

# Engaging Archaeology through Performing Arts: Prospect and Challenges in Malaysia

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## ABSTRACT

*This paper dwells on the issues and prospects of performing arts and its context in Malaysian archaeology. The amalgamation of performing arts and scientific archaeological data and interpretation could be further translated into different ideas and products. The approach of performing arts taking place as a tool to relay archaeological information is new and still scarcely used in Malaysia. The recent discovery of the Sungai Batu site at Merbok, Kedah opened up many new platforms for collaborative research especially between the fields of archaeology and performing arts. The amalgamation between the science and arts added to the wealth of knowledge about the civilisations that once flourished in the area that represented Kedah Tua (Ancient Kedah). Evidently, philosophy and culture are reflected in arts and design of each and every single artefact, structure, and feature. The methodology used in this research to interpret scientific data to the masses in an artistic manner was through theatre. Findings showed that theatre (and artistic license attached to it) as a tool of performing arts was able to informally present the interpretation of archaeological discoveries at Kedah Tua to the audience in a non-academic setting yet engaging and at the same time communicating the re-imagined stories based on the archaeological findings in a much entertaining manner.*

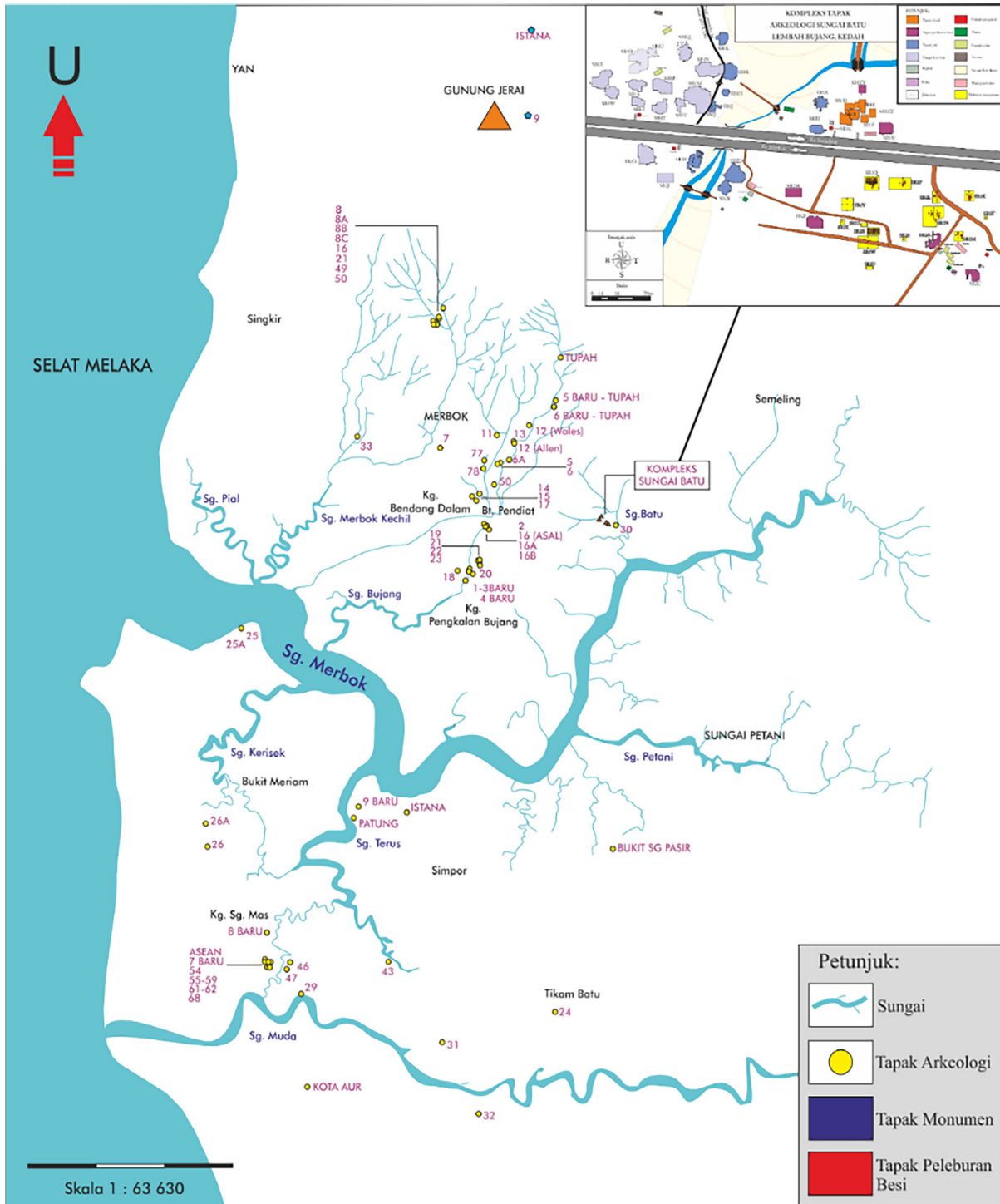
**Keywords:** *archaeology, performing arts, Sungai Batu site*

## INTRODUCTION

Archaeology, as a field of study, started back in Malaysia in 1840s, when Captain James Low of the British East India Company discovered remains of human civilisation in Lembah Bujang that was dated back to the proto-historical period. Since then, precious artefacts such as glass, beads, pottery, structures, and inscriptions were unearthed by researchers and archaeologists through numerous series of excavations. The discovery of the Sungai Batu site at Merbok, Kedah by the Centre for Global Archaeological Research, Universiti Sains Malaysia (CGAR USM) in 2007 added to the wealth of knowledge about the civilisations that once flourished in the area that represent the Kedah Tua (Ancient Kedah) civilisation. All these evidences signify philosophy and culture, reflected in arts and design of each and every single artefact, structure, and feature. Eventually, one of the goals of archaeology is to present these data to the masses, and it should be delivered through a structured and meaningful interpretation, solely based on systematic and scientific research of archaeological evidence. In developed countries, apart from conventional methods such as museum display and guiding, performing arts have taken place as a tool to relay this archaeological information. However, the approach is still minimally used in Malaysia. Hence, this paper will dwell on the issue and prospect of performing arts and its context in Malaysian archaeology.

### Latest Evidence of Ancient Kedah

Kedah Tua, or Ancient Kedah was a kingdom which started to exist in the Sungai Batu Complex from the 6th BCE. The coastal area became the centre for the port-polity due to its geomorphological formation consisting of a network of wide and deep river, which enabled trading vessels to harbour near to the coastline. In addition, the area was abundant with freshwater and its biodiversity as well as rich mineral deposits.



**Map 1** Distribution of sites in Kedah Tua.

Source: CGAR USM.

Kedah Tua was an extremely prosperous trading port, which inhabitants mastered the most important technology of the ancient world at least since 535 BCE, which was iron smelting. In order to reach the 1,200°C melting point for the iron ore, the society in Kedah Tua developed techniques of building furnaces and special type of blower known as the *tuyere*. The iron ores such as hematite and magnetite are widely available around the Jerai peak geological formations, which made it very easy for the iron smelting technology to be part of the ancient culture of Kedah. Since the time immemorial, they have produced iron ingots to be exported, as attested by historical records. It was said that the iron ingots of Kedah were widely used throughout the ancient

world to make weapons and chariots. The position of Kedah as an iron producer had made it necessary for them to construct wharfs as well as having some sort of administrative system to transport those commodities and regulate the trade. Aside from wharfs and administrative buildings, a religious monument was also discovered in the sprawling archaeological complex, and all of them almost entirely made of bricks. The recent discovery in Sungai Batu had shown that the early emergence of Kedah Tua as an entrepôt was due to the presence of the iron industry, and this has led to the prosperity of the Sungai Batu complex for 2,600 years.

From 410 CE onwards, the settlement of Kedah Tua started to expand to other areas such as Pengkalan Bujang, Kampung Sungai Mas, Simpang Tambang, and Kampung Sireh when the sea level started to recede. During that period, trade with China and India started to flourish, which led to the dissemination of various aspects of Indian culture in the region. With the rise of international trade, Hindu and Buddhist communities started to spring out at the vicinities of the trading sites. In 1136 CE, the society in Kedah was believed to have already been Islamised under their first Muslim King, Sultan Muzaffar Shah.

Research in Kedah had started since the early 1840s, pioneered by mostly British colonial officers (Low 1848, 1849; Irby 1905; Evans 1926; Wales 1940; Sullivan 1958; Lamb 1960; Leong 1973; Peacock 1980; Allen 1988). In 1988, Jane S. Allen had mapped more than 80 sites in an area of 400 km<sup>2</sup>, covering from Bukit Choras to Cherok Tokkun. All these data revealed the presence of the Kedah civilisation, which can be dated from the 5th Century CE, with the cultural materials consisting of Hindu and Buddhist shrines and sculpture, inscriptions and trade items such as ceramics and beads. Due to the importance of the discoveries, the government had decided to establish the Archaeological Museum of Lembah Bujang to display the remains of Kedah Tua. In 2007, the National Heritage Department had asked Universiti Sains Malaysia to pursue the research on Kedah Tua, which has led to the discovery of the Sungai Batu Complex.

The excavation in Sungai Batu Complex had started in 2009, which unveiled important information otherwise unknown since the research first started in 1840s. Out of the 97 sites discovered in Sungai Batu, 52 sites have been excavated, which reveals (1) religious monument, (2) wharfs and jetties, (3) administration buildings, and (4) iron smelting sites. The recent data in Sungai Batu had proven that the area started to exist since 6th BCE and continued to be occupied until the 17th century. Present research had shown Kedah Tua had occupied the area of at least 1,000 km<sup>2</sup>. The archaeological discoveries in the area (Map 1) had shown the presence of a polity controlling the area, known as Kedah Tua.

Archaeological research in the Sungai Batu Complex since 2009 had unearthed a good number of iron smelting sites. The cultural materials which characterised the role of an iron smelting site include (1) iron ores, (2) smelting equipment, and (3) final and side products. The raw materials found in Sungai Batu Complex are mostly hematite and magnetite (Photo 1). The geological mapping of the area shows that the iron ores are easily available within the 10 km radius around the site, especially around the north-eastern area.



**Photo 1** Iron raw materials (hematite and magnetite) found in Sungai Batu.  
Source: CGAR USM.

In order to produce iron products, iron ores cannot be directly moulded or shaped as they are easily broken. Thus, they need to be melted down and mixed with sand and lime to strengthen the material. The melting point for iron is around 1,200°C. To reach this temperature, the smelting process requires a proper furnace and blowers. Both are discovered, in large number, in Sungai Batu Complex. However, most of the furnaces found in Sungai Batu are broken, with only the remains of the base of the furnace discovered (Photo 2). This is probably due to the fact that in order to retrieve the finished product, the furnace had to be broken. However, in Jeniang, which is 40 km from Sungai Batu, a number of complete and intact furnaces made of clay were discovered, measuring around 1 m (Photo 3).

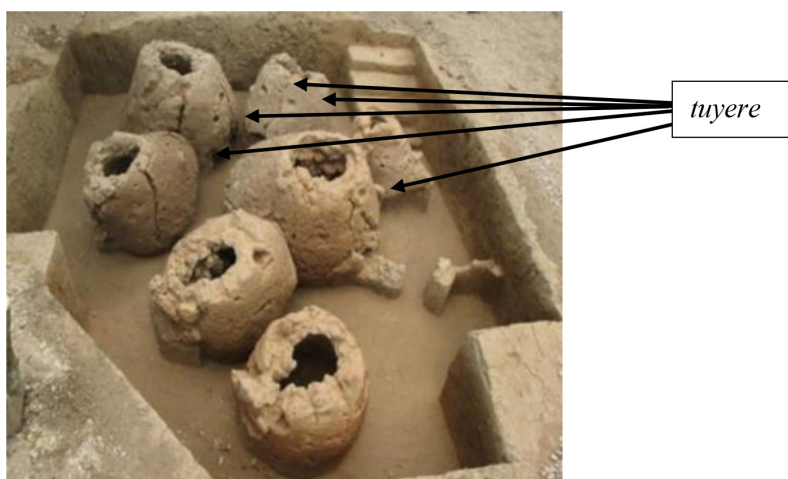
Detailed study on the furnaces discovered in Jeniang had revealed that they required a blower attached to their walls in order to increase and maintain the melting point (Photo 3). These blowers are known as *tuyere* (Photo 4), a term derived from a place name in France where it was first discovered. Excavation in Sungai Batu had unveiled millions of used *tuyere*, as well as the unused *tuyere* storage (Photo 5). They consist of pipes made of clay, 12 cm in diameter and 25 cm in length. The air conduit is in the middle with the diameter around 3 cm, with the blowing process assisted by probably a metal rod.



**Photo 4** *Tuyere* blower.  
Source: CGAR USM.



**Photo 2** Circular structure representing the base of the furnace.  
Source: CGAR USM.



**Photo 3** Intact furnace in Jeniang.  
Source: CGAR USM.

Archaeological experiment done had shown that to construct a furnace of 1 m in height takes around 4 days, before its ready to be used. Each furnace of this size need at least five *tuyeres*. The experiment is started by adding the fuel consisting of wood/charcoal, sand and lime in the first layer, which are later burnt. After that, the second layer consisting of iron ores (10 kg), which are broken into small pieces and baked to quicken the smelting process. Furnace of this size can be able to fit in at least three layers of iron ores. This means that at one time, 30 kg of iron ores can be smelted. The experiment done had shown that the molten iron will start to flow out after 8 to 12 hours of constant burning at 1,200°C.



Store of  
*tuyere*

Charcoal  
and ash

**Photo 5** *Tuyere* storage  
Source: CGAR USM.

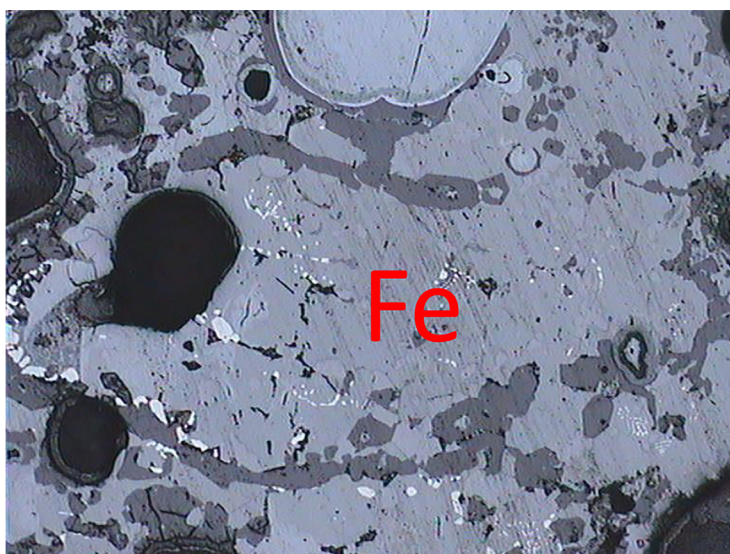
The experiment also suggests that in every iron smelting site, discoveries such as charcoal, ashes as well as iron remains should be found. Charcoal and ashes (Photo 5) are found in a large amount in almost every excavation site of Sungai Batu. These materials are used as samples for radiocarbon dating to determine the date of the sites. The dating had suggested that the iron smelting activities in Sungai Batu had begun since 535 BCE, which is the oldest in the region.

The final product, consisting of molten iron, either flows out from the furnace or remain inside. In order to produce the iron ingots with regular shapes and sizes, the molten iron is either let to flow, or scooped into a mould. However, no such moulds have yet to be discovered in Sungai Batu. Among the most common discoveries in Sungai Batu are the iron slags of various sizes, which are mostly  $10 \times 8 \times 5$  cm in average (Photo 6). The result of the archaeological experiment had also unveiled the fact that the content of an iron ingot contains 70% of ferum (Photo 7). This shows that the iron ingots of Sungai Batu are of a good quality, of which each ingot could produce a knife of 25 cm in length.

However, archaeological research in Sungai Batu had yet to unveil finished iron products such as swords. This suggests that the role of Kedah Tua was only to produce iron ingots to be exported elsewhere. This raises the question of where the ingots were being sent to. Seeing that written records about this are still quite scanty, this leaves lots of space for future research. Scientific research had shown that every iron ore produced in any locality in the world have their own fingerprint, in the form of trace materials. In the possible scenario when any ancient iron objects anyway were found with the same trace elements as those of Sungai Batu, that would show that the raw iron could have been brought from Kedah.



**Photo 6** The iron ingots.  
Source: CGAR USM.



**Photo 7** Ferum content in iron ingot of Sungai Batu under metallurgy microscope.  
Source: CGAR USM.

Preliminary research on Indian texts had shown the importance of Kedah as one of the most important iron producer in Southeast Asia. The Indians identified Kedah as *Kataram* or *Kadaram*, which refers to black ores (iron), and there are few references which mention that their swords and chariots were made of iron imported from Kedah. As for the Arab records, it was said that among the best quality iron which were used to make swords came from *Kalah* (Kedah). In Sanskrit literatures, Kedah was often mentioned as *Kataha*, which can be literally translated as iron pot. In Japan, the word steel is mentioned as *Keda'*. The etymological study suggests the role of Kedah as the main iron producer of the region (Map 2).

Research on the production of iron in Sungai Batu is still ongoing, and more data is needed to get a clearer picture on the subject. Present data had proven that the ancient society of Sungai Batu had somehow mastered the pyrotechnology to the extent of having a full-fledged iron industry. Such technology had defined the very character of the Kedah Tua civilisation, as a society with economic substructure basing on iron production. In order to export these commodities, brick wharfs were built on both banks of the ancient river of Sungai Batu. The discovery of administrative buildings suggests the large volume of trade, which requires some sort of complex governing system. This clearly portrays the uniqueness of the Kedah Tua civilisation. More research is currently being done to study the impact of the development of the Kedah Tua civilisation to other contemporary civilisations such as Egypt, Persia, Greece, Rome, and South America, as well as those in Indochina and Java. In short, Sungai Batu revealed an evidence of economic based civilisation, an iron industry, from mining to trading. Therefore, it is important to translate these findings to the public besides using the normal approaches such as seminar, publication, and exhibition.

## PERFORMING ARTS IN ARCHAEOLOGY

English Oxford Living Dictionary (2017) defines performing arts as "forms of creative activity that are performed in front of an audience, such as drama, music, and dance". Archaeologically, evidence of dance and performing arts could be found from ancient sites in Crete, associated with palace or villas, where such activities were performed and witnessed (German 2007). Performing arts have been used to convey messages, through story and tales, since the early age of human civilisation. Greek performers conducted the first act of acting, circa 5th BCE. The word theatre came from a Greek word, *theatron*, meaning a place to watch a show. It developed from a countryside festival and was performed together with dances by a group of men known as a chorus. Prizes were awarded for the best entry. At first, the chorus was performed in the market place, but later a huge open-air theatre was built on the slope of the Acropolis near the temple of Dionysus. One of the best preserved Greek theatres is at Epidaurus. Thespis, a Greek performer, was credited as the first person who performed on stage at the Theatre Dionysus (University of Nebraska-Lincoln 2014).

The roots of theatre have been, for a very long period, a vehicle for "communicating society's values, for addressing ethical issues, for moral education and for influencing the attitudes or behaviour of its audiences" (Alsford and Parry 1991). Since the 1990s, in many archaeological sites and museums throughout the world, the theatre has been used as one aspect of "live interpretive" techniques (Alsford and Parry 1991). This act as a supplement, apart from the regular guided tour, who spoke in the "third-person" mode in explaining the site and its story to the visitors.

In Southeast Asia, at least two well-known archaeological sites have their own theatrical or performing arts show on a permanent basis, namely, the Ramayana Ballet in Candi Prambanan Complex in Yogyakarta, Indonesia and Apsara Dance in Angkor Complex in Siem Reap, Cambodia. These performances were choreographed based on both archaeological and textual evidence. For instance, Siva Candi in Prambanan Complex revealed 62 reliefs with dancers and musicians, portraying a work on Sanskrit text's *Natyasastra* which elaborated on performing arts including dance and music, circa 5th CE. The reliefs also depict a musical instrument such as flute and drums and with a specific context, mostly rituals dance in 9th CE Java (Alessandra 2003). The Ramayana Ballet is a non-dialogue fusion of old, traditional Javanese dance and drama with the epic Ramayana literature. On the other part, Apsara dance which can be observed on the walls of Angkor Wat is an old traditional form of Khmer's performing arts and have been performed for hundreds of years. While Apsara Dance is focusing on Cambodian daily life and historical event, the Ramayana Ballet is based on an ancient Indian epic poem, which has significant cultural influences in the majority of Southeast Asian countries.

## **A CASE STUDY FROM SUNGAI BATU, KEDAH**

Given the importance of Sungai Batu, CGAR USM together with a few federal and state agencies initiated and collaborated to organise the Kedah Tua Festival and Kedah Tua International Conference 2016, with aims to promote and propagate the archaeological knowledge of Sungai Batu and the Lembah Bujang to the masses. It was successfully held from the 26–29 August 2016 at the Sungai Batu Archaeological Complex.

In conjunction with Kedah Tua Festival, School of the Arts, USM with the collaboration of CGAR USM presented a theatre, based on current data on Sungai Batu's civilisation. The application of knowledge from an archaeological context through theatrical performances was presented in two performances. The performances were well-received by the audience, and it marked the first time such techniques were being used to deliver archaeological information in the Lembah Bujang, compared to current experience and learning methods such as guided tours, exhibitions, and posters.

Kedah Tua Festival had a significant impact on attracting people to the site and is reflected in the statistics of visitors. In 2016, the site received an average of 7,000 visitors in a month. The significant increase was observed post-Kedah Tua Festival, hence showing the effect of such festival in promoting the site to the public. The concept of "living culture gallery" has been applied in developing Sungai Batu as one of the leading archaeotourism sites in the country, aiming to recreate and re-enact the activities that once happened on site and giving a closer insight to the visitors about its past glory.

## **PERFORMING ARTS AND ARCHAEO TOURISM**

Archeotourism is defined by "tourist visits and activities taking place at celebrated places (e.g., historical landmarks, monuments and excavation sites) and partaking in the experience their physicality engenders" (Ross et al. 2017; Pacifico and Vogel 2012; Willems and Dunning 2015). The definition put the tangible heritage as the focal centre of tourism experience. However, it does not fully conform to the sites that have lost its materiality or having less tangible heritage (Ross et al. 2017), which is the case with most archaeological sites in Malaysia.

Ross et al. (2017) further argues that one of the problems with archaeological tourism is the conceptualisation of the whole experience based on tangible heritage (e.g., monuments and artefacts) rather than the intangible aspect of the heritage itself that relates to the tourism experiences. They suggested that a "co-creative interface" between tourist and providers, forming an "experience-centred" approach to archaeological tourism hence resolving the problem of solely-relying on tangible archaeological remains. Co-creation perspective will involve an active participation between all parties, namely archaeologist, tourist, and providers in the process of interpretation, thus giving a more meaningful definition of the past (Minkiewicz et al. 2014; Moscardo 1996).

Hence, the inclusion of performing arts into archaeology is essential not just in providing more opportunity for the various platform of interpretation yet creating another sphere of site-experience to the visitors. This is in-line with a creative tourism framework, proposed by Richards (2014) that creates an opportunity for the tourism providers to facilitate "memorable experience" to the tourist, rather than marketing on-site services and products. In the context of Sungai Batu, where most of the structures are not intact, there is a constant challenge of presenting the idea and interpretation to the public. This is also a dilemma faced by many archaeologists working on-site. By co-creation, and in this context, an integrated blend of performing arts based on credible archaeological data presented to the public, it will give better value to the site irrespective of the presence or absence of archaeological remains. The main resource here is the cultural and historical theme attached with intrinsic heritage values that could help in bringing archaeology closer to the visitors, and not solely rely on the structure or the artefacts themselves (Ross et al. 2017).

On the other note, by observing the current practice at Prambanan Temple (Ramayana Ballet) and Angkor (Apsara Dance), the actors and actresses that perform are mostly locals, employed and trained in performing the ancient art of dancing. It helps to boost the local economy based on the yearly income of the archaeological park. Theatre and performing arts act as a medium of efficient information transmission to the audience. At the same time, it is a parallel method of tourism development. As mentioned by Harvey (1989), tourism is part of the "image production industry", whose destination and inhabitants (in the context of Sungai Batu, past societies) "are endlessly (re)invented, (re)produced, (re)captured and (re)created" (Salazar 2012). Through performing arts, tourists can form more concrete imaginaries, serving as an added value to typical experience on the site. A sustainable model of performing arts, conducted by the locals and trained by the expert from USM could be integrated into the current approach of archaeotourism in Sungai Batu.



**Map 2** Kedah Tua role as iron producer.  
Source: CGAR USM.

## CONCLUSION

Performing arts could be used as part of the tool for an on-site heritage education. Performing arts, such as theatre is one of the suitable medium for not just conveying information to the audience, but "contextualises information (or objects) intellectually, emotionally, socially, politically, spiritually and aesthetically" (Alsford and Parry 1991). The amalgamation of performing arts and scientific archaeological data and interpretation could be further translated into different ideas and products. Theatre (and artistic license attached to it) could informally present these interpretation to the masses, in a non-academic setting. This live interpretative technique, as an added dimension to the traditional visiting experience through exhibition and artefacts display, will better create better dynamism and hopefully encourage frequent return visits to the site.

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