storytelling (Ajanović *Lutka* 26). Ladislav Starevich intentionally created puppets for the purpose of being filmed before a camera. He was a well-known Russian puppet animator, the first one to create puppets whose movement will be manipulated in front of a camera (Maselli 56). The following brief historical overview will attempt to chronologically portray the most important events that led to this point in the development of stop-motion animation.

Firstly, James Stuart Blackton and Albert Edward Smith observed elements in Méliès' films that they perceived as innovative. They embarked on an endeavour to try filming inanimate objects, manipulating them between frames to create an illusion of movement. In 1897 they released a pioneering film *The Humpty Dumpty Circus*, which is regarded as the first narrative employing animated three-dimensional objects (Maselli 55). Then, starting from the early 20th century, one of the earliest films that showcased the stop-motion animation technique was *The Lost World* (1925). The film, by the animator Willis O'Brien, is considered to be the first

feature-length American film featuring stop-motion animation (Welk in *Timeline of Stop-Motion*). This feature showed the starting potential of the technique with which the filmmakers will start to experiment with. O'Brien also contributed to several films with special effects, such as *The Dinosaur and the Missing Link: A Prehistoric Tragedy* from 1915 and after that, the memorable piece of stop-motion *King Kong* (1933) (Gasek 2).

It can be said that *The Lost World* (1925) laid the groundwork for the creation of *King Kong* (1933). *King Kong*, directed by Merian C. Cooper and Ernest B. Schoedsack, with the help of the previously mentioned O'Brien's animation work, was another historically important piece of stop-motion animation (Welk). *King Kong* (1933) had been a huge inspiration for the work of one of the most important figures of stop-motion, Ray Harryhausen. Before mentioning the work of Harryhausen, it is also important to note Art Clokey, a pioneer in clay animation, one of the types of stop-motion. In 1955, he created Gumby for *The Howdy Doody Show* (Welk). Gumby is a clay animated character in the show, brought to life through stop-motion techniques.

One of the most important figures in stop-motion animation, also known as the father of stop-motion animation, is Ray Harryhausen. Ray Harryhausen (1920–2013) was recognized as a pioneering figure in the world of stop-motion animation and visual effects (Eldridge in *Ray Harryhausen: American Filmmaker*). His inspiration to delve into stop-motion came after he saw two films: *The Lost World* (1925) and *King Kong* (1933). Becoming enormously fascinated by the clay animation of King Kong, Ray decided on his future as a filmmaker, or let's say stop motion animator (Walker-Werth 49). He is renowned for his technique and contributions to the field, particularly in fantasy and science fiction films. He contributed to the special effects to “more than a dozen movies, including *It Came from Beneath the Sea* (1955), *Mysterious Island* (1961), *Jason and the Argonauts* (1963), and Hammer Films' *One Million Years B.C.* (1966), and the *Sinbad* series of films” (Eldridge). Harryhausen's legacy in stop-motion

animation and visual effects lives on through the films he worked on and the impact he had on the industry. He will remain well-known for his contributions and continue to inspire today's and future animators and filmmakers.

Subsequently, between the 1960s and 1980s, we observed a fresh intersection emerging between film and computers. The development gradually led to two main objectives: three-dimensional visualization, and design, along with the incorporation of stop-motion animation experiences into computer-generated animation (Ajanović *Lutka* 31). Next, the period of 1980s up to 1990s brought Henry Selick's breakthrough stop-motion film, *The Nightmare Before Christmas* (1993), produced by Tim Burton. The film was a real success, which according to Maselli (2018) enabled the technique to “get out of the darkness of wineries and attics of unknown independent filmmakers, and travel to the conquest of Hollywood cinema, diffusing into cinemas all over the world” (58). This means that stop-motion was brought to light, or more precisely, within the mainstream where it will be accessible to a wider audience. *The Nightmare Before Christmas* (1993) will be discussed in more detail in the continuation of this thesis.

The 2000s introduced some new techniques. In the realm of puppet animation, significant technological advancements emerged in two key films: Tim Burton's *Corpse Bride* in 2005 and *Coraline* in 2009. Hence, *Corpse Bride* (2005), directed by Burton and Mike Johnson, marked a breakthrough by being the first film shot entirely in digital format. Notably, the puppets in the film introduced an innovative method for facial animation. Unlike the approach used in *The Nightmare Before Christmas* (1993), *Corpse Bride* (2005) employed intricate mechanisms of paddles and gears beneath a silicone skin to manipulate the puppets' facial expressions, departing from the traditional replacement head technique (Maselli 58-59). The replacement head technique involved animators swapping head pieces with different expressions to alter the

characters' emotions. On the other hand, the paddles and gears allow the movement within the puppet and there is no need for replacement parts.

For instance, 2009 was a significant year for stop-motion animation. The year 2009 records a notable occurrence where after a long history of stop-motion five distinct stop-motion films were released within the same year. The five stop-motion films were: "Adam Elliot's feature film *Mary and Max*, Wes Anderson's *Fantastic Mr. Fox*, the Belgian, French and Luxembourgish co-produced stop-motion animated adventure *A Town Called Panic*, Jiří Barta's stop-motion animated Czech feature film *Toys in the Attic*, and *Coraline*, an American 3D dark fantasy stop-motion film" (Maselli 59). During the beginning, the early 90s, the release of the animated puppet film was not so frequent.

The most prominent releases in 2009 were Henry Selick's *Coraline* and Wes Anderson's *Fantastic Mr. Fox*. Both films not only resonated with family audiences but got to save their places in the history of stop-motion animation evolution. Each film varies in terms of style, technique, and distribution (Priebe and Selick 3). After the filming of *Coraline*, the equipment and techniques used in stop-motion did not significantly change up to today. The tools have remained relatively consistent with their quality to enable the animators to achieve great stop-motion feature films, and digital technology was one of the most important elements of this stage of development (Shadbolt 126). Nevertheless, the stop-motion animation technique continued to thrive through various films and features.

Today's stop-motion animation has the access to more advanced technological equipment which eases up the time-consuming process of creating animated objects. In the beginning, the sporadic production of stop-motion animation content, particularly when aiming for a longer feature, was partially attributed to the time-consuming process it entails (Priebe and Selick 2). Digitalization granted a less time-consuming and easier process of completing any stop-motion animation project while capturing the same essence of stop-motion (Kirby 23). Generally, the

animated landscape has undergone significant changes with the development of technology which led to the creation of animated images through computer software (Ajanović *Lutka* 43). This approach is used in stop-motion animation as well, although it contrasts the traditional methods of manipulation of physical objects. Of course, the new innovative technologies can also be combined with the traditional ones. This parallels Purves' (2010) interpretation of stop-motion, wherein he asserts that “stop-motion combines the relatively modern world of animation with the ancient tradition of puppetry” (19).

However, stop-motion differentiates from various puppetry methods through its distinctive characteristics. Unlike traditional puppetry that unfolds in real-time performances in front of a live audience, stop-motion operates differently. Stop-motion is created behind the camera and presented to the audience after dozens of alternations of the characters within their setting. While the incorporation of new technological advancements in stop-motion can speed up the production of stop-motion animation features, it cannot eliminate its time-consuming nature. That influences the frequency of their releases. One studio or one director can hardly produce more than one stop-motion feature within a couple of years due to the challenging production process.

3. The making of and the types of stop-motion animation

As previously mentioned, stop-motion animation refers to a style of animation where real three-dimensional objects are captured and manipulated within frames to create an illusion of movement (Ajanović *Lutka* 16). There are a lot of details that must be considered and carefully calculated in this process. Maximizing the operation of movement is of utmost significance, as it facilitates seamless comprehension of the viewer's perception and cognitive processing. Hence, rapid cuts and disproportionate or too minimal movements within the animation may disturb the viewer's coherent understanding of the intended message that the scene wanted to

convey. It is imperative to emphasize communicating the point of the narrative effectively through movement (Purves 22). Thus, everything in stop motion is subjected to the creation of movement.

Further, it is important to emphasize that “the quality of the sequence is more important than the quality of the image” (Kim and Kim 6). Throughout the evolution of animation, a significant emphasis has been placed on achieving seamless motion, aiming to conceal the presence of the artist's touch. While computer-generated (CG) animation boasts remarkable versatility, it often struggles to capture the essence inherent in stop-motion. The aim of stop-motion is to hint the artist's touch through inevitable imperfections. This authenticity serves as a direct link to the audience, communicating a tangible connection that assures them of the genuine existence of what they are witnessing (Priebe and Selick 9). We as spectators or audience, play a significant role in shaping the things that unfold on the screen. The audience mentally assembles and foresees the narrative by embracing the illusion of movement, the visual and audible hints allow the spectators to comprehend what is before their eyes (Ivins-Hulley 63). Much greater attention to positioning between frames is needed for the creation of a seamless movement in stop-motion animation.

Hence, the more the frames connect to one another regarding composition, motion, colour and other features, the animated sequence will appear more credible and of better quality (Purves 20). The movement itself for greater credibility must be complemented with features such as light, shadows, sound, and music to create a convincing scene. Accentuating the set and characters with the use of lighting, and inserting sound and music adds up to the atmosphere and a sense of surrounding. Features such as music and sound are added afterwards. The main reason is that sound cannot be recorded live while taking the shots, therefore, it must be added in the post-production. The sound is usually made from scratch depending on what needs to be portrayed in the animation. Of course, it is important to synchronize the sound with

the movement for the scene to be convincing. Other requirements referring to characters are their physically moulded physique made from real materials and filmed in real-life settings. Hence, the more detailed the animated objects, the more convincing the animation might be. The film's ambience is further constructed through the performance of these characters. For a convincing shot, their performance must be seamlessly integrated into their surroundings (Minnan, Yizhe and Shenglu 2). This is achieved with the previously mentioned components such as camera movement, light, and sound.

3.1. Behind the camera

The previously mentioned importance of connecting the frames to create a coherent scene has a lot to do with camera movement, camera angles, montage and lighting. Therefore, these components cannot be overlooked while filming a stop-motion feature. Gasek (2011) claims that the making of stop-motion animation requires a so-called "grip package". This means that the production of stop-motion uses a variety of equipment for filming, ranging from "tripods, lights, flags, electric chords, voltage regulators for lights, sandbags, gaffer's tape, and potentially motion control" such as any other feature or live-action film (27). Although a change occurred from the earlier days of animation, essentially all present film cameras were gradually replaced by video camera. Then each image represented an individual photograph, which had its own "established focus, exposure, color, and lighting" (Priebe and Selick 151).

These factors collaboratively played a role in establishing a continuation of the frames, but maintaining uniformity and coherence between them presented a challenge. Film camera permitted manual adjustments, and factors such as irregular shutter speed and temperature shifts. This frequently resulted in disparities between frames. Consequently, maintaining the consistency between the frames proved to be a challenging task (Priebe and Selick 151). The introduction of the moving camera was gradual in stop-motion animation, from the static,

theatre-stage-like composition of frames to a couple of manually carried out movements. Eventually, cameras capable of capturing a precise repetition of higher-quality images and ability to connect them even in the post-production became the norm (Purves 141). The motion control systems enabled the camera to access the puppet by moving aside during the frame setup. After setting the frame, the camera returns precisely to its designated spot from the next frame to be shot. This automation simplifies the complex camera work while filming stop-motion animation, and lets animators focus more on puppet performance without the struggle with technicalities of the camera movement between each frame (Shadbolt 122).

To achieve what is available today for filming a stop-motion feature, the animators had to adopt various solutions. Firstly, a transformative moment in animation came when the animators realised that stop-motion can be executed via a DSLR camera. Its process harked back to the roots of stop-motion, connecting it to film. With a DSLR camera, animators were able to capture high-quality still images which could then be seamlessly imported into editing software. The software permitted them to be played in a sequence after they had been imported. Also, this allowed the images to retain the sharpness and clarity of traditional film prints while presenting the potential of a superior quality of images. Lastly, to create a live video feed which was missing, animators would attach a camcorder to the DSLR or a small spycam to their viewfinder to enable work with greater precision since it gives them a live feed of the frame captures (Priebe and Selick 154- 5). The most recent technological solution for shooting stop-motion was stereoscopic photography. A method, created in the last decade, is an innovative approach to capture stop-motion scenes in 3D. Stereoscopic photography involves capturing both left and right eye images of every frame and then aligning them to create a 3D projection (Maselli 59).

Regardless of the medium, the narrative needs to engage its audience with compelling characters and situations (Purves 55). Stop-motion is not a narrative in itself, to create a

narrative there are several cinematic and camera techniques that can be used to intrigue the audience while watching a stop-motion animation feature. Sustained audience interest can be attained through a variety of techniques, such as: “Fast pacing; Contrasting rhythms and increasing tension; Exciting plots full of moments of peripeteia and suspense” (Purves 55).

As noted, there are many possibilities for camera movement in animation, but the challenges and limitations also persist. The difficulties arise from the fact that equipment in stop-motion animation is frequently limited to small-scale dimensions. Nevertheless, the potential of encompassing depth, width, and height with the camera is quite extensive in terms of the stop-motion animated set (Munitić 103). It is important to emphasize that all animation, including stop-motion animation, relies on movement to convey meaning through verbal and nonverbal storytelling (Ajanović *Lutka* 28). Animated characters just like any other character in a live-action film must convey the message and meaning intended by the director or animator, either by movement or narration. In stop-motion greater effort is needed to connect the specific emotion with the right movement needed to portray the character's thoughts and actions, and most importantly capture it within each individual camera frame.

3.2. Importance of lighting

The significance of good lighting in stop-motion animation cannot be exaggerated. First and foremost, one of the crucial errors one can make in any stop-motion technique is to illuminate the objects with evenly distributed, flat lighting. This is because the lighting has the function of providing “form, dimension, atmosphere, drama, and life” to any subject or object within the frame (Gasek 75). The camera in stop-motion is confronted with an insert of space that demands skilful lighting techniques. The interplay of light and shadows is a great tool for shaping and expressing atmosphere and highlighting the materials (Munitić 102). The selectiveness of techniques of lighting can expand the visual impact of stop-motion

compositions, making them appear grander, or infuse mystery and drama. The fundamental approach to lighting is three-point lighting, involving the use of 3 lights, the key, the rim and fill lighting to achieve the best outcome. There is of course room for creative explorations with lights, but the basics must be known (Gasek 75). Furthermore, when working with physical objects and sets, as in stop-motion, textures are one of your most valuable assets. If the animator ensures the use of effective lighting, he can maximize the impact of the textured details on set and ensure that characters interact convincingly with their surroundings. Without suitable lighting, carefully sculpted puppets and detailed backgrounds lose their textured nuances under flat and uniform front lighting. Consequently, the physical characters might appear two-dimensional, resembling hand-drawn characters, or cartoons, particularly in cases where characters in low-budget or poorly executed animations are not influenced by the right lighting. The lack of interaction with the environment results in a lack of realism and discrepancy between characters and their background (Purves 25).

For instance, highly detailed and carefully textured puppets can lose their intricacies if they are illuminated with excessive front and fill lighting. This results in a flattening effect, and then all the hard work from their making, their sculptural depth and detailing goes to waste. The right lighting, in this context, should accentuate the contours of the puppets and the depth of the designed settings in the studio. The animation can benefit from the presence of shadows or dappled lighting, providing an environment in which the outlines and details are more expressive. The lighting contributes not only to our perspective but also to the portrayal of movement and spatial dimensions on set (Purves 143). Hence, the importance of lighting is of a dual nature, it both shapes the external and internal aspects of the characters and establishes the atmosphere in the scene, and influences the performance (Minnan, Yizhe, and Shenglu 4). It is crucial to cooperate with the lighting team to achieve authenticity with lights since it is imperative to choreograph the characters and lighting to create a quality shot (Purves 143). All

of the points above highlighted the importance of lighting in stop-motion animation. The use of inadequate lighting will conceal the effort put into making the details on the physical characters and the sets used in a stop-motion animated feature. Besides, the lighting can affect our visual comprehension of the scene. If the animated character is moving against a featureless backdrop with flat lighting, the perception of its movement will not read as clearly as if it were set against dappled lighting and a more detailed backdrop. The character's motion becomes noticeable when it stands out from its background (Purves 22).

3.4 Types of stop-motion animation

Building upon the earlier distinction between animated images and animated objects, the primary focus of this thesis is the animation of objects. Animated films usually consist of characters or figures that are a combination of “physically incompatible elements”, these elements also depend on their creator and the story. The animated characters can more easily defy the rules of nature and, therefore, create impressive scenes which are not usual for any real-life scenarios in the physical world (Beckam 120). The possibilities with animated objects are almost endless. With the help of imagination, the animated characters transcend the limitations of the human body, and not just that, but also temporal and physical boundaries. Although stop-motion animation is most frequently associated with puppet animation, it is far more versatile than that. Several types of stop-motion animation exist, some of which are: “Clay Animation, Cutout Animation, Graphic Animation, Model Animation, Object Animation, Pixilation, and Puppet Animation” (Ebenezer Kow 19). The primary distinction between the mentioned types of stop-motion animation techniques is their use of different media for animation, as their names already slightly uncovered.

For instance, clay animation, or claymation for short, animates characters made of clay. Clay animation essentially distinguishes itself from other types by the process of resculpting

the characters in between frames, rather than merely adjusting their positions for the next frame. Claymation involves the use of soft, pliable materials that are susceptible to dirt and fingerprints since it requires cleaning after each alternation of the characters (Purves 29). In contrast to other types of stop-motion animation, the sculpting must be especially careful, as any extreme or abrupt movement could result in the loss of the previous frame, potentially disrupting the continuity of the sequence if the character is excessively changed. This animation technique, by the year 2000, managed to grab an opportunity to achieve commercial success in feature films.

During the 1990s, another highly acclaimed figure appeared in stop-motion, animator and director of *Wallace and Gromit*, Nick Park (Priebe and Selick 41). Wallace and Gromit are his well-known stop-motion animation fictional characters from the animated series and films of the same name. The movement of the clay-made characters in Wallace and Gromit relies on facial expressions above all. Although Gromit's face might seem simple, his face structure exhibits strong, and remarkably distinctive designs which can be easily replicated within the sequence. The eyes and eyebrows are the most expressive components, and the illusion of movement is complemented by precise blinks and use of body language (Purves 29). The animation of clay or plasticine, unlike puppet animation, where the character's movements are created behind the camera, allows both characters and the setting a chance to completely transform through its moulding (Ajanović *Lutka* 30).

Another widely adopted stop-motion animation technique is pixilation. Alternatively, it is the animation of living beings. Pixilation involves animating people as if they were puppets or modelled objects, photographing them posing and doing tiny movements after each shot. It works on the same principle as puppet animation but offers faster results than the other types and is more cost-effective (Chew). Moreover, there is cutout animation, which entails media such as drawings, photographs, and various 2D objects like rivets, string, and wax to mimic

the appearance of movement (Gasek 12). Such inert objects require a lot of effort and imagination to create animated movements.

Perhaps the most famous and extremely challenging form of stop-motion animation is model or puppet stop-motion animation. A puppet can be defined as a three-dimensional figure crafted from various materials such as wood, wax, papier mache, fabric and other materials (Ajanović *Lutka* 21). Designed to represent live creatures, the puppets' key characteristic is the interference of human intervention that makes it come to life from its inert state. Puppets narrate stories with subtle gestures and pauses, effectively transforming the perception of time and introducing a temporal disconnect between the animated movement that the animator alters frame by frame and the audience's perception (Maselli 54). Every movement performed by the puppet should serve its purpose and contribute to creating a meaningful scene. There is no space for coincidence while creating a stop-motion scene. The positioning of the characters needs to be precise and intentional. Ajanović claims that the credibility of lifeless objects in stop-motion is established through their distinct gestures, posture, and reactions (*Lutka* 28). The animators working with puppets have a certain advantage while making the puppets, once the facial details have been made, they remain consistent through the animation process. This permanence of the puppet's head simplifies the task of maintaining the character's facial appearance. Unlike puppet animators, those working with plasticine or clay have a harder job maintaining facial expressions due to the material being more malleable (Purves 29).

In the context of building puppets, various methods of their creation can be used within stop-motion animation techniques. The methods range from plug-in wire armatures and face armatures to silicone moulding and cable controls, and most recently rapid prototyping and replacement puppets. Regardless of the method chosen, the ultimate goal is to bring life to the characters that were carefully crafted. Through the camera objective, the inert puppets will be transformed into a moving character that we will see on the screen. Further, wire armatures are

particularly good for creating smaller size characters, and their body parts, while providing a reasonable ratio between the range of movement and the cost of its production. For instance, when it comes to designing the hands, it is important to keep close attention to the fingers. The variations in the length of the fingers are of crucial importance since too long fingers can make the fingers resemble rakes or forks. So, no matter if the animator chooses a lifelike or stylized version of the hand for the puppet it is essential to keep the proportions between the fingers in mind (Priebe and Selick 91).

One of the most important components of the puppets' face is the eyes. The choice of eyes for the puppet can significantly influence the performance of the character. Hence, fixed and standard eyes convey sincerity and transparency, with little room for deception, while simple black dots will probably not achieve the same effect (Purves 99). The face and facial features are of crucial importance for animated characters to convey a message to the audience. Further, the skin of the puppets can be created with the latex-build-up technique or with silicone. The silicone technique requires less mixing than latex requires and is being applied for puppets and moulds. The greater potential of silicone also comes from the fact that the skin of the puppet might appear smoother and has a different, and potentially better, visual quality (Priebe and Selick 107). Although not all puppets will be human, the stop-motion animation plays with lots of texture for its characters, such as various ways for imitating fur for animals or creating an outdoor setting. Finally, the emergence of rapid prototyping revolutionized part of the construction of puppets. Also called 3D printing, it is a technique where computer models are created and 3D printed into physical copies (Priebe and Selick 139).

4. Research Methodology

This MA thesis will provide an analysis of stop-motion animation feature films and offer a comprehensive review of the topic of stop-motion animation. Therefore, the analysis will cover

the following four contemporary stop-motion animated features: *The Nightmare Before Christmas* (1993), *Coraline* (2009), *Fantastic Mr. Fox* (2009), and *Isle of Dogs* (2018). The analysis will be based on the evaluation of secondary data sources, apropos stop-motion animation-themed works of literature, books and articles, and visual analysis of the features. The collective data will be applied to the concrete four stop-motion features to gain a better understanding of stop-motion animation through the techniques and methods that were applied in the creation of the chosen features, which were also mentioned in the chosen literature sources.

5. Analysis of popular stop motion features

In the upcoming chapter, I will discuss stop-motion animation techniques, using concrete examples. This section will provide a short introduction to each film that will be used for this thesis and define the techniques of stop-motion animation in relation to the visuals and narrative development of each feature. It might seem unconventional for cartoons and puppets to address deeply serious themes and subjects since society is accustomed to associating animation with content intended primarily for children (Purves 69). However, it is not unusual for animated films to cover an array of themes ranging from happy, heartfelt ones to complex, serious and deep, even frightening subjects. The chosen films for this thesis whose underlying messages might not be comprehensible to smaller children also cover a range of topics. The first two features, *The Nightmare Before Christmas* and *Coraline* feature an array of scary scenes; the first is a Halloween-themed film while the other can be considered an animated horror film. The remaining two Wes Anderson's features are primarily for teens and adults due to their themes and use of violence. Although kids can enjoy the visuals of these films, such as any other animation film, their remaining characteristics prove that animation is not exclusively

a children's genre and it can capture the hearts of adults and approach a range of topics just like live-action movies.

5.1. *The Nightmare Before Christmas*

The Nightmare Before Christmas is one of the first landmarks of contemporary stop-motion animation. Chronologically it is the first released feature out of the four that will be analysed. *The Nightmare Before Christmas*, directed by Henry Selick, made its debut in 1993. This Halloween-themed animated film bears a resemblance to Tim Burton's style of animation, perhaps because Tim Burton helped Henry Selick with the production of the film. Despite its portrayal of grotesque characters and a dark setting, at its core, it is not entirely a scary film. The film is set in the fictional Halloween Town and the narration revolves around Jack Skellington, the Halloween Town's Pumpkin King. Some of the central characters in the film are Jack Skellington (voiced by Chris Sarandon and Danny Elfman), his trusty companion dog Zero, Sally (Catherine O'Hara) who has a crush on Jack, Dr. Finkelstein (William Hickey) the mad scientist and maker of Sally, the Mayor of Halloween Town (Glenn Shadix), Santa Claus, and Oogie Boogie (Ken Page) the antagonist and his minions Lock, Shock and Barrel. The variety of these characters and the narrative revolve around Jack Skellington being fed up with the repeating events in Halloween Town. Jack, after the Halloween celebration, heads on a walk deep into the woods. There, he accidentally stumbled upon Christmas Town, an unexpected discovery that awoke his imagination. Fascinated by what he saw and felt Jack wanted to bring the joy and spirit of Christmas into his Halloween Town. However, in the turn of events, the transformation of Halloween Town did not go exactly to plan.

This year the feature marks 30 years of its existence. It has seen a steady rise in popularity over the years, consistently attracting new admirers. Its first re-release was in 2006, and this year, in 2023, this will be the fifth re-issue. Each release brought additional earnings to the film's box office which now reached around 91 million dollars (Burkett). In the 2006 release,

Disney changed the format of the feature. The film was brought back in 3D. This transformation involved the creation of digital versions of each and every frame of the original film. This entails scanning the original puppets into a computer and reconstructing the characters and the set virtually to create a 3D effect (Priebe and Selick 180). The original edition from 1993 is the one that will be analysed here, mostly because of its limited use of special effects which highlights the stop-motion animation and its efforts.

The opening scene of *The Nightmare Before Christmas* introduces the meticulous artistry of the whole film and sets the tone for the rest of the story. The introduction to the spooky grotesque Halloween town is followed by a musical number from Danny Elfman *This is Halloween* where all the characters we are introduced to are singing along. This synchronization of the scenes with music makes it seem like a musical number. Three ghosts which were animated in 2D fly across the stop-motion set, introducing the viewer to the almost black and white scenery. This is one of the instances within the feature where two types of animation are combined. Further, the camera moves, more precisely glides, through Halloween town and among the variety of its odd inhabitants. The camera focuses on each character and piece of the setting, the close ups portray the details that were carefully hand-crafted to create a spooky atmosphere. The movements of the characters are rather exaggerated both to showcase the stop-motion animation and to add to their scary look. The lighting and the colour palette also emphasise the eeriness of the setting. The interplay of shadows and dramatic lighting adds to the atmospheric effect. The colour palette, in this scene and the entirety of Halloween Town, ranges from shades of grey, brown, black, blue, and a couple of orange or yellow pieces. Nonetheless, attention to detail is immaculate, such as the outcome of the opening scene that announced the visual artistry that will unfold.

After the conclusion of Halloween festivities and the crowning of the Pumpkin King, Jack visits Christmas Town. The difference between the use of colour and light, not only between

Halloween Town and Christmas Town but also when compared to the real world, stands out as the most important element for conveying emotions and establishing the atmosphere in the film. The setting of Halloween town is deliberately made the darkest of the three. The absence of colours makes it almost like a black-and-white film. The light purposely accentuates shadows and silhouettes all to contribute to the mysteriousness and spookiness of Halloween. In contrast, Christmas Town is created with vivid colours. The spirit of Christmas is therefore portrayed with lots of colourful Christmas decorations all around town while snow covers the rest of the scenery. The exterior is festive and vibrant, and the interiors are warmer and cosy. This in contrast to Halloween showed the energetic nature of Christmas, the joy and festivities connected to it. Lastly, the real world can be positioned between the two. The visuals are more moderate since both lighting and colours are less extreme. The real world can be considered more serious, and even boring in difference to the Halloween and Christmas Town aesthetics.

The part of the day of the plot also needs to be taken into consideration. During the day, in Halloween Town, a diffused light was used to soften the shadows, and a CT blue with high fill created the autumnal atmosphere. A pale-yellow lighting scheme is present during the day (Kozachik). On the other hand, the nighttime is extremely dark and the shadows are accentuated, although in many nighttime shots, the moonlight glows over the town and casts long shadows. The predominant use of dark colours, purple and blues also contributes to the gloomy and mysterious surroundings. When Jack visited Christmas Town during the night, the exteriors were lit with gentle blue colours, the horizon was still glowing. The miniature of the Christmas Town that is shown first looks almost like a Christmas market, the warm yellow and orange lights from the houses reflect on the snow and the strings of Christmas lights give an additional festive feel to it.

The Nightmare Before Christmas as a stop-motion animation feature primarily used the puppet animation technique. The puppet animation, along with claymation, was applied to most

of the characters in the film, including Jack, Sally, and Oogie Boogie which will be mentioned specifically. Of course, all the characters were handcrafted and the entire process of making them required a lot of dedication and craftsmanship, but the results were worth it. Each character, or puppet, in *The Nightmare Before Christmas* has its own armature depending on its specific physique. The armature is the flexible internal structure, almost like a skeleton, that allows the animators to manipulate the body of the puppet to create smooth movement. The joints of the armatures are also important for a lifelike movement. Once the armature is ready, it is placed in a mold which is filled with foam latex that will form the body. The fabrication stage is where the puppets get more defined features, in this stage the characters are painted, they get clothing, or distinct features such as hair (LINK 1). The remaining part was the animation of the puppet by manipulating its movement frame by frame to bring it to life on screen. Nonetheless, since the animators always make sure they have duplicates in case a puppet breaks, the process always involves the making of several puppets for each character.

Jack Skellington, the main character of the film, is an animated puppet as well. His spider-like body with long limbs was made according to the previously mentioned process. The long stabilising armatures are within the puppet to allow smoother movement. He is tall and lean with a skeletal face that lacks some distinctive features, his mouth is stitched and his eye sockets are dark and hollow. The lack of other features additionally accentuates the importance of eyes to convey emotion. Eyes and especially blinking gave Jack a sense of life. Also, the film used an innovative technique of replacement heads for the characters. The custom hand-sculpted replacement heads enable Jack's various facial expressions. Depending on the mood, the replacement head is selected. Each of these heads was photographed and digitally catalogued. This allowed the animators to match the expressions and heads with individual syllables in the dialogue and/or song and then accordingly change heads for the characters (LINK 1). Sally, another character, has a different physique than Jack. She is a scientific

experiment and her movement needed to seem a little off balance so her movement is never in a straight line. Unlike Jack, Sally has a more human-like face, meaning her face is more detailed. She has big expressive eyes and eyelashes, a regular mouth, and a nose. Her occasional slow blinking does not function as a means of communication but to give a sense of vitality to the character. The head substitution method was used on Sally as well. The head substitution here included the adjustment of Sally's hair which is somewhat messy and wild. The animators must manipulate the strands of hair to give the impression of moving and flowing according to Sally's movement or the weather. An interestingly made character in the story is the antagonist Oogie Boogie. Oogie Boogie's exterior is fabric-like, it contains a lot of texture, but at the same time, it gives a sense of transparency. Also, Oogie Boogie and his cave are both illuminated with specific lighting to appear translucent. The translucent effect is made by using variations of hard blue light with little or no fill (Kozachik). Additionally, another interestingly animated character is Jack's dog, Zero. Zero is a ghost with a glowing nose, one like Rudolf's. Since Zero is a ghost of a dog he needed to seem transparent. The animation of Zero, therefore, employed a "beam splitter". The process involved the creation of an optical illusion. Zero had to be positioned on a background to one side of the camera and then incorporated using the beam splitter (Kozachik).

Perhaps the most challenging sequence in the film is the making of Christmas in Halloween Town. This is a dynamic scene where the residents, alongside Jack, are creating their version of Christmas Town. The Halloween Town setting is now combined with Christmas decorations, and bits of colour within the gloomy greys seem bizarre. There are a lot of additional props introduced, the residents are creating Christmas gifts with a twist, a disturbing occurrence. Animating the assembling of gifts requires repetitive motion. It was important to maintain consistency in character movement over multiple frames to achieve this. There are simultaneous cuts from Halloween town to Christmas town to illuminate the contrast between

the making of gifts. Another occurrence of using two types of animation appears when the ghost is carrying packages. In the making of this scene, the packages, first carried on strings, are traced frame by frame through a method of rotoscoping, afterwards the ghosts are drawn to fit in the frame and then connected to get the effect (LINK 1). Lastly, the synchronization of music with the characters is one of the biggest challenges in creating a convincing scene. The song *Making of Christmas* was seamlessly incorporated into the film. It enables us to recognize the character's point of view and understanding of Christmas. Even though the residents of Halloween town are making presents, their interpretation is dark and twisted, such is reflected in the atmosphere of the musical number.

It is no wonder that the production requested a substantial budget to cover the team of highly skilled professionals and the making of the set and the puppets. The production lasted for three years in a vast 40,000 square feet warehouse space in San Francisco. The production showcased exceptional craftsmanship while combining an array of puppetry and filmmaking techniques. The additional feature was the use of motion control technology to seamlessly integrate the camera into the narrative (Priebe and Selick 37). The motion control technology allowed the camera to blend with the surroundings and glide through the crafted set and between characters, resembling the live-action filming. The stop-motion animation complimented the overall impression of the film and its narrative. It showcased how stop-motion animation gives an additional touch in creating eerie and mysterious visuals.

5.2. Coraline

Another stop-motion animation release by Henry Selick, which premiered in 2009, is *Coraline*. *Coraline* stood out with the use of rapid prototyping and stereoscopic photography methods. They allowed the creation of highly detailed puppets and faces by the use of 3D printing (Mihailova 3). These new technological innovations will be of great significance for

the future of stop-motion animation. Notably, the year 2009 marked a significant moment for the stop-motion genre, giving five stop-motion releases within a year. The story of *Coraline* is based on a novel of the same title written by Neil Gaiman. The atmosphere resembles *The Nightmare Before Christmas* but includes more elements of horror and fantasy. *Coraline* opens with short credits, during which we witness the process of reassembling of a doll of a little girl and the making of a new doll, sewing, stuffing, and adding the details. At the beginning, the viewer is not aware that this foreshadows the storyline. The old doll, the girl that was captured in the other world, is now being replaced by the doll that will soon be in Coraline's hands. It also offers an insight into the craftsmanship involved in stop-motion animation and the creation of the characters from scratch.

The storyline opens up with stormy clouds, featuring a sweeping exterior shot that descends from a grey sky over an evergreen forest and a mansion. The shot ends with a sign 'Pink Palace Apartments'. This introduces the setting; the story is set in an isolated Victorian-looking house with an unkept garden. The greyish colours, and the withered flowers, make the setting rather miserable, while the mist and gloomy weather give it a mysterious and spooky atmosphere. The beginning also introduces the main character Coraline (voiced by Dakota Fanning), a strange cat (Keith David), and Caroline's neighbour Wybie (Robert Bailey Jr.). This stop-motion feature immerses the viewer in Coraline's journey through a portal to uncover a different version of her world. The 'other' world, at first, better and perfect, turned twisted and terrifying. The portal she discovered is a metaphorical connection between the two worlds, between the real and the fake. Her disappointment, ignorant parents in the real world, and picture-perfect family in the other world explore the idea of belonging and the meaning of home. The use of animation, more precisely stop-motion animation, is showcased as a great medium to explore the complexity of childhood and parenthood, even in this terrifying manner

where the nuclear family is criticised (Batkin 208). When the ‘other’ world starts falling apart, our heroine understands that looks are deceiving.

The production of *Coraline* managed to create a full-length stop-motion feature using replacement faces with a 3D printer. The LAIKA production with the help of 3D printing created a total of 15,000 replacement faces for the characters, 6,300 of which were for Coraline alone. Each face had to be painted by hand. As usual, the puppets in stop-motion had duplicates, and Coraline has 28 puppets made for her character. Along with different puppets, and replacement faces, there have been 42 different wigs for Coraline’s character (LINK 2). Coraline’s look is familiar with her short indigo-blue hair. The choice of blue hair for Caroline is a great way for her to stand out and adds to the overall appearance. The replacement wigs for Coraline were used according to her movement and the requirements of the scene.

Apart from the majority of other characters, Coraline wears coloured clothes. A recognisable piece of her clothing is the yellow raincoat. The yellow raincoat was also animated with Coraline, it functioned almost as a separate piece of animation since it moved along with Coraline. The production of puppets, in general, involves the standard process: armatures inside the puppets connect their body parts, enabling smoother movement. The exterior is then moulded, with silicone being the primary choice for creating the illusion of skin. Finally, the puppets are dressed in miniature costumes and given accessories. In fact, the film characters were moulded with silicone, well suited for the requirements of stop-motion because it maintained its resistance even after moving the parts (Minnan, Yizhe and Shenglu 2). Further, in terms of her facial features, Coraline expresses a wide range of emotions with her brows, big eyes, pointy nose, and mouth. The animators decided to separate the lower and upper parts of the face to have the ability to move them separately which consequently allowed them to have over 207,000 possible facial expressions of Caroline (LINK 3).

The cinematography plays a crucial role in differentiating between the two worlds of *Coraline*. The most evident difference is in the colour palette, the real world combines grey and earthy tones, and the colours are not vivid nor in focus. The lighting is rather natural and dimmed without accentuating much and acts according to the weather which is constantly gloomy and rainy. This reflects in the atmosphere of the scenes, and the emotions of the characters. The other world is the opposite, every aspect is colourful and vibrant, and it conforms to the notion that it is a fantasy. Accordingly, the lights are more dramatic and atmospheric, creating more depth to capture the details of the setting. Generally, most of the exciting events occur in the 'other' world which proves to be more dynamic than the monotony of the real world. The camera must follow Coraline during her adventures, and in the other world, the movement is more dynamic as well.

A lot of attention is given to communicating the visuals and the story. For instance, even the food can be analysed through stages of meaning and the way it is animated. The first dinner that the family shares at the new house is unappetizing, food looks like jelly, glazed and stale-looking. In the 'other' world the food looks incredible, tasty and fresh, the visual appeal is there to attract Coraline. Although *Coraline* is visually amazing in its entirety, there are a couple of scenes that can be highlighted as more challenging in terms of animation. When Coraline enters the 'other' world she meets the mother (Teri Hatcher) and the father (John Hodgman) from the parallel world. There is one significant thing difference in the appearance of the characters from the 'other' world. Instead of eyes, these characters have buttons. The simplicity of black buttons instead of eyes gives an instant unsettling feeling towards their appearance. Although they still portray a range of emotions, through their eyebrows, mouth, and body language the expression of emotions transgresses the absence of human eyes.

In the 'other' world, the 'other' father introduces Coraline to their garden. This garden scene shows the amazingly constructed miniature of a garden, the most challenging set in the

whole film. As she enters the setting, the flowers start to bloom and glow. The camera smoothly horizontally tracks her movement alongside the garden where she meets the father. Everything is carefully choreographed to create a magical look of the garden. For this scene, around 3500 flowers were hand-crafted (LINK 3). The flowers are versatile in colour and space, and the light and shadows follow Coraline's movement which is illuminated from the flowers. The lighting hues are softer in the garden scene, the lights are warmer and more atmospheric than in the house. All of it gives a magical sense to the scene, especially after the upper perspective shows that the garden is shaped like Coraline's head. But even in this scene, something feels unsettling. The film aimed to preserve a consistent atmosphere and kept the tension present throughout every scene.

According to the mother, the garden scene is one of the three miracles that the 'other' world showed Coraline. All the miracles are in favour of Coraline's stay in the 'other' world. Another miracle is the theatre scene. The theatre itself was vintage-looking. When Coraline entered the theatre, she encountered an audience composed of dogs. Their little tails were animated to waive in excitement, all simultaneously as the show was about to start. The dogs were mimicking the live audiences in theatres. The lighting was accordingly theatrical, and the spotlight was used on the stage. The theatre show appeared as a live-action performance. The stage in itself acts as a separate frame within a frame. Further, the last miracle shown to Coraline is Bobinsky's Jumping Mice show. In the mouse circus sequence, there were up to 51 mice on the screen simultaneously, and for every second of the film, each mouse required 12 slightly different replacements. Each movement had to be photographed to create a moving sequence afterwards. In total, over 650 mice were hand-made with around 6000 parts (LINK 2). The mice made quite a show, it was dynamic, lively, and impressed Coraline.

One of the final scenes occurs once Coraline comes to a realization about the 'other' world. The parents revealed their sinister plan to keep her there forever, and the condition is to

sew buttons into her eyes. Now the dream starts looking like a living nightmare to Coraline. Coraline wants to leave and the 'other' mother wants to prevent it, this results in a confrontation between the two. Towards the end, we encounter a gradual evolution in the 'other' mother's appearance. Initially, she resembled a more elegant version of Coraline's mother, more alluring and welcoming. However, as the story progresses, subtle changes start to happen in her attitude, making her slightly colder, and stricter. Then the big revelation occurs, her face and body transform, the mother becomes a terrifying creature, she grows taller, her limbs elongate, she gets long, metal spiky legs, and her button eyes are complemented with razor-sharp teeth straight out of a nightmare. She becomes only the armature of a puppet. Animating the 'other' mother after her transformation focuses on creating a movement that is animal-like and predatory, she moves like an insect with long limbs.

Coraline's escape scene and confrontation with her mother is the most intense sequence of scenes in the film. The setting in this scene is horror-like, the living room it is set in is twisted and full of cobwebs, unlike its initial appearance. The light creates high shadows and contrasts to accentuate the dramatic effect and the monstrous silhouette of the mother. The colours are generally dark and the use of greenish lighting creates an eerie atmosphere. The wide shot shows the hole in the floor, appearing like computer animation, the black and white cobweb stands out of the rest of the surrounding. As the cobweb unfolds, Caroline falls deeper into it. The mother jumps in to catch Coraline, and the point-of-view shot shows the mother falling into it. The cobweb spins around the puppet, creating the effect of vertigo. While the puppet remains in place, the illusion of movement is made by moving the mother's clothes and hair. The hair is moving upwards as if the wind was blowing into it from beneath as she is falling down the hole. This way, the viewer experiences fright from Coraline's point of view as the mother reaches towards her. Subsequently, Coraline climbs up the web and escapes through the small door. This sequence is extremely dramatic as the portal starts to shrink, and the doors

appear closer each second. This shrinking of the portal was made with a series of quick shorts (Shadbolt 128). The camera must convey the drama and urgency of her escape, the camera moves very closely to Coraline, and the over-the-shoulder shot focuses on the tiny door. The close-up shots of the door create tension and fear. The scene is dark and the light blinks only to frame the shape of the doors from the other side of the dark tunnel. Each closer shot is followed by a sound of impact from the other side as if the 'other' mother is getting closer to Coraline. The 'escape' sequence of scenes expresses how visually engaging stop-motion can be, the fast-paced escape brings so much emotion onto the screen. The ending of *Coraline* is much calmer, her return to the real world is triumphant, and she gets her parents back and starts appreciating the family and her surroundings more.

5.3. *Fantastic Mr. Fox*

Fantastic Mr. Fox is one of Wes Anderson's two stop-motion masterpieces. *Fantastic Mr. Fox*, Wes Anderson's first stop-motion feature, was released in 2009. Same as all Wes Anderson's films, this one also includes a terrific cast who voiced our main characters. Big names such as George Clooney, Meryl Streep, Bill Murray, and others feature in the film. The story itself was inspired and based on a Roald Dahl's novel. This is hinted at in the opening sequence of the feature where a human hand is holding a vintage-looking *Fantastic Mr. Fox* book. This visually thrilling stop-motion sequence at the beginning of the film transforms the illustration from the cover of the book into the animated world of Mr. Fox where everything begins. The animation here is not a classic 24 frames-per-second animation, Anderson instead decided on the 12 frames per second to emphasise the essence of stop-motion (Fox 25). This way the movements are less fluid and greater attention is drawn to the movement of the characters. Nonetheless, it accentuates the artistic retro lo-fi aesthetic of the film.

Mr. Fox is the main character of the story. The story revolves around his fight with his thieving tendencies, or animalistic nature, in order to create a stable family. The film incorporates themes about family relations, adventure, and struggle with identity. Besides Mr. Fox, voiced by George Clooney, other key characters include his wife Mrs. Fox (Meryl Streep), Mr. Fox's son Ash (Jason Schwartzman), his nephew Kristofferson Silverfox (Eric Anderson), Mr. Fox's layer friend Badger (Bill Murray), Kylie (Wallace Wolodarsky) who is Mr. Fox's friend and partner in crime, and the three antagonists of the story Boggis, Bunce, and Bean. The aspect of recording sound is one of the distinctive elements in this film. Instead of the traditional recordings of voices in the studio environment, the decision was made to capture the voice in appropriate locations, such as fields, or roads (Priebe and Selick 58). Hence, this gave authenticity to the characters, and the scene, making it feel more natural.

The puppets in *Fantastic Mr. Fox* were made in a couple of different sizes to fit the miniature sets and different scenes. The production of puppets ranged from sizes of five centimetres (the smallest) and 45 centimetres (the largest puppet of the Rat). These 'hero' puppets were purposely used for most of the filming since their size allows most movements and facial expressions. The armatures of steel and aluminium which were coated with latex or silicone allow the animators to manipulate the movement of the puppets. The animal characters have a human-like posture, rarely any scene include them on all fours. Since the characters are mostly animals, their making had to incorporate the meticulous design of the fur. Once the bigger 'hero' puppets were sculpted, three additional sizes of each character were made, the half-scale, the mini, and the micro-mini. The smallest measured between 12 and 20 millimetres in height (Fox 21). The micro-mini version was used for wider shots where the character's expressions were not in focus, this occurs in action scenes and establishing scenes where we do not focus on sole details but on the wider picture of the surroundings.

The difference in making the character's appearance differs between animals and people. The animals are covered with fur, and the human puppets are covered with silicone to resemble the skin. The fur of animal puppets is a blend of synthetic fur sourced from toys and goat's real hair that was dyed using hair dye. Achieving the precise fur colour for each character necessitated distinct dyeing periods. As for the human characters, their hair was produced from the actual scalps of the studio staff. The fur on the head was secured to a latex base. The most challenging part of securing the fur was between and around the eyes. Because of the close-up shots that reveal every detail of the puppet, each hair on the face had to be precisely positioned (Sancton). Human characters are intricately made, and their appearance, and physical attributes resemble it. The characters of Boggis, Bunce, and Bean, "one fat, one short, one lean", are made exactly like that. Their skin is made of silicone to resemble real skin but their undertones are greyish. Among their slightly exaggerated features, smaller eyes, and wrinkles, their main facial expression is a frown which makes them look serious and angry.

The film's setting is quite autumnal, the viewer is introduced to the rural surroundings of the countryside. This is reflected in the use of a specific colour palette and lighting techniques. The warm and earthy tones dominate the colour scheme, a lot of yellows, mustard, and brown tones create a cosy atmosphere. The interplay of lights also accentuates the environment and the details of the characters. There is a lot of texture from the character's clothes, fur, and the whole set gives into the artistic feel of the film. The light also depends on the position of the scene, the interior scenes (in Mr. Fox's house) are warmer, while the exteriors depend on the part of the day and the weather. There is a lot of attention put to lighting, for instance, the light hits through the windows inside the tree house, making it seem natural as if it is hit by natural outside light. The contrast to the previously mentioned are scenes in the antagonist's houses and in the sewer after the flood. These sequences include a limited use of light, and stronger contrasts to give the sense of isolation in the underground.

In the first scene with Mr. and Mrs. Fox, they embark on a mission to steal chickens. Selective focus is applied when they are observing the farm, the over-the-shoulder shot is focused on the foxes while there is dialogue, and while they are observing the farms the camera focuses on the farms, and the foxes are out of focus. The following dynamic sequence of them running is followed by horizontal camera movement. The interplay of using the miniatures and bigger puppets is also present depending on the purpose of the shot. When they are running through the farms, the miniature puppets are used. With miniatures, the greater focus is on the surroundings, and the close-ups are used for dialogue. The colour scheme is no different to the rest of the film. The setting during sundown and the use of shadows and lights create a bit of suspense in the scene. In this sequence, we encounter one change in Mrs. Fox's appearance. Her body lights up here and at the end of the film, each time she finds out she is pregnant. This transformation is the result of special effects, the puppet seems to be lit from the inside, making it appear like a painted plasticine puppet without the fur.

Finding out Mrs. Fox is pregnant is Mr. Fox's only motivation to settle down and find a less life-threatening job. After having a son Ash, the pair move into a new house; a tree house on the hill. In the film, Ash's cousin Kristofferson comes to visit. The dynamic between the two boys is quite tense, Ash struggles with the sense of less worth due to his cousin being more athletic. This is best shown in two scenes: jumping in the pool in front of the house, and, the game of whack bat. The game of whack bat is a fictional game in which Ash and Kristofferson take part. Coach Skip explains the rules of the game but they are purposely left a bit ambiguous for comedic effect. For a better understanding of whack bat, the coach's narration of the gameplay is accompanied by an elevated shot of the field to explain the position of the players. The bird's eye view shows a kind of diagram with various geometrical spaces, triangles, squares, and circles in different colours, which represent the players. The visual cues and interrupted lines drawn onto the three-dimensional field crisscross the field in a fast and

confusing manner. This way the audience empathizes with the obviously confused Ash. Ash was replaced by Kristofferson and engaged in a conversation with the coach about his father's whack-bat talent. The coach's world serves as a hard reminder that he will never measure up to his father's success. This disappointment is additionally emphasised with framing and camera cuts. As the coach speaks, the scene cuts to Mr. Fox's whack bat trophy inside the school. A wide shot establishes the trophy case, and then there is a close-up of Mr. Fox sculpted in gold. The camera moved downward to portray his other achievements in whack bat. The framing of Ash, here and in the majority of the film, gives the sense of inferiority. Ash is always in a lower position than the rest of the characters, almost fighting to be within the frame, which reflects his feelings of diminished self-worth.

The pool sequence also highlights Kristofferson's athletic abilities. Mr. Fox seems to be fascinated with him and forgets to give validation to his son. The scene is positioned in front of the treehouse; the background is scenic with miniature details. The lighting is warm and atmospheric even though Ash's emotions contrast the ambiance. Both Ash and Kristofferson's puppets have highly expressive facial features which convey their emotional states even without dialogue. The illusion of movement, when Ash jumps into the pool, is achieved by the dynamic movement of the background. Ash's character switched between facing front and back on the moving background while also moving his tail. The illusion of water and splashing was made with miniature water drops, and once the characters resurfaced their fur had a wet look. The fur looked slicked as if it was coated with an oil or gel.

The heists are the most dynamic and action-packed parts of the film. Mr. Fox gave himself a challenge and assembled a team to steal the goods from Boogis, Bunce, and Bean's farms. The many action sequences must be carefully shot with the camera. To achieve this, the film uses wide shots to get the most out of the interaction between the characters and the surroundings. The camera often cuts between the characters and the action to give a dramatic

effect. The showdown scene occurs when Mr. Fox and the team are trying to escape from the orchard but are met by armed farmers. The wide frame of both sides of the upcoming confrontation resembles a Western frontier before a shootout. The lighting dims and darkens as stormy, overcast clouds cover the sky. The farmers start shooting at the protagonists. The line of crates behind which they are hiding is getting blown up into pieces, and wood is flying all around. Although they survived and managed to escape that wasn't the resolution of the story. The farmers are still furious and want revenge for the stolen goods. Since they already destroyed the animal habitats, the animals moved underground.

Not much later, the farmers came up with the plan to flood the grounds where the animals hid. This flooding sequence marks a dramatic turn of events. It is no regular water floor, but an apple cider flood. The underground is lit with dark and moody lighting, portraying the absence of natural light. The shadows and silhouettes are more emphasised in the claustrophobic setting, and the colour palette is muted. The cinematography reflects the atmosphere and emotion of the characters. Once the 'water' starts rising, the shots are framed with miniatures of the characters up against the dark backdrop. They move through pipes and are splattered into the sewer. More dramatic camera angles depict the urgency and fear of drowning, the close-up of course depicts the intensity of emotions on the faces of terrified characters. The last splatter of apple cider into the sewer looks like clear strands of plastic painted in a mustard-yellow are connected together to create the effect of running water.

The farmers sent their companion Rat to kidnap Mr. Fox's son and take him as a ransom. The Rat forcefully pushes aside the other characters, captures Ash, and tries to escape into a dark corridor. After Rat's unsuccessful attempt, a confrontation unfolds between him and Mr. Fox. The most animalistic look on Mr. Fox's face appeared in the fight against the Rat in the sewer. His anger was caused by protectiveness for his son. The setting of the sewer is poorly lit with cautionary signs about electrical hazards. The only instances of colour are Rat's

striped sweater and Mr. Fox's yellow suit. The fight is purposely set against a black backdrop, the characters are in the dark except when electricity flashes. Each electrical flash shows them in different positions, as if we are seeing the frame-by-frame animation as it happens. The Rat is electrified in the end, and the Fox prevails. In the scene where the Rat is electrified, the animators included drawn animation of his skeleton in black and white as electricity strikes him. The cartoonish appearance of the scene replaced the use of fur on the puppet to portray the electroshocks. This made it more evident and comprehensible to the viewer.

Each scene in *Fantastic Mr Fox* is carefully sculpted and thought through, each has its specificities and amazing visuals. Perhaps the last scene that needs to be mentioned is the scene with the wolf. The scene is both visually pleasing and filled with symbolic meaning. Mr. Fox and the team stumble upon a wolf in the distance. The scene seems magical, the moonlight gives a surreal feel to the setting, and the wolf stands graciously on top of a hill and looks down on our protagonist. The lights and shadows add to the mysteriousness of the wolf figure. They are looking at the animal they once feared in awe, especially Mr. Fox. While the film initially established a sense of dread concerning the wolf's potential encounter, their meeting did not portray the wolf as a source of fear, but rather as a symbol of awe. The wolf symbolizes the wilderness and the animalistic nature that the other characters in *Fantastic Mr. Fox* moved from. The other characters that are also animals behave like humans. This scene marks Mr. Fox's release of his inner conflicts. He fully embraces his responsibilities to his family and his future while letting go of the remains of the wilderness within him. The scene is visually powerful and thematically important for the resolution of the plot, and the final transformation of Mr. Fox's character.

5.4. *Isle of Dogs*

Isle of Dogs is the second stop-motion animation feature by Wes Anderson. Since Anderson is known for his distinctive visual style and composition some parallels with *Fantastic Mr. Fox* might be found in this feature film. *Isle of Dogs* combines the modern and traditional techniques of stop-motion animation as well. The film deals with the aftermath of a canine flu outbreak, set in fictional Japan, or Trash Island. Trash Island will be the main setting of the film. It is a remote island where the dogs were sent to after the flu outbreak in the capital Megasaki. The film also embraced a visual style inspired by Japanese cinema. Throughout the film, the audience encounters various Japanese cultural references, prints in vivid colours and Japanese musical features. Also, the human characters speak Japanese, or their native language, while the dogs, besides from barks, speak in English. The animation of characters resembles *Fantastic Mr. Fox's* use of the 12 frames per second method to purposely elevate the sense that the characters are being animated. This evokes the traditional stop-motion animation. All the dogs from Megasaki were quarantined on Trash Island, where a majority of them were infected by canine flu, and only a handful of dogs led by a stray dog named Chief (Bryan Cranston) remained "sane". The setting of the film seems almost dystopian. The main characters are the animals, and a little boy Atari (Koyu Rankin) that set on a rescue mission for his long-lost dog Spots. The remaining part of the dog team consists of Boss (Bill Murray), Duke (Jeff Goldblum), Rex (Edward Norton), and Nutmeg (Scarlet Johansson). Anderson's decision to cast famous actors in this film parallels his choice in *Fantastic Mr Fox*, where he also selected well-known Hollywood stars as voice actors. All the mentioned characters collectively embark on a mission to reunite Atari and his dog. On this mission, they are faced with various unexpected challenges.

Isle of Dogs seems more like an artistic project than *Fantastic Mr. Fox*. Anderson took the detailing and aesthetics of animation to a higher level. One of the memorable scenes is the

opening montage. Besides from the visual narration for the purpose of the plot, the montage exhibits the artistry that was used for the making of this feature. The montage of scenes uses different types of animation, the stop-motion animated objects are accompanied by traditional drawn animation. During the montage, the stop-motion animated dog stands in front of a 2D animated background and narrates the illustrations and paintings presented behind him. The details of the drawn animation provide the historical turn of events that led to the outbreak of the canine flu. The illustrations we observe as the dog's voice narrates are extremely detailed and vivid. They feature Japanese-themed artwork followed by a Japanese text. The overall visual experience of the montage is greatly engaging and creative, and the two different animation styles are blended in seamlessly.

The production of the film was quite time-consuming and challenging, which is a familiar occurrence in stop-motion animation. The production involved a total of 1,000 puppets equally divided between dogs and humans. Each character had multiple puppets created in five different scales and the main 'hero' puppet took around 16 weeks to complete. Even the audience before the mayor Kobayashi in the auditorium is made entirely of puppets. The dog puppets were crafted to represent emotional archetypes rather than special dog breeds, and their fur was made from repurposed alpaca and merino wool. For the human puppets, on the other hand, resin was used to achieve a translucent overcoat, resembling human skin. Due to Anderson's filming preferences, the wide frame and sharp focus, the production crew constructed over 240 miniature sets that can connect and break apart for the purpose of filming. Most of the action occurs on the Trash Island set. It is cleverly thought through and divided into colour-coded zones, of course, according to the different types of waste (Desowitz). The Trash Island, isolated and overflowing with trash, is an inhospitable place to live in. The main characters struggle to survive in this environment. Additionally, the puppets from *Isle of Dogs*

in contrast to *Fantastic Mr. Fox* do not shy away from their animalistic appearance, the dogs possess human characteristics but do not have human postures and human clothes.

The film highly relies on visual storytelling. This is especially the case when humans and dogs need to communicate. The dogs signal that they understand the humans with highly expressive gestures and movements. The dog characters have very expressive and mesmerizing eyes that communicate their emotional states. The cinematography of the film directly affects the atmosphere of the story, with its range of colours and its lighting. Apart from the colour-coded zones, the predominant colour palette consists of earthy tones. However, in *Fantastic Mr. Fox* these colours served a different purpose, they gave warmth to the scene. In *Isle of Dogs*, they are mundane and contribute to the overall ambience of the dystopian landscape. The lighting also impacts the portrayal of colours. The majority of the film features bright lights, accentuating the contrast between characters set against a white backdrop of day and the darkness of the evenings and nights. The strategic use of highlights and shadows created more depth and accentuated the abundance of the textures in the film. As already mentioned, Anderson favours the use of wide shots. Hence, the film features various wide shots to capture the extensive landscapes, especially on Trash Island. Also, the tracking wide shot is great for capturing the journey of Atari and the dogs. The visuals of their journey feature a symmetrical composition of the characters, Atari at the front and the dogs travelling in line, one behind the other. This underscores Atari's role as the leader of the group. The wide shot captures them and the various landscapes they are travelling through. The closeups are primarily used to focus on certain details, dialogues or emotional responses of the characters.

The same applies to the making of sushi scenes, another Japanese-themed detail. The time lapse was so thoroughly crafted that all the movements appear seamlessly smooth. The hands of the sushi master are seen making the sushi from scratch; from the chopping of each ingredient to the arranging and rearranging of every component of the bento. The framing of

the scene accentuates the precision of the sushi master, as usual, everything is symmetrical. The scene is somewhat fast-paced but still pays attention to each detail; the close-ups of the ingredients capture the textures of the food. Even though the scene is of narrative importance, and visually impressive, the animators could have taken the easier route. This showcases how Anderson wanted to highlight the skillfulness and artistry of the animation techniques.

The film contrasts very calming scenes with thrilling ones. Another dramatic sequence of scenes occurred when the travelling crew was attacked by mechanical dogs. This is another instance where two types of animation are combined, the stop-motion animated scene of the fight cuts into an animated camera view of the programmed dogs. The viewer encounters the two-screen divided camera view of a hand-drawn confrontation between the real and mechanical dogs. The scene is tense and action-packed while the stop-motion camera follows the characters with quick movements. After escaping the robot-like mechanical dogs, the characters jump into the water, into another scene sequence. The water leads them into a water tunnel beneath Megasaki. The previous dynamic scene turned into an atmospheric one. The two dogs and Atari float through the tunnel, the lights are dimmed, and the tunnel is dark, several signs and light illuminate the characters poorly. The close-up shot of Chief makes it look like he is static while a sequence of reproducing and repetitive images of the tunnel creates movement in the scene. The water within the tunnel flows continuously, the animation gives the impression of a transparent material painted in shades of blue acting as water. The artful depiction of water is not entirely natural in appearance. Hence, it is further highlighted with splashing sounds that note the dynamic movement of water.

An important moment for the resolution of the story is the confrontation with the mayor Kobayashi. The confrontation is set in the auditorium where Mayor Kobayashi addresses the public. The tension in the scene can be cut with a knife, and the dogs along with Atari come to face the unreasonable Kobayashi. The government building that the scene is set in is quite

different to the outside sceneries and Trash Island. The building's cold colour palette gives it a sense of seriousness and authority. The stage in the big auditorium is wooden, with dramatic red curtains, and the big Kobayashi poster resembling the historical authoritarian leaders. Everything is symmetrical with both sides of the audience being mirrored along with the remaining features. Also, the audience members are all different motion-animated puppets. The scene is nevertheless emotional and brave. The power dynamics between the boy Atari and Mayor Kobayashi are emphasized even in their physical appearance. However, the point where they meet makes it seem as if Atari is the leader of the dogs and the mayor of the people of Megasaki. After Atari's speech, the major gave up on the destruction of Trash Island and the dogs on it. Major Kobayashi's decision did not sit right with Major Domo. Major Domo is his secondary who despises dogs. He accused Kobayashi of breaking the campaign promise, which resulted in a final fight scene. The creativity of stop-motion animation concealed the fight in a cotton-like cloud which simulated the effect of dust and movement, enhancing the visual effect during the encounter.

Isle of Dogs can be remembered for embracing artistry in stop-motion animation. A great attention to detail and careful positioning within the frames made it visually pleasing and simultaneously expressive. Most importantly, the focus on Anderson's artistic inclinations did not neglect the narrative. The story developed successfully within this technique, exploring themes of identity, belonging, and relationship with animals.

6. Conclusion

Stop-motion animation is a captivating and unique technique within the field of animation. Stop-motion animation often does not receive as much attention as other types of animation within the mainstream film industry. It is still a growing and expanding field. Not much has been written about stop-motion animation, and a lot of it refers to animation in general. While

stop-motion does share some characteristics with other types of animation, it also has its distinct features. To reflect on everything previously mentioned: stop-motion animation techniques can thrive even today for several reasons. First and foremost, its quality rests on its artistic endeavours. Breathing life into inanimate objects through sculpting various materials and creating movement with photography. Careful planning and patience are required. The development of technology allows them to improve the traditional techniques that were primarily used by stop-motion animators and therefore remain in the competitive industry. Although CGI is currently a lot more present and dominant than stop-motion, they still successfully coexist in the realm of animation. Stop-motion's position in the film industry is shaped by the specifics that make it different and unique from other types of animation techniques. It would be wrong to question the future of stop-motion. The stop-motion animation is considered to be a niche compared to the more popular animated films. The craftsmanship of this technique resembles the puppet theatre and awakes nostalgia in many individuals. It is appreciated by many people due to its unique, artistic, and nostalgic qualities. The four motion-animation features exemplified how stop-motion expanded until recently, and that it continuously tries to achieve more. The analysed features showed how stop-motion, as any other animation technique, and live-action, possesses the quality to create a stunning visual narrative. To conclude, in the versatile animation industry, stop-motion animation techniques can still stand out as unique. There is no doubt that stop-motion will continue to develop and grow. As this type of animation grows, more academic attention and theoretical works might emerge in the future.

Works cited

- Ajanovic, Midhat. *Animacija i realizam*, Zagreb: Croatian Film Club's Association, 2004.
- Ajanović, Midhat. *Filmska Lutka. Estetika, žanrovske konvencije i hibridiziranje u modelskoj animaciji*. Croatian Film Club's Association, 2019.
- Anderson, Wes, director. *Fantastic Mr. Fox*. Twentieth Century Fox. 2009.
- Anderson, Wes, director. *Isle of Dogs*. Twentieth Century Fox. 2018.
- Beckman, Karen. *Animating film theory*. Duke University Press, 2014.
- Burkett, Becky. "New Disney's "The Nightmare Before Christmas" Experience Begins This Month" *DisneyDinning.com*. <https://www.disneydinning.com/new-nightmare-before-christmas-experience-bb1/Internet> Accessed August 24, 2023.
- Chew, Johnny. *All About Pixilation Give this fun process a try*. August 26, 2019. <<https://www.lifewire.com/what-is-pixilation-140460>> Accessed 20 August 2023.
- Ebenezer Know, Abraham. *Sculptural variables in stop motion animation*. Kwame Nkrumah University of Science and Technology. Dissertation. 2009.
- Eldridge, Alison. "Ray Harryhausen: American filmmaker". *Encyclopedia Britannica*, 25 Jun. 2023, <https://www.britannica.com/biography/Ray-Harryhausen>. Accessed 24 August 2023.
- Fox, Bobby. *The Fantastic Mr Fox*. Warner, 2014.
- Gasek, Tom. *Frame-By-Frame Stop Motion: The Guide to Non-Puppet Photographic Animation Techniques*. CRC Press, 2017.
- Ivins-Hulley, Laura. "The ontology of performance in stop animation Kawamoto's House of Flame and Švankmajer's The Fall of the House of Usher Animation Studies". *Animation Studies Online Journal* 3, 2008.
- Kirby, Joanna. *God save. Stop motion. Is there a future for stop motion animation?* Dissertation, 2018.

Kim, Sung-Nam, and Soong-Gohn, Kim. "A Study on The Essential Element for Animation Using Stop-Motion". *International Journal of Multimedia and Ubiquitous Engineering* 1.2, 2006. pp 6-9.

Kozachik, Pete. "Stop Motion Without Compromise: *The Nightmare Before Christmas*". *American Cinematographer* July 29, 2021 <https://theasc.com/articles/nightmare-before-christmas> Accessed 3 May 2023.

Leslie, Esther. "Animation and History." *Animating Film Theory*, edited by Karen Beckman, Duke University Press, 2014, pp. 25–36.

Vincenzo, Maselli. "The Evolution of Stop-motion Animation Technique Through 120 Years of Technological Innovations". *International Journal of Literature and Arts*. Vol. 6, No. 3, 2018, pp. 54-6.

Minnan, Cang, Tan Yizhe, and Xie Shenglu. "Analysis of Visual Language for Stop-motion Animations". *E3S Web of Conferences*. Vol. 179. E3S Web of Conferences, 2020.

Munitić, Ranko *Estetika animacije*. VEDIS, 2012.

Priebe, Ken A., and Henry Selick. *The advanced art of stop-motion animation*, 2011.

Purves, Barry. *Basics animation 04: Stop-motion*. Vol. 4. Ava Publishing, 2011.

Sancton, J. "How the Puppets from Fantastic Mr. Fox Were Made". [Online source] *Vanity fair*. November 13, 2009. <https://www.vanityfair.com/hollywood/2009/11/how-the-puppets-from-fantastic-mr-fox-were-made-slideshow> Accessed 1 August 2023.

Selick, Henry, director. *Coraline*. LAIKA. 2009.

Selick, Henry, director. *The Nightmare Before Christmas*. Touchstone Pictures. 1993.

Walker-Werth, Thomas. "Ray Harryhausen: Giving New Life to Old Legends." *The Objective Standard* 16.4, 2021.

Welk, Brian. "A Timeline of Stop-Motion Animation History, From "A Trip to the Moon" to "Missing Link"". *The Wrap*. April 12, 2019. <https://www.thewrap.com/a-timeline-of-stop-motion-animation-history-from-a-trip-to-the-moon-to-isle-of-dogs-photos/> Accessed 4 May 2023.

LINKS:

LINK 1: "The Making of The Nightmare Before Christmas". Youtube, uploaded by BbaGumpSkrimp. January 30, 2012

https://www.youtube.com/watch?v=kLw-Fo8uhis&ab_channel=BbaGumpSkrimp

LINK 2: "Coraline" Laika. <https://www.laika.com/our-films/coraline>

LINK 3: Character Counts: Making the Colorful Cast of Coraline. YouTube, uploaded by Laika Studios. Jul 12, 2017.

https://www.youtube.com/watch?v=OcTM1VN5SYE&list=PLALN6nqI7sQKWCLeQItaLR0TUjuXW4wHE&index=6&ab_channel=LAIKASTudios

Stop-motion Animation and Contemporary Feature Animation: Summary and key words

Stop-motion animation is a unique animation technique. Unlike traditional 2D and 3D animation, it relies on the physical creation and animation of real-life physical object. These objects, carefully hand crafted out of various materials, are manipulated in front of the camera, frame after frame, to give an illusion of movement. Depending on the type of material used, animators can alter the characters within frames and take photographs which will create a sequence of movement. Among different types of stop-motion, animation of puppets is the most famous one. Their built-in armatures allow the animations an easier articulation of movement. The making of puppets, the set, and other physical objects to film, is a highly time-consuming process that demands a lot of patience. That is one of the reasons why stop-motion is considered unique and appreciated by the audience. Although the development of CGI overshadowed the more traditional stop-motion animation techniques, it still continues to grow and persist in the modern era. This thesis will focus on the shared characteristics between four stop-motion animation features: *The Nightmare Before Christmas* (1993), *Coraline* (2009), *Fantastic Mr. Fox* (2009), and *Isle of Dogs* (2018). They are known for their unique visual style, attention to detail, and the compelling process required to make them.

Key words: *Animation, stop-motion animation, puppets, Wes Anderson, Henry Selick*

Stop-motion Animacija i suvremena animacija dugometražnih filmova: Sažetak i ključne riječi

Stop-motion animacija je jedinstvena tehnika animacije. Za razliku od tradicionalne animacije u 2D-u i 3D-u, oslanja se na fizičko stvaranje i animaciju stvarnih fizičkih objekata. Ti objekti, pažljivo izrađeni od različitih materijala, manipuliraju se ispred kamere, kadar po kadar, kako bi stvorili iluziju pokreta. Ovisno o vrsti materijala koji se koristi, animatori mogu pomicati likove između kadrova i snimiti fotografije koje će stvoriti sekvencu pokreta. Među različitim vrstama stop-motion animacije, najpoznatija je animacija lutaka. Armature unutar lutaka omogućuju animatorima lakše artikuliranje pokreta. Izrada lutaka, seta, ali i drugih fizičkih objekata za snimanje, jako je dugotrajan proces koji zahtijeva puno strpljenja. To je jedan od razloga zbog kojih se stop-motion animacija smatra jedinstvenom i cijenjena je od strane publike. Iako je razvoj CGI-ja zasjenio tradicionalnije tehnike stop-motion animacije, ona i dalje raste i opstaje u modernoj eri. Ovaj diplomski rad usredotočit će se na zajedničke karakteristike četiri stop-motion animirana filma: *Predbožićna noćna mora* (1993.), *Coraline* (2009.), *Fantastični gospodin Lisac* (2009.) i *Otok pasa* (2018.). Filmovi su poznati po svom jedinstvenom vizualnom stilu, pažljivoj izradi i fascinantnom procesu potrebnom za njihovu izradu.

Ključne riječi: *Animacija, stop-motion animacija, lutke, Wes Anderson, Henry Selick*