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Ústav cizích jazyků

BAKALÁŘSKÁ PRÁCE

Hidden figures – comparison of the book, film adaptation and a real-life
event

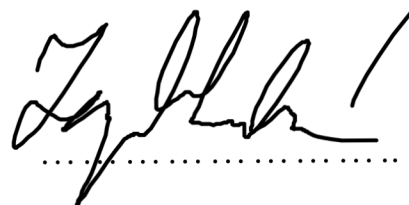
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Olomouc 2024

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Prohlašuji, že jsem závěrečnou práci vypracovala samostatně a použila jen uvedené prameny, literatury a elektronických zdrojů.

V Olomouci dne 18.4. 2024

A handwritten signature in black ink, written over a horizontal dotted line. The signature is stylized and appears to be 'Zykh'.

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Anotation

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Název práce:	Skrytá čísla – komparace knihy, filmové adaptace a reálné události
Název v angličtině:	Hidden figures – comparison of the book, film adaptation and a real-life event
Zvolený typ práce:	Bakalářská práce
Anotace práce:	Tato Bakalářská práce se zabývá biografií psanou Margot Lee Shetterly, Skrytá čísla a její filmovou adaptací. Obsahuje kapitoly o biografii a filmu, zaměřuje se na postavy a jejich okolí spolu s historickou správností děl. Praktická část se zajímá o hlavní postavy a jejich interpretace, Některé scény jsou také popsány.
Klíčová slova:	Skrytá čísla, Margot Lee Shetterly, filmová adaptace, komparace, analýza
Anotace v angličtině:	This Bachelor thesis deals with the biography by Margot Lee Shetterly, Hidden Figures, and the movie adaptation. It contains chapters about the biography and the film focusing on the characters and their surroundings as well as the historical accuracy. Practical Part deals with the main characters and their interpretation, and particular scenes are also described.
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Přílohy vázané v práci:	List of figures: Figure 1 - Mercury 7 conference Figure 2 – An evening car scene Figure 3 – Meet up in the house Figure 4 – The capsule
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List of Abbreviations

NASA - National Aeronautics and Space Administration

NACA - The National Advisory Committee for Aeronautics

STEM – science, technology, engineering, mathematics

IBM - International Business Machines Corporation

Abstract

This Bachelor thesis deals with the biography by Margot Lee Shetterly, *Hidden Figures*, and the movie adaptation. It contains chapters about the biography and the film focusing on the characters and their surroundings as well as the historical accuracy. It also discusses theory of adaptation and biography. Practical Part deals with the main characters and their interpretation, and particular scenes are also described.

Introduction

Against the backdrop of the Cold War tension between the United States and the Soviet Union, a crucial event unfolded. Both nations, driven by the desire to conquer and dominate space, set off on extensive research and development initiatives. The quest for space supremacy required significant investments, leading to the recruitment of hundreds of skilled professionals, including researchers, engineers, mathematicians, and physicists.

This thesis highlights a few unsung heroes of this era: three individuals whose dedication and expertise were crucial to the successful launch and retrieval of rockets. Their meticulous calculations, driven by advanced engineering skills, were crucial in navigating the complexities of space travel and achieving triumph through their collective efforts.

These individuals were truly hidden figures, as depicted by the author Margot Lee Shetterly in her work titled 'Hidden Figures'. Describing the lives of three hardworking, intelligent women: Katherine Johnson, Dorothy Vaughan, and Mary Jackson. They lived through many hardships as Afro-American women in times when women were fighting for their rights and respect in different work fields. However, these ideologies started to change, and society was retransformed multiple times through different aspects that formed today's beliefs and values.

In what specific ways does the film adaptation of 'Hidden Figures' deviate from its literary source, and what motivations or considerations prompted these alterations? Why is the narrative of the women depicted in 'Hidden Figures' crucial to be shared, and how does the film contribute to the broader impact of this storytelling? How does the film adaptation of 'Hidden Figure' depict and convey the historical context of the time period it represents, and what impact does this portrayal have on the audience's understanding of history? This thesis aims to answer these questions.

With thorough analysis of both works, this thesis dives into the characters and their backgrounds, shedding light on their complexities and motivations. Moreover, it examines specific implications made in the movie, explaining how these alterations contribute to the overall narrative and impact audience reception.

1 Historical context

This chapter provides historical context about the events surrounding the Cold War and Space Race, elucidating the geopolitical tensions and technological advancements that shaped this era. By exploring the political climate, scientific breakthroughs, and ideological rivalries of the time, readers gain a deeper understanding of the backdrop against which the narrative of 'Hidden Figures' unfolds.

The Cold War began in the aftermath of World War II. in 1945 as the tensions between the United States and the Soviet Union escalated due to ideology differences. Despite no direct military conflict, the Cold War persisted for over forty-five years. Both nations, having emerged from the war in relatively compact states compared to war-torn Europe, vigorously fought for global dominance. Engaging in strategic alliances, economic competition, and diplomatic propositions to assert their dominance and expand their spheres of influence on the international stage. These actions led to the division of Europe and the construction of the Berlin Wall in 1961 (Jarausch, Ostermann, & Etges, str. 22).

1.1 Space Race

Due to the worldwide rivalry between those two nations, a certain period between 1955 and 1975, where one tried to outrun the other in the technological field. The appeal of space exploration unleashed the Space race onto the field. (ONION, SULLIVAN, MULLEN, & ZAPATA, 2020)

On October 4, 1957, a Soviet R-7 intercontinental ballistic missile launched Sputnik (Russian for “traveller”), the world’s first artificial satellite and the first man-made object to be placed into the Earth’s orbit. As a counter-act, the United States their own satellite in 1958 and under command of President Dwight D. Eisenhower the National Aeronautics and Space Administration (NASA) was created. T. Keith Glennan and Hugh L. Dryden were appointed as the first administrator and deputy administrator of NASA, respectively, and the agency officially began its operations on October 1, 1958, headquartered in Washington, D.C. (Uri, 2023)

NASA's first spaceflight program, Project Mercury 7, swiftly followed, marking a significant milestone in human space exploration. On April 9, 1959, NASA formally introduced to the nation and the world its seven Mercury astronauts, who would become

pioneers in the quest to conquer the final frontier (SLOTTEN, 2022). Administrator T. Keith Glennan introduced them in alphabetical order:

“Malcolm S. Carpenter, Leroy G. Cooper, John H. Glenn, Virgil I. Grissom, Walter M. Schirra, Alan B. Shepard, and Donald K. Slayton ... the nation’s Mercury astronauts!” (Uri, 2024)

The IBM Card programmed electronic calculator was the first digital computer used in US space program. It helped during the Redstone missile which carried US’s first satellite into orbit and the Redstone rocket with Mercury capsule in 1961. (Technical breakthroughs, 2009)

After Yuri Gagarin became the first man in space on April 12, 1961, the United States became increasingly anxious about the situation. Nearly a month later, on May 5, Alan Shepard's launch took place, known as Freedom 7, coinciding with a significant speech by President John F. Kennedy. As a human computer, Katherine calculated the trajectory for astronaut Alan Shepard's historic Freedom 7 mission in 1961, marking the first American spaceflight. (SHETTERLY M. L., 2016)

Glenn's three-orbit mission on February 20, 1962, was a sterling success, as he overcame problems with the automatic control system that would have ended an unmanned flight. But re-entry was tense, as a faulty telemetry signal from the spacecraft indicated that the heat shield might be loose (see Figure 4 in Appendices). Mission Control directed Glenn to keep the retrorocket package in place after firing in order to improve heat shield retention. Glenn re-entered successfully and splashed down in the Atlantic. (Mercury Friendship 7, 2023)

The Space race ended in the favour of United States after the successful landing of Apollo II when the American astronaut Neil Armstrong became the first person to walk on Moon on 21 July 1969. After the Soviet Union faced their defeat, their interests shifted into cooperation between the nations. Furthermore, the economic and political challenges faced by both superpowers in the 1970s and 1980s, including domestic issues and conflicts in other regions such as Vietnam and Afghanistan, diverted their attention and resources away from the Space Race. (Uri, 65 Years Ago: The National Aeronautics and Space Act of 1958 Creates NASA, 2023; WOODS)

1.2 Position/Status of black women in the 1950's and 1960's

African American women faced numerous challenges during the Cold War era, including racial segregation, discrimination, and limited opportunities for career advancement. Despite their immense talent and contributions, they were often marginalized and overlooked, struggling to gain recognition for their groundbreaking work in fields such as mathematics, science, and engineering.

Racial segregation is the systemic separation of people into racial or other ethnic groups in daily life. It can occur in various areas such as schools, housing, workplaces, and on public transportation. The practices of segregation might be legislated by law or exist through social norms without legal sanction. (WOODS)

During the Great Migration in the 1910's, African Americans relocated in large numbers to industrial cities in search of employment, filling labour gaps exacerbated by World War I. Although they continued to face employment discrimination and some segregation, Northern black men enjoyed relatively fewer voting restrictions, enhancing the political weight of their votes. (Kim, 2007)

This period also marked an increase in self-confidence among African Americans, reaching a high point in the New Negro Movement of the 1920s. This movement empowered the NAACP to push for federal legislation against lynching. Moreover, President Franklin D. Roosevelt's New Deal in 1933 brought unprecedented federal support for African Americans, even as discrimination remained entrenched. (WOODS)

By the mid-1930s, the NAACP had intensified its legal efforts against de jure segregation, especially in education. This era also saw a pivotal shift in political allegiance among African American voters towards the Democratic Party. (Kim, 2007) This realignment, alongside labour unions, farmers, progressives, and ethnic minorities, significantly altered the party's dynamics, moving power away from its Southern conservative sector. (WOODS)

The Civil rights movement, which emerged in the early 1950's and continued till late 1960's, was a nationwide movement for equal rights and an end to racial segregation and discrimination against African Americans in the United States. Through a wide range of different means such as boycotts, protest marches, freedom rides and lobbying efforts activists challenged discriminatory laws and societal norms. (The Civil Rights Movement, 2011)

The high point of the movement was the March on Washington in 1963, when many people gathered to call for fair laws and equal rights. Martin Luther King Jr.'s iconic "I Have a Dream" speech resonated with millions, expressing their hopes for a better future. Other important events, like the marches in Selma in 1965, also pushed for voting rights and led to new laws. The Civil Rights Act of 1964 and the Voting Rights Act of 1965 were significant milestones, making it illegal to discriminate based on race and ending the rules that kept people apart. These changes showed the success of the Civil Rights Movement, bringing in a time of fairness and equality in America. (The Civil Rights Movement, 2011)

2 Biography of Margot Lee Shetterly

After accessing the historical background, it's essential to acquaint ourselves with the creator behind it. This chapter delves into Shetterly's biography, offering a synopsis of her accomplishments, significant life events, and the driving force behind her decision to write this literary masterpiece.

Born on June 30, 1969, she is a native of Hampton, Virginia, mostly known as an American nonfiction writer. She attended Phoebus High School in 1975 and graduated from the University of Virginia's McIntire School of Commerce. Starting off as an entrepreneur, she worked in investment banking in New York then shifted to the media industry engaging in various startup ventures, including the HBO-funded website Volume.com. In 2005, alongside her husband, she relocated to Mexico, where they established the English-language magazine Inside Mexico, catering to the English-speaking expat community until 2009. From 2010 to 2013, the couple served as content marketing and editorial consultants for the Mexican tourism industry. As of now, she resides in Charlottesville, VA. (BERRY, 2023)

In addition to her work as an author, Shetterly is also the founder of The Human Computer Project (Shetterly, 2016). This project is dedicated to recovering the names and accomplishments of all the women who contributed to the field of mathematics, science, and engineering at NACA and NASA from the 1930s through the 1980s. By documenting their stories, Shetterly aims to ensure that these women receive the recognition they deserve for their groundbreaking work in the development of space exploration. (Shetterly, MARGOT LEE SHETTERLY: RESEARCH. WRITE. REPEAT.)

Being raised in an environment where her father, an atmospheric scientist at NASA's Langley Research Centre, and her mother, an English professor from Hampton University, played influential roles, Shetterly developed a strong connection with their work. Through her father's connections, she frequently interacted with dedicated NASA employees, witnessing their stories unfold firsthand. However, it became apparent to her, years later, that not everyone was aware of their existence or the significance of their contributions, as their stories were seldom acknowledged. In 2010, an idea began to take shape in Shetterly's mind. (NCWIT - Margot Lee Shetterly, 2016)

After six years of dedicated research, she launched her first book project. Her perseverance and hard work culminated in remarkable success. Not only did her book

become a bestseller, but it also attracted the attention of a producer while she awaited approval for a portion of her initial work. With just fifty pages in hand, Shetterly was promised not only publication but also a film adaptation with potential for awards. (Stevens Institute of technology, 2020)

In 2016, her dream of publishing became a reality, followed shortly after by the movie release in 2017. Throughout her journey, she received crucial support from organizations such as the Alfred P. Sloan Foundation and the Virginia Foundation for the Humanities. (Stevens Institute of technology, 2020)

To further educate people of diverse age groups, Shetterly made a fully illustrated version of her book. Titled "Hidden Figures: The True Story of Four Black Women and the Space Race," and published in 2018, it targets children aged four to eight. (BERRY, 2023)

3 Hidden figures – the book

The book 'Hidden Figures', in full name '*Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race*', is categorized as a biography, making it a nonfictional literary work, written by Margot Lee Shetterly, and released in 2016. It tells the remarkable and previously overlooked story of the African American women mathematicians and engineers who played crucial roles at NASA during the early years of the space race. The narrative ranges from World War II to the Cold War era, covering their contributions to aeronautics, the challenges of segregation and discrimination, and their groundbreaking work in helping launch the first American into orbit. The book sheds light on the intersection of race, gender, and science, highlighting the resilience and brilliance of these women who, despite facing adversity, made significant contributions to the advancement of space exploration. (SHETTERLY M. L., 2016)

The text is divided into twenty-three chapters told from the third person perspective. We could divide these chapters into three parts based on the chronological progression of the events and the narrative of the book. The first part introduces the historical background and context of the story, highlighting the African American women mathematicians and engineers who played crucial roles at the National Advisory Committee for Aeronautics (NACA), which later became NASA. Second part dives into the wartime efforts during World War II and the demand for skilled workers. As for the last part, it covers the post-war period with the beginning of Cold war, leading to Space race. (SHETTERLY M. L., 2016)

3.1 Non-fiction

Nonfiction refers to literary works that present factual information, real events, and actual people. Unlike fiction, which is characterized by imaginative and invented elements, nonfiction is grounded in reality and strives to convey accurate and truthful accounts. Nonfiction includes a wide range of genres, including biographies, autobiographies, essays, memoirs, journalism, historical accounts, scientific writings, and more. (ELLIOTT, 2003)

The primary goal of nonfiction is to inform, educate, or provide insights into real-life subjects. Nonfiction writers often conduct research, interview experts, and draw from credible sources to present a truthful and objective depiction of the topics they explore.

Whether it's an exploration of historical events, a scientific analysis, or a personal account of someone's experiences, nonfiction works aim to offer readers a deeper understanding of the world based on verifiable facts and information. (BEJA, 1979)

Biographies usually focus on a single person's life story, highlighting their biggest victories or downfalls, sealing their lifelong journey into a physical form for everyone to see. The differing factor between biography and autobiography is the author. As the name suggests, autobiographies are like self-telling diaries while biographies are written by someone else. However, it does not mean they hold any less truthfulness or importance. (ELLIOTT, 2003)

Other than preserving an insight into people's lives, biographies can serve as a source of inspiration or a form of educational tool. We have been trying to learn from our past for decades in hope to prevent any mistakes or failures to occur. They provide a window into different time periods, societal norms, and cultural influences. (ELLIOTT, 2003)

4 Hidden figures – the adaptation

The film adaptation *Hidden Figures* is an American biographical drama released in 2017, directed by Theodore Melfi. It draws its inspiration from the book and centers around the early 1960s, a period marked by the intense Cold War rivalry and Space Race between the United States and the Soviet Union. The narrative focus remains on the experiences of three main female protagonists: Katherine G. Johnson, Dorothy Vaughan, and Mary Jackson, during this tumultuous era. As the genre of film implies, the main focus is on character development, emotional depth, and conflict resolution within a realistic setting. (MILLER, 2017)

To portray these women, director casted actors such as Taraji P. Henson (Katherine G. Johnson), Octavia Spencer (Dorothy Vaughan) and Janelle Monáe (Mary Jackson). According to Melfi, the hardest one to cast was the representative of Mary Jackson portrayed by Janelle Monáe.

“We saw a bunch of the best actresses out there, and they were all fantastic, but no one had the fire of Janelle Monáe,” he says. *“When she came in, she just knocked it out of the park.”* (LINDSAY, 2016)

Theodore Melfi grew up with his mobster father and his fifth wife in Schenectady, N.Y. After his father left the mafia, they moved to Brooklyn where Melfi struggled to connect and started rebelling against them. Later he graduated from Missouri State University and moved to L.A. where he worked for a while as a security guard. He got into filmmaking by accident thanks to his acquaintance at the time. And like that, Melfi produced his first feature *Winding Roads* in 1999. (GALLOWAY, 2017)

When choosing to direct *Hidden Figures* he was also given the opportunity to direct the *Spiderman: Homecoming* movie.

I got a phone call from my agency on a Friday night. Johnny, who was a book agent had come across this 55-page book proposal by Margot Lee Shetterly and the first draft of the script by Allison Schroeder. UTA had represented Allison, and he pitched it to me over the phone. (MELFI, 2017)

The story captured him immediately to the point that he withdrew his consideration for *Spiderman* and started inspecting the story further. (TANGCAY, 2017)

The movie explores themes of perseverance, resilience, and the importance of diversity and inclusion in STEM fields. It sheds light on the overlooked contributions of African American women to the space program and the broader civil rights movement of the 1960s.

4.1 Adaptation

Film adaptations have been a longstanding phenomenon, involving the transformation of literary sources such as books or plays into cinematic experiences. The practice of creating movies based on bestsellers or popular material is not uncommon. However, the crucial aspect is not merely the faithfulness of the adapted film to its source, but rather how the selection of a particular source and the approach to that source contribute to the film's underlying ideology, as noted by Christopher Orr. (1996, str. 10)

Some critics propose a nuanced perspective on adaptation by categorizing them into distinct "modes," as outlined by Geoffrey Wagner. (1996) These modes include transposition, commentary, and analogy. Transposition refers to a faithful rendition where the novel's plot is presented without significant alteration. In the case of commentary, the storyline is intentionally modified or altered however, not to the point of straying too far from the original. Lastly, analogy involves interpreting the novel in a different manner, leading to an entirely new outcome.

Film makers usually choose the path of analogy as it is easier for them to adapt the plot for their desires. Translating a specific point from a book to a movie can be challenging, as achieving authenticity in the cinematic medium poses its own set of difficulties. Films have a defined appeal and appearance to them which can become hard to achieve authentic adaptation. Furthermore, the process of adaptation extends beyond the narrative aspects and dives into the realm of visual storytelling. The challenge lies not only in capturing the essence of the written word but also in producing a visual atmosphere that resonates with the audience. (McFarlane, 1996)

In addition to the visual challenges, the constricting time limit of a film can prove to be a challenge itself. The choice of cast, setting, and composition becomes vital in shaping the audience's perception of the adapted material. Filmmakers must find the balance between staying true to the source material and infusing their creative interpretation to breathe new life into the storyline. This interplay between fidelity and innovation adds another layer of complexity to the art of adaptation. (McFarlane, 1996)

Nearly every film tends to follow a certain structure during production consisting of multiple important components. This narrative structure provides the framework through which the story is presented to the audience, guiding the progression of events, character development, and thematic exploration. (McFarlane, 1996)

First component of this structure is exposition, in which we are given the background information necessary to understand the plot of a movie. This includes introducing key elements such as setting, character relationships, and initial conflicts. Through exposition, audiences gain insight into the world of the story, setting the stage for the events that will follow and fostering engagement with the narrative journey ahead. (BEJA, 1979, str. 5)

Following the exposition, there is the typical development time usually intertwined with conflict, in which we see the element of opposition. (BEJA, 1979, str. 5) Most commonly, unexpected chain of events takes place and as the plot develops, the protagonist is faced with changes, challenges, or new opportunities which move the storyline along including meeting new characters or facing different or difficult settings.

The conflict then escalates into something known as climax, the high point of tension or decisive moment toward which everything else seems to have been leading. (BEJA, 1979, str. 6) It is the highest point of the storyline where the stakes are at their peak and the conflict is being resolved depending on the actions of the characters, highlighting their qualities and character development acquired throughout the movie.

To end the story, the last component for the narrative is needed, which is resolution or denouement. Untangling the conflict and clarifying results along with the consequences of character's actions, the resolution serves the purpose of a conclusion to the storyline. It provides closure for the characters and the audience, wrapping up the narrative and offering insights or reflections on the events which previously occurred. (BEJA, 1979, str. 6)

In conclusion, adapting literature into film is a complicated process that involves not only narrative fidelity but also visual interpretation while considering the expectations of its audience. As filmmakers navigate these challenges, the cinematic landscape continues to evolve, offering new possibilities for creators to work with.

5 Comparison of the characters

This chapter focuses on the portrayal of events and characters in the book, examining how these elements are conveyed through the author's narrative techniques and stylistic choices. It then transitions to exploring the adaptation of these elements in the film, highlighting how the director's vision and cinematic techniques reinterpret the original material. The comparison between the book and movie is thoroughly discussed, focusing on the fidelity and deviations in the adaptation process.

5.1 Katherine G. Johnson

Katherine Goble Johnson emerges as an essential figure in *Hidden Figures*, described as exceptionally intelligent from early age. Her academic capabilities helped her advance to the high school on the campus of the West Virginia State College at the age of 13 and later when she was 18, she attended the college with a full academic scholarship. Before working for NASA, her passion was teaching at a black public school in Virginia. (SHETTERLY M. L., 2016)

While Katherine's presence is felt early in the narrative of the book, it isn't until chapter 8 (p. 69) that her character is explored more deeply, offering insights into her upbringing as one of four children and the hardships she faced due to her first husband's illness. (SHETTERLY, 2016)

Notably, her distinctively shaped glasses are meticulously described, a detail cleverly incorporated into the cinematic adaptation where she habitually pushes them up on multiple occasions. Additionally, the mention of a pearl necklace she receives as an engagement present adds layers to her character, serving as a symbol of both tradition and societal expectations, which are subtly addressed in both versions during an office uniform discussion, where its presence is mockingly dismissed as uncommon for an African American woman. (SHETTERLY, 2016)

It is only speculative but, in my opinion, in the cinematic adaptation, Katherine could be considered the main protagonist. Although she is not the sole focus, her on-screen presence significantly surpasses that of her colleagues. Keeping in mind her introduction marking the opening scene of the movie, (MELFI, 2017) it is highly probable as Katherine's character is central to the storyline and her experiences would likely drive the plot forward. This decision to place her at the forefront sets the tone for the film and emphasizes her importance in a predominantly white, male-dominated workplace.

Both the book and the film portray Katherine's character consistently, yet they diverge in focus. The movie focuses more on the portrayal of her personal life whereas the book provides a more detailed account of her professional achievements and contributions to teaching, the National Advisory Committee for Aeronautics (NACA) and NASA.

5.2 Dorothy Vaughan

Dorothy Vaughan was a pivotal figure in the history of NASA, known for her exceptional skills in mathematics and leadership. She was the first to take a manager's position in NASA. Before her, most leading positions had been given to a white person, most likely a white male.

Her story is prominently featured in the book, as she appears in nearly half of the chapters, illustrating her significant contributions to the space program and her remarkable journey navigating the challenges of being an African American woman in a predominantly white and male environment. Through her perseverance and determination, Vaughan emerged as a trailblazer, paving the way for future generations of women in STEM fields. (SHETTERLY, 2016)

Her actions and contributions are detailed thoroughly, offering a comprehensive look at her role. In contrast, the movie adds less time to Dorothy's story. Notable scenes include one in a car where Dorothy expresses her frustration about performing tasks beyond her role without appropriate compensation, and another moment in a library with her sons. (MELFI, 2017)

While both mediums effectively portray her character, the book gives out information about her life, providing a richer context of her contributions and challenges. The movie however, while more concise, effectively encapsulates her significance within the broader narrative, highlighting key moments and struggles which define the character. Overall, both the book and the movie offer unique perspectives on Dorothy's story, allowing audiences to appreciate her strength and resilience in different ways. The combination of both mediums provides a comprehensive understanding of her impact and legacy.

5.3 Mary Jackson

Being the first female engineer of African American descent to enrol in her institution, Mary Jackson represents a significant achievement for the black community. Mary is described as a powerful woman with a keen sense of humour, a distinct vision, and a great deal of ambition. She is unafraid to engage in controversy or conflict, often to assert her principles.

Her direct approach is balanced with her portrayal as a devoted mother, advocating not only for her rights but also those of her sons. In chapter 19 her thirteen-year-old son participates in a rally, and with her help and support, he achieves his victory with grace. (SHETTERLY, 2016)

In the movie, Mary is depicted by Janelle Monáe as a confident young woman with ambitions and a sharp tongue. She stands out as the most confident and assertive out of the three main leads. Both the book and the adaptation capture Mary's rather dynamic character and spirit with great effectiveness, showcasing her as a formidable force in both her personal and professional life.

Her character serves as a powerful symbol of resilience and determination, inspiring audiences to stand up for what they believe in. Her portrayal in both the book and the movie highlights the importance of fighting for justice and equality, making her a memorable and impactful figure in history.

5.4 Other characters

This chapter explores a number of characters that are important to either the movie or the book, but not necessarily both. While some of these characters are entirely fictional, others could only exist in a single media. By exploring these characters and their respective roles within the narrative, we gain insights into the creative choices made by the filmmakers and authors, as well as the ways in which storytelling can diverge between different mediums.

5.4.1 Mr. Harrison

Although Mr. Harrison might be adored by many for his great leadership and his sincere support of Katherine shown in the movie, he is of fictional origins. Mr. Harrison is only a fictional creation of Theodore Melfi, formed with the traits and responsibilities of three different NASA directors. The real leader of the Space Task Group was none

other than Robert Rowe Gilruth, an American aerospace engineer. That is also the reason for the lack of mention of him in the book. (SHETTERLY M. L., 2016)

Played by Kevin Costner, his character portrays a rather peculiar role as the leader of the Space Task Group. The portrayal of Harrison's character in the movie may have resonated with audiences due to his strong leadership qualities and unwavering support for Katherine. Despite being a fictional creation, his character serves as a symbol of inspiration and mentorship in the film. (MELFI, 2017)

The character of Harrison was designed to streamline the narrative and make it more accessible to a wider audience. By combining the qualities of multiple NASA directors into one character, the film was able to effectively convey the challenges faced by Katherine and her colleagues in a cohesive manner.

5.4.2 Karl Zielinski

This character is an alias for Kazimierz Czarnecki, or Kaz for short, who was an aerodynamics engineer known for his dedication and encouragement towards Mary Jackson's engineering aspirations or anyone else in his presence. While briefly mentioned in chapter 14, his impact on Mary's career is profound. Having collaborated with her for many years, he played a supporting role in fostering her ambitions within the field of engineering, highlighting his significance as a supportive mentor and colleague. (SHETTERLY, 2016)

He is more of a background character; however, his role seemed important enough to mention him here for the impact he had on her career. His guidance and encouragement were invaluable to her success. It also emphasizes how crucial it is to avoid making assumptions or generalizations about people, regardless of their gender or race, white or black. It is essential to judge individuals based on their character and actions rather than stereotypes.

It's possible that his name has changed somewhat to make it simpler to pronounce. Given that he is a Polish American by birth, some may argue that it would be more sensible to just change his roots in order to prevent concerns about his accent. It is up to speculation to determine this fact. (BARR, 2017)

5.4.3 Miriam Mann

In the book, a character named Miriam is frequently mentioned, adding another layer to the ensemble of 'hidden figures.' Another yet underrecognized contributor, Miriam's story enriches the narrative with additional insights into the challenges and triumphs of the women behind the space race.

However, she does not make an appearance in the movie adaptation. One of the reasons might be the resemblance between Miriam and Mary. Additionally, the film might have faced constraints in incorporating a fourth major lead, given the complexity and length limitations inherent in cinematic storytelling. While including more women like Miriam could provide a richer portrayal of the contributions made, filmmaking must balance narrative depth with practical constraints. (McFarlane, 1996)

The director chose to introduce her character in an unconventional yet striking manner during a memorable scene where Mr. Harrison tears down the 'Coloured Bathroom' sign. (MELFI, 2017) This moment starkly contrasts with how the book portrays a similar act of defiance: Miriam boldly walks into the cafeteria, casually remarks 'There's my sign for today,' (2016, p. 44) and surreptitiously slips a similar sign into her purse. She doesn't stop there; later on, she daringly removes the 'Coloured Computer' sign as well. These acts in the book and film underscore her quiet yet resolute challenge against the discriminatory practices of the time, highlighting her courage and determination to effect change in her own unique way. (McFARLANE, 1996)

5.4.4 Vivian Mitchel and Paul Stafford

The character Vivian Mitchell, portrayed by Kirsten Dunst, embodies the views and attitudes of certain white women who held managerial positions during that era. However, it's important to note that Vivian Mitchell is a fictional creation and does not represent any specific historical figure. Rather, she serves as a composite character, crafted to depict the broader societal dynamics and challenges faced by African American women working in segregated environments. (ELLIOTT, 2003)

Vivian Mitchell's character provides insight into the complexities of race and gender relations in the workplace during that time period. Through her interactions with the main characters, the film highlights the subtle ways in which racism and discrimination were perpetuated by individuals like Vivian.

Similarly to her, the character of Paul Stafford, who is also fictional, also demonstrated unconscious bias and microaggressions towards his colleagues, but from a white male perspective. The film ultimately serves as a powerful commentary on the pervasive nature of systemic racism in society.

Fortunately, the movie shows them both going through a certain character development that enables them to examine their own prejudices and strive to become more accepting of others. This growth in self-awareness and empathy allows them to challenge the status quo and work towards creating a more inclusive and equitable environment for everyone. Through their personal journeys, the film offers a hopeful message of redemption and transformation in the face of ingrained societal norms.

6 Comparison of the scenes

In this chapter, we proceed with a detailed comparison of select scenes from the movie with their counterparts in the book or their reality. By comparing these narratives, we aim to uncover the nuances of artistic interpretation and the constraints of cinematic adaptation. This analysis will not only highlight the creative liberties taken in the film but also shed light on the authenticity and historical accuracy of the events and characters depicted. Through this exploration, we seek to understand how these adaptations influence the viewer's perception of the story's core themes and real-life implications.

6.1 The bathroom sign

Throughout the narrative, the presence of coloured signs presents various challenges. A pivotal scene in the movie unfolds when Mr. Harrison defiantly tears down the coloured bathroom signs, declaring, 'We pee the same colour.'(2017) However, it's worth noting that Mr. Harrison is a fictional character, raising questions about the historical accuracy of such an event. Interestingly, the book does not depict anyone tearing down the signs; instead, it portrays Miriam's acts of rebellion through multiple instances of sign theft.

Indeed, the portrayal of Katherine's frequent disappearances for bathroom breaks in the movie raises questions about historical accuracy. In reality, the situation was different; while the bathrooms were indeed segregated further away from her workspace, they lacked distinct signs indicating segregation. Katherine just kept using the white bathrooms without awareness of their intended segregation. (JOHNSON, 2020)

During the movie, Katherine politely asks Vivian about the bathrooms and gets a simple response of 'I don't know where your bathroom is'. (MELFI, 2017) In the book, it is Mary who finds herself desperately searching for a coloured bathroom, highlighting one of many instances of racism prevalent at the time. As she seeks guidance from the secretary, hoping to locate the designated facilities, the woman responds callously, dismissing Mary's inquiry with harsh words, a stark portrayal of the discrimination faced by African Americans in segregated spaces. (SHETTERLY, 2016)

6.2 The Mercury 7 conference

While there is only a brief mention of the conference in the book, the movie adeptly captures the essence of the event. The Mercury 7 conference was a pivotal moment in the history of space exploration, bringing together the first group of American astronauts selected by NASA. The film portrays the tension and competition among the astronauts as they wait for a chance to make history and become the first Americans in space.

Details such as the seating arrangement in alphabetical order and Mr. Glenn's triumphant gesture of lifting both arms are portrayed with precision, adding authenticity to the scene. These nuances not only enhance the visual storytelling but also provide insight into the dynamics and atmosphere of the conference, offering viewers a glimpse into the historical context surrounding the scene. (see Figure 1 in Appendices)

6.3 Katherine and the meeting room

This scene beautifully embodies Katherine's character, showcasing her inquisitive nature and determination. Katherine's own admission that she liked to ask questions whenever she had the chance reflects her proactive approach to seeking knowledge. Her colleagues and surroundings have become accustomed to this trait, underscoring her reputation as someone unafraid to challenge the status quo. (JOHNSON, 2020)

The scene also raises the intriguing question of whether Katherine was intentionally led into the meeting, hinting at the possibility that she might have been the first woman granted access. This revelation adds another layer of significance to the moment, highlighting the groundbreaking nature of Katherine's presence in the meeting.

Interestingly, while the book and the movie both depict this scene, the difference lies in the individual who facilitates Katherine's entry into the meeting. Despite the differences, the message remains consistent: Katherine's undying spirit and intellect paved the way for her to break barriers and make history. (COONEY, 2017)

6.4 Mary and her engineer carrier

Indeed, not everyone exhibited disrespect towards these talented women. Mary's exceptional abilities left a lasting impression on Mr. Kaz during their interaction, showcasing her determination and aptitude. His recognition of Mary's potential and his support for her aspirations played a crucial role in her journey towards achieving her

engineering diploma. This act of encouragement highlights the importance of allies and mentors in fostering the success of underrepresented individuals in their fields. (SHETTERLY, 2016)

Mary also did not need to obtain a court order to attend the all-white high school in real life. Instead, she sought an exception from the city of Hampton, which was granted. This happened in 1958 and marked a historic milestone, as Mary became NASA's first black female engineer, illustrating her perseverance and trailblazing spirit in breaking down racial barriers and paving the way for future generations. (Mary W. Jackson)

6.5 Dorothy and the IBM

Dorothy's foresight and leadership are showcased as she recognizes the inevitability of integration. Despite the challenges and resistance faced, she confidently declares, "Integration is going to come," demonstrating her belief in progress and equality. Dorothy's actions and words were instrumental in pushing for change and diversity within NASA, setting an example for others to follow in the fight against discrimination. (SHETTERLY, 2016)

Dorothy's proactive approach extends beyond her own advancement; she takes it upon herself to learn and train her colleagues, ensuring that everyone in her sector is prepared for the changes ahead. Through her managerial skills and forward-thinking mindset, Dorothy not only secures a future for herself but also empowers those around her, leaving a lasting impact on their careers and the broader movement towards integration. (COONEY, 2017)

6.6 Dorothy in the library and the demonstration

In this rather disheartening scene, Dorothy takes her sons to the library, but they venture into the white section due to the lack of specific books in the coloured section. This act of crossing boundaries highlights the era's harsh racial segregations, and their attempt to access information results in them being escorted out by a policeman. This moment underscores the systemic barriers faced by African Americans, even in educational settings. Later, in a subtle act of defiance and resourcefulness, Dorothy reveals a book she has 'borrowed' from the library while sitting in the back of a bus. This act, though small, showcases her quiet resistance and determination to provide for her children and educate herself despite the oppressive restrictions of the time. (MELFI, 2017)

The library scene is preceded by a powerful demonstration against segregation, adding depth to the narrative. This protest showcases the broader social struggle occurring during this period, emphasizing the harsh realities of systemic racism. It sets a backdrop for Dorothy's subsequent act in the library, highlighting her personal resistance within a larger movement fighting for equality and justice. This contrast between public activism and personal acts of defiance effectively illustrates the multi-faceted nature of the battle against segregation and the courage required to challenge entrenched societal norms.

7 Alignment with the timeline

In addition to the portrayal of the characters and their experiences, it's worth noting that while "Hidden Figures" offers a compelling narrative, there are multiple instances where the timeline does not align with historical facts. These variances, though potentially minor in the grand scheme of the story, underscore the challenges inherent in adapting real-life events into a cohesive cinematic experience. It prompts reflection on the delicate balance between artistic license and historical accuracy in filmmaking, inviting audiences to consider how the narrative constructs a broader cultural understanding of the past.

7.1 The first scene

Its purpose is to introduce the main character Katherine Goble. Portrayed as a small girl walking in between the trees. Her parents are faced with a hard decision whether to let their daughter to study in high school at the age of 13. In the movie however, the date stated does not correspond with the book nor reality. (MELFI, 2017)

In actuality, the conversation would have happened in 1929 or later, although the film portrays it as happening in 1926. Her parents stated she is enrolled in the sixth grade, which would indicate she is approximately eleven or twelve years old, based on the facts provided. That doesn't match with Katherine's birthdate as she was born on August 26, 1918. (SHETTERLY M. L., 2016)

This difference in dates between the movie and reality may have been done for dramatic effect, highlighting Katherine's intelligence from early age. It's important to remember that movies often take creative liberties with historical events for storytelling purposes. (McFARLANE, 1996)

7.2 Katherine's marriage

While it's accurate that Katherine Johnson and her husband Jim Johnson met and married through their church connections, the film adaptation of "Hidden Figures" adjusts the timeline of their relationship. In the book, their marriage takes place in 1958, which is about three years earlier than depicted in the movie. This alteration in timing is one of several adjustments the film makes for dramatic purposes, blending historical facts with narrative elements to enhance the storytelling. Such changes are common in cinematic

adaptations, often made to streamline the story or heighten emotional impact. (ELLIOTT, 2003)

These alterations can sometimes lead to misconceptions about the true timeline of events, but they are generally accepted as necessary for creating a compelling narrative on screen. In this instance, it helped with developing the plot and tension before the most important event of the movie. Overall, the film adaptation of "Hidden Figures" successfully captures the essence of Katherine and Jim Johnson's relationship, even if some details have been adjusted for storytelling purposes.

7.3 Mary and her work with Kaz Czarnecki

While the movie's narrative starts in 1961, Mary has been collaborating with Mr. Czarnecki since the late 1950s. This implies that the issues she had with her schooling and her technical pursuits occurred far earlier than the film suggests. As mentioned in her biography (Mary W. Jackson) she became the first black female engineer in 1958.

This change was probably made to fit the narrative of the film. It is important to recognize the significance of Mary's accomplishments in breaking barriers and paving the way for future generations of women in STEM fields. The film may have condensed timelines for storytelling purposes, but it is crucial to acknowledge the true historical context of Mary Jackson's groundbreaking achievements.

7.4 The calculations for Friendship 7

It has been demonstrated that IBM made a mistake in its computation just prior to the Friendship 7 rocket's take-off. This led to a brief panic and Mr. Glenn's well-known comment, "Let's get the girl to check the numbers." the smart one. In actuality, something comparable took place. But Katherine had done her math more properly, well in advance of take-off. Mr. Glenn also made a similar statement about verifying the numbers with her: "If she says they're good, then I am ready to go." (JOHNSON, 2020)

Katherine Johnson's meticulous calculations were essential in ensuring the safety of John Glenn. The incident with IBM's miscalculation prior to Friendship 7's take-off highlights the critical role that Katherine Johnson played in ensuring the success of the mission. Her accuracy and attention to detail were unmatched, proving her expertise in a male-dominated field. This incident solidified her reputation as a brilliant mathematician and crucial team member at NASA.

8 Relationship between the main leads

This part talks about the relationship that was portrayed in the movie between Katherine G. Johnson, Mary Jackson, and Dorothy Vaughan. The movie showcased the strong bond of friendship and support among the three women as they navigated challenges and discrimination in the workplace. Their unity and friendship served as a powerful example of resilience and determination in the face of hardship.

During the movie, there is a strong relationship portrayed between Katherine, Mary, and Dorothy. From going to work together on a daily basis, working with each other, and supporting each other, to partying together and attending parties and celebrations together. Their friendship was a central theme that highlighted the importance of solidarity and sisterhood in overcoming obstacles. The movie emphasized the significance of having a strong support system for achieving success and breaking barriers. (see figure 2 and 3 in Appendices)

In reality, they were not on such friendly terms, and while they worked in the same place, they rarely spoke to each other outside of work. They were merely acquaintances. Their relationship was purely professional, lacking the deep bond portrayed in the movie. Despite their interactions at work, they did not share a personal connection beyond their professional duties. (SHETTERLY M. L., 2016)

A few casualties are listed in the book, and their real-life experiences most likely served as the basis for some of the scenarios. Based on my observations, it appears that the filmmaker selected these characters based on their accomplishments and emphasized the influence of their acts on each other by creating the illusion of a deeper relationship. It also contributes to the atmosphere because, at the time, many other women who were like them worked for NASA.

9 Conclusion

This thesis examined the film adaptation of Margot Lee Shetterly's "Hidden Figures," which depicts the lives of three women: Katherine Johnson, Dorothy Vaughan, and Mary Jackson. It also explored the historical context of the time period it represents and the impact it has on the audience's understanding of history.

After thorough research, it was concluded that the film adaptation of "Hidden Figures" deviates from its literary source by condensing timelines, simplifying complex scientific concepts, and adding dramatic elements for entertainment purposes. These alterations were likely made to appeal to a wider audience and create a more engaging cinematic experience while still capturing the essence of the true story.

The narrative of the women in "Hidden Figures" is crucial to be shared because it sheds light on their significant contributions to history that were previously overlooked. The film contributes to the broader impact of this storytelling by bringing their achievements to a wider audience and inspiring future generations, particularly young girls and minorities, to pursue careers in scientific or other fields.

The film adaptation effectively portrays the racial and gender discrimination experienced by the women at NASA in the 1960s, showcasing the obstacles they conquered to achieve groundbreaking progress in space exploration. This portrayal not only enlightens viewers on a lesser-known aspect of history but also prompts them to reevaluate traditional narratives and recognize the importance of diverse perspectives in shaping our understanding of the past.

Both the book and the movie adaptation of *Hidden Figures* are made with a commendable level of detail and dedication to storytelling. Although the narrative structures suit their formats, stricter adherence to the actual timeline could improve the authenticity and historical accuracy of the portrayal. It's crucial to acknowledge that the modifications in the film are aimed at cinematic storytelling, often requiring departures from precise chronology for dramatic impact.

Although the movie states it is "based on true events," it does not assert full historical precision. In conclusion, both the book and the film are valuable for celebrating and recognizing the significant contributions of Katherine Johnson, Dorothy Vaughan, and Mary Jackson. They provide an inspiring, if shortened, narrative of a crucial period

in American history while calling attention to these little-known individuals and their enormous impact on space exploration.

The book offers a more detailed and accurate account of the lives and accomplishments of these remarkable women, while the film takes creative liberties to enhance the emotional impact of their story. Both mediums effectively convey the message of perseverance, determination, and breaking barriers with their designated roles.

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Appendices

Figure 1

URI, John. *60 Years Ago: NASA Introduces Mercury 7 Astronauts* [online]. [cit. 2024-04-17]. Dostupné z: <https://www.nasa.gov/history/60-years-ago-nasa-introduces-mercury-7-astronauts/>

Figure 2

Hidden Figures [film]. Directed by Theodore MELFI. Twentieth Century Fox. 2018. Screenshot 00:27:26.

Figure 3

Hidden Figures [film]. Directed by Theodore MELFI. Twentieth Century Fox. 2018. Screenshot 00:48:17.

Figure 4

Mercury Friendship 7. *National Air and Space Museum* [online]. [cit. 2024-04-18]. Dostupné z: https://airandspace.si.edu/collection-objects/capsule-mercury-ma-6/nasm_A19670176000

Figure 1 - Mercury 7 conference.



Figure 2 – An evening car scene



Figure 3 – Meet up in the house



Figure 4 – The capsule

