

“MARRIAGE OF THE DISCIPLINES OF LITERATURE AND GEOGRAPHY (GIS)”: ANALYSING THE LOCATION AND FUNCTION OF MOUNTAINS IN SELECTED WORKS OF ASIAN LITERATURE

By Rahimah Haji A. Hamid
(imah@usm.my)

Tarmiji Masron
(mmiji@usm.my)

School of Humanities
Universiti Sains Malaysia

Abstract

Mountains and hills (hereinafter referred to as mountains) are a special part of God’s creation. In addition to being mentioned in the Qur’an as being “bolts” of the Earth and water catchment areas, mountains are seen in a variety of religious and cultural traditions as being sacred and special places. There are thus many Asian literary works that boast of mountains existing in their locations. This paper seeks to examine why mountains are such an important element in the life of society by examining them in terms of their location and function. This study will use spatial information technologies such as Geographic Information System (GIS) to aid understanding of literary works, namely by taking the views of Harvey (1973) that “geographical space has a close relationship with the culture of a place”. Thus the location of an area will be linked to its function in terms of cultural space, social space, economic space, ideological space, and space movement. In this article, GIS will be used to map the location mountains that play a role in literary works to try to see

the elements of space and the location of the mountain together with the cultural and narrative elements of the work. Among the literary works selected in which the location and function of these mountains will be observed are *Sejarah Melayu* (The Malay Annals), *Hikayat Hang Tuah*, *Hikayat Seri Kelantan*, *Hikayat Seri Rama* (Nusantara), *Syakuntala* (India), and *Dewi Putih*, as well as *Liang Shan-Bo and Zhu Ying-Tai* (China). Based on these works, it is found that mountains are important because they serve several functions such as the residence of rulers or spirits (ghosts, spirits, fairies); as a sacred place inhabited by the gods; as the source of the inheritance of kings; as places of study or for seeking spiritual and physical knowledge; as well as places that are rich in medicinal herbs. In the end, this essay shows that the nature of the mountains studied may explain the link between location and the culture of a certain race.

Keywords: Geographic Information System, *Sejarah Melayu*, Global Positioning System, spirit, Asian Literature.

Introduction

Mountains and hills, referred to collectively as mountains (which means highland areas in the form of hills and mountains), are a unique part of God's creation. Hence these natural formations are often referred to by Allah SWT in the Holy Qur'an. Among these references is:

"And We created on the Earth firm mountains so that the earth does (not) shake with them ..."

(Surah al-Anbiya' 21:31)

This means, in terms of geography, that mountains created by God at various locations on the Earth function as a bolts (pegs) to prevent shocks or vibrations of the Earth's crust. They are thus referred to again by Allah SWT:

"Have We not made the Earth as a bed and the mountains as bolts?"

(Surah al-Naba' 78:6–7).

In geographical terms, mountains are formed by the movement and folding of the Earth's crust. Those parts of the Earth's crust that

fold upwards form mountain ridges, while those that fold downwards form pegs that wedge, stake or pin the Earth (Carolyn Sheets, Robert Gardner, Samuel F. Howe, 1985: 305). This is why the Earth's crust exhibits isostasy, the process of balancing its position to prevent vibration or movement of the earth crust due to the gravity (*Webster's New Twentieth Century Dictionary (2nd edition)*, "Isostasy", New York, pg. 975).

Because of the strong nature of mountains, in terms of geography, people choose to build residential areas on high ground. By choosing the mountains as dwelling places, early societies which did not know of or have sophisticated technological equipment felt safe from flooding and could easily monitor the situation in lower areas. As mountains are integral to human life, so too in literary works mountains have become an important element of nature, appearing in numerous works serving a range of functions. Each location where there is a mountain, it serves a specific function in shaping the cultural space, social space, economic space, ideological space, and movement space of a community. We will discuss the location and function of mountains based on several selected Asian literary works with a view in correlating GIS to literature. The selected literary works include *Sejarah Melayu (The Malay Annals)*, *Hikayat Hang Tuah*, *Hikayat Seri Rama*, *Hikayat Seri Kelantan* (all from the Malay Archipelago), *Syakuntala* (India), *Dewi Putih and Liang ShanBo and Zu Ying-Tai* (China).

Relationship of GIS with Literature

The structural study of literary texts often focuses on those elements that play an important role in moving the plot along and giving life to a story, namely character, time and background. In the field of geography, background is referred to as location or space. This means that location or space refers to the background of the place, the background of events, the background of the mood and background for the display of an event experienced by a character in the course of his life. The function of background in a work of fiction is extremely important because it is in a space or location that a character will interact with other characters, with his Creator, or even with the environment. This means that geographical space plays an important role in creating a cultural space and enlivening

the story that an author wants to present in his or her literary work. If viewed in terms of reality, information about location or space in the background of a work can be tested and identified to ensure its validity, and to understand exactly the location of its existence, even though the work is a classic work. The way to do this is to use information technology. This technology enables spatial data to be obtained, processed and analysed (Tarmiji Saidin Masron & Mokhtar, 2009). There are three main categories of geographic information technology: remote sensing, global positioning system (GPS) and GIS. Remote sensing refers to the technology used to obtain data without any physical contact with the object being studied (Campbell, 1987, Lillesand *et al.*, 2004 & Mather, 1999). This system allows data to be collected consistently. This technology can be divided into two main applications, aerial photography and digital imaging.

The GPS is a tool that can be used to determine the position of an object on the Earth's surface based on latitude and longitude. The information received is accurate because it is based on the signal received from a satellite network such as the NAVSTAR GPS satellites (Longley *et al.*, 2001). The latest GPS system consists of 29 satellites which were launched between 1990 and 2004 (J. & Lake M. Conolly, 2007).

GIS is a computer-based information technology used to obtain, manage, process and analyse, as well as display, spatial and non-spatial data (Star and Estes, 1990, Burrough and McDonnell, 1998, Longley *et al.* 2001). GIS can handle spatial data and attribute data (Thomas M. *et al.*, 2004).

This technology has been used extensively in various fields of study. This is because the technology can be used to manage, process and analyse a variety of events at a location and to answer various questions that arise concerning the location. If associated with works of literature, this technology can answer questions about location such as "where is the location of the events", "what is the culture at the location?", "how are the patterns of space at that location?" and "what will happen and has happened at that location?" This means, questions that relate to geography are sufficient to study the background of place, time, mood, and events in the study of literature. To answer these questions, we need information on space placement. So in order to answer the question of space, GIS can be used, by mapping the location of an event and seeing the spatial distribution phenomena.

This technology has been used extensively in fields such as urban and regional planning, geography, archaeology, language and biology. Developments in information technology have given space and new dimensions to the study of culture, particularly in the documentation and information management related to culture and location. Thus in the literary field, this technology can aid understanding of plot, character and the role of location on time/ age. Through this technology, literary members can accurately find the location specified in a literary work, especially traditional works, understanding the role of location, position and the area around a location and its relation to the narrative plot, undertake spatial analysis and its relationship to a work, see the logical elements of a story and can use a scientific approach to study and understand a literary work.

There are several levels of use of this technology in literary research. The first stage is to develop and obtain the location data described in a work. The second stage involves mapping the locations. The third stage involves the analysis of the distribution and relationship between the locations described. As a result, the use of this technology and approach enables literary researchers to understand the role and relevance of location on character in a more comprehensive and this offers attractive research possibilities.

Hence this article will use information technology in the first place, that is by identifying the location of the mountains mentioned in the selected literary works. In this essay, remote sensing data from Google Earth and GIS will be used to identify each location involved.

Data and Methodology

In an attempt to “marry” the discipline of literature with the GIS and remote sensing data so as to understand the validity of the existence of mountains mentioned by the author in his work, and to examine their function in the selected literary works, this study will use the data and methodology detailed in Figure 1.

The figure shows the measures implemented in the framework of “marriage of disciplines”. The first step was to identify and select the literary texts to be used in the study. The following were selected: *Sejarah Melayu* (The Malay Annals), *Hikayat Hang Tuah*, *Hikayat Seri Kelantan*, *Hikayat Seri Rama*, *Syakuntala* (India), *Dewi Putih* and *Liang Shan-Bo and Zhu Ying-Tai* (China). Through the process

of reading these works, the names and locations of mountains mentioned in every chapter were recorded. Apart from identifying the location and name of the mountains, efforts were also made at this stage to identify the background of activity or the background of events that occurred in a location or mountainous area mentioned in the selected works.

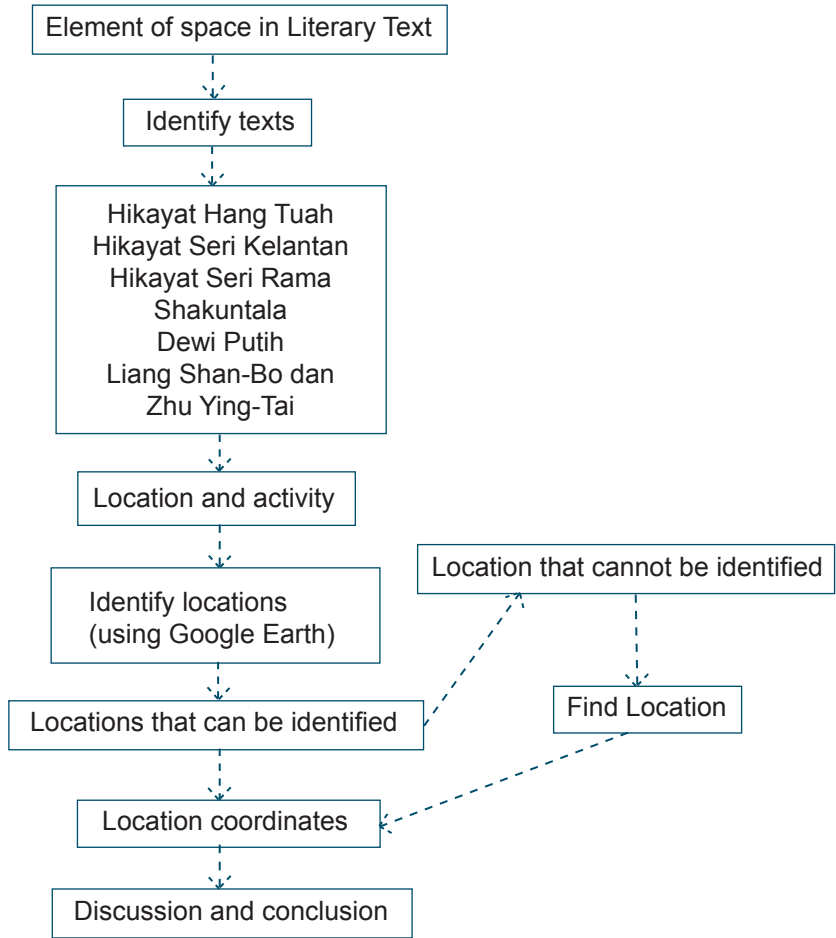


Figure 1 Methodology.

Eleven mountain locations are mentioned in the selected works. The locations are in several countries, namely in Malaysia, Indonesia, India and China. After reading and identifying of the locations, a schedule of locations and place names and information connected with activities that took place at those locations was prepared. The next step was to identify and find the location for each mountain listed using the Google Earth application.

The process of searching for locations and place is depend on the data provided by Google Earth. Based on this method of location search, the location of all mountains mentioned in each work were successfully detected. Next, an analysis of function was conducted.

Location of Space

Based on the selected Asian literary texts, the location of space that was the focus of this study involved Bukit Siguntang Mahameru and Mount Ophir or Gunung Ledang (*Sejarah Melayu*), Bukit Siguntang Mahabiru and Gunung Wirana Pura (*Hikayat Hang Tuah*), Gunung Ayam and Bukit Marak (*Hikayat Seri Kelantan*); Bukit Serandib (*Hikayat Seri Rama*), Gunung Hemakuta in the Himalayas in *Syakuntala* (an text from India); Gunung Pari-pari and Gunung Omei in *Dewi Putih* (a text from China) and Bukit Nan Shan in *Liang Shan-Bo and Zhu Ying-Tai* (a text from China).

The schedule of functions shows that mountain areas or locations in the selected literary texts are seen to function as sacred places and abodes of deities; as a places of government or the dwelling place of spirits such as ghosts, jinns, and fairies; as the cradle of the origin of kings and their insignia; and as places of meditation, learning or the acquisition of knowledge of mysticism and self-defence.

(1) As a sacred place and abode of deities

One reason for portraying mountains in literature is to demonstrate their function as a sacred places and abodes of deities. The belief that mountains are sacred places and the abode of deities has existed since the distant past and has subsequently been absorbed into various religions.

In animism, for example, everything in the world is considered to have a soul. This means that the mountains, seas, rivers, trees, rocks and even grass has a soul. The souls in these things led primitive people to maintain their relationship with these things. For this reason primitive societies often held ceremonies of worship and adoration for these things, as described by Harun Nasution (1973:27):

For this primitive people every object in the world has a soul. Mountains, seas, rivers, trees, rocks, even grass has a soul. What draws the attention of these people in particular is the spirits of things that cause terrible feelings in people such as mountains, lakes, forests, trees, large wood, rivers and so forth. Things that do not give rise to such terrible feelings, such as grass, ordinary rock and suchlike do not attract their attention.

In fact, according to Harun Nasution (1973:36) again, pagan societies glorified hills, especially if there were two hills opposite one another. They would make the hills places of worship in the belief that the gods they worship live in the hills, deserts and idols. In the Minangkabau lands, for example, the location of Gunung Singgalang opposite Gunung Singkarak is the best example of a place of worship as the gods were believed like to descend and dwell in such a place. However, because the Minangkabau people of Indonesia hold firmly to the Islamic religion, what was described by Harun Nasution is not seen in this place.

In the Shinto religion as well, mountains are considered to function as a natural element that must be worshipped as they are believed to have souls. Thus Harun Nasution (1973:105) adds:

Among those things that are worshipped are natural objects or natural forces, for instance the sun, moon, thunder and lightning. Rivers, mountains, fields and trees are considered to have souls or to require worship.

Meanwhile, in the Christian faith too, mountains are considered to be symbols that depict the high status of a prophet. Thus in the Bible, John 3:14, the story of Moses is recorded as follows:

“And as Moses lifted up the serpent in the wilderness, so also the Son of Man will be lifted up, that whoever believes in him may have eternal life.”



Map 1 Position of Mount Nebo.

This verse of the Bible is used by Christians to explain the relationship of Moses to Mount Nebo such that it form's part of their holy land. The background to this is found in the *Book of Deuteronomy* (32:49–52), which shows that this was the place where Moses spoke with God and also the place that Moses was buried. In the book are listed:

“Get thee up into this mountain Abarim, unto Mount Nebo, which is in the land of Moab, that is over against Jericho; and behold the land of Canaan, which I give unto the children of Israel for a possession: And die in the mount whither thou goest up, and be gathered unto thy people; as Aaron thy brother died on Mount Hor, and was gathered unto his people: Because ye trespassed against me among the children of Israel at the waters of MeribahKadesh, in the wilderness of Zin; because ye sanctified me not in the midst of the children of Israel. Yet thou shalt see the land before thee; but thou shalt not go thither unto the land which I give the children of Israel.”

(The Bible, *Book of Deuteronomy*, 32:49–52)

The view that mountains are sacred places is even more striking in Hinduism. According to Amer Saifude Ghazali (1999), the whole environment, including mountains, is extremely important because it is closely related to the gods. Hindus believe that every component of nature has gods who oversee and govern their lives. The main deity of the Vaishnava tradition is the god Vishnu, the creator. Thus, every component of the environment is itself a symbol of Vishnu. This is because the deity is said to be present in the following components of the environment: the sea is the waist of Vishnu, the mountains and hills are his bones; the clouds are his hair, rivers are his blood vessels, trees are the capillaries of his body; the sun and the moon are his eyes and night and day are the movement of his eyelashes (Amer Saifude Ghazali, 1999). So, Hindus who destroy the environment with impunity, for example the mountains, are considered to be coarse and impudent to their own deities.

At the same time, according to Mohd Zuhdi Marsuki and Amer Saifude Ghazali (2002:107), Hinduism teaches its followers to worship trees. Trees are deemed to be symbols of divinity and every tree has its own deity named Vriksadevata. Trees are found growing luxuriantly in the mountainous areas that are home to the god Krishna. As such, Hindus are prohibited from cutting down trees and quarrying on mountains, and they are also not allowed to kill animals with impunity. This shows that mountains covered by flora and inhabited by fauna serve as a good locations for deities to reside.

Thus in the *Syakuntala* flora and fauna are depicted that cannot be harmed by humans:

PRIEST: (lifting his right hand)

This is a holy place, Lord, and the beast a holy animal. Hunting holy animals is a sin ... Just thinking of it is a sin: a gentle animal fighting Paduka's lightning-like arrows (Kalidasa, 1979:8–9).

KING: This forest redeems the countryside. It is simple. See the rice scattered about the roots of a tree, falling from the beaks of the Java Sparrow. Ripe fruit falling, rotting because no one picked it (Kalidasa, 1979:10).

The location described in *Syakuntala* is at the foot of the Himalayas, an area which the abode of a hermit. As a “holy man” in the Hindu religion, Hindus believe that all flora and fauna at the foot of the Himalayas that they saw as sacred were gods. For that reason, the priest prohibited King Dusyanta from shooting deer in that area. In fact, King Dusyanta also saw with his own eyes how the scattered rice and rotten fruit at the tree because it had not been tampered with by the hermit at the foot of the mountain range.

For the people of China, mountains are also the best location, sacred, and having *feng shui* (location that can bring good fortune) because they are the abode or place where gods come down to the natural world. Hence, Chinese people always select mountain slopes as the location for graves. According to Ann Wan Seng (1994:57–58):

The location of graves on hills is based on the system of Feng Shui. It is said to be better to locate a grave on the top of a hill rather than at the foot of a hill. There is no doubting that graves located at the foot of a hill are easier to visit than graves on top of a hill. However, the Chinese still choose to locate graves on hills, because ... graves situated on a hill have higher prestige than those at the foot of a hill.

Thus, in the novel based on the classic story of *Liang Shan-Bo and Zhu Ying-Tai*, the character Liang Shan-Bo, who died of disappointment because his love with Zhu Ying-Tai was not to be, was buried in a cemetery on the slopes of Mount Nan Shan. For the people of China, cemeteries located on high ground are believed to not only have *feng shui*, but also to cause the spirits of those buried there to be blessed by the gods who descend from heaven. That is why, at the end of the story, the grave of Liang Shan-Bo opens when visited by Zhu Ying-Tai, and she jumps into the grave of her lover. The grave of Liang Shan-Bo on the hillside opens because Zhu Ying-Tai's lament for her indissoluble bond with Liang Shan-Bo was heard by the gods and goddesses who lived on and came down to the hill. For that reason alone, the surface of the grave parted and a pair of small butterflies flew freely as the souls of Liang Shan-Bo and Zhu Ying-Tai were blessed by the gods and turned into butterflies. In this text, these event are depicted as follows:

The thunder and lightning, the sound of crying and screaming mingled together. In this chaotic atmosphere, the grave of Liang

Shan-Bo opened suddenly with a loud sound. Seeing this, ZuYing Thai felt happy and got up immediately.

“My love, my love, come and meet me, wait ... yes wait, I am coming!”. ... Finally she managed to jump into Liang Shan-Bo's grave! In the blink of an eye, the grave closed again. Zhu Ying-Tai's dream had come true!

When the storm stopped, the lightning and thunder were also heard no more. In the blink of an eye, sunshine appeared again. A beautiful rainbow appeared in the sky. A pair of colourful butterflies flew freely beside Liang Shan Bo's grave.

The pair of butterflies were seen flying towards the bright sky.

(Liang Shan-Bo & Zhu Ying-Tai, 1995:124–25)

The events described in the text show the importance of mountainous areas to the Chinese because of their belief in feng shui that can enable the souls of the dead buried in such areas to be blessed. This is because of the existence of many gods in that place that causes their hopes that were not met in this life to be granted in a second life or life after death. In fact, according to the teachings of Taoism, a person is believed to be a god after death, if during his lifetime he followed the right path (see [http:// www.jkkn.gov.my/v2/?page_id=53](http://www.jkkn.gov.my/v2/?page_id=53)).

The depiction of mountains as sacred places and the abode of deities is also made in the novel *Dewi Putih*, a work based on China's most popular classical story. In the novel, Dewi Putih is said to have flown to the Mountain of Fairies to obtain magic plants planted by fairies (deities) in their mountain abodes. The fairies are considered sacred and the magical tree that was planted by them is said to bring the dead back to life. Thus, Dewi Putih flew to the mountain to obtain the magical tree to resurrect Xu Xian, her husband who had died:

The Mountain of Fairies was full of large trees, flowers and other plants unknown to ordinary people. From afar, the mountain looked as if a giant had spread his hand to reach other mountains. In one part, one peak is higher than the others At the top of that mountain that looked like an island in a sea of clouds, with the most beautiful colours, there were trees that had magical powers that could bring the dead back to life. Two fairies, the Deer Fairy and

the Crane Fairy are responsible for guarding the place so that no human or goblin dare trespass there.

(Ren Shaozeng, 1991:97–98)

Although the location of the Mountain of Fairies cannot be given a location on a map because the name of the mountain in the classical Chinese work is not recorded, the mountain is clearly depicted as a sacred place highly regarded by the Chinese because it is the abode of deities. Their dignity and magic caused the plants that lived on the mountain to be so nutritious and able to be used for the good of human life.

Further, according to Javanese cosmology, which is influenced by Hindu culture, mountains serve as stopping points and homes for unseen creatures. That is why mountains are a common symbol in Java's cultural and social spheres, for example in *wayang kulit* (shadow puppetry). Thus Dylan Walsh, citing the views of Sunardjo (1997:4) <http://heritageofjava.com/portal/article.php?story=20090309235741346>, states that at the beginning and end of a wayang kulit performance, a mountain will be shown, a symbol of the mountain and forest that are the abode of the gods. He states:

The mountain in the story can symbolise a mountain, the abode of the gods, a forest or a big problem for its role.

(2) As a government residence or place of residence, such as spirits, ghosts, spirits, and fairies

Based on this second function, the space or location of mountains in Asian literary texts seem to be closely related to the construction of social space in early societies. This is so because the human world (the microcosm) is compatible with the universe (the macrocosm). For example, the human world, which has a hierarchy and social order, is compatible with the macrocosm of a conical mountain, the highest of position (the government) is at the top, while the lower (the people) will be beneath. Based on this relationship, the location of mountains becomes crucial especially because it relates to a person's power and social hierarchy as king, chief, religious leader or head of a faction.

In Hinduism and Mahayana Buddhism, the concept of the cosmic mountain existed with regard to mountains surrounding the life of adherents of these faiths as the center of the cosmos that can be used as parables to life. The mountain that is most special in their beliefs is Mount Mahameru (Abdul Rahman Haji Abdullah, 1998:25–26). This is so because in the cosmography of Mahayana Buddhism, Mount Mahameru is regarded as the centre of the cosmos is sacred and lucky. The mountain is said to comprise seven mountain ranges and seven seas around each other. In this way the cultural space that was formed should be based on this conception of the macrocosm.

Meanwhile, in the cosmography of Hinduism, the nature of the cosmos is said to be divided into three worlds (Triloka), namely the sky or heaven (Ilavrita), the earth (Bhumi), and the underworld (Tala). Each world (loka) has seven zones. So the triloka create 21 zones in the entire cosmos (see Abdul Rahman Haji Abdullah, 1998:25–26). The zones that exist in the world are called dvipa (islands, continents or peninsulas), which consists of Jambudvipa, Plaksha-dvipa, Shalma-dvipa, Kusha-dvipa, Kraunca-dvipa, Shvetadvipa and Pushkara-dvipa. Of these seven dvipa zones, Jambu-dvipa deemed important enough to become the centre of the cosmos for all the other dvipa surrounding it. It is located on Mount Mahameru, which means the Great Golden Mountain, the mountain that the abode of the *Lokapala* (guardians of the world) of whom there are eight (Abdul Rahman Haji Abdullah, 1998:25).



Figure 2 Angkor Watt in Cambodia.

Accordingly, ancient Javanese books from the Middle Java period such as the *Tantu Panggelaran* state that Mount Mahameru is a mountain in Hindu cosmology and that part of the *Jambu-dvipa* has been cut half and brought to the island of Java. Its function is to stabilise the position of the island which always shook and floated on the tectonic plates. The strength of this mountain caused Dewa Betara Guru or Paramesvara (also known as Lord Shiva), the god with the highest position in Java, to choose to reside on Mount Mahameru (Abdul Rahman Haji Abdullah, 1998:26). In fact, the strength of the mountain was also the inspiration for the construction of Angkor Watt in Cambodia. This ancient temple is said to be of extremely high artistic standard, comparable to the cathedrals of Europe, the ancient temples in India and the stunning stupas of Indonesia. The tops of the temple's towers clearly symbolise Mahameru, the mountain that is said to be "home" to the Hindu deities. Originally Angkor Wat was a Hindu temple the construction of which was dedicated to Lord Vishnu (see <http://mistisfiles.blogspot.com/2010/01/after-terahsia-bangsa-melayu-x.html>).

Based on the cosmography of both religions, it is not surprising that the traditional literary works of India or the Malay World often portray Mount Mahameru as the area chosen as the abode of religious leaders or their government. The influence of Hinduism and Buddhism that has infiltrated into the lives of the people of South and Southeast Asia has led to believe in the greatness of Mount Mahameru and this has been a pervasive presence and stuck in the minds of the people. Thus in many literary texts, Mount Mahameru is closely related to Hindu and Buddhist and has been used a location for the abode of several kings. For example, in Java, Hindus believe that Lord Vishnu, who carries the title Kandiawan, became their first king and that he chose Mount Mahameru as his abode (see Abdul Rahman Haji Abdullah, 1998:26).

The influence of this later appeared in *Hikayat Hang Tuah* (1975:6) when Sang Perta Dewa chose to establish his palace and install his son, Sang Sapurba, as king of Bukit Siguntang Mahabiru:

Then he sent for the people. After they had assembled he left for Bukit Siguntang. He saw that the hill was very good and the trees were laden with ripe fruit. Hence the hill was called Bukit Seguntang Mahabiru. Having been so Sang Perta Dewa

called people to construct a palace and throne room with a dais. Having been there, whereupon he went to his house to sit. Then he ascended to the palace. Then Sang Perta Dewa called for the creation of clothing for the government. Then he said to Princess Kemala Ratna Pelinggam, “Get ready my love, because I want our son to become king of Bukit Siguntang.” After the princess heard him say this, she was pleased to dress up remembering what her mother had said: “My child, you are besotted with your husband, the son of celestial princes, for your son to have the largest kingdom. Later you will have children with the king of the Heavens, and your son will become the greatest king in the world.” So Sang Sapurba was provided with nursemaids and guards by his mother. Then Sang Sapurba was proclaimed king by his father on Bukit Seguntang Mahabiru in accordance with the custom of great kings. Several months after he had made his son king, he saw that his son was a just ruler, husband and wife returned to heaven. Sapurba ruled his people justly and fairly.”

The coronation of Sang Sapurba on Bukit Siguntang Mahabiru shows that the cosmology of hills/mountains is believed to serve as



Map 2 Location of Palembang in Indonesia.

the abode of special and holy government. The evidence shows that Bukit Siguntang Mahabiru had become a sovereign city-state with a hereditary monarchy whose fame travelled far and wide:

Thus it was heard in the land that Bukit Seguntang now had a king sent down by Allah (glorified and exalted be He) from heaven, very kind hearted with good manners, who loves all commerce. Urging his People from all states and everywhere heard and came to Bukit Seguntang, from the sea and from the land to see the king. They brought lots of gifts and presents for the king; hence, the name of the king became famous throughout the lands surrounding Palembang. So Bukit Seguntang became a great city, a large state with ministers and warriors and lords and people

(*Hikayat Hang Tuah*, 1975:6).

Although the hill is named “Bukit Siguntang Mahameru” in the *Hikayat Hang Tuah*, this name is taken from the “Mount Mahabiru” and adapted to the Malay tongue. The Sanskrit word “meru” means mountain or hill (Dylan Walsh, 2009). So, Mount Maha “meru” could be interpreted as a Mount Maha “mountain” or “mountain among mountains.” In order to avoid such repetition, it can be seen in *Hikayat Hang Tuah* that it is referred to as “Mahabiru”. The word “mahabiru” indirectly describes the beauty of that location. Because of the beauty that exists on Bukit Siguntang, the hill became the abode of many early rulers in Palembang.

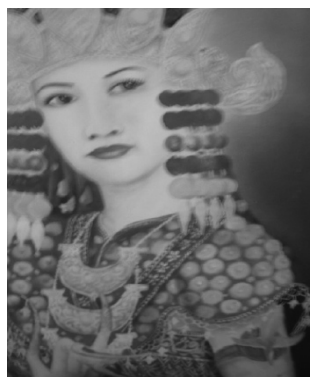


Figure 3 Artist's impression of Princess Kembang Dadar.



Map 3 The location of Bukit Siguntang 20 16'39.93" South and 1050 01'56.30" East.



RAHIMAH HAJI A. HAMID & TARMIJU MASRON

Today, there is evidence that there was once a city state can be seen through the monumental ruins of the old cities and ancient graves on Mount Siguntang. Among these are the grave of Princess Kembang Dadar who is believed to be the daughter of Demang Lebar Daun and related to Wan Sendari who married Sang Sapurba who was named Sang Nila Utama.

The selection of mountains as the abode of rulers can also be seen in *Hikayat Hang Tuah* (1975:58) as follows:

After the coming on an auspicious day the King went with the Malay Queen to Mount Ophir (Gunung Ledang) with all the sounds of a large crowd. There he stopped by the islands to hunt and play.

In this work, Sang Meniaka, son of Sang Sapurba (the king of Palembang) and the Malay Queen, was said to have gone to Mount Ophir to establish his rule. Although the mountain referred to in the work is no longer the Mount Mahameru, but rather Mount Ophir, nonetheless it shows the function of this mountain area as the preferred abode of the rulers of ancient times.

(3) As the cradle of the origin of kings and their insignia

In the traditional literary works, the location of mountains also often appears to function as a place for the gods to come down to earth to reside and govern the world.

In the *Sejarah Melayu*, the example is given of three demi-gods, Nila Utama, Nila Pahlawan and Krishna Pendeta who “appeared” on Bukit Siguntang Mahameru, in Palembang, having come from under the sea. They are said to be demi-gods because their father was a human, Raja Suran, the son of Raja Benua Keling who was descended from Iskandar Dzulkarnain, while his mother was Princess Mahtabul Bahri, a goddess who lived in a kingdom in the middle of the ocean. In the *Sejarah Melayu*, this story is told as follows:

According to the story, there is a country in the land of Andelas, Perlembang is its name, Demang Lebar Daun is the name of its king, originally descended from Raja Suran, Muara Tatang is the name of its river. That is the State of Perlembang, Palembang as it is known now. Upriver of Muara Tatang, there is a river, Melayu is its name. In the river there is a hill called Bukit Siguntang, Mount Mahameru is upriver of it, on it is a field called Padang Penjaringan.



MALAY LITERATURE

There are to be found two women farming, one named Wan Empuk, and the other Wan Malini ...

(*Sejarah Melayu*, 1986:16)

It goes on to tell:

They both went up Bukit Siguntang. Then they saw their riceplants had grains of gold, leaves of silver and stalks of brass... Then Wan Empuk and Wan Malini saw on the golden ground three young human men, good looking; one wearing official attire, his transport a silvery-white bullock, the other two standing by his side, one holding a royal sword, the other holding a spear.

(*Sejarah Melayu*, 1986:17)

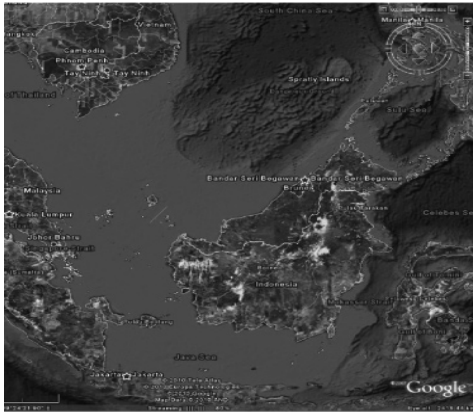
Because they are part-human and part-god, the dry paddy of the two girls, Wan Empuk and Wan Malini, on the slopes of Bukit Siguntang has grains of gold, leaves of silver and stalks of brass. Meanwhile, the whole environment of Bukit Siguntang turned to gold. The story has a clear function, namely to develop the social and cultural space of the Malays. This is so because by depicting the greatness and uniqueness of the demi-gods, the social hierarchy and respect of human beings for them will be formed. The choice of hilly land in the *Sejarah Melayu* as the place where demi-gods descend is clearly influenced by the Hindu culture that mountains are the places where gods descend from heaven to reside and to rule. Thus Abdul Rahman Abdullah (1999:24) states:

In the *Sejarah Melayu*, it is told that the three princes of Raja Suran descended from Bukit Siguntang Mahameru, rather than the coast, although they rose from the underwater world. Again, this myth comes from the concept of the mountain cosmos in Hindu teachings, namely Mount Mahameru. So, if a king descends from the abode of the gods, then by his status is no longer that of an ordinary man, but of a king with the status of a god, that is a god-king.

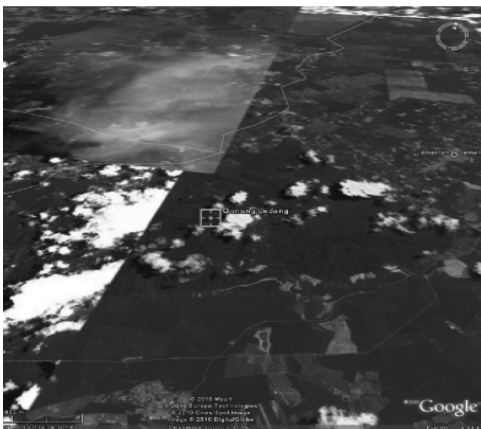
The myth of demi-gods who “appeared” on Bukit Siguntang Mahameru after leaving their country in the middle of the ocean is also clearly influenced by the concept of the mountain cosmos in Hindu teachings about Mount Mahameru. So, if a king is described as coming down to a place or location where the gods reside, then

in terms of the formation of social space, it is expressly intended to show that his status is no longer that of a normal human being, but as a king with the status of a god (Abdul Rahman Abdullah, 1998:27–28).

The function of mountains as a symbol of the greatness of a king with the status of a demi-god or god-king can also be seen through the story of Puteri Gunung Ledang in the *Sejarah Melayu* (1986:160–61). In this story, Mount Ophir in Melaka is said to have been the abode of this princess.



Map 4 Location of Malaysia.



Map 5 Location of Mount Ophir (Gunung Ledang).

Meanwhile, the view that Puteri Gunung Ledang has the status of a god-king can be seen in the words of Sultan Mahmud:

If you married the son of these kings, there are other kings also;
what we want are things that no other king has, that is why we
must marry.

(*Sejarah Melayu*, 1986:159–60)

The greatness of Puteri Gunung Ledang who dwelt on the peak of this mountain can be seen in the peculiar and unique nature of the location where she lived. In addition to the mountain peak which was difficult, the wind which blew on the slopes of the mountain was always strong (see *Sejarah Melayu*, 1986:159–60), to the extent that it complicated the proposed delegation of Sultan Mahmud to meet Puteri Gunung Ledang. In the end only Tun Mamat took on the task of climbing Gunung Ledang to seek an audience with the princess. When Tun Mamat reached the heights of the mountain, the greatness of Puteri Gunung Ledang as a god-king was shown through her beautiful and strange garden that he encountered, as in the following passage:

Having seen Tun Mamat, all the birds in the rose garden sang, a variety of sounds, some like people whistling, some like people playing flutes made from the stalks of rice plants, some like people reciting *syair* (poems), some like people reciting *bait* (couplets), some like people *seloka* (quatrains of four rhyming lines), and some like people reciting *gurindam* (also couplets). Ripe lime cheered, orchids guffawed, pomegranates smiles, roses recited pantuns:

*Sana sini gigi menimang,
Hendak makan ikan dalam telaga;
Lagi lemak telur berlinang,
Sisiknya lekat kepada dada.*

The teeth are grating against each other,
They wish to eat the fish of the well;
Fine and fat are the roes for frying,
And the scales will stick to breast.
The blue flower of the Spanish cherry tree replied, saying,

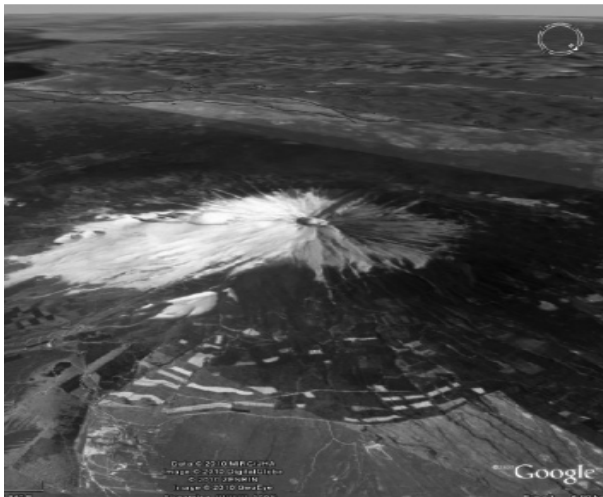
*Dang Nila memangku puan,
Berembang buah pedada;*

*Adakah gila bagimu tuan?
Burung terbang dipipiskan lada*

Dang Nila put in his betel box,
The Berembang and the Pidada fruit;
Was there ever such a fool as you, Sir?
The bird has flown, and you are only grinding the pepper (for catching it).

(*Sejarah Melayu*, 1986:160).

If checked, all mountain locations depicted in these works function as abodes for governments or dwelling places for spirits such as ghosts, jinns, and fairies. In fact, the function of mountains is honoured again with the depiction of becoming the location for the abode of god-kings or human demi-gods resulting from the marriage of men with the fairies or gods.



Map 6 The Himalayas.

(4) As a place of meditation, learning, or seeking spiritual knowledge and self-defence

Mountain areas are apparently difficult to enter because of their thick forest on steep terrain. Hence areas like this are not selected by mankind for their social and cultural space. Even so, the Asian

works selected for this discussion show that thickly forested mountain areas, even more so those with caves, are still the choice of certain individuals, to meditate to sharpen and internalise spiritual knowledge, or to learn.

Hindus believe that the mountains are sacred places. They are thus suitable as places for purifying themselves through penance or meditation as required by God. This can be seen in *Syakuntala* (1979) by Kalidasa when the *ashrama* (retreat) of Pendeta Kasyapa is described at the foot of the Himalayas. That is where the River Malini flows, the river considered sacred by Hindus as they believe that it can cleanse them of sin; the Forest of Sin Redemption contains sacred plants in the cultural space of Hindus such as lotus flowers, helicopter flower plants, *soma* trees, *syakara* trees, *armukta* plants and *aparajita* grass and others; as well as sacred animals such as bees and deer (see *Syakuntala*, 1979: 8, 9.10, 50 and 90).

Apart from the *ashrama* Kasyapa, *Syakuntala* is a work rooted in the Hindu epic *Mahabharata* which also describes other mountain areas as hermitages for Hindu holy men. For example, it describes:

KING: What's the name of that mountain, Matali? The mountain with slopes that end at the eastern sea and the western sea, both slopes watered by rivers of gold?

MATALI: That is Mount Hemakuta, the mountain of Kimpurusya. There dwell the holy men. There also is the God of Creation and his wife to give forgiveness.

(*Syakuntala*, 1979:99–100)

As well as *Syakuntala*, other works show that mountains serve as places to sharpen mystic knowledge include *Hikayat Seri Rama* (1957:12). For example:

At that moment Rawana was lifted onto a boat. He was brought to Mount Serandib. Rawana was lowered onto the hill and its surroundings after sunrise he was placed, upside-down, on the land. Then he got down from the top of the timber. So he went home to keep the fire wood. So it was moored as before under the wood from which it was built. After sundown he climbed atop the wood. Then his legs were tied with his head beneath. In this way he meditated for 12 years.

Having meditated for 12 years on Mount Serandib, Rawana attained deep spiritual knowledge, until he could pass through a wall that could only be penetrated by the wind. The lonely mountain enabled Rawana to meditate until he achieved a high level of spiritual knowledge and acquire these powers.

In *Hikayat Seri Kelantan* (2003:22) moreover, it is told that Cik Siti Wan Kembang, the ruler of Kelantan, handed the throne to the Puteri Sa'adung because she wanted to deepen her religious knowledge. Thus, Cik Siti Wan Kembang chose to live on Gunung Ayam (Mount Chicken). After that, she went to the mountain and fled to Gunung Ayam. Harun Mat Piah (2003:22), for example, says, "Cik Siti fled to Gunung Ayam." The meaning of "fled" is to leave all the worldly comforts of a great and famous ruler in order to seek eternal life. On Gunung Ayam, Cik Siti Wan Kembang spent her life devoting herself to her Creator.

In *Hikayat Seri Kelantan* it also goes on to describe how Puteri Sa'adung also gave up the throne of his kingdom to move to the mountains to cleanse her soul after killing her husband, Sultan Abdullah. The hikayat tells that:

"The story is told of Princess Sa'adung, when she killed Sultan Abdullah, so she tidied her things, all her nannies and maids and subjects, as Puteri Sa'adung desired to move to Bukit Marak.

(Mohd. Taib Osman, 2004:17)



Map 7 China.

In this regard, the mountain is described as functioning as a location for penance so as to cleanse all sins before living out one's remaining days in this world.

Furthermore, *Hikayat Hang Tuah* describes similar functions for mountains when Hang Tuah and his four companions, Hang Jebat, Hang Kasturi, Hang Lekir and Hang Lekiu gained advanced silat skills as a result of studying in the mountains. The hikayat describes it thus:

Hang Tuah said to Hang Kasturi and all his companions, "My four brothers, good, let the five of us go and study. There is a man; he meditates, Aria Putra is his name. We predict the old folks will be warriors in Tanah Melayu." To this Hang Jebat, Hang Kasturi, Hang Lekir and Hang Lekiu said "Okay." So the five of them got ready to travel and sought permission from their parents to begin their journey.

(*Hikayat Hang Tuah*, 1975:27).

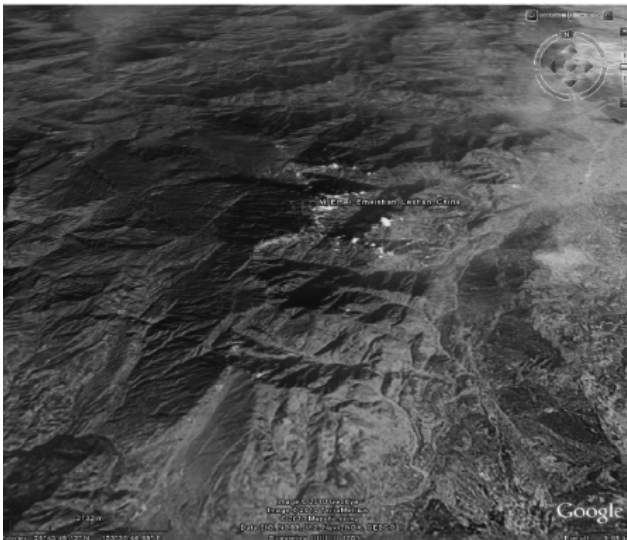
... As Aria Putra was a hermit, he was able to read other people's thoughts. Thus, as soon as he met Hang Tuah and his friends, Aria Putra he guessed their purpose in coming to see him. Intimate knowledge of "proximity" to the quiet and serene mountain enabled Aria Putra to become holy. Aria Putra explained that he had three siblings. His brother, Sang Persata Nala seems also had knowledge because he meditated on the Mount Wirana Pura. This is presented in *Hikayat Hang Tuah* (1975:27-28) as follows:

.... Aria Putra knew the needs of Hang Tuah. So Aria Putra said, "O young Hang Tuah, I am one of three brothers; the youngest, Raden Aria Sina, is an officer in Majapahit; the oldest meditates on Mount Wirana Pura; his name is Sang Persata Nala.

In the novel *Dewi Putih*, mountains are also described as place for meditation to purify the heart and reach a high level of mysticism. For example, Mount Omei located near the city of Hangzhou and West Lake is described as the place where Dewi Putih in her original form as a white snake meditated for 500 years to become human. The text recounts:

For almost five hundred years the white snake was on Mount Omei training to obtain supernatural powers and human characteristics. It is not known how she got to be on the mountain, but it is known

that the atmospheric environment there was unpolluted by man. The cone-shaped mountain stands, set against a background of mountains far away, which were not a range, but appeared in groups or separately or as a blue clouds on the horizon. Mount Omei also looked like a cloud. The white snake sat isolated in a high cave, seeking the truth each day. There was no place more peaceful or quiet than that place. There the white snake stayed to meditate in peace ... (Ren Shaozeng, 1991:15 –17).



Map 8 Location of Mount Omei 290 43' 49.12" North and 1030 30' 46.69" East.

Conclusion

From the discussion of mountains based on several well-known Asian works, it is clear that each mountain location discussed has specific functions in terms of social space, cultural space, movement space, economic space and ideological space. Indirectly, by understanding the causes of the selection of mountain locations, these functions can be investigated in terms of humanity and culture. Mapping locations also enables locations to be detected and scientifically confirmed through remote-sensing technology and GIS.

In principle, the use of images from open sources such as Google Earth has some limitations. Among these, the image quality provided

for a location is not the same which is the reason the result or the map/image shown is different and less clear. This situation can be improved by using aerial photographs or by using digital images from QuickBird, which are clearer. It is important that data produced are good so that the process of analyzing locations to understand the structure of space or background and function in a work and the connection with characters can be described clearly. In other words, remote sensing technology and GIS are able to verify the truth about a location, and also to clarify understanding of the background of the place, time, and events in a creative work, from ancient times until now.

However, the description in an essay on paper merely shows the benefit of marrying these disciplines and that understanding literature is quite difficult compared to practical portrayal. This is so because with the help of Google Earth, public interest in understanding of literary manuscripts will be more meaningful, interesting and effective!

References

Abdul Rahman Haji Abdullah, 1998. *Falsafah Alam Semesta di Nusantara: Tradisi dan Reaksi dalam Sejarah Kosmologi Melayu*. Yusran Publishing House: Kedah.

Amir Saifude Ghazali, 1999. "Etika Alam Sekitar dan Pembangunan Negara". *Prosiding Seminar Kebangsaan Alam, Manusia dan Pembangunan di Malaysia: Dasar, Strategi dan Kelestariannya*, 19th June at Bangi, Selangor.

Ann Wan Seng, 1994. *Adat dan Pantang Larang Orang Cina*. Fajar Bakti: Kuala Lumpur.

Burrough, P.A. & McDonnell, R.A., 1998. *Principles of Geographic Information Systems*. Oxford: Oxford University Press.

Campbell, J.B., 1987. *Introduction to Remote Sensing*. New York: The Guilford Press.

Dylan Walsh, 2009. *Kepercayaan Masyarakat Jawa Terhadap Gunung* – 3 <http://heritageofjava.com/portal/article.php?story=20090309235741346>.

http://www.jkkn.gov.my/v2/?page_id=53
<http://mistisfiles.blogspot.com/2010/01/alter-terahsia-bangsa-melayu-x.html>

Harun Mat Piah, 2003. *Hikayat Seri Kelantan*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Harun Mat Piah, 2003. *Sastera Rakyat Malaysia, Indonesia, Negara Brunei Darussalam: Suatu Perbandingan*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Harun Nasution, 1973. *Falsafah Agama*. Jakarta: Kramat Kwitang.

James Conolly & Mark Lake, 2007. *Geographical Information System in Archaeology*. New York. Cambridge University Press.

Kalidasa, 1979. *Syakuntala*. Sapardi Djoko Damono (trans.). Jakarta: Pustaka Jaya.

Kasim Ahmad, (ed.), 1975. *Hikayat Hang Tuah*. Kuala Lumpur: Dewan Bahasa dan Pustaka.

Lillesand, TM dan Keifer, RW & Chipman, JW., 2004. *Remote Sensing and Image Interpretation*. Fifth edition. New York: John Wiley & Sons.

Longley, P. A. et al., 2001. *Geographic Information Systems and Science*. Chichester: John Wiley & Son.

Mather, PM., 1999. *Computer Processing of Remotely-Sensed Image: An Introduction*. Second edition. New York: John Wiley & Sons.

Longley, P. A. et al., 2001. *Geographic Information Systems and Science*. Chichester: John Wiley & Son.

Mather, PM., 1999. *Computer Processing of Remotely-Sensed Image: An Introduction*. Second edition. New York: John Wiley & Sons.

Mohd. Taib Osman, 2004. *Hikayat Seri Kelantan*. Kuala Lumpur:

MALAY LITERATURE

Dewan Bahasa dan Pustaka.

Mohd. Zuhdi Marsuki & Amer Saifude Ghazali, 2002. *Etika Alam Sekitar daripada Perspektif Islam, Timur dan Barat*. PTS Publications & Distributors Sdn Bhd: Kuala Lumpur.

Ren Shaozeng, 1991. *Dewi Putih*. Rusnah Talib (trans.). Kuala Lumpur: Dewan Bahasa dan Pustaka.

Star, Jeffery & John Ester, 1990. *Geographic Information System: An Introduction*, New Jersey: Prentice Hall, Englewood Cliffs.

Shellabear W.G. (ed.), 1986. *Sejarah Melayu*. 15th edition. Petaling Jaya: Fajar Bakti.

Sheets, Carolyn; Gardner, Robert & F. Howe, Samuel, 1985. *General Science*. Massachusetts: Allyn and Bacon Inc. Newton.

Tarmiji Masron & Mokhtar Saidin. "Spatial Information Technology in Archaeological Study in Malaysia: Prospects and Challenges" in Mokhtar Saidin & Stephen Chia (ed.) *Archaeological Heritage of Malaysia*, Vol. 2, 30–42, 2009.

Thomas M. Lillesand, Ralph W. Kiefer & Jonathan W. Chipman, 2004. *Remote Sensing and Image Interpretation*. Fifth edition. United States of America: John Wiley & Sons.

Webster's New Twentieth Century Dictionary. 2nd edition. "Isostasy", New York, pg. 975.

Shellabear, W.G., 1957. *Hikayat Seri Rama*. Rev. D.D. (edited from Bodleian MS). Kuala Lumpur: The Caxton Press Ltd.

(Translated by Erianty Ariffin and Martin Dearmer Cross)