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## **FORMALISTIC AND NARRATIVE IN PROJECTION MAPPINGPAINTING: HABITAT**

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### **Abstract**

*The projection mapping painting work entitled 'Habitat' is a creative production through the MATRIX project which emphasizes on the global warming issues towards the Borneo butterfly species in Sabah. In par with the advancement of technology in the producing of creative artworks, 'Habitat' applies the combination of technology into paintings to create an innovation in the acceptance of creative painting work. This article is a review of the formalistic aspect principles and the narrative projection mapping painting which emphasizes on cinematography and interpretation of story in the 'Habitat'. The narrative chain is interpreted in the space and time according to the relevance of the materials experimented. In the context of using new digital media, artists need more research about a material to be featured in delivering a more effective narration.*

## Keywords

Formalistic, Narrative, Projection Mapping Painting, Habitat, Borneo Butterflies

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## 1. Introduction

Projection mapping is a new digital medium that is thriving in Malaysia this present time. Its success is driven by the ability to get the viewers involve directly in the physical and virtual space. Although projection mapping is considered as a new medium in Malaysia, its existence history began since 1969. The first record of projection mapping was recorded during the opening of the Haunted Disney Ride Disneyland. They used the fake head and body separately as a 3D object and 16mm film beamed onto an object to produce movements that appears real. Towards 2001, more artists used projection mapping in their works as a way for technological advances.

In par with the present technology, a painting that combines projection mapping is applicated in the context of awareness of the extinction of Borneo's butterflies. A projection mapping painting entitled Habitat is an alternative outburst in giving a new breath in the marketing strategy for giving awareness to the audience of the extinction of Borneo's butterflies. Furthermore, these visual artwork indirectly upholds the beauty of nature especially Sabah's nature in par with the advancement of technology and attracts attention of target groups so that they realize the awareness of existence animals which are almost extinct cause by human negligence.



Figure 1: The academic poster of Habitat

## **2. Digital Narration**

Story is the main element in human thinking and communication. (Schank, 1995) Tsou (2006) in his research stated that combination of digital narration in any artwork is a creative learning technique. Digital narration is a way of delivering of story through computer essentials and multimedia technology. The digital elements make the story more interesting for both children and adults. The two and three dimensional movement, music, sound effect, voice and story plot gives new breath to the story delivered. With the existence of digital technology, a lot of artists who consists of professional and amateur can share the creativity especially in protecting and giving knowledge about Borneo's nature to the community. The usage of this new media in a narrative interactive way deemed as a new medium that is different from other narratives form such as cinemas, theater performance and literature. Each form stated has its own uniqueness and differences that differentiates it from the one another. To deliverer a story in a two dimension surrounding is a challenge because it involves narrative elements and the audience's role, the form and type of story, the medium capacity and audience's interactivity and their appreciation level. Other than having a deep knowledge about the two and three dimensional world and digital actors, knowledge in narrative field, creative performances are also needed to create a system suitable to translate the narrative to visual surrounding.

Projection mapping or known as video mappings' an illusion technique which uses the light beam technology to an object or surface to create a virtual image. The light source that is used is from the light source of a projector. The image shown will be beamed in an uneven object to produce virtual image. Through this method, any image created on the screen will be shown and if the image is in 2D or 3D then the image produced will be in the same form. With specific software, a 2D and 3D object produced in virtual programmer's copies the real environment that is beamed. This software can interact with a transmitter to reflect the desired image on the surface of the object. This type of projection mapping is the most common used by digital art artists in advertising which can add dimension, optical illusion and definition of movement on static object. This video usually combined with audio to create a sea and listen narrative.

Until now, the technology of projection mapping is one of the most outstanding technologies that are specifically used in the advertising. The main idea is so the audience can

see the virtual world which is reflected by a computer. The audience can see the real world which is enhanced by the addition of two or three dimensional graphic depending on each other's view. This enhancement is achieved by adding virtual objects to the virtual elements presented. The audience will assume that the real and virtual objects are present together in the same place. In creating a projection mapping painting performance, there are three approaches that need to be considered. First, the production of painting Second, creating story that are capable of generating awareness to the audience. Third beaming the digital storyline in the form of projection mapping to the painting.

### **3. Formalistic Aspect**

The year of 1915 until 1935 has seen the birth of the term formalism from the Russian literary movement. It happens because of the confusion in searching for solution in the style and composition system of the creation of an artwork. The two figures in this literary field is Victor Shklovsky and JuriTynianov who became the main source at that time. They placed two main categories in formalistic produce of an artwork which is the emphasizing of the form and techniques that gives meaning of artistic style. In this formalistic theory, the contents are given the main emphasizing in delivering the content. (Dudley, 1976: 80) Technique manipulation designed by the artist can create something that is called integrity with a touch of art and will eventually drive the development of style and shape in formalistic system. Artistic approach can be molded by looking at the unique techniques in delivering narration.

The classical research of the formalistic theory Russia by Gareth Blyth concludes that the approach that is brought by the two Russian theorists is a phenomena and dynamic which eventually produce integration in the hierarchy system. (Karcz, 2002: 80). Understanding what is said, the formalist theory is centered to the artists itself and the awareness of the audience in the usage of artistic technique. It needs the awareness of the knowledge so that what is practiced can function as a part of producing of the artwork. This technique needs to be given emphasize in its construction of event perception, object or situation which is far from the usual condition of the audience. The start of formalism and realism began since the starting of the visual moving film making. Around the 18th century, human started to create tools that use optical illusions as a toy. Kaleidoscope was invented by Sir David Brewster in 1817. Kaleidoscope is a tube that uses two

mirrors to make a reflection of glass pieces of various colors. It is proven as the most popular optic toy that is created the entire century. Aiming to only function as a toy that uses optical illusion, it is then realized that projection mapping not impossible to create. The projection mapping animation also uses this approach in creating a narrative from the story chain that creates a block shot.

#### **4. Finding and Discussion**

Sabah is the second largest state in Malaysia. As the third largest island in the world, Sabah covers almost 72,500 square kilometers with the China Sea of length 72,500 kilometer located in west Sabah. Sabah is also known as The Land beneath the Wind as it is rich with its beautiful nature. The formalistic aspects in the projection mapping of 'Habitat' are present through the introduction of the beautiful nature and habitat exploration especially the Borneo Butterflies through an interesting visual representation.

Nature has been the habitat for a vast species of living creatures such as butterflies. There are a lot of species that inhabits the nature from the low to the high lands. Butterflies need sunlight as warmth for its body and also a suitable temperature for it to live. Therefore, there are a lot of butterflies that chooses a high humidity area with sufficient sunlight such as rivers and waterfalls.

The global warming has contributed to the decreasing percentage of population in certain areas. The butterflies are unable to survive in high temperature weather and this will cause death and the decreasing of the butterfly's population. The evident global warming is caused by the endless deforestation and logging. The logging issue has contributed threats to the weak species of butterflies.

Through this research of Borneo butterflies, a projection mapping artwork is produced which is entitled 'Habitat' by Suma Azeri (2015) In understanding formalistic aspect is discussed in understanding and approaching the creative artwork of Habitat. Observation towards the film language will also been done simply to understand the structural narrative of Habitat. The analysis towards the language structural of the film will explain Habitat artwork in a simple way from the aspect of cinematography, mise-en-scene, editing and audio.

#### **4.1 Synopsis of ‘Habitat’**

The projection mapping work of ‘Habitat’ depicts the awareness towards the nature conservation. At the beginning of the story of ‘Habitat’, the beauty of the nature that is free from human pollution is shown. Creatures living in nature are interdependent with each other. The butterflies become an agent of pollination and help in enhancing the beauty of the green landscape. The cocoon hanging from a leaf grows and becomes a butterfly. The fruits and flowers becomes the butterfly’s source of food. However, the beauty is contaminated by the logging done in the habitat. The butterfly and other creatures lost their shelter and cause the wildlife to extinct as a result of the deforestation, pollution and logging.

#### **4.2 Story Plot**

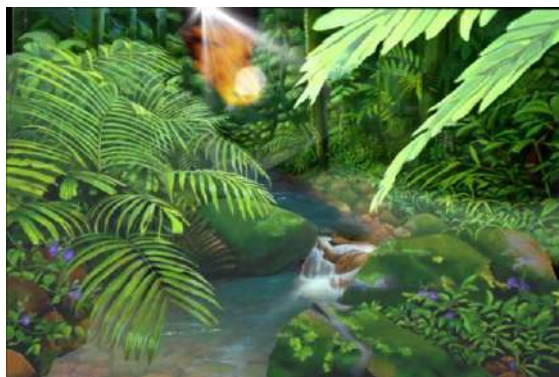
The story plot is the chosen story sequence by the artists based on the causes and effects. The plot needs to expand the story and offers a story development so that it can be followed by the audience clearly and more interestingly. Syd Field, in his book *Screenplay and the Screen Writer’s Workbook* has underlined a paradigm that has been used by a large group of script writers. According to Field (2006), film scripts have three structures of actions or also known as the three-act structure. The standard screenplay can be divided into three parts which is the beginning, conflicts and denouement.

As a whole, the ‘Habitat’ story plot is designed according to the chronology. This short projection mapping artwork with 00:01:39 duration has three parts which is the beginning, climax and denouement. In the beginning, the audience will be served with the presence of the main character and place setting. In the beginning of the plot of ‘Habitat’ projection mapping painting, it portrays the beauty of nature which is visualize through the sunlight and clear river flowing. In the beginning, the audience will be served with the presence of the main character and place setting. Butterflies can be seen fluttering and the cycle of life of a butterfly can also be seen from the cocoon until it becomes a beautiful butterfly.



**Figure 2:** *The beauty of nature that is portrayed in 'Habitat'*

The conflict continued with a scene of the logging and the pollution in the natural habitat. Human greed destroyed the beauty of nature in a blink of an eye because of the thirst of humans to development of modernization.



**Figure 3:** *Open burning and logging towards the nature*

This animation ended with the denouement. In many artworks, the denouement end when the main character managed to solve the conflict or problem in the story. However, in this artwork, the denouement happened when the open burning and logging causes living creatures to ran away and faces extinction. Through the denouement of this story, it unconsciously delivers a message about the importance of taking care of the natural habitat so that the wildlife is not extinct to the viewers.



**Figure 4:** *The butterflies leaving their natural habitat.*

### **4.3 Cinematography**

The word ‘cinematography’ comes from the Greek word which means writing using movement. Bordwell et al (2008) defines cinematography as a general meaning for all film strip manipulation by the camera in the photo shoot phase, production phase and the post-production phase. It is a process that takes the idea, words, action, emotion subtext, intonation and non-verbal communication forms and delivers it in a visual form. Cinematography has an important role and gives effect other than functions for recording the shooting. Cinematography also functions as a network of moving images which is recorded with a camera lens that shows the aspect of sharpness of the picture, the shooting pattern, the concord of the rhythm of objects combined (Brown, 2002). There are a few elements in cinematography and one of it is shots.

#### **4.3.1 Shot**

Shot is defined as a continuous take of images when the record button is pressed from the first time until the button is pressed again to stop the recording (Mascelli, 1965). There are three kinds of shot used in a film which is the size of the shot, the movement of the camera and the shot angle. These shots are combined by the editor to form a scene. These scenes will be arranged to create scenes and in the end becomes a film.

There are three main shot sizes in a film making which are the long shot, medium shot and close up shot. In this Habitat artwork, the director only uses one shot size which is the long shot. The long shot is used to depict the whole subject which is recorded full framed. These visual subjects that are seen in the picture frame ease the audience to interpret the number of characters involved, the place where the actions took place, the objects present in the scene and



the surrounding setting and the time setting in the scene. Director uses five transitions and one size shot ease the audience in understanding the beauty of story without addition of many shots.

#### **4.3.1 Mise-en-Scene**

Mise-en scene refers to the phrase used to picture the aspects of theatre design and film production which means the visual theme or narration. It also refers to any things that is placed and seen in the camera frame (Bordwell et. al, 2008) This 'Habitat' artwork is also not excluded from lifting this element to create emotions such as happy and sad. There are two components in the mise-en scene that will be analyzed in the Habitat work which is the set and lighting.

##### **(a) Set**

Set is a constructive which is build to show the time and place of the happening of a scene in an animation film. Although set is not appealing and are less prioritized, the presence of set is an element that help enhance development and understanding towards the story in the film. The real aim of a set is to decide the place and time of the happening of a situation. To build a set and its relationship with the story, there are four factors that have to be considered by the art director which is the time factor, geographical factor, social and economic factor and the tradition and moral behavior. These factors determine the building of a set in a projection mapping film.

For the 'Habitat' artwork, the set is created in the realistic painting form. In the painting, the audience can see the beautiful surrounding of Borneo's nature. It can be seen that there is a river and also plants. The water in this painting represents the water resource and life to living nature. The surrounding of the diorama is created to ease the narration without changing or adding the set. The changes in the place and time setting are made using the projection mapping specifically to an area. The changes shown with the usage of color manipulation as lighter colors are used to show the peaceful nature life such as blue and white while darker colors such as orange and red are used bgi menunjukkan destrcutio of nature.



**Figure 5:** *The changes in the time and place setting used on the Habitat artwork.*

### **(b) Lighting**

Lighting is an important element in cinematography because the beauty and strength of an image will be shown with a good lighting. The eyes will focus on the area with lights and this will determine how an object can be seen. The side lighting will depicts the dimensional depth and the texture of the surface of an object while the front lighting will make an object more compressed, equal and shows a smooth surface. Lighting also sets the mood, reality and fantasy effect (Pramaggiore, 2008).

The lighting is divided into two which is the bright lighting and the dim lighting. The observation towards the Habitat artwork finds out that the director used both types of lighting. In the this artwork, the director used different colours in the lighting to create mood or emotions. In the high-key lighting, the director used cheerful colours or bright such as white. These lighting can give the calm and beautiful feeling. These characters are moving freely because the space is bright and wide. The example of usage of lighting in Habitat artwork is the beginning. The director tells a story of a harmony life of nature with soft colours. The usage of soft bright colours creates a cheerful and harmony situation. The usage of bright lighting is also used to create a morning atmosphere.

The dim lighting is a lighting style that is formed using minimal lighting. Dim lighting is created in the artwork to create a sad and blurriness of a thing happening in a scene. The director uses a dull blue to show the emotion and actions of the whole situation. In the scene where

logging happens, a dull red is used as a metaphor to show habitat's emotion and expression where nature is threatened. The five shot gives strong lighting impact to the audience when the lighting is switched off gradually. This creates a dramatic impact thus creates sadness and dullness to the whole scene. The lighting is very important in a film including the animation film in creating the mood of the viewer.

#### **4.4 Time**

In a motion, the time is measured through the image frame which is 24 frames per second. In every shutter, there are a few image frames which follow the needs and desire of the creator. Every shutter gets the image that displays the situation. The editor is responsible in combining the shots in the animation to create scenes. The situation happens and develops according to the sequence that is created and wanted in the animation.

The whole duration of shots in 'Habitat' artwork is 00:01:32. The duration of the long shot intended to slow the tempo while the short duration is to fasten the tempo of the animation. In the shot where the Borneo butterflies fluttering away from their natural habitat, the editor fasten the tempo of the motion. It is suitable with the scene that needs a fast tempo to give the awareness effect for the audience. If the duration of the long shots is more then it will give a less awareness or panic effect on the audience. While in the beginning shot of the 'Habitat' artwork, the tempo of the motion is longer so that it can bring the audience into the situation of nature's life that is always in a safe state. The director is clever in manipulating the tempo so that the audience are entertained and appreciate the storyline in the painting projection mapping, Habitat.

#### **4.5 Audio**

Sound plays a role in aiding the visual to deliver a message that is wanted by the director especially in an animation film. Both elements which is visual and sound supposed to work together to form an animation. Sound in the animation can exist in various forms. Some of it are dialogues, monologues, interview, music, real sound effects, special sound effects and ambient sound. Soundscape in animation usually uses three different aspects but have a similarity which is music effect, sound effect (SFC or Sound FX) and speech. The three elements which is the dialogue, music and sound effect are correlated with the visual in an animation film.

In the 'Habitat' work, audio plays an important role in creating a happy and sad situation which are suitable with the scene. These feelings are hard to achieve if the mixed audio is not

suitable with the visual. Editor uses only background music and sound effect to deliver a message without any dialogue or narrative. The sound effect is referring to the sound produced in every action and reaction in a motion film. One of the main functions of sound effect is to fill the background sound. An example of sound effect in Habitat artwork is the sounds of birds chirping to create a calm morning scene. The music in Habitat artwork intended to heighten the appealing charm in a scene to create the mood and feelings of the audience. Different from the sound effect, the music background is a rhythmic melody tunes. The effect of music in the Habitat artwork is reinforcing the scene so its meaning is more powerful. An example of the music effect in the Habitat artwork is the song from Zainal Abidin titled Hijau. This song is synonymous with a message related to the conservation of nature. The rhythmic music is inserted to create the mood to the whole story.

## **5. Conclusion**

Efforts are made in developing and uplifting awareness with the usage of new media technology in creating an experience and transferring of knowledge to the general. This can provide a platform in presenting the message with a unique but effective way. Therefore, it is important to create an application that triggers the mind to present a story so that the viewer can enjoy and feel the experience. The 'Habitat' projection mapping painting work is one of the efforts in producing an illusion virtual work. In par with the time passage, these virtual illusion works will attract the general especially the young generations. At the same time, it is also able to develop the technology of visual arts. In addition, messages and awareness can be delivered with a good storyline through the visual language of mise-en scene and audio.

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