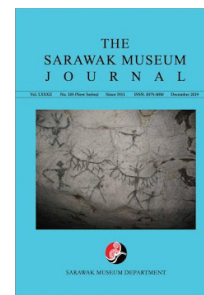




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### ARCHAEOLOGICAL INVESTIGATIONS AT THE TRADER'S CAVE, NIAH NATIONAL PARK: REPORT ON THE SECOND AND THIRD (2018 & 2019) FIELD SEASONS

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#### INTRODUCTION

In November 2017, 50 years after Tom and Barbara Harrison completed their excavations in the West Mouth of the Niah Great Cave Complex (NGCC), we began archaeological excavations in the Trader's Cave (Fig.1). While the area containing the Niah Caves was privately owned land at the time the Harrissons undertook their research it was gazetted as a National Park in 1974 and today comprises 3,138 hectares of forest and karst areas including many largely unexplored caves. Our research project, underway since 2011, aims to assess the archaeological and palaeoenvironmental potential of the caves in Niah National Park beyond the areas subject to research previously by the Harrissons. The Trader's Cave (3°49'1.16"N, 113°46'54.42"E) is the second largest cavern in Niah National Park and is located approximately 150 m north of the West Mouth within the same karst tower (Bukit Bekajang) as the NGCC. As noted previously (Curnoe et al. 2017), the Harrissons excavated a small trial excavation in the northern tourist entrance of the cave during 1956, but never published the results or returned to the locality for further archaeological research. Until our project began, there had been no archaeological activities within the main cavern of the Trader's Cave despite its size: the cave being ~200 m in maximum length, ~30 m at its widest point and with a maximum height >15 m. Similarly, while Hazelbroek and Morshidi (2000) provided a brief description of the geology of the cave, the only detailed speleological investigation of the Trader's Cave was published in 2017 (Dodge-Wan 2017). Since our first field campaign (Curnoe et al. 2017), we have completed a further two field seasons with a total duration of 16 weeks of field research 2017 - 2019 in this cave, with further excavations planned for 2020 - 2022.

#### Keywords:

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JABATAN MUZIUM SARAWAK

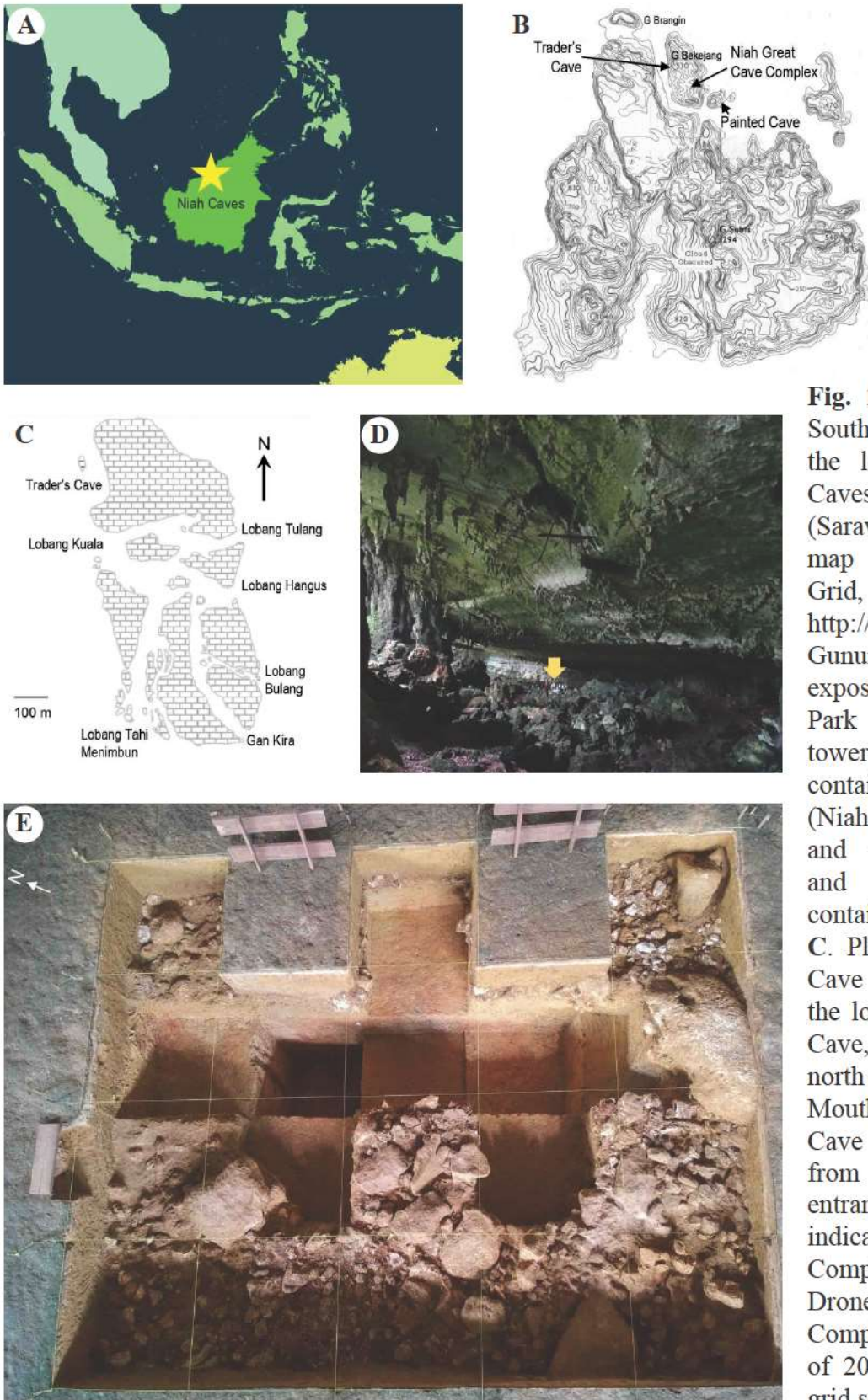
# ARCHAEOLOGICAL INVESTIGATIONS AT THE TRADER'S CAVE, NIAH NATIONAL PARK: REPORT ON THE SECOND AND THIRD (2018 & 2019) FIELD SEASONS

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## INTRODUCTION

In November 2017, 50 years after Tom and Barbara Harrison completed their excavations in the West Mouth of the Niah Great Cave Complex (NGCC), we began archaeological excavations in the Trader's Cave (Fig. 1). While the area containing the Niah Caves was privately owned land at the time the Harrissons undertook their research it was gazetted as a National Park in 1974 and today comprises 3,138 hectares of forest and karst areas including many largely unexplored caves. Our research project, underway since 2011, aims to assess the archaeological and palaeoenvironmental potential of the caves in Niah National Park beyond the areas subject to research previously by the Harrissons. The Trader's Cave (3°49'1.16"N, 113°46'54.42"E) is the second largest cavern in Niah National Park and is located approximately 150 m north of the West Mouth within the same karst tower (Bukit Bekajang) as the NGCC. As noted previously (Curnoe *et al.* 2017), the Harrissons excavated a small trial excavation in the northern tourist entrance of the cave during 1956, but never published the results or returned to the locality for further archaeological research. Until our project began, there had been no archaeological activities within the main cavern of the Trader's Cave despite its size: the cave being ~200 m in maximum length, ~30 m at its widest point and with a maximum height >15 m. Similarly, while Hazelbroek and Morshidi (2000) provided a brief description of the geology of the cave, the only detailed speleological investigation of the Trader's Cave was published in 2017 (Dodge-Wan 2017). Since our first field campaign (Curnoe *et al.* 2017), we have completed a further two field seasons with a total duration of 16 weeks of field research 2017 – 2019 in this cave, with further excavations planned for 2020 – 2022.





**Fig. 1.** A. Map of insular Southeast Asia indicating the location of the Niah Caves in northern Borneo (Sarawak, Malaysia) (base map from GEBCO\_2019 Grid, version 20150318, <http://www.gebco.net>). B. Gunung Subis limestone exposure in Niah National Park showing the karst tower (Bukit Bekajang) containing the Niah Caves (Niah Great Cave Complex and the Trader's Cave) and the separate tower containing the Painted Cave. C. Plan of the Niah Great Cave Complex indicating the location of the Trader's Cave, approximately 100 m north of Lobang Kuala (West Mouth). D. The Trader's Cave cavern looking north from the southern tourist entrance (yellow arrow indicates location of SQA-Complex excavation). E. Drone image of SQA-Complex excavation at end of 2019 field season (each grid square is 1 m<sup>2</sup>).



Undertaking archaeological excavations in tropical caves such as the Trader's Cave can be a challenging task owing to a range of complexities and potential sources of error stemming from: 1) complicated speleological settings and cave development histories; 2) intricate geohydrological regimes (prevailing and historical) correlated with dynamic palaeoclimatic systems including monsoons; 3) the effects of uplift, faulting and local seismic activity; 4) bioturbation in sediments due to insects or rodents; 5) anthropogenic disturbance of sediments owing to a history of guano collection, cave occupation and vandalism from regular visitors (tourists) to the cave; 6) a complicated sedimentary sequence including the possibility of post-depositional erosion and redeposition owing to spring activity causing possible hiatuses and/or stratigraphic inversions; and 7) active speleogenesis and chemical weathering. In an attempt to take account of – and indeed reconstruct where possible – these factors our project has utilised controlled excavations involving the collection of detailed spatial data and mapping of the sediments and finds supplemented with laboratory analyses of the recovered finds (artefacts and fossils) including taphonomic and zooarchaeological investigations. We have also been undertaking a comprehensive investigation of the cave setting and sediments including determining sediment colour, texture, grain size and sand/clay composition, sediment geochemical composition and mineralogy, micromorphological analyses of sediment samples, isotopic and microscopic investigations of speleothem, and age determinations employing accelerator mass spectrometry (AMS) radiocarbon ( $^{14}\text{C}$ ) of charcoal, shell and sediments, optically stimulated luminescence (OSL) dating of quartz grains and Uranium-series (U-series or U/Th) dating of speleothem and bone. Full details of the analytical methods used and results produced will be reported elsewhere.

In this article, we provide a brief report on our archaeological research activities at the Trader's Cave during the 2018 and 2019 field campaigns. Spanning a total of 12 weeks we focused our research largely on the Square A excavation area (SQA-Complex) and the sediments it contains (Fig. 1). We describe the excavation methods we employed, summarise some findings and discuss some of the results of our sedimentological and geochronological research with implications for understanding the cave palaeoenvironment, broader landscape setting and human cave use.

### **Excavation methods**

Our excavation strategy has been refined over the course of excavations to suit local conditions and the setting of the site, the nature of the sediments