

BORANG PENGESAHAN STATUS TESIS*

JUDUL: THE LEGEND OF PUTERI GUNUNG LEDANG 2D ANIMATION
ROTOSCOPING APPROACH

SESI PENGAJIAN: 2006/2007

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**THE LEGEND OF PUTERI GUNUNG LEDANG 2D ANIMATION:
ROTOSCOPING APPROACH**

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**This project is submitted in partial fulfillment of the requirements for the
Bachelor of Computer Science (Interactive Multimedia)**

**FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA
2007**

DECLARATION

I hereby declare that this project report entitled

THE LEGEND OF PUTERI GUNUNG LEDANG 2D ANIMATION ROSCOPING APPROACH

is written by me and is my own effort and that no part has been plagiarized without citations.

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ABSTRACT

Most people in Malaysia knows the legend of Puteri Gunung Ledang, however, not many realised this legend happened in the district of Muar, north of Melaka. This story started when Sultan Mahmud Shah wanted to propose Princess Gunung Ledang as his wife. To reject the marriage proposal by Sultan Mahmud, Princess Gunung Ledang request condition which is Sultan Mahmud wants to make Princess Gunung Ledang queen of Malacca, if Sultan Mahmud must grant her these seven requests as a special condition. The request not more than to reject marriage proposal sultan Mahmud because Princess only love his husband and already swear will never get married after his husband die. The target user for this project is among kids 4 until 12 years old. This project also will come out with one research about animation rotoscoping will be use. Rotoscoping is an animation technique in which animators trace over live-action film movement, frame by frame, for use in animated films. Originally, pre-recorded live-action film images were projected onto a frosted glass panel and re-drawn by an animator. This projection equipment is called a rotoscope. Rotoscoping is an animation which is traced according to video shooting before. The Production Design Model has been choosing for the instruction design model that use for this project. This model describe about pre-production, production and post-production phase. For the design phase, this project defined the system architecture, using storyboard. After finished the design phase, project was implemented. In phase implementation phase, method of graphic, audio, video and animation use technique rotoscoping was explained. Next phase is testing phase where it involved for ascertain the project objective and scope was fulfilled. The project is Legend of Puteri Gunung Ledang 2D animation: rotoscoping approach. Priority for this project is new manner for animation 2D world, seen can become a new method for promoting to cartoon animation story was already have today. Implementation phase which is contains the development process where it consist of action taken in production of graphics, 2D character animation, audio and video editing. Finally, chapter implementation phase the process of integrating the created multimedia component where all components were composite or combine into one output that is video with 2D elements. The testing phase is divided into four sections which are test schedule, test strategy, test design and test environment. The last topic for this report is Project Conclusion.

ABSTRAK

Kebanyakan orang di Malaysia mengetahui legenda Puteri Gunung Ledang, bagaimanapun, tidak ramai sedar legenda ini berlaku di daerah Muar, utara Melaka. Permulaan cerita ini, Tun Mamat mencadangkan Sultan Mahmud untuk meminang Puteri Gunung Ledang sebagai isterinya. Untuk menolak pinangan Sultan Mahmud, Puteri Gunung Ledang meletakkan tujuh syarat peminangan. Tetapi semua itulah hanyalah alasan untuk menolak pinangan Sultan Mahmud kerana kasih dan sayangnya untuk suami tercinta. Projek ini mensasarkan penonton di kalangan kanak-kanak berumur 4 hingga 12 tahun. Dalam projek ini juga satu analisa tentang penggunaan teknik animasi rotoscoping akan dilakukan. Rotoscoping adalah satu teknik animasi di mana juru animasi mengesan atas lakonan kemudian difilemkan pergerakannya. Asalnya dirakam terlebih dahulu lakonan tersebut kemudian imej-imej difilemkan dengan menayangkan semula diatas kepingan kaca dan dilukis oleh juruanimasi ianya dipanggil rotoscope. Rotoscoping ialah animasi yang di surih berdasarkan pada video yang telah di rakam sebelumnya. "Production design model" telah digunakan sebagai panduan bagi membangunkan projek ini, terdapat tiga fasa "pre-production", "production" dan "post-production". Seterusnya bagi fasa rekabentuk, projek ini menerangkan tentang sistem rekabentuk menggunakan papan cerita. Setelah selesai fasa rekabentuk, projek mula dibangunkan dalam fasa pelaksanaan. Di dalam fasa pelaksanaan, kaedah membangunkan grafik, audio, video dan animasi menggunakan teknik rotoscoping diterangkan secara terperinci. Fasa terakhir adalah fasa percubaan di mana ia dijalankan bagi memastikan objektif dan skop projek tercapai. Hasil akhir bagi projek ini ialah "Legend of Puteri Gunung Ledang 2D animation: rotoscoping approach". Kepentingan projek ini ialah sebagai satu cara baru untuk dunia animasi 2D, ia juga menjadi nilai tambah kepada cerita-cerita kartun animasi sedia ada pada masa kini. Fasa pelaksanaan proses di mana melibatkan produksi pada grafik, 2D karektor animasi, bunyi dan suntingan video. Akhir fasa pelaksanaan ini nanti proses menyepadukan dan tercipta komponen multimedia digabungkan kepada satu output that is video berserta elemen 2D. Pengujian fasa dibahagikan kepada empat bahagian di mana jadual, strategi ujian, rekabentuk ujian dan persekitaran ujian. Akhir sekali topik untuk report ini ialah kesimpulan projek.

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CHAPTER I

INTRODUCTION

1.1 Project Background

Nowadays, viewer can see many types of 2D cartoon animation television. Basically all 2D cartoon animation is for entertainment especially for kids. The title of this Project Sarjana Muda (PSM) is The Legend of Puteri Gunung Ledang 2D animation rotoscoping approach.

For this story of course a lot of people in Malaysia are already knew it. Before this the story The Legend of Puteri Gunung Ledang was just show in television in a real film. The first film version is Puteri Gunung Ledang fable directed by S Roomai Noor in the 1960s, then next film version is direct by Allahrayham P.Ramlee on year 1980 and the latest version movie derivative Tiara Jacquelina and that story is about Puteri Gunung Ledang and his love Hang Tuah. Puteri Gunung Ledang have rejected request Majesty because love and only devoted to Hang Tuah. However love hang Tuah to his sweetheart Puteri Gunung Ledang will never changed loyal and devoted Hang Tuah which is will never disaffected towards his Majesty.

This story The Legend of Puteri Gunung Ledang is a legenda malay story. This story is about love and devoted wife to her husband although her husband was died. Puteri Gunung Ledang willing decline request to marry Majesty because of before her husband died Puteri Gunung Ledang was

swear she will never marry again until she died. The stories have created a story 2D cartoon animation the legend of Puteri Gunung Ledang based on the flow story The Puteri Gunung Ledang.

To develop the 2D animation cartoon movie can increase the variation or animation cartoon 2D in Malaysian. This cartoon movie use technique rotoscoping animation to generate more real movement for this cartoon story. A technique where animators trace live action movement, and by directly copying is actors outlines into an animated drawing.

The process will begin with the development of a story idea and a series of time based tests to explore a possible aesthetic for the story. Each of these tests will enlighten the artist's understanding of the digital rotoscoping process while addressing issues of lighting, composition, artistic expression, and playback the frames per second. The story idea will be illustrated as story boards and then shot on location or against blue screen for even more freedom to manipulate the environment.

Animation techniques use is rotoscoping, which is often been used as a tool for special effect in live action movies. By tracing an object, a silhouette can be created that can be used to create an empty space in a background scene. To aim of this project to be developed is about the kids can learn how important love in our life. Beside that, this project is for entertainment and has a commercial value. Duration for this story 2D cartoon animation The Legend of Puteri Gunung Ledang will be produce in about 15 to 20 minutes long.

1.2 Problem statement

There are many kinds of 2D cartoon animation showing in television. Cartoon produced by our own country is limited such as 'Usop Santorian', 'Che Nat', 'Keluang Man', 'anak-anak sidek', 'Sang Wira' and 'Putih'.

Mostly children like to watch Sin can, Doremon, Sailormoon R, and many more. This project produces 2D cartoon animation as additional cartoon story in Malaysia so with this 2D cartoon animation which called The Legend of Puteri Gunung Ledang because from the real story there are many good values and this cartoon also unique because the flow of this story more loving story just simple cartoon but have their own value.

This project is mainly for kids and children. To make this project more interesting not only the flow of the story, this project also needs to include graphics, good combination of color that is suitable for kids and all the elements of multimedia to make kids more enjoy watching this cartoon the Legend of Puteri Gunung Ledang.

Cartoon animation story using techniques drawn and animated not more realistic movement because it traces according to static pictures. The cell is an important innovation to traditional animation but the end result does not look very lifelike, but is inexpensive to produce, and therefore allows cartoons to be made on small television budgets. To develop real cartoon animation every part of the human body must be animated smoothly so that character movement will be more realistic. So by using the technique of animation rotoscoping to this cartoon animation The Legend of Puteri Gunung Ledang will use the same animation technique that is used for making the story of Cartoon Lion King, Snow White and the Seven Dwarfs, American Pop and Gulliver's Travels.

1.3 Objective

The highlighted objectives for this 2D cartoon movie are:

- **To produce a 2D animation movie of The Legend of Puteri Gunung Ledang from the real movie capture to the 2D animation movie.**

The different between films and cartoon programs in television is cartoon programs in television need conscientious to produce a quality programs. On the other hand, this cartoon programs in television using a sophisticated computerized technology. To create quality and creative cartoon story must have a good combination between values of live and not forget about our culture other then that to present an excellent multimedia product.

- **To implement technique of rotoscoping to the 2D animation movie of The Legend of Puteri Gunung Ledang and commercialize this story to every people in Malaysian especially for a kids.**

By using rotoscoping technique this project will be show different every character movement more realistic because the character movement should similar from the original video capture before. Although this is 2D animation cartoon but all character movement looks smooth and nicer.

- **To achieve standard of animation since the previous version of “The Legend of Puteri Gunung Ledang” is only available in film format and the story is more complicated to understand especially for kids.**

From the real movie in film version before this apply it to 2D animation is more entertain not only kids but whole family will enjoy

watch this 2D animation cartoon the Legend of Puteri Gunung Ledang.

1.4 Scope

Target is for all races and our main focus would be kids between 4 to 12 years old. This cartoon program is not a continuous show where sometimes you have to watch continuously or you have to wait for the following episode. It is very simple and informative though it is just a short cartoon program. This project 2D cartoon animation the legend Puteri gunung Ledang developed mainly for kids so the animation that is needed to make must be suitable for kids such as combination color and graphic that use in this cartoon animation story.

Have many technique can be used to develop a 2D cartoon animation. Approach that will be used in this project cartoon animation is rotoscoping technique. Rotoscoping is an animation technique in which animators trace over live-action film movement, frame by frame, for use in animated films. From the real action movie create and produce cartoon story similar movement with the original movie. Duration for this story 2D cartoon animation The Legend of Puteri Gunung Ledang will be produced is about 15 to 20 minutes long.

1.5 Project Significance

This project has some concept with a real story but some part need to be changed to make this story more interesting because the project that we want

to make is an animation story especially for kids. The Legend of Puteri Gunung Ledang is a good project for entertainment and also for commercial.

This approach brings the viewer away from reality by stylizing the character in a way that it contributes to the characterization and the story. This approach also uses the original film frame as a reference but is taken outside pure rotoscoping and into that of the animator. It is important to note that these film frames were illustrated on and manipulated and not simply put through an image filter to create this effect.

1.6 Expected Output

To expect a good result from audience must come out and produce with a good quality product. Expectation from audience is, the message that need to reach from this story the legend of Puteri Gunung Ledang audience can feel true love and devoted wife until what ever great bargain even from majesty also will never change devoted Puteri Gunung Ledang to her husband. The most important things expectation from this project is the technique rotoscoping that apply to make this 2D cartoon animation the legend of Puteri Gunung Ledang was achieving the real standard animation.

The final results of this project and after doing all the research about the rotoscoping is meant to be a unique visual experience different in aesthetic from the films used here as digital rotoscoping examples. Rotoscoping technique was chosen as the means to tell this story given its potential to push an aesthetic both realistic and fantastic two underlying characteristics to the real life inspired narrative Continuum. Expectation by using new approach to rotoscoping which is the process of tracking contours in a video sequence to that combines computer vision with user interaction.

1.7 Conclusion

This project is mainly for entertainment but there still has a good value and also using a language that suitable for kids. Generally this story is for everyone but the target audience for this story watched by children. Hopefully this project can be commercializing often and will be finished making the entire story. Expectation From this project is to add more knowledge and skill in animation by using technique rotoscoping to produce a relative cartoon animation. For the next stage is previewing the literature review and project methodology.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

This project will focus on the literature review and project methodology. History and theory of animation will be explained in fact and finding section for the project methodology.

A literature review summarizes, interprets and evaluates existing literature or published material in order to establish current knowledge of a subject. The purpose to doing so is related to on going research to develop that knowledge. The literature review may resolve a controversy, establish the need for additional research and define a topic of inquiry.

Project methodology refers to the technique on how to build our project. So to build this project need to follow the steps and technique that listed on the project methodology. From the story of animation, all animation keeps following the step and technique so that this project can publish the good product of animation.