

Observations on earthworks and fortifications in Kedah from 600-1800 CE based on local historical literature.

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Earthworks and fortifications have not been given sufficient attention in research on the early architecture of Kedah although they are regularly mentioned in historical texts. This paper attempts to redress this imbalance. A baseline date of 600 CE has been proposed based on evidence provided in the *Salasilah atau Tarikh Kerajaan Kedah* and *Al-Tarikh Salasilah Negeri Kedah* that proposes an early seventh century date for the origin of the Kedah royal dynasty, after which earthwork constructions commenced. This method of construction lasted for more than a millennium but fell out of favour in the late eighteenth century CE with the arrival of the British, who introduced more durable materials. Therefore, the year 1800 CE is taken as the *terminus ante quem* for this type of construction. This paper argues that the types of earthworks and fortifications mentioned in the Hikayat Merong Mahawangsa and in the Al-Tarikh Salasilah Negeri Kedah before the thirteenth century CE cannot be substantiated by archaeology. From the thirteenth century CE onwards, the Al-Tarikh Salasilah Negeri Kedah is validated by archaeological discoveries made in locations mentioned in the text. Similarities exist between the earthworks and fortifications described in the writings of the Al-Tarikh Salasilah Negeri Kedah and in studies made on Malay settlement types. The embankments surrounding the entire settlement were constructed of earth. Consistency in the description of fortifications throughout the Al-Tarikh Salasilah Negeri Kedah suggests that this type of structure may have antecedents as far back as the seventh century CE.

Keywords: Historical literature, Kedah, earthworks, fort, fortifications, settlements

INTRODUCTION

"It is a much publicised fact that historical research on the Malay Peninsula suffers from severe deficiencies of information. The first point from which a coherent reconstruction can be made is with the period of the Melaka Sultanate." (Zaharah, 1970)

These are the opening sentences by Zaharah Mahmud in a paper authored in 1970 on traditional settlements throughout the Malay Peninsula of the period between the pre-Islamic era of the area and the era of colonialism. This statement illustrates the dominant problem concerning the study of this period of Malaysian history which is a scarcity of reliable information. Almost half a century later, these words still hold true as historians and archaeologists are no closer to understanding the

morphology of Malay settlements of the period. Paucity of knowledge aside, scholars studying this period have preferred to emphasise on ancient trading settlements with more cosmopolitan populations that existed on the north-western coast of Peninsular Malaysia that have left tangible remains. Not much work has been done in the area of traditional local settlements within the last five decades and the paper by Zaharah is still as authoritative as it was when it was first published.

Given the circumstances, it is fortuitous that there exist three local texts that shed some light on settlement types of this poorly understood period. These three texts are the Hikayat Merong Mahawangsa, Salasilah atau Tarikh Kerajaan Kedah and the Al-Tarikh Salasilah Negeri Kedah respectively. All three texts deal with the history of

Kedah, a state located on the north-western coast of Peninsular Malaysia. Kedah from the seventh to nineteenth century according to local historical sources was a political entity constantly under attack by powerful neighbours such as Siam and Acheh as well as the British. Consequently, it suffered loss of territory (Mozzafari-Falarti, 2009). As such, some earthwork sites that were once under the control of Kedah now fall within the jurisdiction of neighbouring states and provinces.

It is important to note that all three texts have their weaknesses. The Hikayat Merong Mahawangsa offers a largely unsubstantiated history of Kedah and does not give any chronology of the rulers or timeframe of the events that may have taken place, but has the distinction of being the oldest of the three sources. Scholars date the text from the seventeenth or eighteenth century CE (Mozzafari-Falarti, 2009). The Salasilah atau Tarikh Kerajaan Kedah does not provide a dated genealogy for the pre-Islamic rulers of Kedah but indicates that this dynasty had its origins in the early part of the seventh century CE. The Al-Tarikh Salasilah Negeri Kedah is the first source that provides a dated genealogy for the rulers of Kedah. Like the Salasilah atau Tarikh Kerajaan Kedah, it suggests an early seventh century genesis for the Kedah royal line. Unfortunately, the sources that provided for the writing of the Al-Tarikh Salasilah Negeri Kedah were never revealed. The Salasilah atau Tarikh Kerajaan Kedah and the Al-Tarikh Salasilah Negeri Kedah both date from the beginning of the twentieth century, a date far too modern to be totally reliable on the earliest period of Kedah's history without further validation. Due to the recent date of these sources and their ambiguity, they have to be crosschecked against the archaeological record and more recent studies on the types of settlements that may have existed in other parts of the country during this period in order to have validity.

Apart from being mentioned in historical sources, the presence of earthworks in Kedah was noted by archaeologists such as H. G. Quaritch-Wales and B. A. V. Peacock. The excavations of Quaritch-Wales in 1937 revealed earthworks at the base of Bukit Choras, the peak of which is crowned by the remains of Site 1 which may have been a stupa in antiquity (Quaritch-Wales, 1940). Two decades later, Peacock (1958) noted the presence of artefacts at a nondescript village in northern Kedah named Kota Seputih, whose appearance belied an earlier period of prestige as the capital of Kedah from 1323 to 1626 CE. Among the artefacts uncovered by Peacock was a coin that may have belonged to either one of two local rulers of the seventeenth century named Sultan Muhyiddin Mansur Syah (1652-1661 CE) or Sultan Dhiauddin Al-Mukarram Shah (1661-1688 CE). More recent and thorough studies have uncovered remains of earth palisades at the same location. Local and foreign coins spanning four centuries from the late fourteenth century CE to the eighteenth century CE were found as well (Ibrahim Bakar & Haji Shaarani, 2014). Apart from coins, local artefacts discovered include coin-minting equipment, cannon balls and a keris (Malay dagger). Chinese ceramics from the Ming Dynasty (1368-1644 CE) were among the foreign artefacts at the site. The presence of royal coins confirms that the site of Kota Seputih was the royal capital from the fourteenth to seventeenth century, vindicating the narrative of the Al-Tarikh Salasilah Negeri Kedah which mentions the same. Taking these discoveries into consideration, it is surprising that scant attention is being paid to other earthworks that are stated by historical accounts as having existed throughout the greater part of the state.

2. METHODOLOGY

This paper studies earthworks and fortifications in Kedah from 600-1800 CE as mentioned in accounts of the Hikayat Merong Mahawangsa, Salasilah atau Tarikh Kerajaan Kedah and the Al-Tarikh Salasilah Negeri which are three local texts on the history of Kedah. This study will compare the description of earthworks and fortifications in the aforementioned texts to analyse the similarities and differences. The conclusions of this will then be compared against previous studies on Malay settlement types. Archaeological evidence will be taken into consideration where necessary. There are no detailed descriptions of earthworks or fortifications in the Salasilah atau Tarikh Kerajaan Kedah but this text is included to validate certain aspects of the other two sources. Given the recent dates of the texts and their lack of unanimity, the strengths and weaknesses of each text as a valid source of history must be assessed separately.

3. Earthworks and fortifications in the Hikayat Merong Mahawangsa

The earliest earthwork mentioned in the Hikayat Merong Mahawangsa was constructed by the first monarch of Kedah, Merong Mahawangsa, a court official from "Rum" which is believed to be in Persia (Low, 1849). Constructions by him and subsequent monarchs are described and detailed in Tables 1 and 2.

Table 1: Forts erected by the Kings of Kedah according to the Hikayat Merong Mahawangsa (Adapted from: Low, J. (1849) A Translation of the Keddah Annals termed Marong Mahawangsa)

Sultan Name	Period	Construction
Surum Nume	Teriou	activities according to Hikayat Merong Mahawangsa
Merong Mahawangsa	-	1) "a fort with a ditch around it, also a palace and a very spacious balei, or hall, of audience" (Kota Langkasuka). His entourage erected their dwellings around the fort.
Raja Marong Maha Podisat	-	Did not construct.
Raja Sri Mahawangsa	-	1) "small palace at Srokam"
		2) Started construction of fort of lime and shells and palace at Sungai Mas but did not complete.
An unnamed king	-	1) Continued the construction of fort and palace at Sungai Mas.
Raja Wong Maha Prit Durya (Raja Bersiong)	-	1) Constructed a masonry based fort close to the sea built of Acehnese stones. Consisted of fort, palace and town. The settlement was known as Kota Aur. Fort was 4-sided and 500 people lived in it. 2) Mention of a "square entrenchment of mud and earth with proper guards at four corners or angles"
		3) Built mud fort at Sungai Dedap

Raja Phra Ong Mahapotisat	-	4) Erected mud fort and prison at Bukit Penjara 1) Erected mud fort and palace at Bukit Meriam
Raja Phra Ong Mahawangsa	-	1) Erected a mud fort with fencings built of pallas trunks and of dangser called Kota Palas. 2) Built mosques where there was a congregation of 44 people or more. 3) Erected fort near Padang Terap. 4) Erected fort at Lankapuri.

From the description of forts in Table 1, there does not seem to be any consistency in the type of building material mentioned, with the forts being built with diverse building materials such as lime, shell, Acehnese stones, mud, palas and dangser. The latter two are both names of plants. No archaeological evidence found so far suggests that lime, shells or Acehnese stones were used as fort building materials, although a type of gravestone known colloquially as "Batu Aceh" or Acehnese stone has been discovered throughout Kedah. Most of them date from the seventeenth century (Othman, 1988). The diversity of building materials as shown in Table 2 does not allow for any conclusions to be made on building material type although the function of buildings found within the earthworks or fortifications (palaces and audience halls) show consistency throughout the text. The mention of Kota Aur settled by 500 people gives a rough idea of the size of these earthworks.

Table 2: Details on forts in Hikayat Merong Mahawangsa (Adapted from: Low, J. (1849) A Translation of the Keddah Annals termed Marong Mahawangsa)

Fort Name and Location (District)	Building Material	Building s Within	Further Details
Kota Langkasuk a (Kuala Muda)	-	Palace, Audience Hall	Had a moat
Kota Sungai Mas (Kuala Muda)	Lime and shells	Palace	-
Kota Aur (Seberang Prai Utara)	Acehnese stones	Palace	4 sided, containe d 500 people
Fort at Sungai Dedap (Kuala Muda)	Mud	-	-
Fort at Bukit Penjara (Kuala Muda)	Mud	-	Prison nearby or possibly within fort
Fort at Bukit Meriam (Kuala Muda)	Mud	Palace	-
Kota Palas (Unknown)	Mud, Palas trunks, "Dangser	-	-
Fort at Padang Terap (Padang Terap)	-	-	-

Fort at	-	-	-
Lankapuri			
(Unknown)			

4. Earthworks and fortifications in the Salasilah atau Tarikh Kerajaan Kedah

The Salasilah atau Tarikh Kerajaan Kedah which was published in 1911 is silent on the details of earthworks in Kedah, although it concurs with the Hikayat Merong Mahawangsa and the Al-Tarikh Salasilah Negeri Kedah that the earliest earthwork in Kedah was called Kota Langkasuka, adding that it was constructed in 630 CE (Wan Yahya, 1911). The text excludes the period between 650 CE until 1400 CE, when it mentions a certain Sultan Mahamad Shah as ruling from Kota Kuala Muda. Over the next four centuries, settlements are mentioned in various parts of Kedah. Suffice to say all the settlements in this text with the exception of Kota Langkasuka and Kota Kuala Muda seem to have been either mentioned or established after 1600 CE. Kota Seputih, Kota Naga, Kota Sena, Kota Iliar and Kota Bukit Pinang were either founded or mentioned by the seventeenth century while Kota Setar (Alor Setar), Kota Kayangan, Kota Negeri, Kota Anak Bukit and Kota Kuala Kedah were mentioned as having existed by the eighteenth century CE. The mention of many forts during the 17th and 18th centuries does not imply that they were founded at the time but suggests that they were already in existence by that period. While this text does not throw much light on the types of building materials used, it remains important to bridge the dichotomy between the accounts of the Hikayat Merong Mahawangsa and the Al-Tarikh Salasilah Negeri Kedah. The narrative of the Salasilah atau Tarikh Kerajaan Kedah has more in common with the Al-Tarikh Salasilah Negeri Kedah than the Hikayat Merong Mahawangsa especially concerning toponyms.

5. Earthworks and fortifications in the Al-Tarikh Salasilah Negeri Kedah

The most comprehensive account of earthworks is contained in the Al-Tarikh Salasilah Negeri Kedah which was published in 1927. The sources for this text have never been revealed by the author and remain vague. As such its reliability remains suspect especially pertaining to the earliest period. According to this book, the founder of Kedah was a scion of Persian royalty who arrived in Kedah at around the same date given in the Salasilah atau Tarikh Kerajaan Kedah (Mohd Zahid, 1927). The foundation of the first fortification was dated to 634 CE. Construction activities undertaken by

subsequent rulers of Kedah are shown in Table 3 below.

Table 3: Construction activities by the Sultans of Kedah according to the Al-Tarikh Salasilah Negeri Kedah (Adapted from: Mohd Zahid bin Mohd Shah (1968) Al-Tarikh Salasilah Negeri Kedah oleh Muhammad Hassan bin To' Kerani Mohd. Arshad)

Sultan Name	Period	Construction activities according to the Al-Tarikh Salasilah Negeri Kedah
Maharaja Derbar Raja	634	1) Constructed of earth with bamboo cultivated on the ramparts as an additional layer of defence. Contained 3 gateways and enclosed an audience hall and a palace. Surrounded by houses. (Kota Langkasuka)
Maharaja Diraja Putra	-	1) Built a fort at a place called Siong with a palace and audience hall. (Kota Bandar) 2) Built a second settlement at Sidin.
Maharaja Maha Dewa	-	1) Enlarged the settlement at Sidin and transferred the settlement and palace there. 2) Built a fort downstream of the Muda River. Cultivated bamboo around it and punctured it with 3 gateways and enclosed a palace and audience hall built of wood. Surrounded the fort with houses. (Kota Ok)

Sri Maharaja Karna Diraja	-	1) Built another fort called Kota Arongarongan.
Sri Paduka Maharaja Kerma	-	1) Opened up a town at Bukit Meriam.
Sri Paduka Maharaja Maha Dewa	-	1) Built a farm and plantation on a small hill near Kuala Babur. The hill was later called Bukit Puteri and had a residence for the princess.
Sri Paduka Maharaja Derma Raja	-	1) Opened up settlements and made people live from Kota Arong- Arongan until Bukit Meriam and Bukit Puteri.
		2) Built a prison at the base of hill called Bukit Penjara.
		3) Established a fort at Bukit Meriam with a palace and an audience hall.
		4) Constructed a pool at Padang Janggam.
Sri Paduka Maharaja Maha Jewa	-	1) Opened up settlements at Langkawi, Duai (Tanjung Dawai), Merpah and Kuala Bara.
Sri Paduka Maharaja Derbar Raja (Later Sultan Muzaffar Shah)	1136– 1179	1) Built tower for Muslim prayer at the peak of Gunung Jerai. Supposedly built of stone, iron and brick.
,		2) First mention of settlements at Kota Palas, Kuala Prai, Kuala Kerian and

		Kota Ulu, Padang Terap.
Sultan Muazzam Shah	1179– 1201	1) Built Kota Sungai Mas with an audience hall and palace with a guardian area and small halls.
Sultan Muhammad Shah	1201– 1236	No construction activities.
Sultan Muzzil Shah	1236– 1280	1) Opened up settlements from Sungai Dedap to Bukit Penjara at the mouth of the Merbok River.
Sultan Mahmud Shah	1280– 1321	1) Built Kota Seputih. It had an audience hall and palace with a moat planted with bamboo on its walls. 2) Built another fort at Merpah in Satun, Thailand.
Sultan Ibrahim Shah	1321– 1373	No construction activities.
Sultan Sulaiman Shah	1373– 1422	No construction activities.
Sultan Ataullah Muhammad Shah	1422– 1472	1) Dug a canal between Sungai Jerlun and Alor Janggus and another from Alor Janggus to Kubang Rotan until Sungai Mati to connect Sungai Mati to the Kedah River.
Sultan Muhammad Jiwa Zainal Azilin	1472– 1506	No construction activities.
Sultan Mahmud Shah	1506– 1546	No construction activities.

Sultan Muzaffar Shah Sultan Sulaiman Shah	1546– 1602 1602– 1625	1) Built Kota Naga. 2) Built a fort with an audience hall called Kota Naga. 1) Mention of settlements at Tamalang, Merpah and Kuala Bara (all in Satun, Thailand). Further settlements at Kodiang,
Sultan Tengku Rijaluddin Muhammad Shah	1625– 1651	Sanglang and Pering. No construction activities.
Sultan Muhyiddin Mansor Shah	1651– 1661	 Built a fort at Sena. Mention of a fort called Kota Rentang.
Sultan Dhiauddin Al- Mukarram Shah	1661– 1687	1) Built a fort called Kota Indera Kayangan at Wai in Perlis which was equipped with an audience hall and palace. 2) Built another fort at Bukit Pinang with an audience hall and palace. 3) Built a fort called Kota Giam. 4) Dug a canal from Kayang to Sungai Besar Kg Che Mad.
Sultan Ata'ullah	1687– 1698	1) Kota Limbong first mentioned
Sultan Abdullah al- Muazam Shah	1698– 1706	1) Mention of settlements at Langgar, Limbong and Tajar. 2) Built a "langgar" at Limbong.

Sultan Ahmad	1706–	1) Dammed Sungai
Tajuddin	1709	Pinang.
Halim Shah		
Sultan Tengku	1710–	1) Built Kota Star
Muhammad	1778	and equipped it with
Jiwa		a palace and
		audience hall.
		2) Dug a channel
		from Alor Semadam
		to Pumpong.
		3) Built Kota Anak
		Bukit and equipped
		it with an audience
		hall and palace.
		4) Built another fort
		at Akar Peluru.
Sultan	1778–	1) First mention of
Abdullah	1797	Kota Langgar.
Mukarram		2) Constructed a
Shah		brick fort at Kuala
		Kedah using Indian
		expertise and labour.
		expertise and labour.
		3) Mention of
		settlement at
		Tanjung Pauh.
Coston	1707	1) On and America
Sultan	1797–	1) Opened Arau in
Dhiauddin	1803	Perlis.
Mukarram		
Shah		

In Table 3, there is sufficient evidence to suggest continuity in the style of fort building from around the seventh century CE to the eighteenth century CE. Throughout this period forts were built using earth, topped with bamboo ramparts and had 3 gateways. In the earliest period, the first three rulers of pre-Islamic Kedah constructed forts that were described as containing a palace and an audience hall. The first and third ruler both cultivated bamboo atop the ramparts of their forts, suggesting that both forts were constructed of earth. Both forts had 3 gateways, suggesting structural uniformity. In Table 4, only two forts are mentioned as being constructed of earth. From the seventh to the eighteenth century, all forts contained the same types of buildings, namely a palace and an audience hall. Three forts, two of which were from the earliest period while the third being Kota Seputih (thirteenth century CE) were all mentioned as having bamboo grown on the ramparts. Two forts were mentioned as having three gateways while Kota Seputih was mentioned as having a moat.

Table 4: Details on forts in Al-Tarikh Salasilah Negeri Kedah (Adapted from: Mohd Zahid bin Mohd Shah (1968) Al-Tarikh Salasilah Negeri Kedah oleh Muhammad Hassan bin To' Kerani Mohd. Arshad)

Fort Name and Location	Building Materia I	Building s Within	Further Details
Kota Langkasuk a (Sik)	Earth	Palace, audience hall	3 gateways . Bamboo grown on ramparts
Kota Bandar (Baling)	-	Palace, audience hall	
Kota Sidin (Kulim)	-	Palace	-
Kota Ok (Sik/Kuala Muda)	Earth	Palace, audience hall (built of wood)	3 gateways . Bamboo grown on ramparts
Kota Arong- Arongan (Sik)	-	-	-
Kota Bukit Meriam (Kuala Muda)	-	Palace, audience hall	-
Kota Palas (Padang Terap)	-	-	-
Kota Ulu (Padang Terap)	-	-	-
Kota Sungai Mas (Kuala Muda)	-	Palace, audience hall, guardian area, small halls	-

	T	1	T
Kota Seputih (Kubang Pasu)	-	Palace, audience hall	Moat. Bamboo grown on ramparts
Kota Merpah (Satun)	-	-	-
Kota Naga (Kubang Pasu)	-	Audience hall	-
Kota Sena (Perlis)	-	-	-
Kota Rentang (Kubang Pasu)	-	-	-
Kota Indera Kayangan (Perlis)	-	Palace, audience hall	-
Kota Bukit Pinang (Kota Star)	-	Palace, audience hall	-
Kota Giam (Kubang Pasu)	-	-	-
Kota Limbong (Kota Star)	-	-	-
Kota Star (Kota Star)	-	Palace, audience hall	-
Kota Anak Bukit (Kota Star)	-	Palace, audience hall	-
Kota Akar Peluru (Kota Star)	-	-	-
Kota Langgar (Kota Star)	-	-	-
Kota Kuala Kedah (Kota Star)	Brick	-	-

Based on the evidence provided in the Al-Tarikh Salasilah Negeri Kedah, there is continuity in the style of fort building in Kedah from the earliest period of its construction, which may have had antecedents in the seventh century CE. However, most of this hinges on the reliability of the Al-Tarikh Salasilah Negeri Kedah as a historical source. Given its recent date and lack of other sources that could validate this account, the credibility of this text does not rest on solid ground. The first fort that can be supported by archaeological evidence is Kota Seputih, which is located in northern Kedah. This fort dates back to the thirteenth century according to the Al-Tarikh Salasilah Negeri Kedah but the earliest artefacts are from the late fourteenth century CE (Peacock, 1958; Ibrahim Bakar & Haji Shaarani, 2014). However, it is possible that older artefacts have yet to be discovered, given the lack of attention to the site. It is important to note here that many of the sites of earthworks of the seventeenth and eighteenth century have been identified and found not to contain masonry structures, suggesting that the structures within were built of wood.

6. Conclusions about earthworks and fortifications in Kedah based on the three texts

The Hikayat Merong Mahawangsa and the Al-Tarikh Salasilah Negeri Kedah are more informative on details of construction work in Kedah compared to the Salasilah atau Tarikh Kerajaan Kedah, although the latter remains important to authenticate the two accounts. The building materials mentioned in the Hikayat Merong Mahawangsa are more diverse but less uniform compared to the Al-Tarikh Salasilah Negeri Kedah. For example, the Hikayat Merong Mahawangsa mentions that earthworks were constructed using materials as diverse as palas, dangser, lime, shells, Acehnese stones and mud. None of these have been discovered in Kedah. On the other hand, the Al-Tarikh Salasilah Negeri Kedah is specific that only a certain type of construction was used with minimal innovation for almost 12 centuries and that this type of construction used "earth" and did not involve the use of brick and stone.

The description of the forts and the types and functions of buildings within the earthworks are uniform too. While the Hikayat Merong Mahawangsa mentions the use of Acehnese stones, it is well known that the only "Acehnese stones" found in Kedah are tombstones. The advantage of the Hikayat Merong Mahawangsa is that it is contemporary with some of the forts of the later period of this study yet is embellished with many mythical elements, making historians sceptical about its reliability as a source of history. The narrative of the Al-Tarikh Salasilah Negeri Kedah is questionable too since none of the forts discovered

in Kedah from a period prior to the thirteenth century has been discovered so far although this may be put down to lack of research. Of the two texts, the identification of forts in the Al-Tarikh Salasilah Negeri Kedah is more akin to the type of earthworks that can be found in other states of Malaysia and in studies on Malay settlements by scholars such as Zaharah Mahmud (1970) and Siti Norlizaiha Harun & Rusamah Abdul Jalil (2014). Therefore, the Al-Tarikh Salasilah appears to be the more reliable of the two, although archaeology can only substantiate this reliability from the thirteenth century onwards. The fact that none of these forts mentioned before the thirteenth century CE have been detected so far lends credence to the Al-Tarikh Salasilah Negeri Kedah which states that they were constructed of ephemeral materials.

7. Studies on Malay earthworks and fortifications

Table 5: The Functions and Characteristics of a Malay Fort (Taken From: Siti Norlizaiha & Rusamah (2014) The History and Characteristics of Malay Early Towns in Peninsular Malaysia)

Functions	Characteristics
Defence Centre	1) Surrounded by moats
	2) Driven with stakes / objects to obstruct enemies
	3) Patrolled by armed sentries
Ruling/Administrative Centre	Equipped with a main building and a few administrative buildings
	2) Assembly area for the king's subjects
	3) Place for public trials
	4) Place for religious activities
	5) Armoury
	6) Food stockpile
Royal Residence	1) Palace with audience hall, main hall and assembly hall

2) Buildings owned by the king including the
royal gardens

According to Siti Norlizaiha Harun and Rusamah Abdul Jalil (2014), Malay forts were constructed using a variety of materials such as earth, rocks, wood and bamboo. Most of these fortifications were located close to waterways. Forts that were built for defensive purposes were constructed on top of hills and at other vantage points overlooking waterways. Apart from defence, these fortifications served a number of other purposes such as centres of administration and royal capitals as illustrated in Table 5. Some of the criteria provided by Siti Norlizaiha Harun & Rusamah Abdul Jalil (2014) in Table 5 seems to have been fulfilled by the fortifications described in the Al-Tarikh Salasilah Negeri Kedah and the Hikayat Merong Mahawangsa. Malay forts in the initial period were constructed of earth, wood and bamboo. In later periods, rocks and stones became popular. Eventually an apogee in fort building was achieved where red bricks were bound together with an adhesive with similar properties to cement.

Defensive characteristics became more apparent in the 15-17th centuries due to threats from Siam and the Portuguese and subsequent encroachments by western powers such as the Dutch and British. The presence of moats and double layered walls with cannons were probably additions from this period. Siti Norlizaiha Harun and Rusamah Abdul Jalil (2014) mention Malay forts of the fifteenth century as being constructed of rocks, but no example has been found in Kedah. Here earthworks continued to be constructed until well into the eighteenth century, with the exception of Kota Kuala Kedah which was built of brick in 1770 CE with labour and expertise from India, as mentioned in the Al-Tarikh Salasilah Negeri Kedah. In fact, none of the later developments suggested by Siti Norlizaiha Harun & Rusamah Abdul Jalil (2014) seem relevant to the Kedah earthworks or fortifications. If the Al-Tarikh Salasilah is to be taken as reliable in the period preceding the foundation of Kota Seputih in 1282 CE, then the presence of moats in Kedah can be dated to the seventh century CE.

8. Conclusions

The use of the word "fort" in most local texts can be misleading although in this paper it has been retained to follow the description given by the three texts. Earthworks have been defined as "a bank or mound of earth used as a rampart or fortification" while fortification has been defined as "a defensive

work" ("Earthworks", 1923; "Fortifications", 1923). Based on both definitions, the word earthworks may be a more accurate term to describe the type of fortifications found in Kedah, although fortifications may describe the structures not built of earth such as Kota Kuala Kedah. The mention of earthworks from the seventh century to the eighteenth century with three gateways, bamboo-topped ramparts, palace and audience hall suggests that this type of construction may have had considerable antiquity in Kedah.

Although the earlier period of the Al-Tarikh Salasilah Negeri Kedah is hazy and cannot be taken at face-value, it can be ascertained that this form of settlement may have existed in Kedah from at least the thirteenth century CE since Kota Seputih is the first earthwork that can be verified by archaeology as having existed from this period. Nonetheless, this does not mean that such constructions could not have predated the thirteenth century CE. Generally the account of the Al-Tarikh Salasilah can be taken to be more reliable than the Hikayat Merong Mahawangsa on the basis of its and support by archaeological discoveries made in many of these places. Other than Kota Seputih, the sites of Kota Naga, Kota Sena and Kota Indera Kayangan have been located, thus adding to the credibility of the Al-Tarikh Salasilah Negeri Kedah.

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