THE ROCK ART OF KINTA VALLEY, PERAK, MALAYSIA

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THE ROCK ART OF KINTA VALLEY, PERAK, MALAYSIA

by

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Finally, I would like to dedicate this dissertation to my late mother, Yeh Shu Huei, who passed away in October 2017. I miss you dearly and no words could express how much I wish you were here.

TABLE OF CONTENTS

LIST OF TABLES

Page

LIST OF FIGURES

Page

LIST OF PLATES

Page

LIST OF APPENDICES

LUKISAN GUA DI LEMBAH KINTA, PERAK, MALAYSIA

ABSTRAK

Kajian ini dijalankan untuk mengkaji tradisi lukisan gua di Semenanjung Malaysia dan seterusnya menerokai hubungan budayanya berdasarkan lukisan gua di Lembah Kinta, Perak, Malaysia. Sehingga kini, kajian yang mendalam dan juga penerbitan antarabangsa mengenai lukisan gua di Semenanjung Malaysia adalah agak terhad. Kajian ini mempersembahkan hasil daripada dokumentasi sistematik terhadap sebelas buah tapak lukisan gua iaitu Gua Kelawar, Gua Mat Surat, Gua Mat Surat 2, Gua Tambun, Gua Tempurung, Gua Toh Semelah, Pelindung Batuan Karang Besar, Pelindung Batuan Keroh 1, Pelindung Batuan Keroh 2, Pelindung Batuan Kintaly 1 dan Pelindung Batuan Kintaly 2. Metod dokumentasi yang digunakan dalam kajian ini berbeza dengan kajian-kajian terdahulu dengan menggunakan model pengkategorian motif lima peringkat untuk mengelakkan sebarang bias dalam analisis. Lukisan-lukisan gua kemudiannya dianalisis menggunakan analisis multivariat (analisis penghubungan dan analisis penskalaan berbilang dimensi) bersama kajian perbandingan untuk mengenalpasti hubungan di antara tapak yang berbeza. Selain tradisi lukisan gua yang dikenali sebelum ini, ia dapat dibahagikan kepada tradisi lukisan berwarna dan hitam, kajian ini juga telah mengenalpasti lima sub-tradisi lukisan gua (ST 1 – 5) di Lembah Kinta. Kajian ini mencadangkan bahawa fasa terawal lukisan gua merangkumi dua sub-tradisi (ST 1 & ST 2) yang bermula sejak zaman Hoabinhian (~13,000 tahun dahulu). Kedua-dua ST 1 dan ST 2 boleh didapati di pelindung batuan atau gua dan meliputi lukisan gua berwarna yang menggambarkan bentuk geometri dan figura zoomorfik. Tiga sub-tradisi yang lain pula merangkumi lukisan gua hitam dan juga putih. ST 5 jelas berasal daripada zaman berlakunya

pertembungan budaya kerana melibatkan gambaran budaya asing, namun ST 3 dan ST 4 kebanyakannya terdiri daripada motif-motif yang berkait rapat dengan budaya Orang Asli. Perbezaan utama di antara ST 3 dan ST 4 ialah lokasi, ST 3 hanya dijumpai di dalam gua, manakala ST 4 terdapat di pelindung batuan. Meskipun kajian-kajian terdahulu kebanyakannya mengaitkan pemilikan lukisan-lukisan gua di Semenanjung Malaysia dengan kumpulan-kumpulan etnik Orang Asli, kajian ini berpendapat bahawa lukisan gua dari fasa lewat di Semenanjung Malaysia berkemungkinan lebih berkait rapat dengan kelompok bahasa Asli Tengah. Perluasan laluan sungai rentas semenanjung memainkan peranan yang penting dalam penyebaran lukisan gua ke seluruh Semenanjung Malaysia. Kajian ini meningkatkan lagi pemahaman mengenai lukisan gua di Lembah Kinta, dan mencadangkan penanda aras baharu untuk kajian lukisan gua Malaysia pada masa hadapan.

THE ROCK ART OF KINTA VALLEY, PERAK, MALAYSIA

ABSTRACT

This dissertation investigates the rock art tradition of Peninsular Malaysia and explores its cultural affiliation, based on the rock art recorded in the Kinta Valley, Perak, Malaysia. Up until today, in-depth studies and international publications on rock art in Peninsular Malaysia were relatively scarce. This study presents the results of systematic documentation of eleven rock art sites, namely Gua Kelawar, Gua Mat Surat, Gua Mat Surat 2, Gua Tambun, Gua Tempurung, Gua Toh Semelah, Karang Besar Rock Shelter, Keroh Rock Shelter 1, Keroh Rock Shelter 2, Kintaly Rock Shelter 1, and Kintaly Rock Shelter 2. The documentation method differs from the earlier studies in which it incorporated a five-level motif categorization model to eliminate analytical bias. The rock art was later analysed using multivariate analysis (correspondence analysis and multidimensional scaling) with additional comparative study to identify the relationship between sites. Apart from the previously known rock art traditions, which had been broadly divided into coloured and black rock art traditions, this study had identified five rock art sub-traditions (ST 1 – 5) across the Kinta Valley. The study suggests that the earliest phase of rock art comprises two sub-traditions (ST 1 & ST 2) which began as early as the Hoabinhian period (~13,000 years ago). Both ST 1 and ST 2 can be found at rock shelters or caves and represented by coloured rock art depicting geometric shapes and zoomorphic figures. The other three sub-traditions are made up of black rock art, with an occasional depiction of white rock art. While ST 5 is clearly of the contact period since it often includes foreign subject matter, ST 3 and ST 4 predominantly consist of designs attributed to the Orang Asli culture. The main difference between ST 3 and ST 4 is that the former is located

within the dark cave, whereas the latter is located at an open rock shelter. While previous studies had widely assigned the ownership of the rock art of Peninsular Malaysia based on Orang Asli's ethnic groups, this study argues that the rock art of later period in Peninsular Malaysia was probably facilitated by the Central Aslian language group. The expansion of trans-peninsular river routes may have contributed to the diffusion of rock art culture across Peninsular Malaysia. This study greatly enhanced our understanding of the Kinta Valley rock art, and it proposes a new benchmark in the future delivery of Malaysian rock art research.

CHAPTER 1

INTRODUCTION

Rock art refers to any forms of man-made marking on the landscape. It generally involves two types of human markings or alterations on the landscape, which are pictograms, and petroglyphs. Unlike most artefacts which are portable, rock art is immovable since it was created, it was meant to be placed at that same location where it was discovered. Once being created, rock art completely transformed the landscape, the landscape became imbued with meanings given by the artist, and people who later encounter the rock art give new meanings upon the markings. It is a form of cultural expression which reflects the worldview of the ancient people (Domingo Sanz et al., 2008), thereby providing a glimpse into the dynamic relationship between people and their surroundings.

The age for rock art has been pushed back in time with new discoveries and development of dating methods, in particularly the Uranium-Thorium series dating. The earliest known rock art date comes from the Tibetan plateau which consist of hand and foot traces that were proposed to be intentionally imprinted between 169 and 226 ka BP (Zhang et al., 2021). Due to its early date, is has been proposed that the artists could have been *Homo sapiens* or the Denisovan (Zhang et al., 2021).

For many years, rock art was seen as work of modern humans only until the dating of the rock art in an Iberian cave which yielded a date of at least 64.8 ka, suggesting a Neanderthal origin (Hoffmann et al., 2018). Nevertheless, some were sceptical about the result and therefore the claim for Neanderthal art remains an open question (Aubert, Brumm, et al., 2018). Elsewhere in Europe, a more firmly established minimum date of 40.8 ka of a red-disc shape red painting in Spain was regarded as the earliest non-figurative rock art (Pike et al., 2012).

The oldest figurative painting in the world currently lies in Sulawesi, Indonesia, from a pig painting that was dated to at least 45.5 ka using Uranium-Thorium series analysis (Brumm et al., 2021). Another pig painting at a nearby cave was dated to at least 43.9 ka (Aubert et al., 2019), both surpassing the dates from Europe by at least a few thousand years. These new discoveries have dramatically changed the early notion that the ability for complex thinking in human minds has its roots in Europe, but instead had occurred earlier in Southeast Asia (Aubert et al., 2019). This finding has also highlighted the importance of rock art research in Southeast Asia. Hundreds of rock art sites have been discovered in Southeast Asia thus far, but the majority of them are reported in Thailand and Indonesia.

Rock art research in Malaysia was an emerging field of study in the 1950s but it became sporadic over the past three decades (1990s-2010s) and it is still a largely unexplored field up until today. In Malaysia, archaeological artefacts and ecofacts are more frequently used by archaeologists and ethnographers compared to rock art to reconstruct the lifeways of past communities (e.g., Chia, 1998; Jaafar & Asaruddin, 1996; Peacock, 1959; Tweedie, 1942). Rock art, on the other hand, is often underrepresented in Malaysian archaeology due to its non-portability and difficulties in establishing chronology. Most of our current understanding of rock art in Malaysia is retrieved from the descriptive works of earlier researchers which only briefly discussed the rock art without detailed documentation or scientific investigations (e.g. Dunn, 1964; Evans, 1918, 1920; Taha, 1993). There are only a handful of publications in the 20th century which discussed the rock art in more details, and these are limited to the rock art sites in East Malaysia such as Gua Niah (Harrisson, 1958) and Gua Sireh (Datan, 1990; Datan & Bellwood, 1991) in Sarawak, or Hagop Bilo rock shelter in Sabah (Bellwood, 1988).

It was in 2007 when the first national Malaysian rock art project was launched to survey the cave sites in Lenggong Valley, northern Peninsular Malaysia and Sabah, East Malaysia that more sites were known to the public (Saidin et al., 2008; Saidin & Taçon, 2011; Taçon & Tan, 2012; Tan & Chia, 2010). At the same time, Taha (2007) published a book on the archaeology of Ulu Kelantan, which include numerous photographs and tracings of the rock art from Gua Chawas, Gua Batu Cincin, and Gua Lembing. Another long-term rock art research program has also been undertaken in Sarawak, East Malaysia since 2010 under the collaboration of Sarawak Museum and Griffith University, Queensland, Australia (Taçon et al., 2019). While the rock art in East Malaysia is more extensively studied (e.g., Hoerman, 2016; Pyatt et al., 2005; Szabo et al., 2008; Taçon et al., 2019), rock art research in Peninsular Malaysia seems to come to a halt since 2010. Apart from the synthesis of rock art sites in Lenggong Valley following the mapping project (Saidin & Taçon, 2011), only two papers reported the discovery of new rock art sites elsewhere over the last decade (see Jusoh, 2011; Ramli, 2019).

Only in past three years (2019-2021) that more rock art sites were discovered in Kinta Valley under a collaboration between local communities and researchers from Universiti Sains Malaysia (Saw & Goh, 2021). A total of 30 rock art sites was reported by Saw and Goh (2021) in addition to the previously known three rock art sites in the Kinta Valley (see Jusoh, 2011; Matthews, 1959; Taha & Jaafar, 1990; Tan & Chia, 2010). A compilation of the list of rock art sites in Peninsular Malaysia based on published academic papers[1] is presented in Table 1.1. More than 60 sites were reported, but only a handful of sites were properly documented (e.g., Datan, 1990; Saw & Goh,

[1] This does not include rock art sites that was mentioned only in news coverage or blogs, such as Gua Semadong, Perlis (Sharif, 2021) and Merapoh, Pahang (Tan, 2013).

2022; Taçon et al., 2010; Taha, 2007; Tan, 2010). The remaining sites were only mentioned briefly as supplementary data in some excavation or heritage impact assessment reports (e.g., Jusoh, 2011; Ramli, 2019).

This thesis, focusing on the rock art sites of the Kinta Valley, Perak, aims to investigate the rock art traditions in Peninsular Malaysia, from the presumed Neolithic period (~5,000 to ~2,500 years ago) to early contact period (17th century onwards) (Figure 1.1). This thesis also brings to attention 11 newly discovered rock art sites in the Kinta Valley which contain rock art of different styles from different periods. A standardise method of rock art documentation and interpretation is adopted in this thesis as a means to provide a benchmark for future rock art studies in Peninsular Malaysia. At the same time, this study also attempted to investigate the traditional ownership of the rock art of Kinta Valley through various account of ethnographic analogies.

Table 1.1 List of pictogram sites in Malaysia

No.	Rock Art Colour	State	Location	Site name	Sources
1	Red	Kedah	Langkawi	Gua Cerita	(Ong, 1994, p.69; Tan, 2014, p.83; Tan & Walker-Vadillo, 2015)
2		Perak	Kinta Valley	Gua Mat Surat 2	(Saw & Goh, 2021)
3				Gua Tambun	(Faulstich, 1984; Knuth, 1962; Matthews, 1959, 1960; Saw & Goh, 2021; Tan, 2010a, 2014b, 2019a; Tan & Chia, 2011; Yong & Chooi, 1989)
4		Sarawak	Niah Cave Complex	Gua Kain Hitam	(Harrisson, 1959; Hoerman, 2016; Nik Hassan Shuhaimi, 1998; Pyatt et al., 2005)
5	Black	Perlis	Bukit Chuping	Gua Bintong	(Williams-Hunt, 1952b)
6		Kedah	Kodiang	Gua Batu Putih	(Ahmad, 2006; Taha, 1993)

Table 1.1 Continued

7	Black	Perak	Kinta Valley	Gua Batang Buruk	(Saw & Goh, 2021)
8				Gua Kandu	(Saw & Goh, 2021)
9				Gua Karang Besar[2]	(Saw & Goh, 2021)
10				Gua Keelback	(Saw & Goh, 2021)
11				Gua Keroh	(Saw & Goh, 2021)
12				Gua Mat Surat	(Jusoh, 2011; Saw & Goh, 2021)
13				Gua Ular	(Saw & Goh, 2021)
14				Gunung Cheroh 1	(Saw & Goh, 2021)
15				Gunung Gajah 1	(Saw & Goh, 2021)
16				Gunung Gajah 2	(Saw & Goh, 2021)
17				Gunung Gajah 6	(Saw & Goh, 2021)
18				Gunung Gajah 7	(Saw & Goh, 2021)
19				Gunung Kuang 1	(Saw & Goh, 2021)
20				Gunung Kuang 2	(Saw & Goh, 2021)
21				Gunung Lang 1	(Saw & Goh, 2021)
22				Gunung Lang 2	(Saw & Goh, 2021)
23				Gunung Lanno 1	(Saw & Goh, 2021)
24				Gunung Mesah 1	(Saw & Goh, 2021)
25				Gunung Rapat 2	(Saw & Goh, 2021)
26				Gunung Rapat 3	(Saw & Goh, 2021)
27				Gunung Tempurung 1	(Saw & Goh, 2021)
28				Kintaly Rock Shelter 2	(Saw & Goh, 2021)
29				Prk 53 KF	(Saw & Goh, 2021)
30			Lenggong Valley	Gua Badak	(Evans, 1927b; Saidin & Taçon, 2011; Taha, 1990; Tan, 2019a)
31			Lenggong Valley	Gua Batu Puteh	(Saidin & Taçon, 2011; Tan, 2019a)
32				Gua Batu Tukang	(Saidin & Taçon, 2011)
33				Gua Dayak	(Evans, 1918; Saidin & Taçon, 2011; Tan, 2019a)
34				Gua Gelok	(Saidin & Taçon, 2011)
35				Gua Kajang	(Evans, 1918; Taha, 1987)
36		Selangor	Sungai Batu	Batu Caves	(Skeat & Blagden, 1906a, p. 181)
37				Gua Belah	(Daly, 1879)
38		Pahang	Gunung Senyum	Gua Tok Long	(Evans, 1920; Peacock & Dunn, 1968b)
39			Kuala Kenyam	Gua Batu Luas	(Ahmad, 2006; Taha, 1990)

[2] This site was renamed as Karang Besar Rock Shelter because it is in fact a rock shelter and not a cave.

Table 1.1 Continued

40	Black	Pahang	Raub	Gua Kechil	(Dunn, 1964)
41		Kelantan	Ulu Kelantan	Gua Batu Cincin	(Ahmad, 2006; Taha, 1993, 2007)
42				Gua Chawas	(Saidin & Taçon, 2011; Taha, 2007)
43				Gua Jaya	(Ramli, 2019)
44				Gua Kambing	(Taha, 2007)
45				Gua Kecil	(Ramli, 2019)
46				Gua Kelew	(Ramli, 2019)
47		Kelantan	Ulu Kelantan	Gua Kemiri	(Ramli, 2019)
48				Gua Lubang Kelawar	(Ramli, 2019)
49				Gua Tagut	(Ramli & Ahmad, 2015; Saidin & Taçon, 2011; Taha, 2007)
50				Gua Tampaq	(Peacock & Dunn, 1968a; Ramli, 2019; Ramli & Ahmad, 2015)
51		Sabah	Baturong Caves	Gua Hagop Bilo	(Hoerman, 2016; Nik Hassan Shuhaimi, 1998)
52			East Sabah	Unknown location	(Saidin et al., 2008)
53		Sarawak	Niah Caves Complex	Lobang Tulang	(Hoerman, 2016)
54			Sarang Caves Complex	Batu Puteh	(Hoerman, 2016; Nik Hassan Shuhaimi, 1998)
55				Lobang Ringen	(Hoerman, 2016; Nik Hassan Shuhaimi, 1998)
56			Serian District	Gua Sireh	(Datan, 1990; Datan & Bellwood, 1991; Hoerman, 2016; Nik Hassan Shuhaimi, 1998)
57				Gua Bumo I	(Hoerman, 2016)
58				Gua Bumo II	(Hoerman, 2016)
59	Coloured & black	Perak	Kinta Valley	Gua Kelawar	(Saw & Goh, 2021; Taha, 1990, 1991; Taha & Jaafar, 1990)
60				Gua Kupu-kupu	(Saw & Goh, 2021)
61				Gua Selari	(Saw & Goh, 2021)
62				Gua Tempurung	(Saw & Goh, 2021)
63				Gua Toh Semelah	(Saw & Goh, 2021, 2022)
64				Keroh Rock Shelter 1	(Saw & Goh, 2021)
65				Keroh Rock Shelter 2	(Saw & Goh, 2021)

Table 1.1 Continued

66	White & black	Perak	Kinta Valley	Kintaly Rock Shelter 1	(Saw & Goh, 2021)
67		Sabah	Baturong	Madai Caves	(Hoerman, 2016)
68	Mud rock paintings	Sarawak	Bau District	Fairy Cave	(Hoerman, 2016)

1.1 Rock art in Peninsular Malaysia – An overview

Before elaborating further on the rock art of Malaysia, it would be useful to discuss the known rock art traditions of Malaysia. The country is made up of the Peninsular Malaysia which is the southernmost part of the Malay Peninsula, and Sabah and Sarawak which are located on the Borneo Island. Geographically, the rock art tradition of Peninsular Malaysia is closely related to other countries in Mainland Southeast Asia such as Thailand and Cambodia; whereas the rock art in East Malaysia (i.e., Sabah and Sarawak) is more commonly associated with the Austronesian Painting Tradition (APT) and Austronesian Engraving Style (AES) which are prominent in the Island Southeast Asia and the Pacific region (see Hoerman, 2016). Given the subject of this study which greatly focused on the sites from the Kinta Valley, this thesis, therefore, will give greater emphasize on the rock art of Peninsular Malaysia and thus the discussions on the rock art of East Malaysia are limited.

Rock art in Peninsular Malaysia consists of black drawings, which were produced using charcoal; red paintings, which were produced using haematite; and a very small number of white paintings, which may be painted using modern paint (Table 1.1). Unlike East Malaysia, petroglyphs are uncommon in Peninsular Malaysia. The rock art sites are concentrated in the northern region, especially in the state of Perak, and Kelantan (Figure 1.1 & 1.2). Up until 2019, the majority of the rock art was recorded at a rock shelter or near the entrance to a cave, and rarely found in deep, dark caves (e.g., Jusoh, 2011; Matthews, 1959; Ramli, 2019; Saidin & Taçon, 2011).

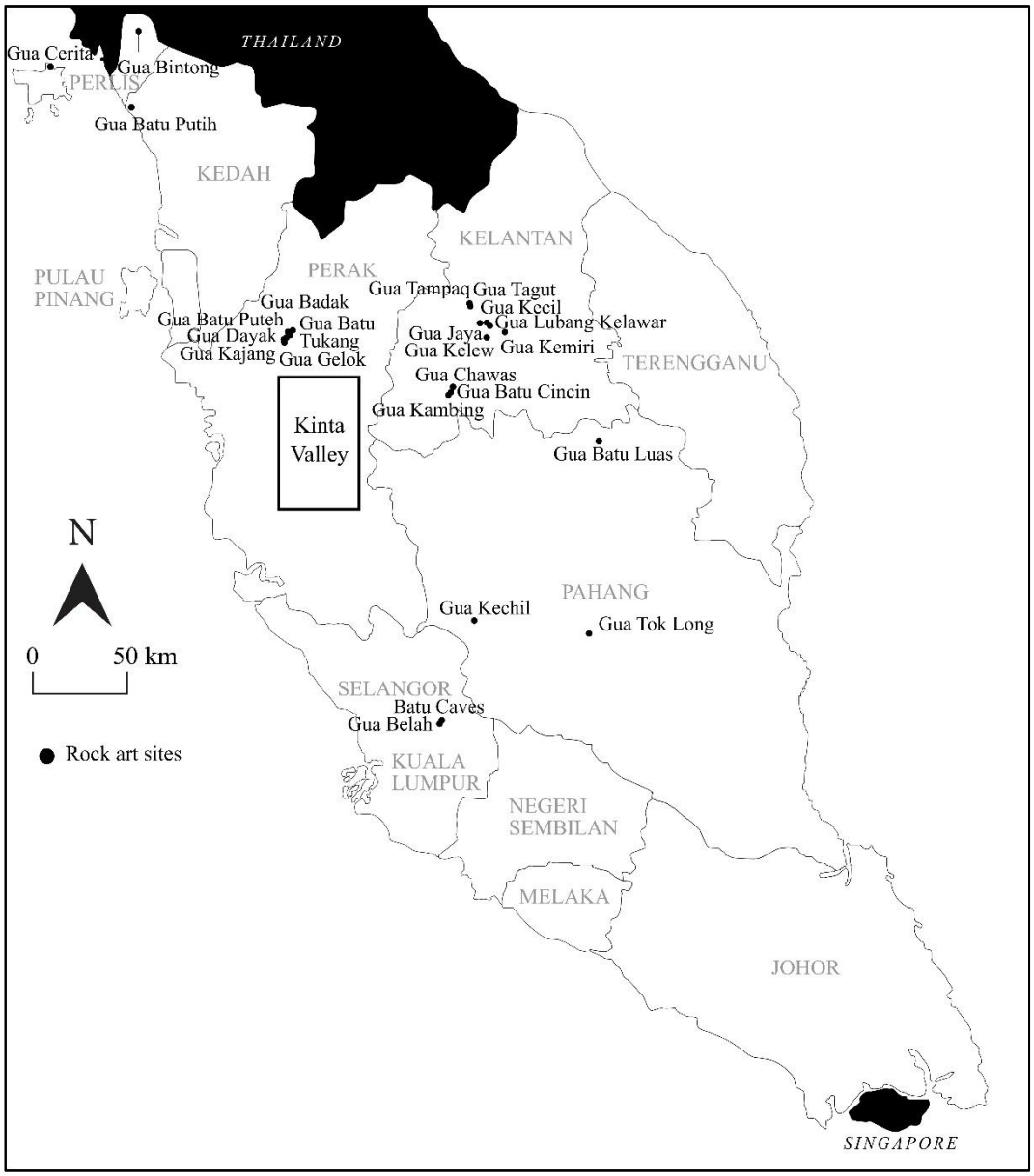

Figure 1.1 Rock art sites in Peninsular Malaysia. Kinta Valley rock art sites are shown in a separate figure (see Figure 1.2).

Charcoal drawings generally share the theme of geometric motifs, human stick figures, weapons, and transports. The charcoal drawings in Peninsular Malaysia are attributed to the works of Orang Asli Lanoh Negrito[3] based on the similarities between

[3] Orang Asli (indigenous or original people) in Peninsular Malaysia is categorised into three main tribal groups, namely Semang (Negrito), Senoi, and Proto-Malay. Each group consists of six sub-ethnic groups. Lanoh Negrito is one of the sub-ethnic of Negrito. More details about the Orang Asli are presented in Chapter 6.

the rock art motifs and the designs on the dart-quiver, blowpipes, or ancestral mats of the Lanoh people (Dunn, 1964; Evans, 1918, 1927b; Isa, 2014; Saidin & Taçon, 2011; Taha, 1990; Williams-Hunt, 1952b). Among the rock art sites of Peninsular Malaysia, only those from the Lenggong Valley (i.e. Gua Badak, Gua Batu Puteh, Gua Batu Tukang, Gua Dayak, Gua Gelok, and Gua Kajang) were extensively studied (Isa, 2014; Saidin & Taçon, 2011). They were estimated to be 200 – 100 years old based on the motifs which demonstrates strong colonial influences, including the "European officials", a rifle, and modern vehicle such as a "buggy". Additional ethnographic evidence also indicated that the Lanoh Negrito were seen drawing on the cave walls in the early 20th century (Evans, 1927b). Previous study suggested that there were two phases of charcoal drawings, the earlier phase consists of geometric motifs such as the mat drawings, followed by a later phase contains mainly figurative art which has a mix of traditional and introduced subject matter (Saidin & Taçon, 2011).

Red drawings appear to be the rarest form of rock art in Malaysia. Prior to 2019, only three sites with red paintings were reported, namely Gua Cerita in Kedah (Ong, 1994), Gua Tambun in Perak (Matthews, 1959), and Gua Kain Hitam in Sarawak (Harrisson, 1959). Unfortunately, the rock art at Gua Cerita was destroyed by vandalism activities before proper documentation can be conducted, making Gua Tambun as the only surviving red painting rock art site in Peninsular Malaysia when this thesis was developed (Tan, 2019a). Gua Tambun was intensively documented in 2009, and the study produced a detailed inventory amounting to a total of 640 motifs (Tan & Chia, 2012), which currently holds the highest number of recorded rock art motifs in one single locality across Malaysia. The motifs include geometric shapes, anthropomorphic figures, zoomorphic figures, and botanic shapes. The rock art was attributed to the Neolithic period (~5,000 to ~2500 years ago) based on the discovery

of Neolithic pottery sherds close to the panel (Faulstich, 1984; Jaafar, 2003). The authorship of Gua Tambun's rock art remains unknown but was hypothesised to be the work of Orang Asli Senoi since its location lies within the traditional homeland of the Senoi people (Faulstich, 1984). Rock art survey between 2019 to 2021 revealed eight more rock art site with red paintings (Saw & Goh, 2021), six of which are included in this thesis.

Apart from the differences in presumed time frame of the black and red rock art traditions in Peninsular Malaysia (the former is thought to be only a few hundred years old whereas the latter is attributed to the Neolithic period), there are also significant dissimilarities in terms of their production technique, motifs, and style. Saw and Goh (2022) noted that the black rock art is usually drawn with charcoal, tends to depict human stick figures, small zoomorphic figures, material culture such as weapon, transport or house, and geometric shapes which resemble the designs on the Orang Asli craftwork. On the other hand, the red rock art is usually painted using wet paste made from haematite, has a higher variability in anthropomorphic figures, large and naturalistic zoomorphic figures, and geometric shapes which are of repetitive shapes such as chevrons. Material culture is rarely represented in red rock art.

1.2 Research focus – Kinta Valley

Thus far, the rock art research in Peninsular Malaysia was heavily focused on the Lenggong Valley and the Kinta Valley and both of these archaeological localities are located in the state of Perak. Lenggong Valley is an archaeological locality located approximately 100 kilometres north of the Kinta Valley. It was named a UNSECO World Heritage Site in 2012 and the rock art sites here were extensively investigated and some of them have been published in detail (see Evans, 1927; Saidin & Taçon,

2011). The rock art of Kinta Valley, despite being frequently mentioned in the literature and on the local news (e.g., Lau, 2021a, 2021b; "Lukisan Dipercayai Beribu Tahun Ditemukan Di Gua Kanthan," 2021; "Vandalisme Dari Bandar Hingga Dalam Gua," 2021; Wu, 2021) is much less investigated. Prior to this research, only rock art from Gua Tambun was investigated and described in detail. A synthesis on the Kinta Valley rock art was published but only a brief overview was given (Saw & Goh, 2021) (Figure 1.2). This thesis, therefore, takes the initiative to explore new rock art sites within the Kinta Valley in order to gain a better understanding on the rock art traditions and the distribution of rock art sites in Peninsular Malaysia.

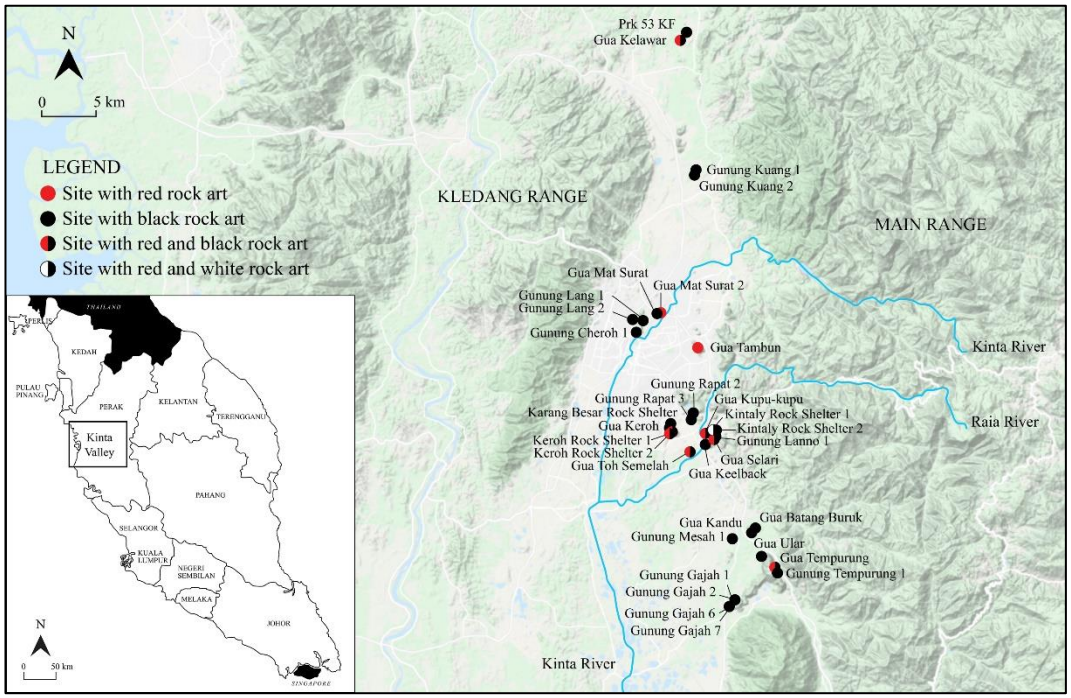

Figure 1.2 Rock art sites in Kinta Valley (after Saw & Goh, 2021).

Kinta Valley is an alluvial plain situated in central Perak state, approximately 70 km to the southeast of the Lenggong Valley. It is formed by the Kinta River which flows southwards into the Perak River and is flanked by the Main Range to the east and the Kledang Range to the west (Figure 1.2).

With the capital town of Perak – Ipoh – at the centre, the valley stretches about 58 kilometres north-south and 45 kilometres east-west, covering an area of approximately 1960 square kilometres (Wong, 2009). The valley is narrower in the north, gradually opens to a wider plain in the south. Across the valley there are 45 limestone outcrops which are mainly made of calcite or dolomite, forming a karst topography (Wong, 2009). Kinta Valley's thick alluvium contains high quality tin resources. Its tin production reached its peak in the late 19th to 20th century and became the largest tin exporter in the world during that time (Khoo & Lubis, 2005; Muhammad & Komoo, 2003). Apart from tin, Kinta Valley is also heavily quarried for its limestone resources. More than half of the quarries in Perak are located within Kinta Valley and its vicinity (Muhammad & Komoo, 2003). Today, Kinta Valley is the most developed and populated district in Perak, with the North-South Expressway bypassing the entire valley on northwest and southeast axis.

Over the years, the unique landscape of Kinta Valley has attracted researchers from different fields to study the region in terms of geology, biodiversity, and ethnography (e.g., Dixon, 1979; Geyer, Schmidt, & Jeutter, 2005; Hooijer, 1963; Leech, 1879; Muhammad, 2010; Muhammad & Yeap, 2000; Ooi, 1978; Rajah, 1979; Rastall, 1927; Wray, 1897; Yong & Chooi, 1989). Archaeological investigations of Kinta Valley began in the late 19th century and extended throughout the 20th century, with excavations conducted at five archaeological sites, namely: Gunung Cheroh (Wray, 1897), Gunung Rapat (Sieveking, 1956), Gua Tambun (Matthews, 1960), Gua Kelawar (Taha & Jaafar, 1990), and Gua Mat Surat (Jusoh, 2011). Human remains were discovered at Gunung Cheroh (Wray, 1897) and Gunung Rapat (Sieveking,

1956); and stone implements attributed to the Hoabinhian[4] culture and pottery sherds were reported in Gunung Rapat (Sieveking, 1956), Gua Tambun (Matthews, 1960), Gua Kelawar (Taha & Jaafar, 1990) and Gua Mat Surat (Jusoh, 2011). The archaeological findings demonstrate that the valley was extensively inhabited by the early humans since Hoabinhian period (~13,000 to ~5,000 years ago) (see Faulstich, 1985; Matthews, 1960; Sieveking, 1956; Taha & Jaafar, 1990; Wray, 1897, 1905; For detailed discussion see Section 6.5.2).

Acknowledging Kinta Valley's natural and cultural significances, the valley was declared as a National Geopark in 2018 (Amarudin, 2018; Bunyan, 2018). A total of 18 sites were included under the 1,952 square kilometres geopark (Amarudin, 2018; Bunyan, 2018), whereas Gua Mat Surat was included as the 19th site three years later (Mansor, 2021). Apart from Gua Mat Surat and Gua Tambun where the presence of rock art were known during the establishment of Kinta Valley Geopark, it was only in between 2019 and 2021 that rock art was reported from five other geopark sites (Saw & Goh, 2021). These sites include Gua Kandu, Gua Tempurung, Gunung Kanthan, Gunung Lang, and Gunung Rapat. These sites were gazetted for their significance in geological formation, biodiversity, suitability as recreation site, and/or their deep cultural connection with the local communities (e.g., Gua Tempurung was a tin mining site in the 1930s and hideout for the locals and communists during and after World War II) (Mineral and Geoscience Department Malaysia, 2016).

[4] Hoabinhian refers to "a stone tool industry characterised by distinctive pebble tools flaked over all of one or both surfaces" (Bellwood, 2007, p. 158) that was once widespread in Mainland Southeast Asia during the late Pleistocene and early Holocene. This culture has existed in Malaysia since around 10,000 years ago and continues until the Neolithic period (Bellwood, 2010). In Peninsular Malaysia, Hoabinhian site are usually found in inland caves and rock shelters (Bellwood, 2010). Other assemblages associated with this culture are the abundance of food remains such as shells (Tweedie, 1953) and animal bones (Bellwood, 2010). In the context of Malaysia, archaeologists widely proposed that 'Late-Palaeolithic' culture is a more appropriate term to represent the pebble tool culture/tradition.

Traditionally, Kinta Valley is the homeland of the Temiar Senoi and the Semai Senoi people, which are bordered by the Raia River, with Temiar people to the north and Semai people to the south (Khoo & Lubis, 2005) (Figure 1.2). Both are a subgroup of Orang Asli Senoi, who speak Aslian languages and were estimated to have arrived in Peninsular Malaysia about 4,000 years ago from Mainland Southeast Asia (Carey, 1976; Hill et al., 2006). The Temiar and Semai people usually live inland, practice swidden agriculture or hunting and gathering. Since they are the only traditional inhabitants of Perak (Masron et al., 2013), previous researchers hypothesised that they are the descendants of the artists who produced the rock art across the Kinta Valley (Faulstich, 1984; Taha, 1990).

This thesis focuses on 11 rock art sites in Kinta Valley: Gua Kelawar, Gua Mat Surat, Gua Mat Surat 2, Gua Tambun, Gua Tempurung, Gua Toh Semelah, Karang Besar Rock Shelter, Keroh Rock Shelter 1, Keroh Rock Shelter 2, Kintaly Rock Shelter 1, and Kintaly Rock Shelter 2. Five of these sites contain both charcoal drawings and red paintings, which is a rare phenomenon in Peninsular Malaysia, where all previous research usually recorded either charcoal drawings or red paintings in the majority of the individual rock art site (e.g., Ahmad, 2006; Matthews, 1959; Saidin & Taçon, 2011).

1.3 Issues and challenges in Malaysia rock art research

1.3.1 Insufficient research on rock art sites

To date, one long-standing challenge to the rock art research in Malaysia is the lack of comprehensive rock art research programme in the local archaeological discipline. Thus far, the archaeological research in Peninsular Malaysia has largely prioritized the study of stone implements, pottery sherds, and historical archaeology

(e.g., Chia, 1998; Chia & Andaya, 2011; Goh et al., 2020; Harun et al., 2002; Jaafar & Asaruddin, 1996; Majid & Tjia, 1988; Saidin et al., 2006; Shahidan et al., 2018; Taha, 2007; Tweedie, 1942). Rock art study, on the other hand, is always perceived as an integral part of a larger archaeological project and it was rarely adopted as a standalone research subject in the archaeological investigations in Malaysia (see Taha, 2007; Isa, 2014).

This scenario is well demonstrated by the low number of rock-art related publications over the last 30 years or so. Apart from two publications which presented the results of comprehensive rock art mapping project in the Lenggong Valley and Gua Tambun during the first decade of the 21st century (Saidin & Taçon, 2011; Tan & Chia, 2011), archaeological survey for new rock art sites in Peninsular Malaysia was relatively scarce over the past decade. Only two brief reports discussed the discovery of one rock art site in Kinta Valley (Jusoh, 2011) and five rock art sites in Hulu Kelantan (Ramli, 2019) were published. The latest synthesis on the rock art of Kinta Valley was published last year during the international SPAFA conference (Saw & Goh, 2021), which was an extension from the work of this thesis. Several additional publications consist of a synthesis of previous discoveries (e.g., Jusoh et al., 2017; Nik Abd Rahman & Jusoh, 2011; Ramli & Ahmad, 2015; Saidin, 2008). These publications, however, generally suffer from inconsistency of terminology used, lack of context and the interpretations provided are often scanty and ambiguous (see Section 1.3.3). Apparently this is not only the issue of research in Malaysia but Southeast Asia as a whole (Tan & Hoerman, 2019). Consequently, comparative studies of rock art sites within Peninsular Malaysia could not be conducted due to a lack of information.

1.3.2 Underrepresentation of Malaysian rock art in international platform

Publications on the overview of rock art sites in Southeast Asia up until the early 21st century had only amounted to not more than 20 sites, but in fact there has been approximately 1200 sites reported (Tan, 2019b). Tan (2019b) explained that this discrepancy is due to many works written in local languages and published in local journals. Similarly, many archaeological works of rock art in Malaysia were only published in local publications using Bahasa Malaysia (e.g., Ahmad, 2006; Jusoh, 2011; Ramli, 2019; Ramli & Ahmad, 2015).

Between 2009 and 2019, there are nine rock art-related research in Southeast Asia being published in journal *Rock Art Research*. Of these, only two involves rock art sites from Malaysia. In the journal *Asian Perspectives*, there are three publications on Southeast Asia rock art, but none was from Malaysia. In the open access *Journal of Indo-Pacific Archaeology* (known as *Bulletin of the Indo-Pacific Prehistory Association* prior to 2014), there is only one publication on rock art from Malaysia, Laos, and Indonesia respectively. This clearly suggests that there are little publications of Malaysian rock art on the international platform. This scenario has led to the lack of discussion and archaeological discourse between Malaysian rock art researchers and foreign researchers, which may hinder the development of rock art research in the country.

1.3.3 Inconsistency in rock art terminology and description

The differences in grammar and vocabulary between English and local language has caused the inconsistency in rock art terminology and description. This problem has been pointed out by (Tan, 2019b) as a common problem faced by

archaeological studies in Southeast Asia, in which he calls it as the "Two-World Problem".

Rock art terminology such as "motif", "panel", "composition" and "scene" commonly used in rock art studies is rarely adopted in local publication (e.g., Ahmad, 2006; Jusoh, 2011; Nik Abd Rahman & Jusoh, 2011; Ramli, 2019). In rock art studies, motif designations are placed in quotation marks to show that it is just a perception of a certain observer (Bednarik, 2007). However, this practice has not been widely adopted in Malaysian rock art research, many interpretations on the rock art motifs provided by the researchers are often treated as the definite meaning of the rock art. For instance, the newly discovered rock art from three rock art sites at the Nenggiri Basin, Kelantan was described as "anthropomorph, zoomorph, geometry, abstract and seasonal calendar" (Ramli, 2019, p. 12). Several problems arise from this scenario. First, three rock art sites which were described in one single sentence failed to provide detailed information associated with the rock art. Secondly, no scale was included in any of the photographs, and the photos are mostly close-up shots which do not provide any clue on the size of the rock art. Third, the rock art motifs were not counted or estimated, resulting in a vague idea regarding the distribution of rock art. Lastly, the interpretation of "seasonal calendar" is not justified, and without using a double quote on term to indicate that this is only the researchers perception, it could be easily misunderstood as rock art definition by other readers. Tan and Chia (2012) also pointed out that the identifications of "dugong" and "tapir" from Gua Tambun rock art had been treated as fact and were used uncritically in various literature.

While Matthews (1960) has pointed out that more than 50 rock art motifs was observed at Gua Tambun and subsequent investigations later revealed more than 600 rock art motifs at the same site (Tan & Chia, 2011, 2012); a rock art summary article

published locally in 2015, however, stated that there were only 30 rock paintings identified at the Gua Tambun site (Ramli & Ahmad, 2015). Such discrepancy in archaeological records certainly provide a wrong impression of the rock art sites in Malaysia for readers who have no access to English literature.

Another example comes from the description of rock art motif at Gua Kelawar, Perak. In the initial English report published by Taha and Jaafar (1990), the researchers reported a motif of "a boat with three men on board, one holding a pole and the one at the back is holding a rudder" (p. 122). In the subsequent rock art synthesis published by local researchers in Bahasa Malaysia, the motif was described as a boat with three men standing, one holding the mast at the front, another holding a radar at the back (Ramli & Ahmad, 2015, p. 26). These two descriptions differ greatly, while the initial researchers may intend to position the rock art to early historical period, the second description would have placed the rock art at modern period with the presence of "radar". Added to this conundrum is that these reports were published without a photography record or tracing of the rock art and the readers can only retrieve the information based on these misrepresented descriptions.

Aside from the language problems in referencing other literature, there is also a lack of standard research practice among rock art researchers in Malaysia. It is true that there is no universal system for rock art recording and approaches adopted by researchers vary greatly (Brady, Hampson, et al., 2018; Loendorf, 2001). It would still be, however, beneficial if the recording practices are built upon a basic framework and common terminology, for example the Australian Rock Art Research Association (AURA) adopted the IFRAO glossary as their terminological basis for publication, and the glossary is accessible to anyone online (http://www.ifrao.com/rock-art-glossary/). Local publications usually are not accompanied by rock art inventory, nor there is a

description on the number of rock art and their locations within the site. It is important that the above-mentioned information is recorded in a way that enables updates to be made in the future (Brady, Hampson, et al., 2018). There was an instance where the author was self-contradictory, where the same motif was mentioned in two different photographs and given two different descriptions (see Jusoh, 2011). Without a systematic documentation procedure, it would be difficult to conduct comparative studies and set back the research progress in Malaysia. This is because the same rock art site will need to be redocumented every time to suit the needs of different projects.

1.3.4 The problem of dating

Another problem associated with the rock art research in Peninsular Malaysia is a lack of attempts to establish comprehensive chronology for the rock art using chronometric approaches. To date, the majority of the rock art sites were only relatively dated based on the motifs represented (Saidin & Taçon, 2011; Taha, 1990); or relying on the artefacts discovered close to the rock art panel to provide an associated date (Faulstich, 1990; Harrisson, 1959; Jaafar, 2003). The first method is more convincing since motif with specific subject can help to position the time period of the rock art. For instance, rifles and cars were not presented prior to the arrival of European influence in the mid-late 19th century, thus such motifs must have been produced after the Europeans set foot in Malaysia. However, such representation does not occur very often. The second method is problematic as many rock art sites in Peninsular Malaysia were badly disturbed and their original context was often badly altered. As such, it is always difficult to assume a direct relationship between the rock art and artefacts with a problematic or disturbed context (Matthews, 1960).

1.3.5 Conservation and management challenges

The integrity of the rock art sites in Malaysia has been challenged by increasing anthropogenic activities such as quarrying, guano collecting and vandalism (Chia, 2017; Taha, 1990). Over the past century, many cave sites in Peninsular Malaysia, particularly those in the state of Perak, were either badly disturbed by the guano diggers; were quarried for its rich limestone and marble resources or being adaptatively used as the cave temples (Bunyan, 2020; Chia, 2017; Krishnan, 2020; Loh, 2021).

Guano, being one of the best natural fertilizers that can be easily sourced from the caves, had been harvested by the local inhabitant by hand labour for agricultural purposes (Aw, 1980; Tweedie, 1953). Large-scale digging of guano between 1950s and 1990s has been identified as the main cause of destruction of archaeological sites in Malaysia as the action disturbs the site context and jeopardizes the site's archaeological potential (Chia, 2017; Faulstich, 1985; Taha, 1990; Williams-Hunt, 1952b). Williams-Hunt (1952b) recorded an instance where guano digging license was issued by the Perlis state government to the local guano diggers for Bukit Tengku Lembu, which later turns out to be a significant Neolithic site. Although the museum staffs managed to recover artefacts from the guano excavation, the archaeological context was still lost (Williams-Hunt, 1952b). In Sarawak, the authorities manage this issue by fencing up important archaeological site and allocating areas which are archaeologically insignificant for the local guano diggers (Chia, 2017). However, this measure had yet to be implemented in Perak.

One of the much-regretted examples resulted from quarrying was reported at Gua Badak, Lenggong Valley. The site was granted a quarry license despite the presence of rock art was known at the time (Taha, 1990). Consequently, a large portion of rock art was destroyed, and the only record available was the photography collection

produced by Evans (1927) in the early 20th century. Apart from guano activities and quarrying, rock art is also severely threatened by vandalism activities. Visitors often scribble graffiti on the cave wall and such action not only contaminates the rock art but complicates the rock art documentation process, making it difficult for the researcher to distinguish graffiti from the rock art when similar colour hue is used to produce graffiti.

On another note, some local stakeholders tend to take matter into their own hands without proper consultation with heritage professionals in dealing with site conservation and it could sometimes bring more destruction to the site. In Gua Mat Surat, for instance, a big panel of cave wall was painted with fresh paint in an attempt to remove the graffiti. This approach did not successfully remove the graffiti but instead it had smeared the paint over larger area of the wall (Plate 1.1). Overall, a lack of heritage awareness among the public regarding the significance of rock art, and the lack of communication between the public and the heritage professionals are identified as the main challenges to the contemporary rock art conservation and management in. Malaysia (Saw et al., 2018).

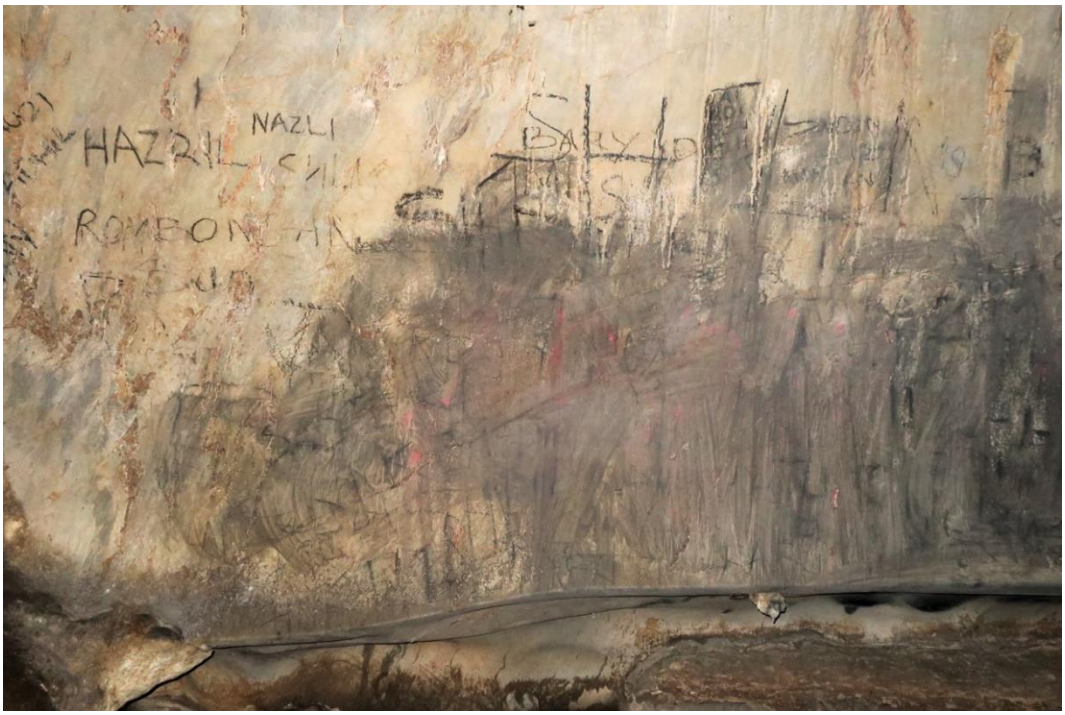

Plate 1.1 A cave wall in Gua Mat Surat after failed attempt to remove graffiti.

1.4 Research questions

In response to the issues and challenges associated with the contemporary rock art research in Malaysia, this thesis was developed in attempts to answer three main questions by using the Kinta Valley as the case study:

i. How many rock art traditions exist in Kinta Valley and how do they differ among each other in terms of styles, motifs represented and time period?

ii. What are the cultural affiliations of the rock art of Kinta Valley?

iii. What are the evolution and changes of rock art style and distribution over time in Peninsular Malaysia?

1.5 Objectives

Several objectives have been outlined to answer the research questions above:

i. To identify the rock art tradition in Kinta Valley, Perak. This is done by conducting quantitative analysis and studying the stylistic affinities between the Kinta Valley rock art and other rock art in Peninsular Malaysia and Mainland Southeast Asia.

For this research, the theoretical framework for the interpretation of the rock art tradition is rooted in historical paradigm, meaning that the context and cultural setting of the rock art is believed to have influenced the production and meaning of the rock art. This is also the most common approach adopted in rock art studies worldwide, especially in Southeast Asia. Different theoretical approaches to rock art studies are further elaborated in Chapter 2.

ii. To contribute to the understanding of the traditional ownership/ cultural affiliation of rock art in Kinta Valley. The authorship of rock art in Kinta Valley remains obscure at present. This study attempts to identify the possible cultural affiliation of the rock art through ethnographic study.

iii. To expand the rock art inventory of Peninsular Malaysia and to document the rock art sites under threats. By creating a bigger dataset, the evolution and changes of rock art style and distribution in Peninsular Malaysia can be investigated. At the same time, many rock art sites in Malaysia faces threats of being destroyed by human activities before archaeological investigations can be undertaken. Documenting the rock art in Kinta Valley helps to preserve this rich archaeological information for future references.

1.6 Significance of the research

Geologically, Kinta Valley is one of the most extensively studied regions in Malaysia and it contains some of the oldest rock art sites in Peninsular Malaysia. However, it is ironic to point out that the rock art of this region is still poorly researched and often underrepresented. The findings of this thesis, therefore, will extend our current understanding of rock art in the Kinta Valley and provide new insights into the lifeways of prehistoric and historical communities in the region. Rock art is the cultural expression of the past and it provides a glimpse into how the ancient people engaged with and connected to their cultural landscape.

Thus far, it is widely established that the rock art traditions of Peninsular Malaysia consisted of two main traditions, namely red painting (approximately 5,000 to 2,500 years ago) and charcoal drawing (200 to 100 years ago). However, there appears to be a time gap of a few thousand years between these two traditions. By expanding the rock art inventory and looking into the patterns of rock art distribution, this thesis may help to answer the question regarding the timing and context of transition between these two rock art traditions.

While the traditional ownership of the rock art in Lenggong Valley is attributed to Lanoh Negrito (Evans, 1927b; Isa, 2014; Saidin & Taçon, 2011), the authorship of the rock art of Kinta Valley is poorly investigated. A study that was conducted to study the ancestral link between the Orang Asli and Gua Tambun rock art noted similarities between the rock art and material culture of Senoi and Negrito people (Saw et al., 2020). This thesis investigates the cultural affiliation of the rock art across Kinta Valley and further explore the possible cultural association between the Orang Asli and the rock art.