Enhancing Historical Narrative through Application of Staging Techniques in 3D Animation "How Islam Spread Around the World"

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***Abstract*— This research addresses the challenge of effectively conveying the historical narrative of Islam's spread through 3D animation. The primary objective is to explore the potential of staging techniques in enhancing message delivery and audience engagement. Staging, a method that emphasizes scene element arrangement, character placement, and camera perspective, is pivotal for a clear and impactful narrative. Through this technique, elements are organized to guide viewers' attention and emphasize the intended message. This study demonstrates that careful alignment of characters, backgrounds, and camera angles, combined with visual symbolism representing Islamic values, can significantly enhance the narrative's depth and viewer comprehension. Experiments reveal that strategic staging not only strengthens the storyline but also boosts audience understanding. The research underscores the importance of staging in 3D animation, especially for intricate narratives like the spread of Islam. It offers insights into the advantages of staging over traditional methods, emphasizing its role in narrative comprehension, deeper meaning conveyance, and audience engagement.**

Keywords*— *staging techniques, 3D animation, islamic history, visual symbolism.

I. INTRODUCTION

The application of 3D animation techniques has become an increasingly popular method for conveying historical narratives, offering the potential to engage audiences in a visually compelling manner. However, it is not without its challenges, especially when attempting to communicate complex historical events, such as the spread of Islam. The challenge lies in how to effectively present this intricate historical narrative through 3D animation, ensuring that it resonates with the audience while maintaining historical accuracy.

In the process of making this animation we use an animation method that applies staging techniques. Staging in 3D animation refers to the placement of characters, objects and cameras in a scene to convey a certain mood, attitude or idea to the viewer [1]. This is an important aspect of developing 3D animated films as it helps ensure that the narrative or the poses or actions of the characters clearly communicate to the viewer the attitudes, moods, reactions or ideas of the characters as they relate to the story and continuity of the film. storyline. Using the correct staging method, animators can communicate well to the audience about the story that will be conveyed to the audience. Staging really helps animators in conveying the essence of the animation to the audience. Based on the definitions and advantages of the staging method, we raise a research entitled The Use of Staging Techniques in Making 3D Animation 3D "Bagaimana Islam Menyebar ke Seluruh Dunia".

The main aim of this study is to explore ways in which staging techniques can be used to enhance message delivery and audience engagement in the context of 3D animation focused on spreading Islam. In this context, key elements such as scene setting, character placement, and camera perspective are the main focus of research. By positioning characters, backgrounds and cameras in rhythm, animators can create scenes that the audience can understand.

Through extensive experimentation and in-depth analysis, this study aims to provide insights and recommendations to 3D animators regarding the utilization of staging techniques for depicting Islamic history in their animations. The findings of this study are expected to enhance the visual and narrative quality of 3D animated films, while assisting filmmakers in creating immersive and captivating experiences for viewers. By understanding and effectively implementing the principles of staging, animators can optimize the use of space, lighting, camera angles, and character movements to reinforce the storytelling and evoke desired emotions. Practical recommendations will be offered, including composition techniques, object placement, and camera perspectives that can enhance visual appeal and guide the audience's attention.

The application of staging techniques in 3D animation, as evidenced in prior research such as "Penggunaan Prinsip Staging dalam Proses Pembuatan Film Animasi 3D Profil I Gusti Ketut Jelantik Sang Pahlawan Nasional," provides valuable insights that are highly relevant to the present study on the historical narrative of Islam's spread. By adjusting the

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background, character poses and camera, errors in the animation process can be minimized and the focus on the background is maximized to strengthen the content of the story [2]. In the context of the historical narrative of Islam's global spread, this approach becomes especially pertinent in addressing the challenges of conveying a complex historical account in a visually engaging and educational manner. It is within this framework that this current research aims to explore the potential of staging techniques in 3D animation and how they can be employed to improve message delivery and enhance audience engagement.

The implications of these previous findings, together with the objectives of the present research, underline the significance of the application of staging techniques in 3D animation, not only in minimizing errors and stiffness but also in creating a comprehensive, engaging narrative that resonates with the audience.

II. MATERIAL AND METHOD

The process of making 3D animation "Bagaimana Islam Menyebar ke Seluruh Dunia" requires several characters according to the scene and setting. Background creation and character modeling are made with the help of Blender software, a special software for 3D modeling and animation. The background of the place needed to make the animation is made based on the geographical conditions. The setting, which takes place in a desert, suggests that the scene takes place in the Middle East, requiring an Arab characters. For a setting that takes place in a tropical climate like Indonesia, it is necessary to represent the characters of the region, in this case the characters of the Javanese and Madurese. It is important also to consider about character historical accuracy beside of the character cultural identity.

The result of making the character is modified in such a way based on the scene played by the character. For example, in one scene, there is an Arab character wearing leather vest armored with weapons and shields. This character is only used in the battlefield-related scene.

In the method of making characters and backgrounds using the low poly method. The use of the low poly method refers to a 3D modeling style that uses the minimum number of polygons to create a simple but meaningful display [3]. The combination of using low poly materials and staging techniques in making this animation aims to speed up the process of making animations and increase the number of scenes to enrich visual assets that attract the audiences.

III. SYSTEM DESIGN

The process of creating the 3D animation titled "How Islam Spreads Around the World" encompasses multiple phases. Initially, the conceptualization phase involves determining the core idea, scripting, and designing the animation's narrative. This is followed by storyboard creation, object and character modeling, and the selection of appropriate materials and lighting [4]. Subsequent to this preparatory phase, the production phase commences, recognized as the most time-intensive segment of the animation creation process [5]. Within this phase, various sub-stages such as modeling (shaping animated objects), material application (coloring), rigging (embedding skeletal structures to animate objects), and animation (bringing objects to life) are executed. The culmination of this process is the rendering stage, where the animation is brought to life. The final phase involves editing, where all the scenes crafted during production are amalgamated and refined to yield the finished animation [5].

A. Determining Ideas, Scripts and Animation Story Designs

In the early stages of making animation, the important step is to determine the idea that will form the basis of the animation story. The idea is the result of thinking about the animated story that will be made. The idea is the core of the story that has a significant influence on the required budget [6]. This idea became the foundation for writing scripts and story designs. Scripts or scripts have an important role in keeping the animation that is made consistent with the concept that has been set, as well as helping in arranging the sequence of storylines. By going through the idea development process, story scripts can be made, and then an interesting and appropriate story design is produced so that it is feasible to be used as an animated story [7].

B. Making Story Board

Storyboard acts as a visually arranged animated story sketch. Storyboard is a planning tool used to virtually show the storyline of animation development [8]. Animations can be made by referring to the storyboard guidelines that have been made before. The importance of the storyboard in making animation lies in its function to describe a series of stories or descriptions of each scene so that it can be understood by the user. In a storyboard, all multimedia objects and links to other scenes can be included to provide a clear picture of the animation to be created [5].

C. Character and Object Modelling

In the modeling process, the term "polygon mesh modeling" is known, which is the stage of forming the shape of an object by modifying the position of points or sides on a polygon mesh [9]. The purpose of this modeling process is to create a size and shape of the object that can be seen visually. In Blender software, object modeling can be done via Edit Mode by using various functions such as extrude, scaling, and grab. In addition, users can take advantage of additional tools such as the Mirror and Subdivision Surface modifiers to shape objects according to the creator's wishes.

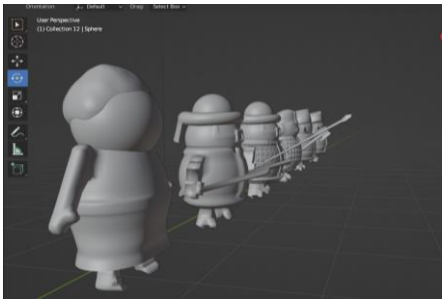

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Fig. 1. Overview of the character modelling

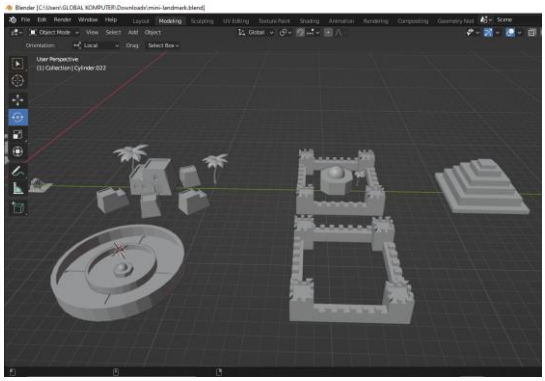

Fig. 2. Overview of the map assets modelling

D. Texturing and Lighting

Coloring of animated objects in Blender can be done using the material tools available in the property column and UV map in the Blender software. This stage involves using the material tools available in Blender. Next, the step that must be taken is the lighting of the animated object. Lighting aims to give a realistic impression on animated objects [10]. By applying the right lighting, animated objects can look more alive and get the right feel. After going through these two stages, animated objects that have been given color and lighting can proceed to the rigging and animation stages.

Fig. 3. Character texturing and lighting

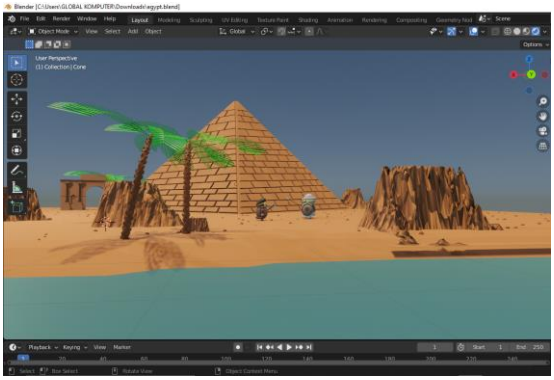

Fig. 4. Overview of environtment texturing and lighting

E. Rigging

Rigging aims to add a series of bones and controls to the character objects that have been created, so that animators can manipulate and animate characters more easily [11]. Rigging allows the animator to give the necessary character poses in the animation process. With this rigging process, animated characters can move and interact with their environment more flexibly and realistically.

Fig. 5. Overview of character rigging into scene

F. Animation

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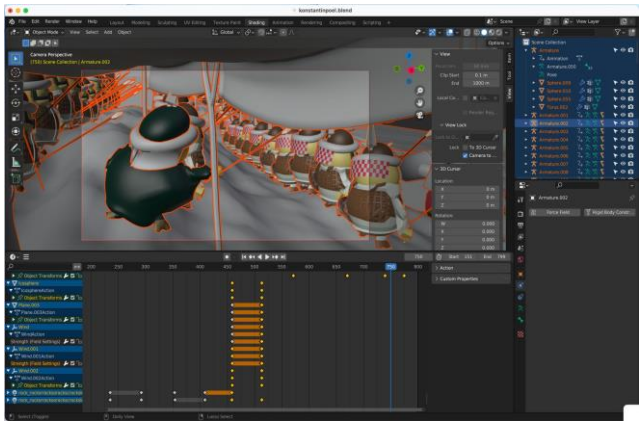

Fig. 6. Animating character and its rigging armature to scene

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

G. Rendering

The rendering phase involves processing the animated scene which includes texture, geometry, perspective, and lighting using a rendering program. The program will generate a digital image of a pre-designed scene. In the Blender software, there

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are three types of rendering engines, namely Blender Render, Blender Game, and Cycles Render. Cycles Render is a great choice for 3D animation rendering because it has good light imaging capabilities, which produce realistic and appealing visual results for the viewer[12]. By going through the rendering stage, the animation can be used as a video file that is ready to be broadcast.

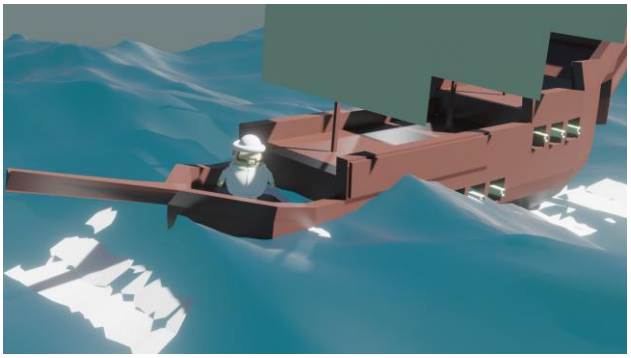

Fig. 7. Image render of the scene that use staging method

H. Final Editing

The final stage of the animation creation process is the final editing stage. The final editing stage is the final stage of editing the previously rendered animation scene. At this stage, all rendering files generated during the production stage are merged, and audio files are added to them. The merging of rendering files that contain animated scenes with the addition of audio elements will produce animations that are ready to be presented to the audience. The post-production stage transforms the ideas contained in the storyboard into an interesting animated story that conveys a meaningful message. By going through this stage, animation can communicate stories and messages to the audience in an effective way.

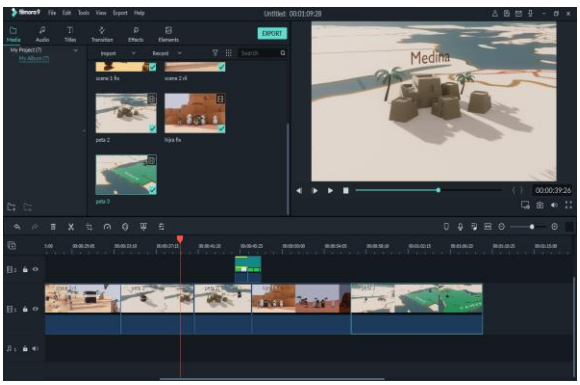

Fig. 8. Video editing to merge all scenes into one single video

IV. RESULT AND DISCUSSION

The primary objective of this study was to explore the efficacy of staging techniques in creating 3D animations, specifically focusing on the narrative of how Islam spread throughout the world. The animation process, which spanned over three months, was a collaborative effort involving a team of four, including animators, scriptwriters, and sound editors. The animation's meticulous design and execution were evident in scenes such as the portrayal of the "Masjid Demak," the "Sea Voyage" scene, the "Conquest of Egypt" scene, and the visualization of the historical map using staging. [5].

A. Scenes from the Animation which Use Staging Method to Emphasize Historical Narrative

Fig. 9. Staging method is used to scene portraying “Masjid Demak”

The "Masjid Demak" scene, a pivotal moment in the animation, employs the staging method to capture the essence of a significant historical event. The Masjid Demak, or Demak Mosque, holds a special place in the annals of Islamic history in Indonesia. As one of the oldest mosques in the country, it stands as a testament to the early spread of Islam in the region[13].

The staging method, in this context, serves to highlight the significance of this interaction. The positioning of the sufi or wali, the attentive posture of the local nobles, and the backdrop of the Masjid Demak all work in tandem to convey a mood of reverence, curiosity, and mutual respect. The strategic use of lighting accentuates the central figures, drawing the viewer's attention to the preacher and his audience. Camera angles are employed to offer a panoramic view of the mosque, emphasizing its architectural grandeur and historical significance.

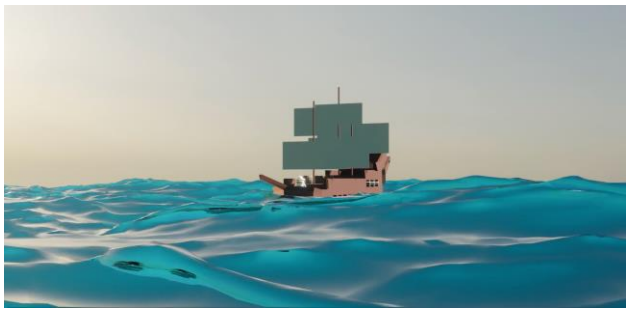

Fig. 10. Staging method in “Sea Voyage” scene

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The "Sea Voyage" scene in the animation vividly captures the adventurous spirit and determination of Islamic traders and scholars as they embarked on their journeys across the vast expanse of the Indian Ocean. The Indian Ocean, historically, has been a melting pot of cultures, trade, and knowledge exchange, with Islamic merchants and scholars playing a pivotal role in this vibrant intercultural dialogue[14].

In the animation, the staging method is adeptly used to depict the vastness of the ocean and the challenges faced by these seafarers. The scene showcases ships with intricately designed sails, symbolizing the advanced maritime technology of the time. Onboard, traders can be seen discussing their wares, while scholars are engrossed in their manuscripts, signifying the dual purpose of these voyages - commerce and the dissemination of knowledge

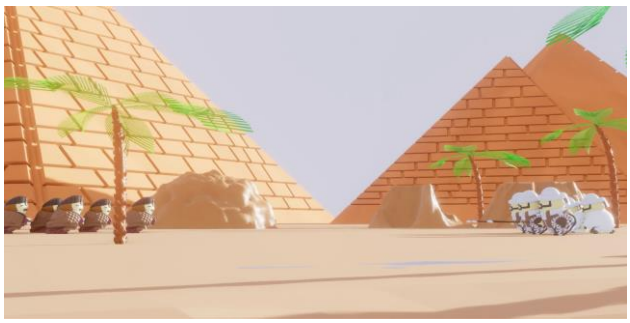

Fig. 11. Staging method in “Conquest of Egypt” scene

The "Conquest during Caliph Umar's Era" scene is a vivid representation of a defining moment in Islamic history. Utilizing the staging method, the animation captures the intensity and significance of the battle between the Muslim and Byzantine armies, set against the timeless backdrop of the pyramids. This choice of setting, with the pyramids symbolizing ancient civilizations and their grandeur, serves to contrast the emerging Islamic influence and the historical transition taking place.

Under Caliph Umar's leadership, the Islamic empire saw rapid expansion, with the Muslim army achieving notable victories[15]. The confrontation with the Byzantine forces was a testament to the strategic brilliance and valor of the Muslim warriors. In the animated scene, the staging method meticulously delineates the positioning of the two armies, the fervor of the soldiers, and the overarching strategy of the battle. The use of lighting and camera angles emphasizes the central figures, likely representing key commanders, while also providing panoramic views of the pyramids and the battlefield, enhancing the scene's historical and emotional depth.

B. Historical Visualization Map using Staging

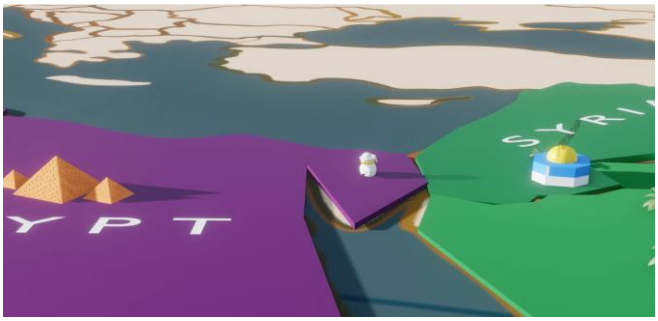

Fig. 12. Islamic Forces en route to Egypt portrayed by map and character

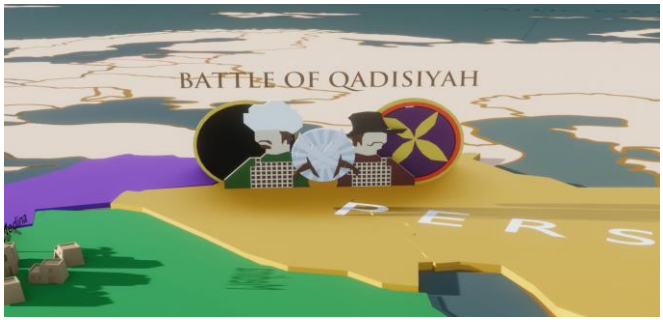

Fig. 13. Animation of army coat of arms portraying battle from each side

Those figures depict important events in the history of the spread of Islam. The use of staging and geopolitical map in visualizing historical timelines aims to provide a context in which historical events took place and to easily show who the perpetrators of history were.

C. Audience Response

In gathering audience responses to a 3D animation depicting the spread of Islam utilizing the staging method, we focused on teenagers aged 13-17 from SMA-SMP Sabilurrosyad Gasek Malang. The main reason we choose them as audiences is that they are Islamic student currently studying and living in Islamic Boarding School that have great interest on Islamic History.

TABLE I. AUDIENCE RESPONSES TOWARD ANIMATION

Aspek	Score			
	Very Good	***Good***	***Fair***	***Poor***
Pemahaman Cerita	3	2	2	0
Penyajian Animasi	2	3	2	0
Akurasi Informasi	4	1	2	0
Keseluruhan Pengalaman	2	4	1	0
Total	11	10	7	0

The feedback from this target audience proved invaluable in assessing the effectiveness of the animation's visual presentation and narrative delivery. The respondents, immersed in the captivating world of the animated depiction, expressed a

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heightened engagement and interest in the historical context of the spread of Islam. The staging method effectively guided their attention and heightened their emotional connection to the characters and events portrayed. The deliberate use of space, lighting, and camera angles showcased the significant moments in Islamic history, capturing the audience's imagination and facilitating a deeper understanding of the subject matter. The feedback collected from these teenagers emphasized the impact of the animation's immersive staging, which successfully conveyed the message and significance of the spread of Islam in an engaging and relatable manner.

V. CONCLUSION

The findings of this research indicate that the utilization of the staging method in 3D animation depicting the spread of Islam yields positive results in enhancing the visual and narrative quality of the film. The staging method effectively guides the audience's attention, strengthens the storytelling, and evokes the desired emotions. The animation's use of space, lighting, and camera angles successfully captures significant moments in Islamic history, engaging the audience and facilitating a deeper understanding of the subject matter. However, it is important to acknowledge that further improvements can be made in refining the staging techniques to create even more impactful and immersive experiences. Future research could explore innovative approaches to staging in 3D animation related to Islamic history, experimenting with different visual elements, and conducting audience studies to gather more comprehensive feedback. This will contribute to the continuous development and advancement of 3D animation techniques to effectively communicate the significance and message of Islam's spread to diverse audiences.

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