An Argument for Practical Effects in a Digital Age

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Declaration of Originality

This dissertation is submitted by the undersigned to the Institute of Art Design & Technology, Dun Laoghaire in partial fulfilment of the examination for the BA (Honours) Design for Film. It is entirely the author's own work except where noted and has not been submitted for an award from this or any other educational institution.

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Abstract

This thesis explores the development of visual effects in fantasy cinema through a comparative analysis of *Clash of the Titans (1981)* and its 2010 remake. Chapter One examines the 1981 film's use of Dynamation, a stop-motion technique developed by Ray Harryhausen. The chapter explores the design and fabrication of the mythical creatures, assessing how these practical effects shaped audience engagement and perception at the time. Chapter Two shifts focus to *Clash of the Titans (2010)*, investigating the film's reliance on CGI, evaluating the impact of digital effects on the portrayal of mythical beings and how these advancements influenced storytelling within the fantasy genre. Chapter Three presents a comparative analysis of both films, highlighting the artistic and technical differences between practical effects and CGI by exploring how each approach affects immersion, emotional response, and audience reception. This thesis argues that while CGI has expanded creative possibilities in filmmaking, the artistry of practical effects maintains a unique visual and nostalgic appeal, influencing how viewers connect with on-screen characters. By examining the shift from handcrafted techniques to digital animation, this study contributes to a broader understanding of the evolving relationship between visual effects and cinematic storytelling.

Table of Contents

Introduction		pg.no.2
Chapter 1	*Clash of the Titans (1981)*	pg.no.5
Chapter 2	*Clash of the Titans (2010)*	pg.no.24
Chapter 3	1981 Vs 2010: A Comparative Analysis of the Creation of Specific Scenes	pg.no.46
Conclusion		pg.no.58
Bibliography		pg.no.62

List of Figures

Figure 1: Perseus as a fisherman in *Clash of the Titans,* 1981. *(Clash of the Titans,* 1981).……...……p. 8

Figure 2: The vulture taking Andromeda's soul in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981).…….…p. 9

Figure 3: Perseus meets his 'mentor' Ammos in the amphitheater in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981).……..... p. 10

Figure 4: Perseus and Calibos fight in *Clash of the Titans,* 1981. (*Clash of the Titans,* 1981)…….... p. 11

Figure 5: Calibos prosthetics on actor in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981)…….. p. 12

Figure 6: Calibos model from *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)……... p.12

Figure 7: Pegasus from *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)……... p.14

Figure 8: Pegasus and Perseus model for wide shots for *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)…….... p.14

Figure 9: Thetis curses Andromeda by possessing a statue of herself in *Clash of the Titans,*1981. (*Clash of the Titans,*1981)……..……... p. 15

Figure 10: Perseus capturing Pegasus in *Clash of the Titans,* 1981. (Tasker, 2022)……... p.16

Figure 11: Perseus meeting Bubo in *Clash of the Titans,* 1981. (*Clash of the Titans,* 1981)……... p.17

Figure 12: Medusa from *Clash of the Titans,* 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)……..…….... p.18

Figure 13: Medusa from *Clash of the Titans,* 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)……..…….... p.19

Figure 14: Perseus with Medusa's head in *Clash of the Titans,* 1981. (*Clash of the Titans,* 1981)……... p.20

Figure 15: Perseus holding up Medusa's head to the Kraken in *Clash of the Titans,* 1981. (*Clash of the Titans,* 1981)……... p.21

Figure 16: The Kraken crumbling after being turned to stone in *Clash of the Titans,* 1981. (*Clash of the Titans,* 1981)……... p.21

Figure 17: The Kraken from *Clash of the Titans,* 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)…….….... p.22

Figure 18: Back of the Kraken from *Clash of the Titans,* 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)…….p.22

Figure 19: Perseus with his human father in *Clash of the Titans,* 2010. (*Clash of the Titans,* 2010)……..... p.25

Figure 20: Hades telling Perseus he is the son of Zeus in *Clash of the Titans,* 2010. (*Clash of the Titans,* 2010)……. p.26

Figure 21: Perseus refusing the call in *Clash of the Titans,* 2010. (*Clash of the Titans,* 2010)……... p.26

Figure 22: Perseus meeting Io in *Clash of the Titans,* 2010. (*Clash of the Titans,* 2010)……... p.27

Figure 23: Scorpiochs fighting Perseus and the Argive soldiers in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)…….....…….. p.28

Figure 24: Scorpioch rig for Mads Mikkelsen's scene in the BTS (08) video for *Clash of the Titans*, 2010. (Habala, 2019)…….. p.29

Figure 25 & 26: Stuntmen in green suits interacting with actors in the BTS (08) video for *Clash of the Titans*, 2010. (Habala,2019)……. p.30

Figure 27: Perseus and the Argive soldiers in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……... p.31

Figure 28: Djin in *Clash of the Titans*, 2010. (Pukunui, 2020).. p.31

Figure 29: Perseus meeting Pegasus in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……... p.33

Figure 30: The live horse with tracking markers for the wings in the BTS (10) video for *Clash of the Titans*, 2010. (Habala, 2019)……... p.33

Figure 31: Calibos in the BTS (03) video for *Clash of the Titans*, 2010. (Habala, 2019)…….. p.34

Figure 32: Calibos prosthetics in the BTS (03) video for *Clash of the Titans*, 2010. (Habala, 2019)…… p.35

Figure 33: Perseus refusing Zeus' help in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……... p.36

Figure 34: Medusa's lair in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……..... p.37

Figure 35: Perseus with Medusa's severed head in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019)…….. p.37

Figure 36: Medusa before colour and texture in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019)…… p.38

Figure 37: Medusa after colour and texture in the BTS (05) video for *Clash of the Titans*, 2010. (Habala,2019)…….... p.38

Figure 38: Model Natalia Vodianova in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019)…….. p.39

Figure 39: Medusa in progress in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019).……... p.39

Figure 40: Kraken *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……... p.40

Figure 41: Perseus defeating the Kraken with Medusa's head. *Clash of the Titans*, 2010. (*Clash of the Titans*,
2010)……... p.42

Figure 42: The Kraken turning to stone. *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……... p.42

Figure 43: Perseus and Andromeda after the battle *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)…….p.43

Figure 44: Resurrected Io *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)……... p.44

Figure 45: 1981 Film Poster. (Rambo, 2024)…….... p.46

Figure 46: 2010 Film Poster. (Movie Poster Shop, 2024)…..... p.46

Figure 47: Ray Harryhausen sculpting Medusa for *Clash of the Titans*, 1981. (Tasker, 2022)……... p.47

Figure 48: Harryhausen with Pegasus for *Clash of the Titans*, 1981. (Tasker, 2022)…….. p.48

Figure 49: Harry hausen with the Kraken for *Clash of the Titans*, 1981. (Tasker, 2022)…….. p.48

Figure 50: Medusa CGI design for *Clash of the Titans*, 2010. **(**Anonymous 645408a4e2acc2.31916000, 2024).……. p.49

Figure 51: Scorpioch CGI design for *Clash of the Titans*, 2010. (Anonymous 645408a4e2acc2.31916000, 2024).……..….. p.50

Figure 52: Kraken CGI design for *Clash of the Titans*, 2010. (Kaijuboss, 2024).…….. p.50

Figure 53: Kraken attacking Joppa in *Clash of the Titans*, 1981. (ASC Staff, 2022).…….. p.52

Figure 54: Kraken attacking Argos in *Clash of the Titans*, 2010. (HollowIchigo58, 2024).…….. p.52

Figure 55: Harryhausen working with Medusa for *Clash of the Titans*, 1981. (The Metzinger Sisters, 2013)…… p.53

Figure 56: Diagram of Dynamation. (Draper, 2024)…….. p.54

Figure 57: Kraken attacking Argos in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)…….. p.56

Introduction

The evolution of film technology has drastically altered how stories are told and experienced. The advancement from practical effects to CGI has revolutionised the cinematic landscape, offering filmmakers new ways to create larger-than-life creatures. An example of this can be seen in the two cinematic adaptations of the mythological story of Perseus in *Clash of the Titans*, released in 1981 and 2010. Though based on similar mythological material, these two films stand as markers of their respective eras in the history of special effects in cinema. The 1981 version, directed by Desmond Davis, utilised Ray Harryhausen's stop-motion animation technique, 'Dynamation', to bring its mythical creatures to life. Nearly thirty years later, Louis Leterrier's 2010 remake incorporated cutting-edge CGI to achieve its complex visual effects. While both films rely heavily on the power of visual spectacle, the differences in their use of technology reveal not only advancements in cinematic technique but also shifts in the way audiences engage with these mythological stories.

The first chapter of this thesis examines *Clash of the Titans (1981)*, focusing specifically on the use of Dynamation. Dynamation, a stop-motion animation technique developed by Ray Harryhausen, was central to the film's production. This technique allowed live-action footage to be seamlessly combined with animated creatures, giving the film's mythical creatures such as the Kraken, Medusa, and Pegasus, a sense of presence and realism. This chapter will explore the creation of these creatures and how Dynamation contributed to the creation of an immersive visual experience that captivated its audience. Despite limitations, its innovative practical effects marked a significant achievement in cinematic storytelling, making it a classic within the genre of mythological fantasy.

In contrast, the second chapter of this thesis will focus on the 2010 remake of *Clash of the Titans*, which used CGI as its primary method for visual effects. The advances in technology from the 1981 version to the 2010 remake are astonishing, with CGI allowing for a high level of detail and realism. Louis Leterrier's 2010 version, featured an entirely digital Kraken and Medusa that pushed the boundaries of what could had previously been achieved on screen. By using CGI, the filmmakers were able to create dynamic and visually stunning characters. This chapter will analyse how CGI enhanced the visual appeal of the film and redefined the way audiences engaged with

the material. The impact of these two films on the audience is an essential aspect of this thesis. While both films were designed to transport audiences to a world of gods, monsters, and heroism, the way in which each version was experienced by its viewers was influenced by the technology available at the time. The 1981 *Clash of the Titans* was a product of its time, offering an experience that relied heavily on the practical making of stop motion puppets. The limitations of the visual effects in the 1981 film were compensated by the artistry and creativity behind the practical effects, drawing audiences into a fantasy world despite the visible seams of stop-motion animation. The advancement in CGI technology for the 2010 remake allowed for a more visually polished world, but some argued that it sacrificed the sense of wonder and magic that the original achieved with its more 'hands-on' practical approach. The audience's emotional engagement with these two films provides insight into the evolving relationship between technology and storytelling in cinema.

Chapter Three will compare specific scenes in the two versions of *Clash of the Titans*, focusing on how their respective visual effects shaped the films' storytelling and audience reception. By comparing the practical effects of Dynamation in the 1981 film with the CGI techniques of the 2010 remake, this chapter aims to highlight the contrasting approaches to visual spectacle in two distinct periods of film history. The chapter will also explore the impact of these differing technologies on the audiences of each film, considering how advancements in effects have altered viewer expectations. The 1981 film, with its stop-motion creatures, offered a sense of tangible artistry while the 2010 remake, though visually impressive, has been critiqued for prioritising spectacle over emotional depth and character design. This comparison will consider how technological advancements have changed the way audiences connect with fantasy films, from the hands-on artistry of Dynamation to the seamless, but sometimes sterile, world of CGI.

In summary, this thesis will examine the significant role that visual effects technology has played in the *Clash of the Titans* franchise, using the 1981 and 2010 versions as case studies. By exploring the innovative use of Dynamation in the 1981 film and the incorporation of CGI in the 2010 remake, this research will highlight the technological, artistic, and cultural implications of these advancements. Furthermore, by comparing

the two films and analysing their impact on audiences, this thesis will offer a broader perspective on how the progression of special effects in cinema continues to shape the ways in which viewers experience and interpret visual storytelling. The journey from Dynamation to CGI is not only a tale of technical achievement but also one of shifting tastes, audience expectations, and the ever-evolving relationship between film and technology.

Chapter One: *Clash of the Titans*, 1981

The 1981 film *Clash of the Titans (1981),* directed by Desmond Davis, is an action fantasy film loosely based on the Greek myth of Perseus, a Greek Hero and monster slayer. In *Clash of the Titans (1981),* the mythical creatures were brought to life through the craftsmanship of Ray Harryhausen. The intricate work put into each creature showcased Harryhausen's ability to blend myth with imagination, bringing ancient stories to life in a way that still feels magical. Each character's design reflects both Harryhausen's signature style and a dedication to detail, giving *Clash of the Titans (1981)* a timeless appeal that continues to inspire filmmakers and animators. Harryhausen's distinctive style of 'kinetic sculpture' (ASC Staff, 2022), blended imaginative interpretation with mythological accuracy to some degree.

Ray Harryhausen, born in 1920, was inspired to enter the field of stop-motion animation by the pioneering animator Willis O'Brien. After seeing his work on the *King Kong* films, Harryhausen 'experimented with the technique, refining and perfecting it. He gained his first job on *George Pal's Puppetoons* shorts, then was employed by the Army Motion Picture Unit during WW2. His first 'real' job was when the very man who had inspired him, Willis O'Brien, hired him as an assistant animator on his film *Mighty Joe Young* (1949), which went on to win an Oscar for Visual Effects.' (Jones, 2010)

Ray Harryhausen's use of Dynamation, his signature stop-motion animation process, was crucial in bringing the film's mythical creatures to life. Dynamation is defined as, 'A stop-motion technique involving animated models integrated into live-action scenes.' (Glosbe, Uknown) Dynamation allowed Harryhausen to integrate animated creatures with live-action footage, creating interactions between actors and the film's mythical creatures. This technique was not only central to the visual appeal of *Clash of the Titans (1981)* but also showcased Harryhausen's mastery of blending different visual elements to create a seamless and believable world of mythology.

Dynamation was created by Harryhausen during the process of making his 1953 film, *The Beast from 20,000 Fathoms,* which he continued to refine over the years. Draper

states that Harryhausen was ‘painstakingly matting out and filming portion of the frame and eventually adding complex action sequences that humans and animation directly interacting’. (Draper, 2024) This process of stop-motion animation was done in the ‘days before digital video and playback meaning that our creative team was kind of working blind, only seeing the completed scenes once the film was shipped out developed and brought back to watch.’ (Draper, 2024)

Modern films are run at twenty-four frames per second which meant twenty-four movements and photographs for just a single second of film. When it comes to Dynamation the filming process is even ‘more extensive with multiple passes on the same frame of film needed to add background, mid-ground and foreground elements to the same image, extending the length of the filling process by at least three-fold'. (Draper, 2024)

For each creature, Harryhausen started with a custom metal ‘articulated armature as the structure which is covered in latex rubber sculpted and painted to be a fully movable model for most of his career’, designed with multiple points of articulation, allowing for precise and repeated positioning. (Draper, 2024) Armatures provided the stability necessary for intricate movements, where creatures like the Kraken or Medusa needed fluid, lifelike action.

Harryhausen’s own father Frederick W. Harryhausen, who ’helped machine the armatures for him for years’, ‘these armatures served as the strong durable skeleton to the creatures being made’. (Draper, 2024) Once the skeletons were crafted the armatures were covered in latex. Harryhausen’s earliest creations were done in the ‘buildup method, glueing layers of sponge rubber onto the middle armature and then shaping and conjuring body with scissors on top of wool and more sponge rub added to muscles and liquid was used to create a thin skin stretched over the muscles and glued on with rubber cement’. (Draper, 2024) By his film *One Million Years B.C* in 1966, he had ‘switched entirely to the casting method’, where he would build ‘a wax or clay model which was then used to create a plaster mold. The metal armature was placed in the centre of the mold, which was filled with latex and then baked in his kitchen oven, securing the metal skeleton within. This completed model was cleaned

up and painted.' (Draper, 2024) The model was then 'photographed one frame at a time to simulate life which is run through a projector to bring it all together in motion.' (Draper, 2024)

Harryhausen refined the Dynamation process with new techniques to achieve even greater realism. Lighting was crucial, and Harryhausen went to great lengths to ensure that the lighting on his models matched that in the live-action shots. Shadow effects, matte glass, and synchronised lighting helped avoid the 'flatness' common in other stop-motion effects of the time. Additionally, the scale and complexity of creatures like the Kraken pushed Dynamation to its limits, requiring Harryhausen to develop more detailed models and shoot multiple passes to achieve the desired depth and integration.

Dynamation in *Clash of the Titans (1981)* has left a legacy in visual effects, especially as a pioneer of practical, in-camera effects that would inspire later filmmakers in both stop-motion and digital animation. Harryhausen's work bridged the gap between practical effects and early visual compositing techniques, setting a standard for creature design and animation that emphasised creativity, craftsmanship, and innovation.

The structure of the hero's journey is an ancient classical narrative structure. *Clash of the Titans*, 1981 closely follows the structure of Joseph Campbell's narrative model, The Hero's Journey. Campbell writes, 'the standard path of the mythological adventure of the hero is a magnification of the formula represented in the rites of passage: separation - initiation - return' (The Joseph Campbell Foundation, 2023). In 'Classical Myth and Culture in the Cinema', it is argued that 'the mythology and culture of Ancient Greece and Rome have been a staple of cinema since its earliest beginnings.' (Winkler et al. 2002) The stages of this model are evident in Davis' film as Perseus embarks on a quest filled with trials, transformations, and triumph. It will be instructive to examine how film techniques produced the four stages of Perseus' hero's journey in *Clash of the Titans (1981).*

Separation

The Separation stage of Perseus' journey can be split into four sections: ordinary world, call to adventure, refusal of the call and meeting the mentor.

Figure 1: Perseus as a fisherman in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981).

The film begins with Perseus, son of Zeus, living an ordinary life as a fisherman (Figure 1). He has no sense of the powers he possesses or the heroic path ahead of him, symbolising his initial state of innocence and lack of awareness.

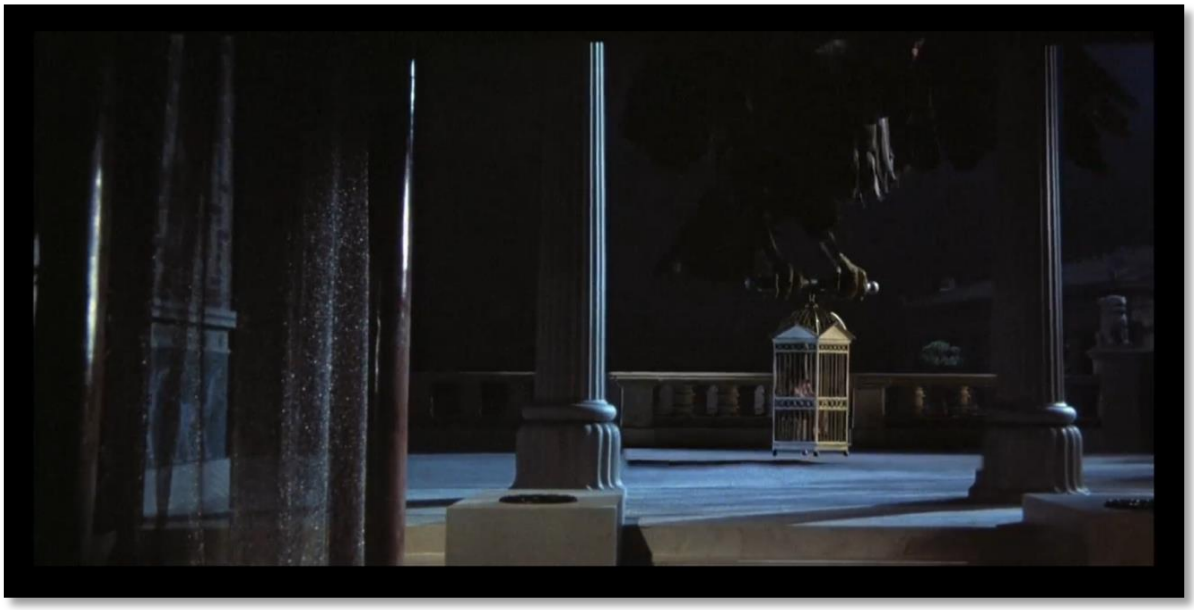

Figure 2: The vulture taking Andromeda's soul in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981).

The 'call to adventure' begins when Perseus witnesses the soul of Andromeda, a princess of Joppa. Her soul is being taken away by a vulture to Calibos (Figure 2), the former King Argos cursed by Zeus for the attempted murder of Perseus and his mother. Perseus does not explicitly 'refuse the call,' but he does face self-doubt, when he learns the complexity and danger of his task, not yet understanding the full scope of the challenges he is about to face.

Figure 3: Perseus meets his ‘mentor’ Ammos in the amphitheater in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981).

Perseus receives guidance from his ‘mentor’ Ammos (Figure 3). Ammos helps Perseus find three gifts from his father, Zeus, a helmet of invisibility, a sword, and a shield that will help him in his quest. These gifts function as both guidance and protection, equivalent to the mentor figure in Campbell's structure (The Joseph Campbell Foundation, 2023).

Figure 4: Perseus and Calibos fight in *Clash of the Titans*, 1981. (*Clash of the Titans,* 1981)

Initiation

In the stage of Initiation, there are four sections: crossing the threshold, tests, allies, and enemies, approaching the 'inmost cave' and the ordeal. Perseus 'crosses the threshold' into the world of gods and monsters when he flies on Pegasus in pursuit of the vulture carrying Andromeda's soul. Perseus and Calibos fight resulting in Perseus cutting off Calibos' hand (Figure 4). These encounters mark his departure from an ordinary life into one of mythic heroism and danger. It is in this section that the film becomes especially interesting in terms of this study as it is when we encounter the monster and mythological creatures created by Harryhausen.

Figure 5: Calibos prosthetics on actor in *Clash of the Titans,* 1981. (*Clash of the Titans*, 1981)

Figure 6: Calibos model from *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)

Calibos is one such creature. Calibos is Andromeda's cursed former suitor, a unique creature, blending human and monstrous characteristics. According to Goodwin Mc Cabe, 'Calibos is not a mythological character, he is a Shakespearian figure who appears in *The Tempest*, there named Caliban.' (Goodwin-Mc Cabe, 2022) Harryhausen gave Calibos a demonic appearance 'one cloven hoof, reptilian tail, clawed hands and goat-horned head, lives in a foul, stinking swamp crawling with corrupt and awful creatures.' (ASC Staff, 2022) In combat scenes and shots requiring more dramatic action, Harryhausen used a stop-motion puppet (Figure 6). 'The distanced shots of Calibos are the only ones which actually show him as a monster, as Harryhausen has animated his tail to lash out, much like the whip he carries instead of a sword.' (Goodwin- Mc Cabe, 2022) For most close-up scenes, actor Neil McCarthy portrayed Calibos with prosthetics (Figure 5), enhancing his grotesque look with practical makeup effects. The complex character makeup created by Colin Arthur was 'designed to match Harryhausen's animated creature creation.' (ASC Staff, 2022) This mix of techniques allowed for more flexible storytelling, with the stop-motion Calibos seamlessly integrating into sequences where lifelike expression was essential.

Yet, whilst innovative in terms of production, Goodwin-McCabe is critical of Harryhausen's vision of Calibos, arguing that 'the portrayal of both Calibos/Caliban in Shakespeare and *Clash* are stereotyped and even racist. There is a horrible legacy of blackface in Shakespeare performances, shows like *The Tempest,* and *Clash* turns to it.' (Goodwin-McCabe, 2022) She also declares that 'Calibos is played by a white actor in blackface, with a fake tail to make him seem like a lizard. It's unclear what Zeus transform him into, possibly a satyr, but the result is that he was white but is no longer and has been banished from Joppa as a result.' (Goodwin-McCabe, 2022) It must be acknowledged however, that Harryhausen was producing his Calibos at a given point in time. Given shifts in understandings of racism since 1981, it is difficult to accuse Harryhausen of deliberate racist stereotyping of Calibos. It becomes apparent that changes in social, political and cultural ideologies over time, result in altered interpretations of characters over time.

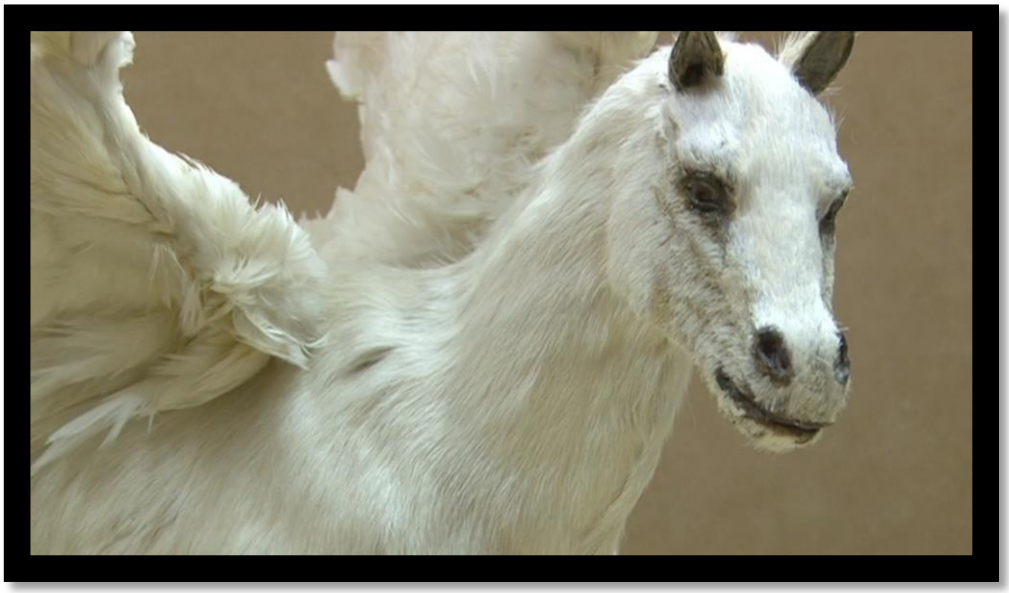

Figure 7: Pegasus from *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)

Figure 8: Pegasus and Perseus model for wide shots for *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)

In *Clash of the Titans*, 1981, Pegasus, (Figure 7 & 8), was envisioned as a graceful, ethereal creature. Harryhausen animated Pegasus using a blend of puppetry and stop-motion. To achieve realistic wing movements, he designed an intricate mechanism for feather movement, allowing the wings to appear as if they were flapping naturally in flight. For creatures that required hair, like Pegasus, Harryhausen used synthetic hair fibres. These were carefully glued to the models in layers to achieve a lifelike look, with particular attention paid to matching the natural flow and direction of real animal hair. Pegasus was one of the few creatures with a full-body close-up, showcasing the detail in feather and muscle animation. For certain close-up shots and 'because of the detail in a horse's head we used a live horse in certain shots, but the long shots are all animation.' says Harryhausen. (ASC Staff, 2022)

Figure 9: Thetis curses Andromeda by possessing a statue of herself in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981)

Figure 10: Perseus capturing Pegasus in *Clash of the Titans*, 1981. (Tasker, 2022)

Perseus learns about the curse imposed by Thetis, goddess of the sea (Figure 9). Perseus is driven to free Andromeda from her fate, embarks on a dangerous quest. Along his journey, Perseus faces a series of tests, including battling Medusa, to retrieve her head, a weapon he needs to defeat the Kraken. He gains allies in the form of Pegasus, (Figure 10), and Bubo, (Figure 11), who help him overcome various obstacles and enemies, including giant scorpions and a two-headed wolf.

Figure 11: Perseus meeting Bubo in *Clash of the Titans,* 1981. (*Clash of the Titans,* 1981)

Bubo, (Figure 11), a mechanical owl sent by Athena to aid Perseus, is regarded as a nod to the god Hephaestus's craftsmanship. Bubo has a metallic, steampunk aesthetic with moving gears, bronze feathers, and expressive, swiveling eyes. Unlike the other creatures, Bubo was a practical prop, operated with small motors and remote controls for scenes where it interacted closely with actors. For more dynamic shots, Bubo was animated through stop-motion, imbuing the character with charm and personality, and adding humor to balance the darker tones of the other creatures. In an interview with the American Society of Cinematographers, Harryhausen states, 'There are some scenes where he is radio-controlled [...] in quite a number of scenes where the actors are handling him. His wings flap, his head will revolve, his eyes spin and his mouth will open. But basically, unless many owls were made to do many different things, his movements are limited. For example, it would be difficult to make an electronic owl walk or take off and fly. For this type of movement and more intricate characterizations, we found it necessary to resort to a stop-motion model.' (Tasker, 2022)

Harryhausen's hands-on approach, from sculpting and molding to painting and animating, brought his creations to life with unmatched precision. The durability and flexibility of these materials were key to the repeated adjustments required by stop-motion animation, making *Clash of the Titans (1981)* a milestone in creature design and practical effects.

Figure 12: Medusa from *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)

The climax of Perseus's journey involves confronting Medusa in her lair (Figure 12), representing the 'inmost cave,' as he faces one of the deadliest of creatures. Medusa is one of the film's most memorable creatures (Figure 13). Harryhausen designed her with a snake-like lower body, human torso, and head with live, writhing snakes for hair. Her face, distinctly reptilian, captures both beauty and horror. Her large eyes, almost hypnotic, make her gaze appear as deadly as it is described in myth.

Figure 13: Medusa from *Clash of the Titans*, 1981. (*Ray Harryhausen: Special Effects Titan*, 2012)

Harryhausen states that 'For every frame of film, I had to move a snake into a different position. She had 12 snakes in her hair, plus the tails, plus her mouth moving, her eyes moved, her fingers moved, she shot an arrow and her tail rattled. She probably had over 100 joints in her body -150, perhaps - including the snakes.' (Tasker, 2022) The snakes, '12 snakes, each containing 25 joints', in her hair were each individually animated to create the illusion of constant, independent movement. (Tasker, 2022)

Harryhausen also used a multi-plane technique to create dynamic, shifting shadows, enhancing the suspense of her dark lair.

Another interesting fact regarding the animation of Medusa comes from the Giles Penso documentary *Ray Harryhausen: Special Effects Titan (2012)*, in which Harryhausen describes the process of animating Medusa's eye. In the documentary, Harry Hausen describes how Medusa's eyes were 'baby dolls' eyes' that 'rolled around', which he moved with the 'eraser of a pencil'. (*Ray Harryhausen: Special Effects Titan*, 2012). Harryhausen used lighting and shadow effects on Medusa's body to make her blend with the gloomy environment.

Return

The final stage, Return, also has four sections: reward, the road back, resurrection and return to elixir.

Figure 14: Perseus with Medusa's head in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981)

Perseus gains Medusa's head, this 'reward' represents the knowledge and skill he has gained from facing death and fear (Figure 14). This ordeal is symbolic, as he must confront the monstrous and darker side of his heroic journey.

Figure 15: Perseus holding up Medusa's head to the Kraken in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981)

Figure 16: The Kraken crumbling after being turned to stone in *Clash of the Titans*, 1981. (*Clash of the Titans*, 1981)

Perseus' ultimate 'resurrection' is his battle with the Kraken. He uses Medusa's head to petrify the Kraken, demonstrating growth and resilience (Figure 15 & 16).

Figure 17: The Kraken from *Clash of the Titans,* 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)

Figure 18: Back of the Kraken from *Clash of the Titans,* 1981. (*Ray Harryhausen: Special Effects Titan,* 2012)

The Kraken, (Figure 17 & 18), was one of Harryhausen's most ambitious creations, with a humanoid torso and monstrous, amphibious features, such as scales, gills, webbed hands. Harryhausen crafted multiple components for different shots, such as close-up tentacles, allowing the creature to interact with sets and actors more effectively. Harryhausen drew inspiration from leviathans in Greek and biblical stories as well as other interpretations in paintings including dragons and enormous fish. In the Tasker interview, Harryhausen describes the design process of the Kraken stating that they want to make the creature 'slightly humanoid to give a reason for her being sacrificed to this thing, otherwise, the creature would just devour her and go back to the sea — not a very dramatic situation.' (Tasker, 2022) Harryhausen was acutely aware of the audience having a connection to the Kraken. The audience and creature had to connect on an emotional level. Harryhausen goes onto say that they gave the Kraken 'four arms with the basic form of a combination of sea creatures', delving into a 'merman concept combined with octopus overtones' giving the creature 'four arms rather than eight' to give it 'a more grotesque and unusual appearance.' (Tasker, 2022) In the documentary, *Ray Harryhausen: Special Effects Titan*, Harryhausen states that they wanted to make the Kraken 'semi-human' with the 'arms of an octopus with hands on the ends' (*Ray Harryhausen: Special Effects Titan*, 2012).

The Kraken's climactic confrontation with Perseus showcases the ability of Dynamation to depict large-scale monsters interacting with live action. The Kraken, rises from the sea, towering over the actors and cityscapes, was achieved by Harryhausen's careful scaling and perspective adjustments. The Kraken's destruction sequence required both the model and complex interaction with water effects to capture its defeat by Perseus.

Returning transformed, no longer just the son of Zeus, but a legendary hero who has brought peace and saved the kingdom, Perseus' journey as envisioned by Harryhausen, is not only personal, but also deeply influenced by the gods, reflecting the importance of fate and divine intervention in Greek mythology. Perseus' journey in *Clash of the Titans*, 1981 captures classic themes of love, sacrifice, and bravery, resonating with the archetypal Hero's Journey.

Chapter Two: *Clash of the Titans (2010)*

In *Clash of the Titans (2010)* we also see the use of Joseph Campbell's classic hero's journey structure. In discussing Louis Leterrier's remake of *Clash of the Titans (1981),* I will look at how CGI was used in combination with minimal practical effects to make the mythical creatures Perseus encounters on his hero's journey come to life. The 2010 audience for the *Clash of the Titan's* remake must also be considered, as viewers' tastes and expectations had undoubtedly shifted in the thirty years since the first *Clash of the Titans* (1981).

At the outset, it is worth noting that *Clash of the Titans,* (2010) did not dispense with practical effects altogether. In an article discussing the evolution of 'Creature Features', Hellerman notes the emotional impact of creatures on screen on an audience. He writes, 'Practical effects have the potential to elicit strong emotional reactions from the audience. The sight of a well-crafted creature created through practical effects can evoke awe, fear, or disgust more immediately and viscerally compared to purely CGI creations. The tangible nature of practical effects can tap into primal emotions and create a deeper connection between the viewer and the creature on screen.' (Hellerman, 2024) Whilst it might be argued that practical models capture a quality that CGI alone simply cannot replicate, the shift towards practical effects enhanced with CGI was inevitable.

The use of CGI in *Clash of the Titans (2010)* was a cornerstone of the film's production, showcasing the technological advancements of the early twenty-first century. When it came to visual style, the 'dark colour-palettes and CGI effects', were a departure from the charm of the 1981 original, which relied on stop-motion animation. (Goodman, 2011) The use of CGI in this film allowed the filmmakers to push the boundaries of scale and detail, creating visually spectacular monsters that dominated the screen. The updated designs were meant to appeal to modern audiences by emphasising realism and horror. The filmmakers relied heavily on CGI to create the grand scale and supernatural elements required to bring Greek mythology to life. CGI was used extensively to render the film's mythical creatures, many of which were too large or complex for practical effects alone. The designs aimed to modernise the creatures while staying rooted in mythological traditions.

The former chapter examined *Clash of the Titans (1981)* from the perspective of the hero's journey. This analysis will now be applied to *Clash of the Titans (2010)* in order to compare and contrast the two approaches.

Figure 19: Perseus with his human father in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

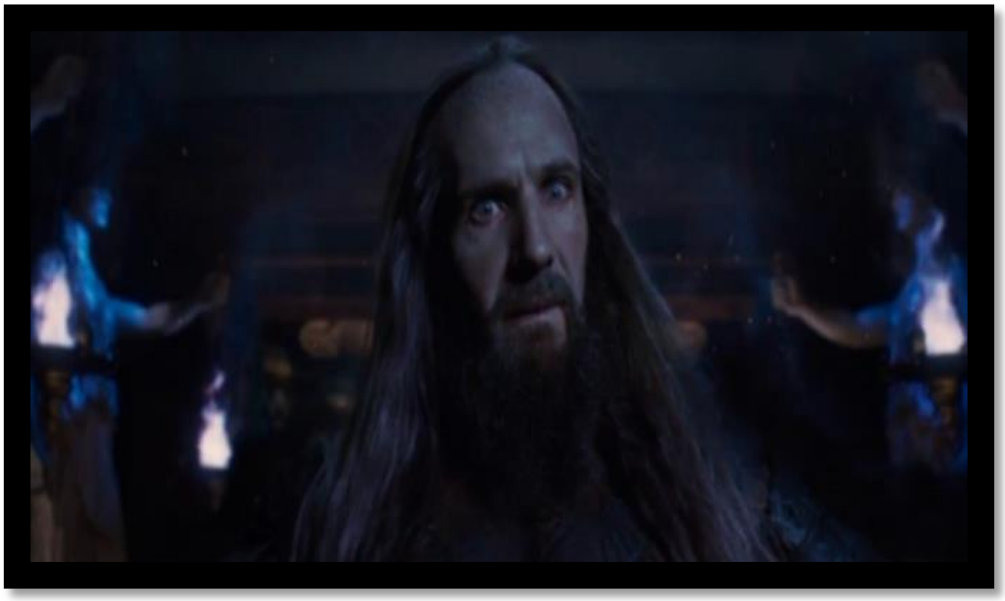

Figure 20: Hades telling Perseus he is the son of Zeus in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Figure 21: Perseus refusing the call in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Figure 22: Perseus meeting Io in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Separation

The Separation stage of Perseus' journey in 2010 bears a resemblance to the original. He begins in the 'ordinary world' as a humble fisherman, raised by a human family (Figure 19). The outset of the 2010 film is very similar to the 1981 version. During these scenes there are no CGI creatures present, giving the viewer a juxtaposition between Perseus' life as a fisherman and his life as a demigod.

Perseus' 'call to adventure' happens when his family is killed during an attack by Hades, a tragedy that propels Perseus into a larger conflict, setting him on a path of vengeance against Hades. It is in this confrontation with Hades that Perseus learns that he is the son of Zeus (Figure 20). Initially, Perseus 'refuses the call' and resists the idea of embracing his divine heritage or seeking help from the gods. He is determined to defeat 'the Kraken' as a mortal, reflecting his internal struggle with his dual identity. Although he was not frightened by Hades, he still did not want to face any god simply because he thought he was merely a man (Figure 21). Mythological monsters have yet to make their appearances.

Perseus is guided by Io, an immortal who serves as his ‘mentor’. Similar to Ammos in the 1981 version, Io provides Perseus with the knowledge he needs to embark on this quest (Figure 22). Her wisdom and encouragement helped Perseus navigate the challenges ahead.

Initiation

In the stage of Initiation, we encounter the mythological creatures. Perseus ‘crosses the threshold’ when he decides to join the Argive soldiers in the fight against the Kraken, and Hades. This transition marks his entry into a world of gods, monsters, and mythic dangers far beyond his ordinary life. In *Clash of the Titans* (2010) the dangers that Perseus faces are amplified by the use of lighting, extreme landscapes or setting during his encounters with terrifying creatures marking a vast deviation from his reality. In contrast to *Clash of the Titans* (1981) the 2010 version has far more sophisticated technique available to create terrifyingly realistic creatures and environments. On his journey, Perseus faces numerous trials and encounters with ‘tests, allies, and enemies.’ He battles giant scorpions, navigates the treacherous lair of Medusa, and withstands temptations to accept divine power.

Figure 23: Scorpiochs fighting Perseus and the Argive soldiers in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Figure 24: Scorpioch rig for Mads Mikkelsen's scene in the BTS (08) video for *Clash of the Titans*, 2010. (Habala, 2019)

The giant scorpions, called Scorpiochs, are monstrous versions of the real-life creature, with exaggerated size, spiked exoskeletons, and vicious pincers, as seen in Figure 23. These fully CGI creatures, incorporate elements of real scorpion behavior with animators studying their behaviors and combining them with movements of large animals to achieve naturalistic movement. Their interaction with the environment was enhanced using motion capture and simulation technology. Quentin Miles, animation supervisor at Cinesite who worked on the film recalls the detailed research they carried out before creating the Scorpioch. He states that for design elements they got a 'lot of reference of real scorpions' and also 'looked at large creatures and how they move'. He notes that the Scorpiochs are 'a kind of hybrid of insect-y fast pincer like movements, and you can imagine if they really were that size, how they would respond to gravity, momentum and force of real world.' (Habala, 2019)

For the scene with actor Mads Mikkelsen, where he jumps on the back of one of the Scorpiochs, (Figure 24) a rig was used to get realistic footage of the movement. In the YouTube video, *Clash of the Titans (2010)* BTS 08, visual effects supervisor Simon Stanley-Camp states that the 'way he's thrown around, you can't recreate that.' (Halaba, 2019) According to Stanley-Camp, the trackers allowed for the CGI scorpion 'to be dropped back over the top of the rig' and 'tracks every plate match moved scorpion to fit the sequence'. (Habala, 2019). In the production notes of *Clash of the Titans (2010)*, we learn that special effects supervisor, Neil Corbould, 'built a full-scale rig to act as a makeshift Scorpioch, in order to give the actors something with which to interact during the fight sequence.' (SciFi Japan, 2010) The special effects

team ‘used a remote system to operate the rig via joystick controls.’(ScfiFi Japan, 2010) Visual effects supervisor, Nick Davis attests, ‘We also had a ride-rig, which was a computer-programmed gimbal, with the shell of a scorpioch on top of it.’ (SciFi Japan, 2010) In these notes we learn that the rig was capable of moving in every direction and completing a 360-degree rotation. Corbould notes that their most difficult challenge with the rig itself was the speed, ‘Scorpions really move quickly, so we tried to attain that level of speed.’ (SciFi Japan, 2010) Interestingly, it would seem that whilst CGI provides unprecedented scope for creating imaginary worlds, it remains limited in terms of creating realistic motion. The rig and the actor physically being thrown around was still superior to CGI in terms of the audience accepting the authenticity of the scene.

Figure 25 & 26: Stuntmen in green suits interacting with actors in the BTS (08) video for *Clash of the Titans*, 2010. (Habala, 2019)

For creature battles in sequences like the battle with Medusa and the fight against the Scorpiochs, actors were integrated with CGI creatures. According to Failes, whose article looks at the creation of the models used in the film, devices were created especially for practical effects. He writes, ‘The director utilised a long carbon fiber rod with a pingpong ball on the end,’ (Figures 25 & 26) covered in green-screen material, ‘to show the size of the Scorpiochs and the eyelines’ that the performers interacted with (Failes, 2010). ‘Some shots also relied on a stuntman in a green jumpsuit with a long stick and a sponge on the end for Sam Worthington to hit against and stab his sword at’ (Figure 25 & 26) and were later replaced with digital creations (Failes, 2010).

Figure 27: Perseus and the Argive soldiers in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Figure 28: Djinn in *Clash of the Titans*, 2010. (Pukunui, 2020)

One significant way in which the 2010 version digresses from the 1981 film is when Perseus is aided by the Argive soldiers (Figure 27), the Djinn, and Pegasus. The Djinn were not featured at all in the 1981 version. The Djinn (Figure 28) in the 2010 version the Djinn are depicted as mysterious desert-dwelling beings with wooden, charred exteriors and glowing blue eyes. This is interesting from the perspective of a director choosing what they use from an original mythological story. It would seem that the type of creature that is selected for a film, will depend upon whether the director can envision the possibility of that creature being created.

The appearance of the Djinn reflects a fusion of mysticism and elemental power. The Djinn were created with practical costumes of layered materials, bits of scorpion shells used as armor and various trinkets hanging off different parts, augmented by CGI to enhance their glowing eyes and intricate textures. In the production notes for *Clash of the Titans (2010),* costume designer Linda Hemmings notes the different elements of the Djinn's costume, 'for the desert-dwelling Djinn who join Perseus on his journey, I used a very strong Indigo blue and lots of African, hand-printed mud cloth.' (SciFi Japan) We also learn that, 'Sheikh Suleiman, the Chief of the wooden Djinn, required 40 face sets with replaceable hard shells, 40 necks, and 15 pairs of animatronic arms.' (SciFi Japan, 2010)

Figure 29: Perseus meeting Pegasus in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

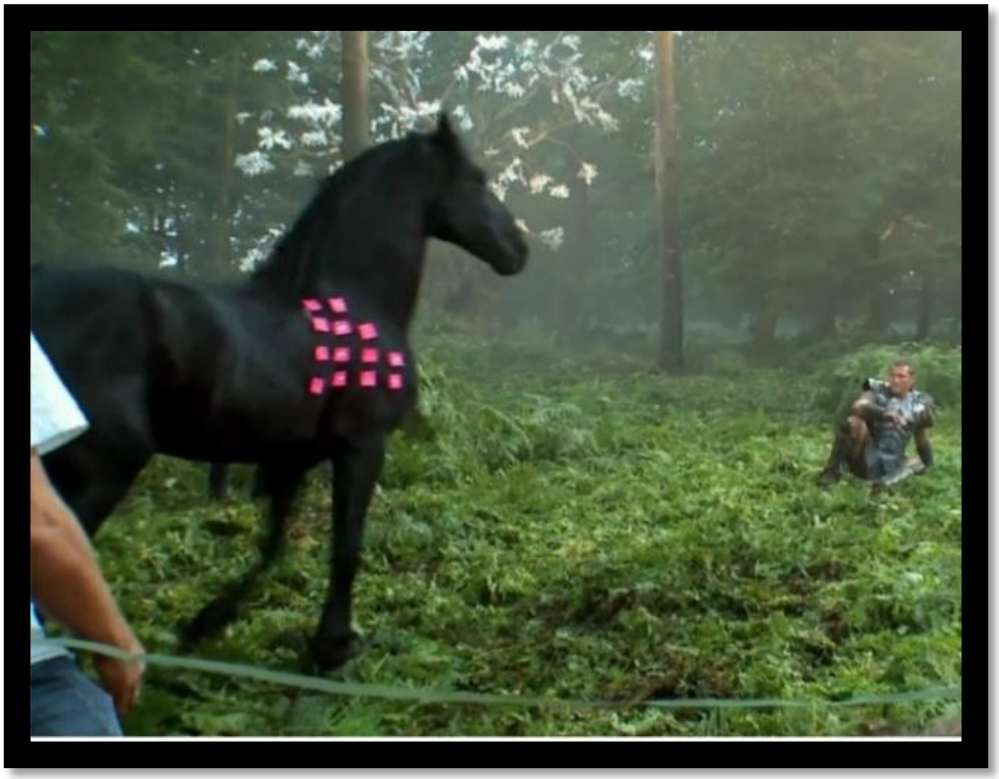

Figure 30: The live horse with tracking markers for the wings in the BTS (10) video for *Clash of the Titans*, 2010. (Habala, 2019)

In the 1981 version of the film, a puppet was predominantly used to create the winged horse. In contrast, a real animal with CGI wings was used in the 2010 version. Pegasus (Figure 29) is portrayed as a sleek, powerful black stallion with large, feathered wings. Pegasus was brought to life through a mix of live-action horse footage and CGI wings. The wings were designed with intricate feather details, ensuring they moved naturally and conveyed a sense of realism during flight sequences. For Pegasus, CGI was used to add large, realistic wings to a live-action horse, seamlessly integrating it into the fantastical narrative. For Pegasus, 'velcro tracking markers' (Figure 30) (Failes, 2010) were glued onto the horse and wings added with CGI. In the production notes for *Clash of the Titans* (2010) we learn that 'Two Friesian stallions--a large, black breed of horse originating in the Netherlands--were used for the role: Bonce worked as the main Pegasus, with the stunt rider riding Gallo. The visual effects team developed a complex system of putting tracking markers on the horses and using special cameras to track the motion very carefully. Completing the illusion, wings were placed on afterward, via digital imaging.' (SciFi Japan, 2010)

Figure 31: Calibos in the BTS (03) video for *Clash of the Titans,* 2010. (Habala, 2019)

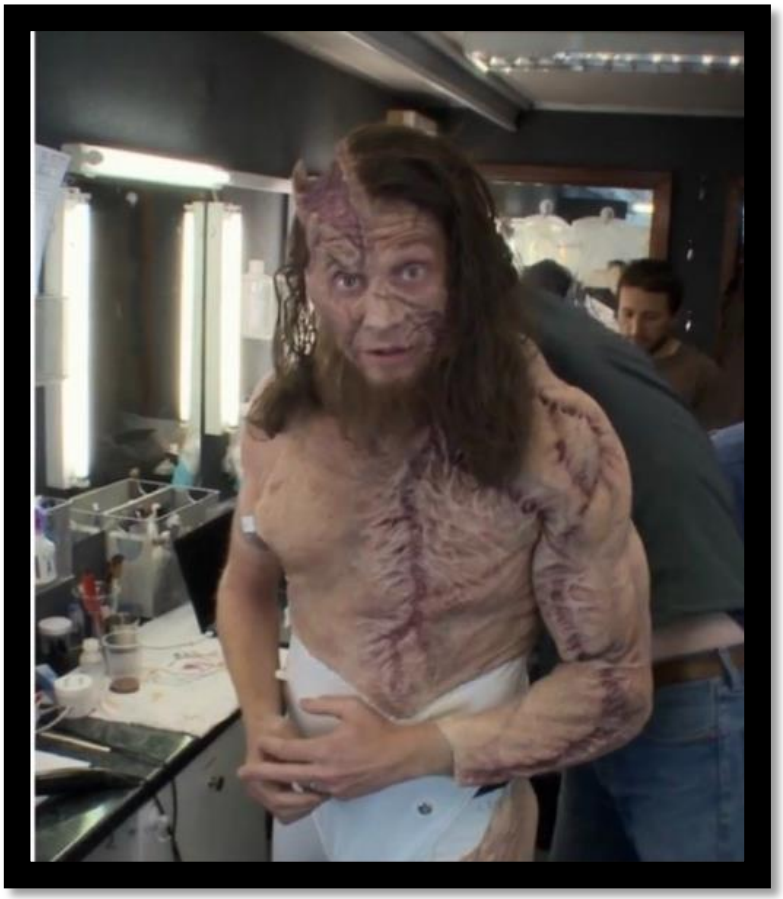

Figure 32: Calibos prosthetics in the BTS (03) video for *Clash of the Titans*, 2010. (Habala, 2019)

Central to the 2010 version are Hades and his minions. Hades does not feature in the 1981 version at all. In the 1981 version the focus is on Calibos as the nemesis of Perseus. In the 2010 version, Hades sends Calibos (Figure 31), to kill Perseus who successfully fights him off with the rest of the Argive soldiers. Calibos was reimagined in the 2010 film as a tragic, grotesque figure, blending human and monstrous elements. His design emphasised his cursed transformation, with scarred, deformed features and a menacing presence, showcasing the wrath of the gods. In an interview Letterier says, 'he's a burn victim because he's punished by Zeus and the way Zeus punishes him is by sending lightning to earth and he's been split by lightning.' (Weintraub, 2010) The idea of Calibos being a 'burn victim' in many ways allowed Leterrier to avoid the charges of racist stereotyping that Harryhausen's faced with his Calibos.

The character was brought to life using a combination of prosthetic makeup and CGI. In the production note for *Clash of the Titans* (2010) we learn, prosthetic supervisor Conor O`Sullivan took life casts for several of the actors [...] who spent about three

hours each day becoming Calibos' the 'half-man, half-monster Calibos. A former king, Acrisius, he became a beast when Zeus struck him with a lightning bolt.' (SciFi Japan, 2010) Actor Jason Flemyng wore extensive prosthetics (Figure 32), including five head pieces and an arm and foot piece, taking four and a half hours to apply every morning. These were used for close-up shots, giving Calibos a tactile, gritty appearance. CGI was then used to enhance the more supernatural aspects, such as his movements and certain deformities, creating a seamless blend of practical and digital effects that modernised the character for a contemporary audience.

Figure 33: Perseus refusing Zeus' help in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Perseus approaches the 'inmost cave,' when he refuses to acknowledge the fact that he is not just a man and will not accept any help given to him by Zeus (Figure 33). Facing the 'ordeal,' in the 2010 version, Perseus ventures into Medusa's lair (Figure 34), a literal and symbolic descent into darkness. In the older version 1981 there was a clear shot of an actual Medusa puppet. Viewers were able to see the creature. However, in the 2010 version the representation of Medusa has a more ephemeral, magical, evasive quality. In this critical moment Perseus must confront a deadly foe to obtain the key to defeating the Kraken, Medusa's severed head.

Figure 34: Medusa's lair in *Clash of the Titans,* 2010. (*Clash of the Titans,* 2010)

Figure 35: Perseus with Medusa's severed head in the BTS (05) video for *Clash of the Titans,* 2010. (Habala, 2019)

Figure 36: Medusa before colour and texture in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019).

Figure 37: Medusa after colour and texture in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019).

Figure 38: Model Natalia Vodianova in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019).

Figure 39: Medusa in progress in the BTS (05) video for *Clash of the Titans*, 2010. (Habala, 2019).

The 2010 Medusa combines beauty and horror, with a human face and a serpentine body (Figure 36 & 37). Her snake-covered head (Figure 35 & 39) moves independently, adding an unsettling dynamic to her appearance. The design team

enhanced her femininity to contrast sharply with her deadly nature. A mix of live-action and CGI was used for Medusa. Actress Natalia Vodianova (Figure 38) provided the basis for her face and motion, with her movements refined in post-production using motion capture. The visual effects team 'used a combination of CGI and motion capture to bring to life the Medusa.' (SciFi Japan,2010) CGI allowed the animators to emphasise her agility, making her fast and deadly in combat scenes. According to producer Basil Iwanyk in the featurette video of the behind the scenes, the audience should expect 'an incredibly fast moving' Medusa with a 'lethal bow and arrow.' (IMDB, 2010)

Perseus' confrontation with Medusa serves as the climactic ordeal. The hero narrowly escapes with Medusa's head, symbolising his triumph over death and fear. The filmmakers blended CGI with live-action footage to maintain a sense of realism.

Return

This final stage, also has four sections; reward, the road back, resurrection and return to elixir. As in the 1981 film, after retrieving Medusa's head, Perseus finds a way to defeat the Kraken.

Figure 40: Kraken *Clash of the Titans*, 2010. *(Clash of the Titans*, 2010)

On the ‘road back,’ Princess Andromeda was about to be executed until Perseus flew in on Pegasus and used Medusa's head to turn the Kraken into stone.

The Kraken in this film is reimagined in 2010 as a massive, otherworldly sea monster. In the 1981 version the Kraken was a humanoid puppet brought to life through ingenious use of stop motion animation. In contrast the design of the 2010 Kraken, featured a multi-limbed body with massive tentacles, jagged spines, and a gaping maw (Figure 40). The Kraken was a CGI creation which allowed for unparalleled detail and scale. In the YouTube video, *Clash of the Titans (2010)* BTS 07, we learn about the various stages of creating the Kraken. We learn that the creature's movements were inspired by real aquatic animals, such as sharks, crabs, octopi, and other crustacean elements, to maintain an organic feel with it taking six months to create the skin detail alone. When discussing the design of the Kraken, the director Letterier states, ‘There is transparency in the scales, because this is a monster that hasn`t lived in the sun for thousands of years, so there would be subsurface transparency and light would come in and bounce into the shell.’ (SciFi, Japan, 2010) Fully CGI, the Kraken's immense size and intricate tentacle movements required advanced simulation software. Fluid water simulation techniques were employed to create realistic liquid effects with a whole team focusing on the water textures alone, such as the Kraken emerging from the sea or Hades’ shadowy forms.

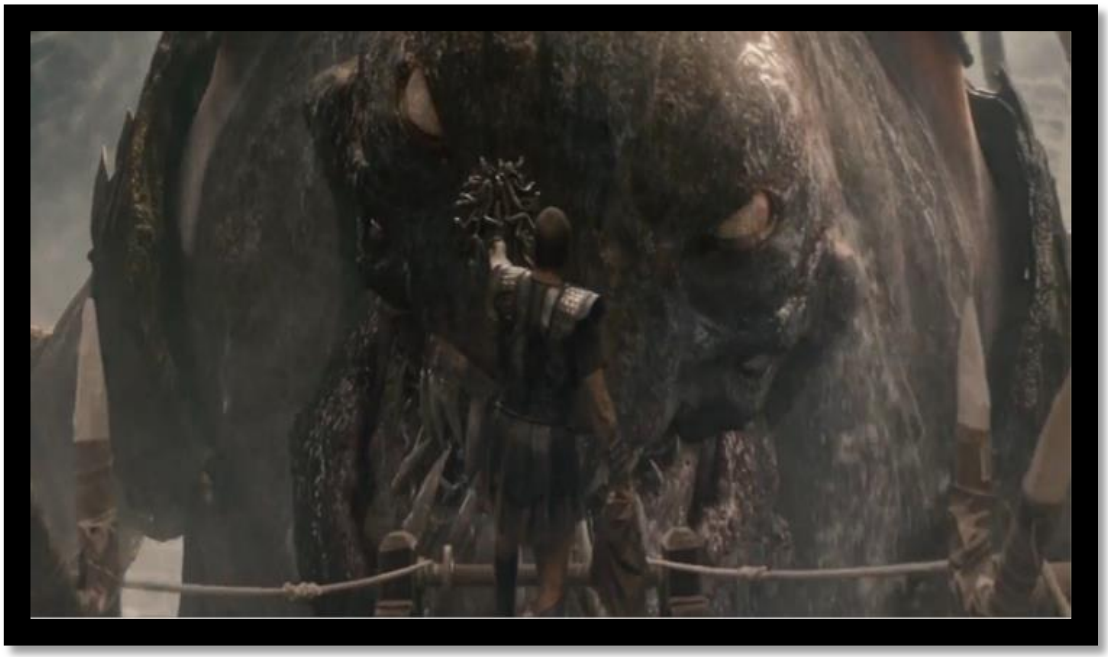

Figure 41: Perseus defeating the Kraken with Medusa's head. *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Figure 42: The Kraken turning to stone. *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

The final battle with the Kraken serves as Perseus' metaphorical 'resurrection.' By using Medusa's head to petrify the monster (Figure 41 & 42), he proves his worth as a hero capable of bridging the mortal and divine worlds. After defeating the Kraken with Medusa's head, Perseus uses the sword that was given to him by the gods and uses Zeus' lightning to activate the sword to defeat Hades and send him back to the underworld. The lightning striking the sword produces an aptly epic final sequence. The model of the sword enhanced by CGI effects, creates a sense of supernatural power and strength being required to defeat Hades. In this way the 2010 version leaves viewers with a different ending to the 1981 version.

Figure 43: Perseus and Andromeda after the battle *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Figure 44: Resurrected Io *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

After defeating Hades and saving Princess Andromeda, peace is restored throughout the kingdom (Figure 43). The hero has finally made it back to the ordinary world, the 'return to elixir.' Perseus' victory brings salvation to humanity, restoring balance between mortals and gods. When Perseus decides to stay in the mortal world, Zeus brings Io back to life (Figure 44) and allows them to live in the mortal world together. Sanna argues that the 2010 *Clash of the Titans* is not strictly a remake of the 1981 original, in the sense that the hero's journey is adjusted and presented in a different way. She suggests 'In the 1981 cinematographic adaptation Perseus chooses to use his hybrid nature of demigod and accepts Zeus's gifts [...] to save the princess and the afflicted city of Jaffa. It is love which motivates his heroic actions. In Leterrier's version, Perseus is instead motivated to fight against Hades by personal revenge. The absence of romantic involvement between the hero and princess Andromeda and the nearly total erasure of the sentimental at large constitutes a major deviation from the original cinematographic source.' (Sanna, 2015). Perseus' journey emphasises themes of individuality, defiance of divine authority, and the power of mortal perseverance.

The film in a sense, updates the traditional hero's journey by focusing on a protagonist who actively rejects his divine heritage, adding a modern layer of existential questioning to the myth. Perseus' struggles resonate with contemporary audiences, who see him as a symbol of human resilience in the face of overwhelming odds. It must be considered that Leterrier's later version seems to assert the idea that the viewers of the twenty first century have altered views and beliefs on religion, politics and life generally in comparison to their earlier twentieth century counterparts.

Chapter Three: 1981 Vs 2012, A Comparative Analysis of the Creation of Specific Scenes

Figure 45: 1981 Film Poster. (Rambo, 2024)

Figure 46: 2010 Film Poster. (Movie Poster Shop, 2024)

The comparison between *Clash of the Titans (1981)* directed by Desmond Davis and *Clash of the Titans (2010)* directed by Louis Leterrier, highlights how evolving technologies and aesthetic priorities shaped the creature design, their making, and overall stylisation in these two versions of the same story. Both approaches have their strengths: the original's charm lies in its artistry and imagination, while the remake's strength is in its visual spectacle and technical sophistication. Soumen Das states, 'Visual effects serve as a potent tool for storytelling, granting
filmmakers the ability to transcend the limitations of reality and engross audiences in realms that exist solely in the realm of imagination.' (Das, 2023)

Figure 47: Ray Harryhausen sculpting Medusa for *Clash of the Titans*, 1981. (Tasker, 2022)

Figure 48: Harryhausen with Pegasus from *Clash of the Titans*, 1981. (Tasker, 2022)

Figure 49: Harryhausen with the Kraken for *Clash of the Titans*, 1981. (Tasker, 2022)

In *Clash of the Titans (1981)*, Ray Harryhausen drew ‘upon fine-art influences, science-fiction novels and his own vast imagination.’ (Heaney, 2021) ‘One of the most remarkable aspects of Ray's work was his status as a one-man industry; as well as building and animating his creations, he was also responsible for designing the initial concepts for his creatures and films.’ (Heaney, 2019) Each creature, Medusa (Figure 47), Pegasus (Figure 48), the Kraken (Figure 49), was intricately handcrafted as detailed models or armatures, with textures and features sculpted by hand. The creatures had a surreal, mythical quality, capturing the essence of the gods and the fantastical nature of Greek mythology.

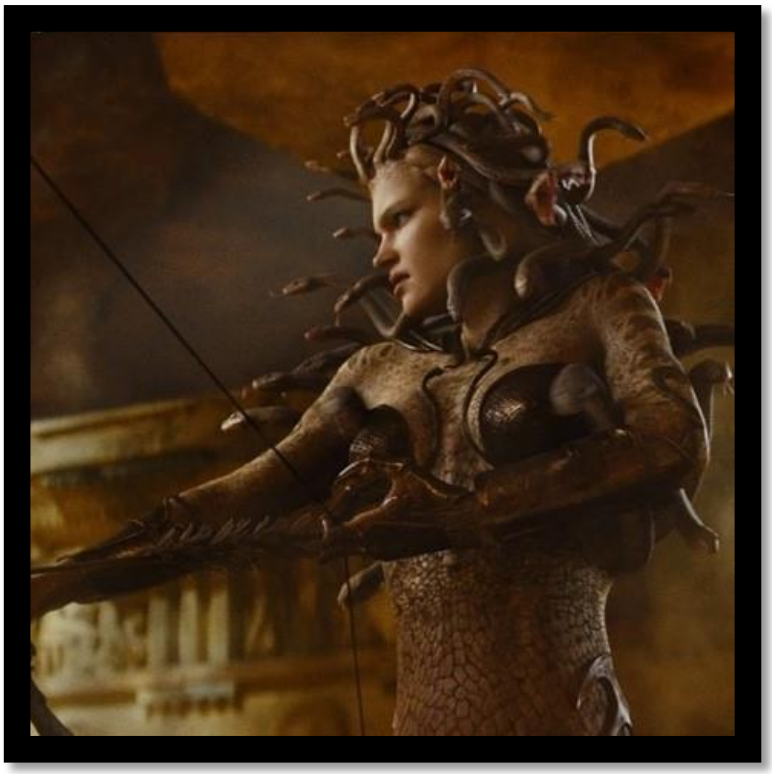

Figure 50: Medusa CGI design for *Clash of the Titans*, 2010. **(**Anonymous 645408a4e2acc2.31916000, 2024).

Figure 51: Scorpioch CGI design for *Clash of the Titans*, 2010. (Anonymous 645408a4e2acc2.31916000, 2024).

Figure 52: Kraken CGI design for *Clash of the Titans*, 2010. (Kaijuboss, 2024).

In comparison, in *Clash of the Titans (2010)*, creature designs leaned heavily into realism and scale, using advanced CGI to create lifelike anatomically believable monsters. High-resolution textures were used in conjunction with detailed anatomy to create a sense of believability. The Kraken (Figure 52) was reimagined as an enormous sea monster with octopus-like tentacles, designed to evoke awe and terror. The digital medium allowed for more dynamic and fluid designs which facilitated Medusa's snake-like movements (Figure 50) and the Scorpioch's rapid attacks (Figure 51). In the research paper, *Practical Effects vs. CGI: Comparing the Use of Practical Effects and Computer-Generated Imagery in Modern Filmmaking*, Dewan cites the work of Jenkins, 2013, 'CGI can seamlessly integrate with live-action footage, enabling filmmakers to create entire worlds, fantastical creatures, and intricate visual effects' (Dewan, 2024). Yet, Chattopadhyay et al, in *Journal of Vision* comments, 'despite its versatility, CGI has limitations, including the potential for 'uncanny valley' effects, where digital creations can sometimes appear unnatural or disconcerting to viewers' (Chattopadhyay et al, 2016). Essentially in attempting to evoke realism, the result is in unnatural, unbelievable effects. In enhancing practical effects with CGI it seems there is an argument to be made for using CGI with caution. This was the dilemma facing Leterrier and his team.

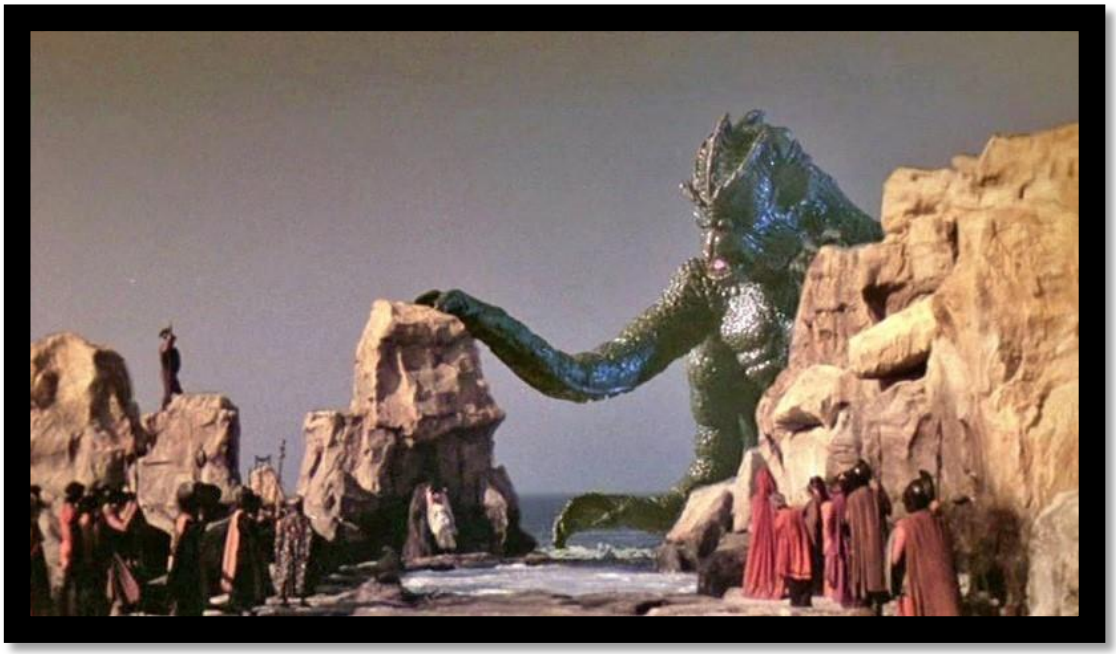

Figure 53: Kraken attacking Joppa in *Clash of the Titans*, 1981. (ASC Staff, 2022).

With regards to stylisation, in *Clash of the Titans (1981)* the creatures had a 'handcrafted charm', their movements slightly jerky but imbued with character and intent. (Figure 53). For *Clash of the Titans (2010)* the approach catered to contemporary audiences' preference for grounded, high-stakes storytelling. The creatures were darker, larger, and more terrifying, designed to invoke awe and fear, (Figure 54).

Figure 54: Kraken attacking Argos in *Clash of the Titans*, 2010. (HollowIchigo58, 2024).

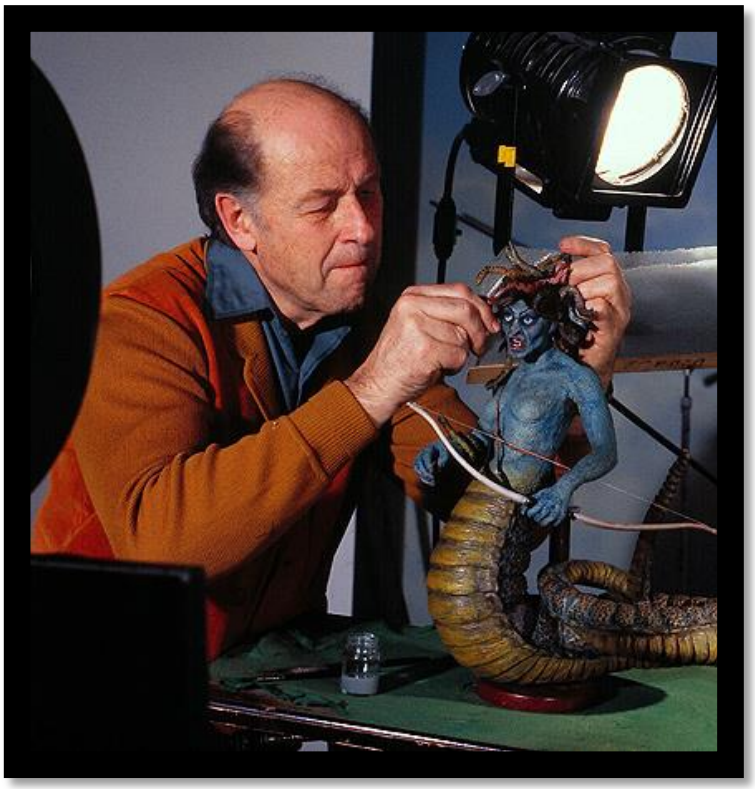

Figure 55: Harryhausen working with Medusa for *Clash of the Titans*, 1981. (The Metzinger Sisters, 2013)

For *Clash of the Titans (1981),* creatures were sculpted with materials like latex, foam, and wire, with intricate detailing added by hand. The stop-motion creatures had a distinct artistic style, reflecting Harryhausen's personal vision. Harryhausen infused personality into his creatures through subtle movements, such as Medusa's coiled body, (Figure 55), and Pegasus' flight, despite the technical constraints. Dynamation provided emotional weight to scenes by allowing creatures to move naturally within their environments, giving them a palpable sense of presence.

Harryhausen's creatures' movements, though expressive, were limited by the constraints of stop-motion. In the journal entry, *The Evolution of Visual Effects in Cinema: A Journey from Practical Effects to CGI,* Soumen Das attests, 'Production timeframes were long because techniques like stop-motion animation required a lot of time and expertise. There were occasionally noticeable seams and discrepancies when live-action material was mixed with matte paintings and miniatures. It was also

difficult to get genuine movement and interplay between real actors and practical effects. To get over the limitations of primitive tools and materials, this era required a great degree of artistry and innovation. Notwithstanding these difficulties, the early days of practical effects prepared the way for the ongoing development of visual effects in movies.' (Das, 2023)

Stop-motion animation required meticulous frame-by-frame manipulation of the models. While this gave Harryhausen's creatures a unique, almost dreamlike motion, it also had limitations in fluidity and naturalism. As seen in Figure 56, rear projection and split-screen techniques integrated the animated creatures into the live-action scenes, creating the illusion of interaction between actors and monsters. This method was revolutionary for its time, enabling detailed, tactile models to coexist believably with human actors. However, large-scale destruction scenes, like the Kraken attacking Argos, were impossible to achieve convincingly with Dynamation. The process was time-consuming, requiring years of work for just a few minutes of creature animation.

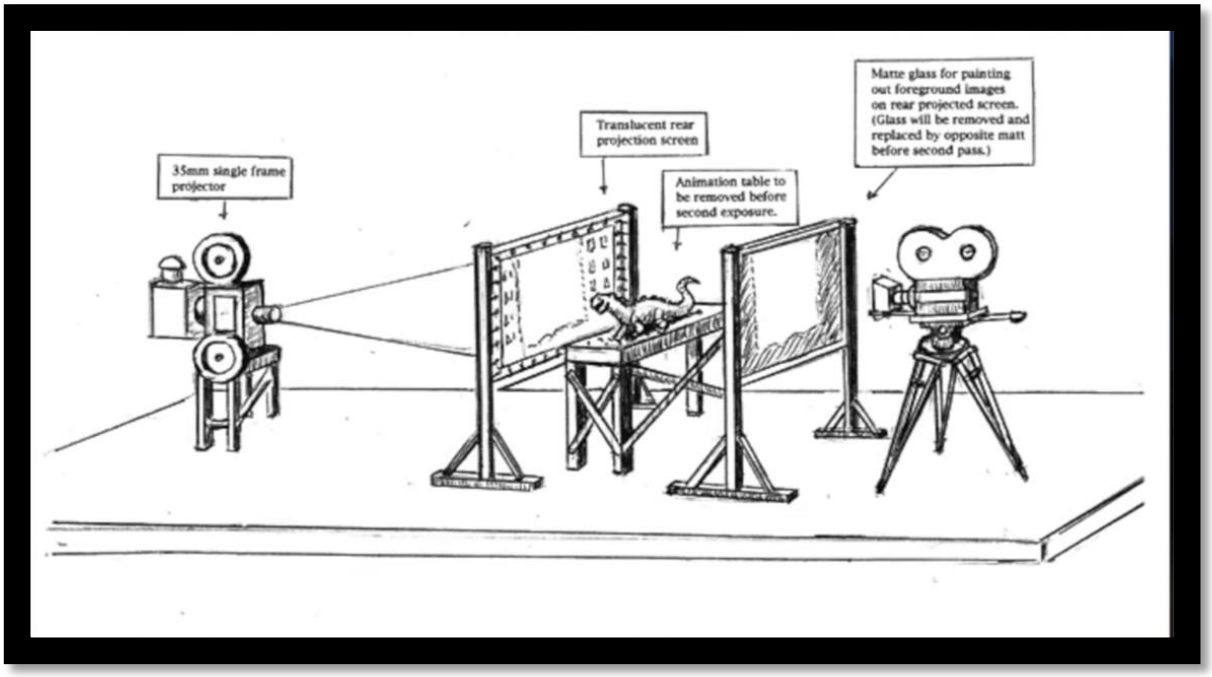

Figure 56: Diagram of Dynamation. (Draper, 2024)

By blending live-action with stop-motion animation, Harryhausen's Dynamation brought about a seamless integration that felt more tactile and real to audiences. For many viewers, the creatures appeared lifelike and immersive, leading to a deeply

engaging experience that captivated and sometimes terrified audiences. In a film review from 1981 by Roger Ebert he discusses the work of Ray Harryhausen in the *Clash of the Titans (1981)*, 'He uses combinations of animation, miniatures, optical tricks, and multiple images to put humans into the same movie frames as the most fantastical creatures of legend, and more often than not, they look pretty convincing.' (Ebert, 1981) He also mentions the realism of the Kraken, the 'Kraken, who rears up from the sea and causes tidal waves that do a lot of very convincing damage to a Greek city that exists only in Harryhausen's art.' (Ebert, 1981) Harryhausen's creatures left a lasting impression on both fantasy cinema and popular culture, setting a high bar for monster and creature design in films. By blending myth, detailed design, and pioneering technology, the film offered viewers a sensory experience that felt both epic and personal, an effect that has contributed to the film's enduring legacy in the world of fantasy and mythology-based cinema. In *Medusa: Solving the Mystery of the Gorgon* by S. R. Wilk, Green comments on the 1981 film saying, 'It is, I suppose, only a matter of time before someone will make a movie in which the gorgon is created via computer animation, but it won't have the soul of Harryhausen's Medusa' (Green, 2013).

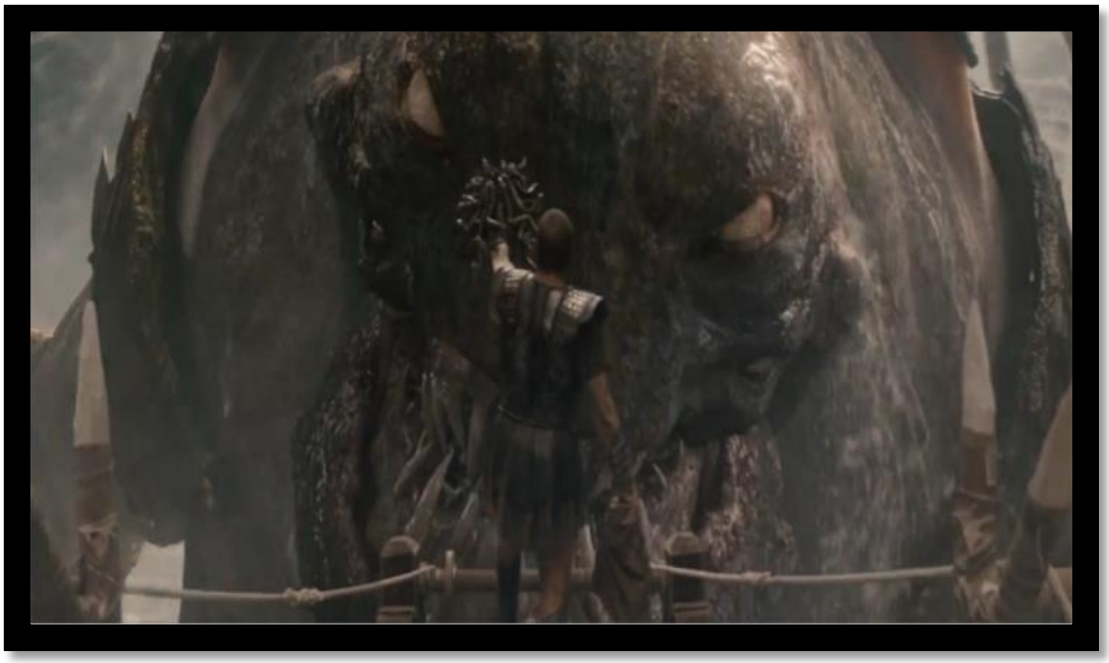

Figure 57: Kraken attacking Argos in *Clash of the Titans*, 2010. (*Clash of the Titans*, 2010)

Dynamation was worlds away from the CGI that replaced it in *Clash of the Titans (2010)*. Digital effects enabled large-scale destruction scenes, such as the Kraken attacking Argos (Figure 57), which would have been impossible with only practical effects. Arguably the darker, foreboding aesthetic of the 2010 version reflected a modern approach to mythology. Some critics however felt the CGI-heavy approach in *Clash of the Titans (2010)*, lacked the charm of the practical effects used in the 1981 original, with Gilland stating that the creatures in the original made him 'feel' something that 'this new CGI product fails utterly to invoke' (Gilland, 2010). In an article on practical effects versus visual effects Walker discusses the criticism that CGI effects remove the audience's ability to fully believe or become emotionally attached to these computer-generated creatures and environments. He states, 'there is [...] a concern that the increased use of visual effects is impacting the emotional response of audiences to a story because of a heightened awareness that what they are seeing is artificial' (Walker, 2016). Interestingly, Walter Benjamin in an essay on the replication of art, discusses the idea that any remake loses something essential that the original has. In *The Work of Art in the Age of Mechanical Reproduction,* Benjamin discusses the 'aura' of a piece of art. or more specifically the impact of the modern world on the reproduction. He argues that the reproduction of art removes the impact of the quality of the originality of a piece, 'The situations into which the product of mechanical reproduction can be brought may not touch the actual work of art, yet the quality of its presence is always depreciated.' (Benjamin, 1935)

The 2010 film then was perhaps always going to be challenged by the 'aura' or impact of the first 1981 film. When discussing the human-like robots and the 'uncanny valley' Mara et al writes, 'The choice between practical effects and CGI can significantly impact the storytelling and emotional engagement of a film. Practical effects often offer a sense of authenticity and tangibility that can enhance the believability of a story.' (Mara et al, 2022) Tellingly, in a film review by Dewey Finn he states that the 2010 film was 'over-reliant on CGI creatures and settings; all action, no pacing, no story, no character, no emotion' (Finn, 2021).

In contrast to *Clash of the Titans (1981)*, the creatures in the 2010 remake were digitally created using cutting-edge software for 3D modeling, animation, and texturing. CGI allowed for rapid prototyping, enabling designers to experiment with creature designs and animations in virtual environments. Designers could experiment

with lighting, textures, and movement in virtual environments before finalising shots. Motion capture and green-screen technology enabled seamless interaction between actors and digital creations, enhancing realism. Digital effects enabled highly detailed and naturalistic movements. The Kraken's tentacles flowed organically, and Medusa's serpentine body moved with lifelike fluidity allowing creatures to interact dynamically with their environment and human characters. CGI also allowed for large-scale interactions with environments, such as the Scorpiochs kicking up sand during battles. Digital compositing allowed seamless integration of creatures into complex, dynamic environments, with effects like water, fire, and debris enhancing realism. However, while CGI enabled greater creative freedom, some critics maintained that the heavy reliance on digital effects sometimes led to criticism of "weightless" or overly polished visuals.

The comparison between the 1981 Clash of the Titans and the 2010 film highlights a shift from artistry and ingenuity in practical effects, to technical precision and realism made possible by CGI. Both approaches reflect the era's filmmaking priorities, leaving unique legacies in the realm of cinematic mythology.

Conclusion

The comparison of *Clash of the Titans (1981)* and its 2010 remake reveals significant insights into the evolution of visual effects in cinema, as well as the changing nature of audience engagement with films over the course of three decades. Through the detailed exploration of Dynamation in the 1981 version, the CGI advancements in the 2010 remake, and the comparative analysis of both films, this thesis has underlined the profound impact that technological innovations in visual effects have had on cinematic storytelling. Both versions of *Clash of the Titans* rely on the power of spectacle to draw in their audiences, but the methods through which this spectacle is achieved are drastically different. These differences not only reflect advancements in technology but also offer insights into the shifting tastes and expectations of filmgoers over time.

In examining the use of Dynamation in the 1981 *Clash of the Titans*, the painstakingly crafted stop-motion animation, pioneered by Ray Harryhausen, became one of the most recognisable techniques in fantasy cinema. By combining real actors with animated mythical creatures, Harryhausen was able to create a fantasy world that felt both tangible and imaginative. Despite its limitations, the charm of Dynamation lay in its artistry and physicality, offering a sense of craft that was both intimate and intricate. The method allowed for a level of creativity that was unachievable by earlier effects technologies, yet still required a significant degree of imagination from both the filmmakers and the audience. The 1981 *Clash of the Titans* embraced its practical effects limitations, allowing them to become part of the film's aesthetic, and in doing so, created a distinctively 'real' fantasy world that resonated with audiences in a way that was both magical and believable.

The 2010 remake of *Clash of the Titans*, where CGI replaced Dynamation as the dominant visual effect technique and the advancement of technology allowed filmmakers to create 'photorealistic' creatures and environments, vastly expanding the scope of what was possible in terms of visual spectacle. The CGI Kraken and Medusa, for example, were not only more fluid in their movements but also able to be rendered in intricate detail that would have been impossible with the stop-motion technique used in the original. However, while CGI opened up new possibilities for visual storytelling,

it also presented certain challenges. The 2010 film's reliance on computer-generated images often detracted from the tactile nature of the mythical world, resulting in an experience that, while stunning, sometimes felt less emotionally engaging. The virtual worlds and creatures, although spectacular, lacked the same handcrafted charm and physicality that had defined the 1981 version. The CGI-based effects, while technically impressive, sometimes left audiences feeling disconnected from the magic and artistry of the original film.

A comparative analysis of the two versions, highlighted how the technological advancements in visual effects have shaped the storytelling approach and audience reception. The contrasting methods of bringing fantastical creatures to life, Dynamation versus CGI, illustrate how changing technological capabilities impact not just the visual aspects of a film, but also its emotional and narrative dimensions. The 1981 film's reliance on physical models and stop-motion animation invited viewers to engage with the fantastical in a way that encouraged imagination. In contrast, the 2010 remake, with its seamless CGI effects, provided a more polished and hyper-real experience that, while impressive, often resulted in a more superficial engagement with the material.

Another key point of comparison was the emotional resonance of the two films. The 1981 *Clash of the Titans* relied heavily on practical effects that, despite their limitations, offered a sense of nostalgia and authenticity. The 2010 remake, with its emphasis on visual spectacle and fast-paced action, often prioritised the grandeur of the story over its emotional depth, which led to a more detached audience experience. While CGI allowed for grander visuals, it arguably came at the cost of the emotional and thematic impact that characterised the 1981 film.

This thesis has also explored how both films reflect the changing expectations of their respective audiences. The 1981 *Clash of the Titans* was released at a time when audiences were still captivated by the ingenuity and artistry of practical effects. The film's stop-motion creatures, while not as seamless as today's CGI, were still

groundbreaking for their time. Audiences in the early 1980s appreciated the labour intensive craftsmanship that went into making the film, and the limited capabilities of the effects did not detract from the experience but rather enhanced it. By 2010, however, audiences had become accustomed to the high-quality CGI that had become the standard in blockbuster filmmaking, and the expectations for visual effects had shifted significantly. The 2010 remake, with its cutting-edge digital effects, catered to these heightened expectations but, in doing so, had to navigate the tension between delivering visually spectacular images and maintaining a deep emotional connection with its audience.

The impact of these two films on the audience also highlights the broader trend in cinema of prioritising visual spectacle over traditional storytelling. While the 1981 film's more modest, albeit charming, visual effects underlined the importance of narrative and character development, the 2010 film's focus on CGI spectacle sometimes resulted in a less compelling emotional experience. This contrast points to the ongoing debate within the film industry about the role of visual effects in storytelling. As technology continues to evolve, filmmakers must strike a delicate balance between the allure of visual spectacle and the core of what makes a story resonate with audiences on a deeper, emotional level.

In conclusion, the examination of *Clash of the Titans (1981)* and its 2010 remake has illuminated the evolution of special effects technology in cinema, as well as its impact on audience engagement. From the handcrafted artistry of Dynamation to the slick, polished CGI of the remake, both films reflect the technological and cultural shifts of their respective eras. By comparing and contrasting these two versions, this thesis has shown how visual effects technology shapes not only the aesthetic and narrative experience of a film but also the ways in which audiences interact with and interpret these stories. The continued progression of technology in film promises ever more dramatic transformations in the future, yet the core challenge remains, how to use technology to enhance, rather than overshadow, the emotional and narrative power of cinema. Perhaps the last word should go to Rick Baker, a special effects make-up artist and creature designer: 'Despite the rise of CGI, practical effects remain an important aspect of filmmaking. The tactile realism and physicality of practical effects continue

to provide valuable contributions to cinema, particularly in genres such as horror and action. The continued use of practical effects, often in conjunction with CGI, ensures that filmmakers can create compelling and engaging cinematic experiences' (Baker, 2012).

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