

BORNEO ROCK ART AND ARCHAEOLOGY: REVIEW ON ROCK ART PERSPECTIVES ON BORNEAN “NEOLITHIC”

(LUKISAN GUA DAN ARKEOLOGI BORNEO: KAJIAN SEMULA KE ATAS LUKISAN GUA DARIPADA PERSPEKTIF ZAMAN NEOLITIK DI BORNEO)

Irfan Ullah, Mokhtar Saidin & Nasha Rodziadi Khaw

Abstract

Borneo is the world's third-largest island, divided between the geopolitics of Malaysia, the Sultanate of Brunei and Indonesia. This review expands multiple strains of evidence indicating Borneo is important to understanding the Southeast Asian “Neolithic”. This study uses rock art as a substitution to track human movement on Borneo during the poorly understood “Neolithic” peopling of Island Southeast Asia, c. 6000 - 2000 ka. Rock art is a neglected archaeological data source in Southeast Asian archaeology, and Borneo's rock art holds great potential for studying modern human movement and symbolic behaviour. It evaluates the Borneo presence of two diagnostically “Neolithic” rock art traditions found elsewhere in Island Southeast Asia and the Pacific: The Austronesian Painting Tradition (APT) and Austronesian Engraving Style (AES). Multiple synchronic and diachronic rock art practices are described, including a distinctly Borneo version of the APT and a single instance of the AES that expand our understanding of the Borneo and Southeast Asian archaeological narratives.

Keywords: Borneo, Rock art, Austronesian Painting Tradition (APT), Austronesian Engraving Style (AES).

Abstrak

Borneo adalah pulau ketiga terbesar di dunia, dibahagikan kepada geopolitik Malaysia, Kesultanan Brunei dan Indonesia. Kajian ini mengembangkan pelbagai bukti yang menunjukkan Borneo adalah penting untuk memahami "Neolitik" Asia Tenggara. Kajian ini menggunakan seni batu sebagai pengganti untuk mengesan pergerakan manusia di Borneo ketika penduduk Neolitik yang kurang memahami Pulau Asia Tenggara, c. 6000 - 2000 ka. Seni batu adalah sumber data arkeologi yang diabaikan di arkeologi Asia Tenggara, dan seni batu Borneo memegang potensi besar untuk mempelajari gerakan manusia moden dan tingkah laku simbolik. Ia menilai kehadiran Borneo sebagai dua tradisi seni batu "Neolitik" diagnostik yang ditemui di tempat lain di Pulau Asia Tenggara dan Pasifik: Tradisi Lukisan Austronesia (APT) dan Ciri Ukiran Austronesia (AES). Amalan seni batu sintetik dan diakronik yang banyak telah diterangkan, termasuk versi Borneo APT yang jelas dan satu contoh AES yang mengembangkan pemahaman kita tentang kisah-khazanah arkeologi Borneo dan Asia Tenggara.

Kata Kunci: Borneo, Lukisan batu, Tradisi Lukisan Austronesia, Ciri Ukiran Austronesia.

Introduction

Researchers debate the origins and nature of the Borneo “Neolithic” horizon, extending from c. 6000/5000 to 4000-2000 BP (Bellwood 2007; Chazine 1999 & 2005; Datan 1993; Lloyd-Smith 2012). Borneo’s geographic situation and extensive, under-studied archaeological record uniquely position the island to evaluate competing perspectives on the regional dawn of the “Neolithic”. Borneo’s rock art, specifically, is an untapped line of archaeological evidence in this debate. The Austronesian Painting Tradition (APT) and Austronesian Engraving Style (AES) are recognized elsewhere in Island Southeast Asia and the West Pacific as signatory “Neolithic” rock art practices. They are considered components of a “Neolithic” cultural package that included various combinations of voyaging technology, reliance on maritime resources, agriculture (especially rice), stamped and incised red-slipped pottery, domestic pigs and dogs, stone adzes (tools), jar burials and a suite of the novel shell and bark cloth technologies. Identifying Borneo subsets of the APT and AES and tracking them through space and time could clarify the chronology and cultural landscapes of this essential time period, and perhaps evaluate models for its trajectory (Ullah et al. 2018).

This article operationalizes Borneo rock art, a new line of archaeological evidence in Southeast Asia, to understand the chronology and cultural landscapes of the island’s “Neolithic” period. Expanding that synthetic basis, this study reports and integrates into the archaeological narrative results from analysis assessing evidence for Borneo versions of the APT and AES.

A blend of formal and quantitative data analysis isolate localized characteristics of the Borneo APT, technically a painting and drawing tradition, as well as two possible Borneo examples of the AES. The widely-distributed attributes of the Borneo APT include black drawings and multi-chrome paintings of in filled, non-figurative geometric and linear motifs (rayed, concentric circles as well as curvilinear, geometric and scrolling motifs) and in filled figurative images (humans, domesticated animals, boats and portable material culture), periodically, but not always, found in archaeological funerary contexts. Two engravings from the coastal site of Kampung Santubong – one of a masklike face and the other of deeply-engraved circles – are the only Borneo rock art that fit the AES criteria. Evidence for the APT is geographically constrained to cave sites, while one coastal, open-air site contains rock art that could be related to the AES. All sites span the central third of Borneo, in or near territory hosting past or present Austronesian-speaking populations (Adelaar 2008). In this study the limited, highly variegated evidence for the APT and minimal evidence for the AES could represent the genesis of rock art styles/practices that eventually diffused and became localized throughout portions of Island Southeast Asia and the West Pacific.

The Austronesian Painting Tradition (APT) on Borneo

This study identified possible, uniquely Borneo Austronesian rock art motifs. Originally hypothesised the Borneo subset of the APT would include: in filled red rock paintings and black rock drawings of non-figurative curvilinear and geometric motifs and figurative anthropomorphs, zoomorphs (possibly including depictions of domestic animals like boars and buffalo), portable material culture and boats as well as stencils. In this study we also suggest cave rock art sites associated with archaeological/anthropological funerary locations/materials in areas once or presently inhabited by Austronesian speakers as places the Borneo APT was most likely to manifest.

A presence/absence account of the proposed signatory Austronesian features at Borneo Rock Art Sites (Table 1) shows rock art fitting the tradition’s rubric is present at 22 of the 63 known rock art sites in Borneo. Evidence from two of the sites can be dismissed on stylistic grounds as definitely non-Austronesian: Japanese writing, a swastika and depiction of an airplane date the majority of Gua Bumo II’s newly discovered black rock drawings to the Japanese occupation of Borneo. It is important to note additional, invisible black drawings covered by a thick layer of guano and cave mineral accretion exists at the site. The few images and descriptions available of the Sarang Caves rock art sites, Batu Puteh and Lubang Ringen (Chia & Datan 2003: 125; 138) show black rock drawings of anthropomorphic figures with trapezoidal heads, large ovular eyes, elongated in filled tear-drop shaped noses and, thick necks and geometric body components. The Sarang Caves

drawings appear (Chia and Datan 2003: 138) stylistically unlike any other known Borneo rock art as well as Austronesian rock art from further afield and are therefore subtracted from this section of the study.

Table 1. Presence and absence of signatory Austronesian characteristics at Borneo rock art sites.

| SITE | ROCK ART TPES | | | | | | | COLORS | | MOTIFS | | | | IMAGES | | | LOCATION | | | REFERENCE(S) |
|--|---------------|----------|-----------|---------|--------------|------------|---------|--------|-------|-------------------|-------------|-----------|---------------------|----------------|-----------|-------|----------|----------|------------------|---|
| | Drawing | Painting | Engraving | Stencil | Hand stencil | Bas relief | Cupules | Red | Black | Rayed/ concentric | Curvilinear | Geometric | Geometric scrolling | Anthropomorphs | Zoomorphs | Boats | Cave | Open-air | Mortuary context | |
| Sarawak, Malaysian Borneo | | | | | | | | | | | | | | | | | | | | |
| Batuh Puteh, Sarang Caves | | | | | | | | | | | | | | | | | | | | Harrison and Reavis 1966: 260; Kusch 1986 |
| Lubang Ringen, Sarang Caves | | | | | | | | | | | | | | | | | | | | Harrison and Reavis 1966: 260, 261; Chia and Datan 2003: 125 |
| Gua Bumo I | | | | | | | | | | | | | | | | | | ? | | |
| Gua Bumo II | | | | | | | | | | | | | | | | | | ? | | |
| Gua Kain Hitam, Niah Caves, previously reported rock art | | | | | | | | | | | | | | | | | | | | Barker 2005; Harrison 1958b: 588-590; Harrison 1958a: 200; Pyatt et al. 2005: 897 |
| panel and three singular images | | | | | | | | | | | | | | | | | | | | |
| Gua Kain Hitam, Niah Caves, newly-discovered rock art | | | | | | | | | | | | | | | | | ? | | | |
| Gua Sireh | | | | | | | | | | | | | | | | | ? | | | Datan 1993: 138, 160 |
| Lobang Tulang, Niah Caves | ? | ? | | | | | ? | | | | | | | | | | | | | Reavis 1964 |

East Kalimantan, Indonesian Borneo

| | | | | | | | | | | | | | | | | | | | | |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Gua Ham | | | | | | | | | | | | | | | | | | | | Fage and Chazine 2010: 126-134; Plagnes et al. 2003:173 |
| Gua Harto | | | | | | | | | | | | | | | | | | | | Fage and Chazine 2010:150 |
| Gua Ilas Kenceng | | | | | | | | | | | | | | | | | | | | Chazine and Setiawan 2008: 6; Fage |

arrived on Borneo before East Timor and Pacific islands, so the Borneo Austronesian rock art tradition is an earlier version of introduced practices that both migrated onwards and became localized on the island over time.

Austronesian rock art on Borneo is restricted to a specific geographic range (Figure 1). Rock art satisfying all postulated elements (possessing at least one characteristic from each of the bolded columns) of the Borneo Austronesian rock art tradition is currently restricted to 20 sites banding the central third of Borneo: Gua Bumo I, Gua Kain Hitam, Lobang Tulang, and Gua Sireh (Sarawak, Malaysian Borneo); Gua Ham, Gua Harto, Gua Illas Kenceng, Gua Jufri, Gua Kambing (location unknown), Gua Kurang Tahu, Gua Mardua, Gua Payaou, Gua Pindi, Gua Tamrin, Gua Tengkorak, Gua Tewet, Liang Karim, Liang Lumba Cave, Liang Sara II (East Kalimantan, Indonesian Borneo) and Liang Kaung (West Kalimantan, Indonesian Borneo). Possible explanations for the geographic patterning include the relative dearth of Borneo archaeological research and lack of information regarding the record of West Kalimantan. The site distribution could also delineate a geographic band of Austronesian rock art practices. Additional, Pan-Borneo archaeological survey and a translation of West and East Kalimantan archaeological literature are needed to fully investigate the phenomena.

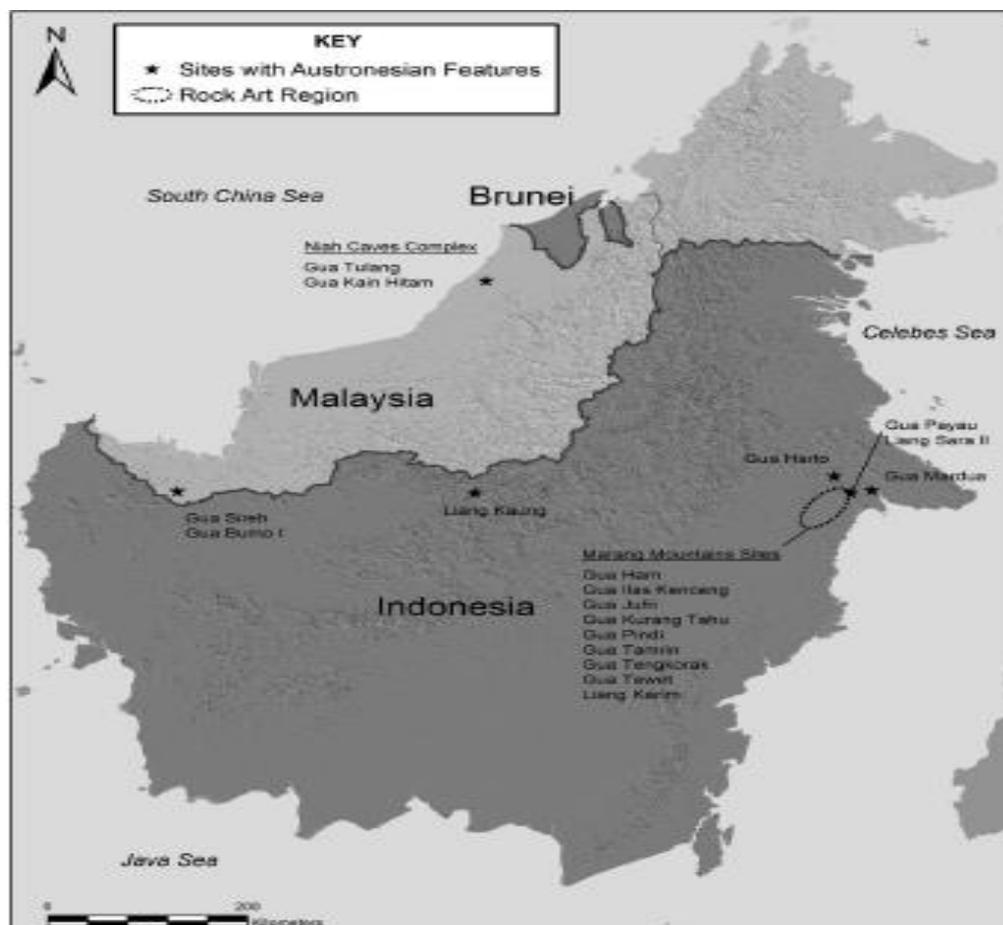


Figure 1. Borneo sites containing a preponderance of signatory Austronesian features

Source: Chris Filimoehala 2012

Within this site selection, stylistic variation in rock art medium, motif and image delineates phased “Neolithic” Borneo rock art practices, supporting Chazine’s (2005) observations, augmenting Taçon’s rock art typology and echoing Wilson’s (2002 & 2004) findings on Vanuatu and O’Connor’s (Wilson’s 2003; O’Connor & Oliveira 2007) on East Timor. Stencils of portable material culture and animals are notably absent (though hand stencils likely dating to the late Pleistocene and Early Holocene abound) from the Borneo “Neolithic” rock art tradition, possibly because Borneo’s rock art represents an early (nascent?) stage in the genesis of the repertoire.

The results of this presence/absence inventory enable a re-evaluation of the original model I assumed for the Borneo APT (Table 2). Previously theorized the APT would consist off in filled red rock paintings, black rock drawings and templates depicting non-figurative curvilinear and geometric motifs and figurative anthropomorphs, zoomorphs (with some possibly domestic animals like boars and buffalo) and boats/portable objects. I also hypothesized the Borneo APT would occur at caves frequently (but not always) in association with archaeological/ anthropological funerary locations/materials in areas once or presently inhabited by Austronesian speakers. These results necessitate that stencils be excluded from Austronesian rock art practice on Borneo, and also that the model is renamed the Austronesian Painting and Drawing Tradition (APDT) when applied to Borneo.

Table 2. Revised model for the Borneo Austronesian Painting Tradition (APT)

| Country/ geographic region | Rock Art Types(s) | Rock Art Color(s) | Rock Art Motifs | Rock Art Images | Rock Art Site Landscape Location | Cultural or archaeological funerary association? | Austronesian speakers inhabit(ed) the region? | Reference(s) |
|----------------------------------|---------------------------------------|---|--|--|--|---|--|---|
| West Pacific | Engravings | N/A | Curvilinear motifs | | Open-air locations near water | Cultural and archaeological | Yes | Specht 1979; Ballard 1988, 1992; Wilson 2002, 2004 |
| | Paintings (predomina nt medium) | A range of predomina ntly red hues; yellow, black | Infilled non- figurative motifs: rayed, concentric circles; curvilinear, geometric and scrolling motifs | Infilled figurative images: anthropom orphs, zoomorphs and boats | Prominent situation in hard-to-access areas, coastal location/ocean orientation | | | |
| East Timor | Paintings | A range of predomina ntly red hues, some superimpo sed by white | Infilled scrolling and geometric designs | Infilled anthropom orphs and depictions of material culture | Caves | | Yes | O'Connor 2003; O'Connor and Oliveira 2007 |

| | | pigment | | | | | | |
|------------------------|---------------------------|--|--|---|-------|-----------|-----|---------------------------------------|
| Indonesian Sulawesi | Drawings | Black | "wide range of geometric signs" | Anthropom orphs, zoomorphs (including domesticat ed species) | Caves | N/A | N/A | Aubert et al. 2014:223 |
| Borneo | Drawings Paintings | Black A range of predomina ntly red hues; perhaps other colors? | Infilled non- figurative motifs: rayed, concentric circles; curvilinear, geometric and scrolling motifs | Infilled figurative images: anthropom orphs, zoomorphs (domesticat ed animals), boats, material culture | Caves | Sometimes | Yes | Donohue and Denham 2010: 228 |

A mixture of rock painting and black rock drawing sites from across the Borneo display features characteristic of the APT (Figure 2). The largest number of signatory APT elements manifest at Liang Kaung, a black rock, drawing a cave site from central Borneo (Figure 3), which possess geometric circle and curvilinear motifs, depictions of material culture and anthropomorphs in the APT style. Similarities exist between the red rock paintings of concentric circles of Gua Mardua, East Kalimantan, and the black rock paintings of concentric circles at Lobang Tulang, Miri, and Sarawak that could indicate a shared rock art tradition that bridges the island (Figure 4). A wide range of variability characterizes the Borneo APT. Stylistic similarities underscored by a wide degree of locational and techno-chronological dissimilarity is present throughout Borneo Austronesian site

types. This patterning could signify the regional development of what eventually came to be the Borneo Austronesian tradition, the disintegration of the tradition over time, or a combination of the two. By contrast, Borneo engravings and bas-relief, predominantly from the Northern Highlands, display a high degree of stylistic variability spanning ancient through modern times



Figure 2. Black rock drawings of rayed circles (left) and red rock paintings of spirals and boats (right) – elements of the Borneo APT.

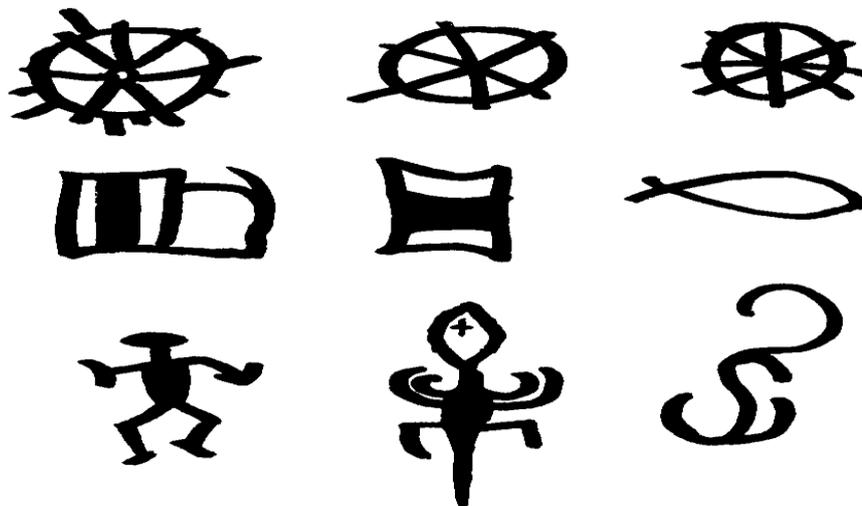


Figure 3. Characteristic APT-style black rock drawings from Liang Kaung
Source: Fage 1989

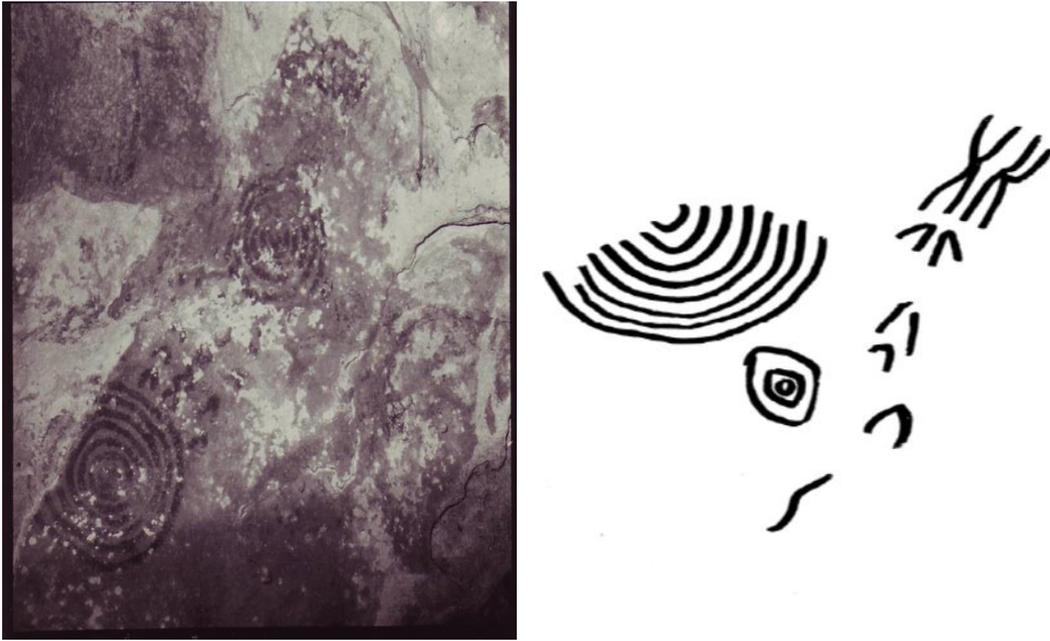


Figure 4. Red rock paintings from Gua Mardua (right; Chazine 1999:216) and black rock paintings from Lobang Tulang (left; Source: Sarawak Museum Department).

The Borneo Austronesian Engraving Style (AES)

Presence/absence analysis of locational and formal characteristics in the Borneo engraving/bas-relief techno-chronological tradition identified possible evidence for the AES. A single bas-relief face (Figure 5) from Kampung Santubong fits Specht's (1979:4) criteria for the AES as a mask-like image engraved on a boulder, in an open-air location facing the sea.



Figure 5. Mask-like engraving from Kampung Santubong and potential example of The Borneo AES
 Source: Specht's 1979

Discussion

The APT observed in other Southeast Asian and Pacific locales is present on Borneo, as is minimal evidence for the AES. The Borneo version of the APT is characterized by black rock drawings and multi-chrome paintings portraying in filled non-figurative motifs: rayed, concentric circles; curvilinear, geometric and scrolling motifs as well as in filled figurative images: anthropomorphs, zoomorphic (domesticated animals), boats, material culture found at cave sites associated with archaeological funerary contexts. A coastal rock art from Sarawak contains possible evidence for the AES – a single engraved and bas-relief, mask-like face.

Unlike in Island Southeast Asia and the West Pacific, no single rock art phase or a specific site on Borneo are representative of the Borneo APT. Instead, Borneo rock art phases and sites contain a broad meld of formal and contextual features characteristic of the APT. The Borneo APT displays a higher degree of variation in rock art medium, motif combinations and iconography than any other Island Southeast Asian or Pacific location. By contrast, the very limited evidence for the Borneo AES parallels the tradition in the West Pacific but requires the discovery of additional coastal engravings displaying the formal characteristics of the Borneo AES to substantiate.

Several possible explanations exist for the distribution and demographics of “Neolithic” APT and AES rock art iconography. The pattern could represent the initial stirrings of “Neolithic” rock art styles that codified along the coasts and were exported to other locations throughout Island Southeast Asia and the West Pacific. The APT and AES have been shown to localize over time in the West Pacific. The localization of intrusive trends (i.e. a rock art practice introduced and adopted over time by groups on Borneo) is another possibility for Borneo’s diffusion of APT and AES rock art iconography.

Summary

Using formal analysis and a presence/absence account, this research identifies the Borneo version of the APT and possible traces of the AES. Evidence for the Borneo APT is found in a restricted geographic distribution of cave locations that contain a diffuse meld of rock art styles, mediums and archaeological/cultural materials. A single engraving from the coastal site of Kampung Santubong is the only indicator of the Borneo AES.

The Borneo APT is uniquely different from manifestations of the APT in Indonesia, East Timor and the West Pacific. It is far more variegated in rock art styles, mediums and archaeological/cultural associations, with no definitive “site-types”. We recognize two possible explanations for this data patterning. In one scenario, the distributional, formal and characteristic variety of the Borneo APT could represent the initial stirrings of what later became a more codified, highly mobile and then localized rock art practice. In another, the patterning could represent the disintegration and localization of introduced “Neolithic” rock art practices through time. These results do not make detailed refinements to Borneo and Southeast Asia’s “Neolithic” chronologies possible. However, they do expose and characterize an additional vein of archaeological evidence for “Neolithic” material culture and definitive evidence for “Neolithic” rock art on Borneo. These data ultimately underscore Borneo’s import in the human migrations and interaction that characterized the Southeast Asian “Neolithic”.

Conclusion

By identifying the characteristics of the Borneo APT and a possible candidate for the Borneo AES, this study revises Borneo rock art typologies and develops a deeper understanding of the Borneo record. This study enables Borneo rock art, a new line of archaeological evidence, to broadly inform on the chronology and cultural landscapes of the Southeast Asian record and “Neolithic” time period.

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Irfan Ullah
Calon Sarjana
Pusat Penyelidikan Arkeologi Global,
Universiti Sains Malaysia
Pulau Pinang
Email: irfanzes998@gmail.com

Mokhtar Saidin (PhD)
Pengarah/Profesor
Pusat Penyelidikan Arkeologi Global
Universiti Sains Malaysia
Pulau Pinang
Email: mmokh@usm.my

Nasha Rodziadi Khaw (PhD)
Pensyarah Kanan
Pusat Penyelidikan Arkeologi Global,
Universiti Sains Malaysia
Pulau Pinang
Email: rnasha@usm.my