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'NEW' ROCK ART FROM GUA TAMBUN, PERAK, MALAYSIA

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Abstract. The rock art site at Gua Tambun in Perak, Malaysia was first reported in 1959 and was noted for its spectacular collection of rock art with depictions of anthropomorphs, animal figures and abstract shapes. Little scholarly attention was paid to it, however, and much of the interpretations produced thus far on the rock art have been speculative or unverified. The site was revisited by the authors in January 2009 in order to examine, record and study the rock art in detail. During the course of the fieldwork, individual rock art elements were identified and recorded, including a number of 'new' motifs, which are presented in this paper for the first time. The total count now stands at slightly over 500 distinct rock art elements, spread over ten distinct panels, making Gua Tambun one of the largest rock art sites in Malaysia, if not the largest.

Introduction

In 1959, J. M. Matthews reported the discovery of rock art at Gunong Panjang ('The Long Mountain'), a limestone massif located near Ipoh, the capital of the state of Perak in Malaysia (Fig. 1). The site, subsequently named Gua Tambun ('Tambun Cave') after a nearby town, contains a large number of rock art motifs, which comprise depictions of local fauna, anthropomorphs and other, abstract shapes in various shades of red, purple

and orange. Matthews' (1959; 1960) initial survey of the site in 1959 also incorporated a small excavation, which unearthed red-stained stone tools attributed to the Hoabinhian period and various faunal remains (Haji Jalil Osman, pers. comm.). The significance of Gua Tambun was acknowledged in the 1970s when it was gazetted as an archaeological site under the protection of the Antiquities Act 1976 and it is currently being gazetted as as a heritage site under the Heritage Act 2005. In 1984, Paul Faulstich published in this journal a preliminary report about conducting a study to survey and to document the site and an unpublished report

Museum in Kuala Lumpur (Faulstich 1984, 1985).

The name 'Gua Tambun' is a misnomer because the site is a rockshelter rather than a cave, measuring approximately 100 m wide and a dripline 50 m above the ground. The shelter faces west and has a panoramic view of Ipoh Town. Knuth (1962) has noted that the shelter itself must have been a prominent geographic marker in the immediate Ipoh landscape (Fig. 2). The site is open to the public, although anecdotal evidence



was deposited at the National Figure 1. Location of Gua Tambun in Perak, Malaysia.



Figure 2. Gua Tambun seen from the Jalan Sultan Azlan Shah Road. The arrow indicates the location of the main concentration of rock art.

orange and red haematite were reportedly recovered from the surface of the cave and deposited with the National Museum in 1984 (P. Faulstich, pers. comm. 2009); however, attempts to locate them have been unsuccessful. The reported number of depictions on the walls of Gua Tambun are also inconsistent, and have been numbered as low as 24 (Yayasan Perak n.d.), while Matthews (1959) puts the number to 'over 50' that can be seen clearly. The discrepancy can be attributed to the fact that efforts to record the site in detail have been limited.

Earlier discussions of Gua Tambun have been focused on

suggests that Gua Tambun is generally unvisited even by the Ipoh populace. In addition, access to the site involves a long walk and a steep climb up a flight of stairs, which serves as a deterrence to visitors. The inaccessibility is serendipitous, as the openness of the site has already brought about serious deterioration to the site's interior by way of vandalism, litter and the crushing of surface finds underfoot.

Most of the rockshelter's surface has been damaged by extensive quarrying, which occurred in the middle of the 20th century. There is a large depression in the middle of the rockshelter, approximately two metres deep. This depression is consistent with the location that Matthews (1959) excavated but the three trenches are no longer identifiable. The southern end of the site is largely untouched and hints at what the shelter might have looked like before it was disturbed by modern human activity in the last century.

One of the objectives of our research was to examine and to verify many of the assumptions and interpretations of the depictions, the composition of the paints and the number of depictions, which have emerged over the last fifty years. The rock art depictions have been interpreted at times as 'humans', 'tapir', 'tigers', 'dugong' and 'deer', but these interpretations of paintings as well as the identifications of style seem to be arbitrary rather than systematic. The pigments were assumed to be made from haematite, which is strongly supported by the rich iron deposits surrounding Gunong Panjang. Geologists have known of the deposits for almost a century and commercial mining was taking place in the mountain until the 1960s (Ingham and Bradford 1960; Paton, 195?1), and preliminary chemical tests conducted this year have confirmed this assumption. Additionally, lumps of

the most prominent rock paintings, particularly the xray style art, the large 'dugong' as well as the man with the 'enlarged genitals' (Matthews 1960; Faulstich 1990; Datan 1998). Most of the previously featured paintings are located on the main panel of the paintings, which we have designated as Panel C. This panel is situated in the centre of the shelter, between 6–9 m above the floor. In this paper, we focus on the lesser-known rock art panels at Gua Tambun, as well as on some of the less-visible paintings on Panel C.

The 'new' rock art

In January 2009, the authors revisited Gua Tambun to record and to document the rock art over a period of two weeks. A scaffolding structure, measuring 9 m wide and 11 m high, was erected in front of the rockshelter in order to gain access to the main concentration of rock art for the purpose of close-up examination, documentation and the collection of samples (Fig. 3). The rock art was recorded using a Nikon D70s digital single-reflex camera and a highdefinition digital video camera, while the attributes of individual rock art motifs were recorded on forms. The preliminary results show that far more rock art is present on the walls of Gua Tambun than previously assumed, and that rock art is spread throughout most of the shelter. In counting the paintings, we have opted to be 'splitters', preferring to separate paintings as far as possible into individual components, rather than 'lumpers' — with a few notable exceptions, such as the rows of finger-dots; the choice for splitting the rock art count was based partly on the degraded surface of the wall, where some sections had been damaged so badly that it was nearly impossible to determine where individual elements started and ended; as well as keeping to our research objectives to record a detailed inventory of the rock art for future reference. The count currently stands at slightly over 500 distinct rock art

¹ Paton's report, obtained from the Malaysian Department of Minerology headquarters in Ipoh, was undated and estimated to be from the early 1950s.



Figure 3. Fieldwork in January 2009. A large scaffold was erected in front of Panel C to provide close-up access to the rock art.

elements, making Gua Tambun one of the largest rock art sites in Malaysia, if not the largest.

Four panels (A–D) of rock art, running from north to south of the shelter wall, were known to the authors at the beginning of January 2009. During the course of our field recording, we identified six more panels of rock art, designated E-J according to the order of recording. All the rock art panels appear consistently above the former floor level of the cave, which was approximately 1-2 metres above the current surface. The shelter's sediment was reportedly quarried for fertiliser, and in some parts of the shelter the former floor level is marked by a large gash running along the wall. Except for panels C, I and J, each panel was painted in a shade of red. While many of the panels featured in this paper have never been published before, it is important to note that at least some, if not all, of these panels may have been recorded by earlier



Figure 4. Panel A.



Figure 5. Panel B. Red colours enhanced.

researchers (notably Faulstich in 1985). Each of these panels will be discussed in the following sections.

Panel A

Panel A (Fig. 4) is the first set of rock art one encounters upon entering the site, although most visitors tend to overlook it because it is small in size and located some seven metres above the present floor. The small painting can be described as a row of four 'exclamation points' painted as solid shapes similar to the rock art of Panel C. The paintings are deep-red in colour. They appear to have a patina formed over them, although due to the height and isolation of this cluster we were unable to examine them up close. This panel appears to be relatively pristine and may have been untouched by previous researchers as well.

Panel B

The paintings in Panel B (Fig. 5) are located in the highest part of the shelter wall in relation to the other panels. This panel is situated approximately 25 m above the floor and about 1–2 m higher than the highest elements in Panel C. An often-heard comment by visitors to the site concerns the great height of the paintings in this panel and that of Panel C. We suggest that the creators of the rock art built some sort of scaffolding in order to paint at such a great height; such capability is not beyond the means of the local aborigines (Orang Asli) who are known to construct complex wooden structures for housing and economic activity (Dentan 1968: 27, 42; Cheah 2009: 173). This panel was recorded using zoom photography, but the shallowness of the rockshelter made for an awkward angle of viewing. From afar, Panel B looks like a depiction of a horned quadruped, but closer examination, particularly after



digital enhancement, shows that the horned 'head' is an anthropomorphous figure with upraised arms, and further right two other similar figures are located below the quadruped. Nineteen elements were counted in this panel, the paintings of which appear to be similar to those of Panel C.

Panel C

The largest concentration of rock paintings is located in this panel (Fig. 6), approximately 10 m wide and 4 m high, and about 6 m above the present shelter floor. Most of the prominent paintings of this panel have been featured in earlier reports, but it is notable that this panel alone contains over 400 individual rock paintings, representing 80% of the rock art found at the site. This panel contains the most colours, ranging from orange, different shades of red, to deep-purple. In contrast, most of the other panels were painted in a monochrome red. A large number of these paintings are highly faded or damaged by the elements, making them hard to make out from the normal vantage point of the shelter floor. Water wash can be observed in the upper levels of the panel, near the 'dugong', causing a clean vertical white stripe in the centre of the panel. Much of the lower section of the panel, the rock wall up to 9 m above the current surface, appears to have been damaged by heavy exfoliation. Unfortunately, many of the rock paintings in this panel have had their outlines chalked out by the National Museum's staff in 1985 (Kam 1985). The presence of chalk has thus contaminated the rock paintings and has implications for ongoing compositional studies of the rock art paint residues. This panel also displays a complex array of superimpositions and their order of application and relationship to one another is still being worked out.

Figure 6. Panel C. Red colours enhanced.

Panel D

Panel D is situated some 20 m to the right of Panel C, near the original level of the shelter floor (Fig. 7). Determined visitors can climb up the jagged slope and reach the paintings, and evidence of vandalism at the foot of the panel indicates that visitors have already done so. The paintings appear to be stained by water, causing the edges to bleed into the background rock and making the shapes harder to determine. Comparisons with Faulstich's photographs taken 25 years ago indicate that these water stains are relatively recent, and some of the more distinct patterns are barely visible today. The paintings on Panel D seem to be composed primarily of dark-red linear designs of varying thickness and



Figure 7. Panel D.



Figure 8. Panel E.

appear to be visually distinct from the main panel.

Panel E

A different kind of linear design was identified on Panel E (Fig. 8), which are lighter red in colour and very much thinner than those of Panel D. The panel is located between Panels C and D, to the right of a large stalactite formation and above the original surface line. Despite its proximity to the old surface line, the panel is relatively safe from human intervention as the approach is steep and it stands 3 m over a steeply sloping floor. Similar markings are also found on Panel G.

Panel F

Panel F is situated between Panel E and D (Fig. 9), and is almost touching the original surface line and fairly easy to access, evidenced by the nearby graffiti by local schoolchildren. The painted forms of Panel F appear to be indeterminable, and there is some doubt if the red markings on this panel are actual paintings or deposited haematite from water wash. The wash suggests that something might have been painted on the rock wall, which seems to have been damaged in a similar fashion to the lower section of Panel C.

Panel G

The Panel G paintings are located just in front of the area excavated by Matthews in 1959, consisting of a row of seventeen paintings spread over 10 m (Fig. 10). The majority of the paintings are small linear drawings similar to those found on Panel E, with the exception of a frontal-view painting of an anthropomorph



Figure 9. Panel F. Red colours enhanced.



Figure 10. Panel G. Arrows indicate locations of rock art along this 10 m stretch of wall.



Figure 11. Anthropomorph figure in Panel G, a frontalview depiction of a person wearing 'earrings' and a 'topknot'.

wearing 'earrings' and a 'topknot' (Fig. 11). Very little effort is required to reach the rock art, and vandalism has already encroached on some of the paintings on the northern end. Some of the modern graffiti appears to have been painted over by a layer of grey paint



Figure 12. This rock painting in Panel G appears to have been mistaken for modern graffiti and painted over. Red colours enhanced.

presumably as an effort to erase the vandalism, but it seems that whoever painted over the vandalism may have also erroneously painted over an authentic rock painting (Fig. 12).

Panel H

The northernmost set of paintings in the shelter is designated as Panel H, located 7 m to the north of Panel A. This small panel of red paintings appears to be heavily damaged by spalling and exfoliation such that the paintings' form cannot be determined, although some finger dots have been identified (Fig. 13).

Panel I

Exploration towards the southern end of the rockshelter to locate a path around the mountain resulted in the discovery of Panel I (Fig. 14). This part of the shelter appears to be untouched by quarrying and the rock slope is a smooth, but steep, ascent to the original wall. The panel consists of six ovoid shapes, unusual in that they were painted in orange, a colour found otherwise only on the main panel C.

Panel J

Appearing as white figures over a blackened background, Panel J appears to be unlike the rest of the rock art in Gua Tambun (Fig. 15). This panel was previously recorded by Faulstich in 1985, and they were again pointed out to the authors by Paul Taçon from Griffith University in November 2008. On first inspection they look like petroglyphs; however, Faulstich (pers. comm.) indicates that these may be the 'shadows' of former paintings. We were unable to gain closer access



Figure 13. Panel H. Red colours enhanced.

to this panel to determine the exact nature of the rock art in this panel but will endeavour to do so in the near future. Panel J is situated some 13–18 m above the surface. The forty-five elements do not appear to share any similarities with the paintings from the other panels and contain repetitive designs such as rows of vertical lines and rows of chevrons.

Many of these panels peripheral to Panel C appear to be visually dissimilar from the main panel and may indicate that the rock art at Gua Tambun was produced by different peoples and perhaps even evolved over a long period of time. Besides the use of fingers to apply the paint on the wall, the fine line paintings seen in Panels E and G also suggest that the creators of the rock art may have used tools such as twigs or some sort of fine brushes to create the rock art.

Despite the openness of the site, Matthews' initial observation is correct that the interior of the rockshelter receives very little rainfall and the water wash observed in Panel C seems to have occurred in more ancient



Figure 14. Panel I.

times rather than recent. With some exceptions, it appears that the rock art of Gua Tambun has changed minimally when compared with photographs of the rock art from 50 and 25 years ago, which attests to the antiquity of the paintings. We were also able to observe first-hand the effect of rainy weather at the site during our two weeks at the site. Despite the daily evening rains, the interior of the shelter remained bone-dry and the possibility of rain falling onto the rock art, while not impossible, was remote.

Discussion and conclusion

Current work at the site is focused on the identification, categorisation and digital enhancement of the recorded forms from the fieldwork; however, we wish to offer some preliminary observations and comments about the rock art of Gua Tambun and Malaysia.

Visual themes

The rock art of Gua Tambun contains a range of anthropomorphs, animal figures, geometric and abstract designs; a good portion of it is undecipherable and damaged. Depictions of animals seem to dominate the main panel, C, with representations of many mammals tentatively interpreted as 'deer', 'wild pigs' and 'civets' in profile. Besides the supposed 'x-ray style deer', the higher reaches of the panel are dominated by large and horned 'deer', possibly depictions of Cervus unicolor (sambar deer) and Muntiacus muntjak (red muntjac), which have been heavily damaged by water wash and exfoliation (Fig. 16). Because of their level of fadedness and evidence of other paintings superimposed on them, these 'deer' paintings appear to be among the oldest on the panel. In contrast, the superimposition and distinct stylistic difference of the x-ray paintings indicate that they are relatively more recent.



Figure 16. Depictions of 'deer' on the higher reaches of *Panel C.*



the rock art of Gua Tambun and *Figure 15.* Panel J. This panel appears to be made up of petroglyphs rather than pictograms, although their exact nature is undetermined. Arrows point to repeated engravings of chevrons and vertical lines.

Other zoomorphic representations depict animals in a top-down view, including what has been tentatively identified as a '*biawak*' (monitor lizard, *Varanus salvator*) or 'turtle' (possibly *Chitra indica* or *Dogania subplana*) (Fig. 17). The rock art may also contain depictions of fish, evidenced by some oval forms with small protrusions at the side and a set of three long shapes, which modern observers have likened to the local catfish species *Clarias batrachus* (Fig. 18).

It is interesting to note that among all the anthropo-



Figure 17. Possible depictions of reptiles such as the monitor lizard and turtles.



Figure 18. Possible representation of local catfish, 'ikan keli'.

morphous representations found at the site, no two are similar. Besides the 'man with headdress', the 'dancing man' described in previous literature and the 'man with earrings' in Panel G noted earlier, smaller anthropomorphous shapes have been found in various parts of Panel C. Among them is a small, faint anthropomorph shape near the 'dancing man', which has been outlined by chalk, and a 'bird-man' below near the 'dugong' figure (Fig. 19). The different depictions of anthropomorphs are notable because the animal forms appear to be painted more consistently.

Other salient motifs that have been observed include two sets of lines comprised of dots, found on the right and the left of Panel C. Another distinct motif observed is a tri-linear geometric design (Fig. 20), which occurs in the upper reaches of Panel C. Their poor state of preservation and level of fadedness in the tri-linear figures suggest they are among the oldest in the panel. Clusters of oval shapes form another commonly repeated visual motif, usually found in groups of six or seven (Fig. 21). There is no interpretation offered for them yet.

Authorship and age

Gua Tambun is unique not only because of its size, but also because most of the other known rock art sites in peninsular Malaysia are drawn with charcoal (black), not red paints. Perhaps the two biggest unanswered questions are the site's age and authorship. The site's current attribution to the Neolithic (2500-500 B.C.E.) has emerged relatively recently. Zulkifli Jaafar (2003) attributes the rock art of Gua Tambun to a farming, hence Neolithic, community, but there is little evidence to support this thesis other than the recovery of cord-marked pottery from surface finds. It should be noted that none of the archaeological material recovered from earlier investigations can be located for examination today. The Neolithic period in Malaysia is not well known and is characterised by exchange of goods such as cord-marked pottery from Thailand in the north, while linguistic evidence suggests that



Figure 19. Depictions of anthropomorphs at Gua Tambun do not appear to be consistent.



Figure 20. A distinctive tri-linear motif, enhanced for visibility. Their level of fading indicates that they are among the oldest rock paintings from the panel.

ancestors of the Senoi aborigines began moving down the peninsula during this period (Bellwood 1998).

The Senoi are today the largest indigenous group in peninsular Malaysia, whose traditional lands are in the central and northern part of the country, which includes the area around Gunong Panjang. However, the Semang negritos have a far longer antiquity in the Malaysian peninsula, possible dating as far back as 50 000 years ago, as part of an expansion out of Africa (Hill et al. 2006). They have been observed to produce rock paintings, although in forms dissimilar to that seen in Gua Tambun (Evans 1937; Williams-Hunt 1952). Today, encroachment into the forests by modernisation have forced the Semang deeper into the jungles in the northern part of Perak and the neighbouring state of Kelantan, where they continue to lead a nomadic hunter-gatherer lifestyle that frequently brings them back and forth between the Thai-Malaysian border. It is not yet known if a perusal of the existing literature about the material culture and visual styles of these aboriginal cultures will show any similarities to the rock art at Gua Tambun, and research in this line of inquiry in ongoing.

Traditional ownership of Gua Tambun has never been established, and there have been no claims to the site by any of the indigenous populations living near the Ipoh area. This lack of an ethnographic link to the site further strengthens the idea of deep antiquity of the site rather than to a recent one.

Current research of the site is focused on two streams: digital analysis of the photographs, and the physical and chemical analysis of the pigments and raw materials sampled from the site. Digital image analysis plays a major role in this research, as one of the main objectives is the creation of an inventory of the rock art at the site. Digital image analysis involves the confirmation of field recordings with photographic recordings, the identification and restoration of faded images using digital enhancement techniques, working out the layers of superimposition using digital tracings and taking measurements using digital photogrammetry.

Image manipulation software such as Adobe Photoshop and ImageJ have proved to be extremely effective in restoring faded images by utilising a number of techniques, such as adjusting light levels and individual colour channels as well as false-colour enhancements such as decorrelation stretch (Mark and Billo 2000; Harmon 2005). Owing to the large number of rock art motifs that needs to be individually verified and checked, the digital image analysis is an ongoing process and is expected to take another four months to complete at the time of writing.

Samples of rock art paint residues scraped from several elements in Panel C, as well as surface finds of haematite and iron ore from the immediate surroundings were collected and sent for analysis by x-ray diffraction and gas chromatography mass spectrometry. The pigment samples are more difficult to work with,



Figure 21. Clusters of oval shapes appear frequently in *Panel C and in Panel I.*

because only a very small amount of sample (less than a gram) of each colour could be recovered from individual elements and the choice of tests to be run was severely limited. The primary question to be answered is the composition of the pigments, and to determine if any liquid binder other than water was used to make them. It is not known if AMS radiocarbon dating is at all possible on the pigments, which appear to lack carbonaceous material. The presence of chalk on the walls will certainly mean that the results of such determinations will be inaccurate (Chaffee et al. 1994).

Once the chemical properties of the rock pigments are better understood, an experimental approach will be used to replicate the colours of the rock art, namely red, purple and orange, using samples of limestone slabs recovered from the site. It is hoped this experimental approach will be useful in understanding the underlying technological process behind the production of the rock art, the colours, and preservation of the rock art found on the walls of Gua Tambun.

Rock art in island Southeast Asia seems to be confined to the eastern Indonesian islands, including Borneo and southern Philippines. It has been noted that sufficient stylistic similarities exist in this region, that may be classed as a larger Austronesian painting tradition (Ballard 1992), to Melanesia, but this is beyond the scope of this paper. On the Southeast Asian mainland, rock art has been reported primarily in

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Thailand and Malaysia. Clusters of rock art have been noted in the north, northeast and southern regions of Thailand, while the rock art sites in peninsular Malaysia are distributed closer to the north than to the south. Affinities between the rock art of southern Thailand and Gua Tambun will be pursued by the authors in the later part of 2009.

Despite the many unanswered questions, the site of Gua Tambun is significant in Malaysia and to the Southeast Asian region for its size and diversity. The phenomenon of rock art in Southeast Asia is not well-understood, in part due to the lack of research afforded to it, and also due to the poor researchsharing across countries owing to the trend for modern research to be published in native Southeast Asian languages such as Malay, Thai, Indonesian and Vietnamese. However, it has been noted, despite the dearth in research, the region itself is not poor in rock art sites (Mokhtar Saidin et al. 2008). It is hoped that this research to document and to record the rock art of Gua Tambun will eventually contribute to a better understanding of rock art in this region.

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