Rigveda Soma not a herb, not a drink but a metaphor for archaeometallurgical processes: Evidences from Ancient Far East: Bharhut, Bhuteshwar, Candi Sukuh, Candi Bukit Batu Pahat

Evidence of early centuries of common era, from Bharhut, Bhuteshwar point to the association of sivalinga with smelting operations by metalworkers. Evidence of early centuries of common era, from sites of Candi Sukuh and Candi Bukit Batu Pahat point to the possible use of mercury in metallurgical processes. In both categories of evidence, a smithy/forge is venerated as a temple, pointing to metalwork as a sacred process. Stanley O'Connor in an insightful evaluation relates metalwork transmutation as a process paralleling the immortality of the Atman in a gestalt of Dharma-Dhamma traditions.

It has been noted that the metaphor of *patanga* in Rigveda riddle refers to quicksilver, mercury indicating the possibility that in Rigvedic times, the people were aware of uses of cinnabar and mercury in metallurgy and alchemy. http://bharatkalyan97.blogspot.in/2015/05/simorg.html Simorg, śyēná (anzu), patanga, máksikā: Rigveda riddles, Meluhha hieroglyphs as archaeometallurgy metaphors

The archaeometallurgical challenge is to trace the roots of use of mercury and cinnabar in metallurgy and alchemy and delineate a chronology of metallurgical advances resulting in the architectural marvels of Candi Sukuh and Candi Bukit Batu Pahat in Ancient Far East, apparently with connections tol metallurgists and artisans -- perhaps from the traditions of Bhāratam Janam, 'metalcaster folk' of Rigveda.

Soma rasa is NOT an expression used in Rigveda.

That Soma was a 'drink' is erroneously surmised by some researchers despite categorical denial in some ancient texts that Soma was NOT a drink, it was a FOOD and was meant for divinities, not for mortals. Thus, the intent is clear to denote it as an AprI, object of veneration, a metaphor for something that yielded wealth to the worshipper.

Chàndogya Upanishad (V.10.4) is emphatic: esha somo ràjà. tad devànàam annam. tam devà bhakshyanti. Soma is king. Soma is food for the gods. Gods eat Soma.

Two vedic hymns reiterate that Soma is not a drink of mortals: 'One thinks to have drunk Soma, when they crush the plant. Of him (Soma), which the bràhmaNas know, no one ever tastes.' (RV X.85.3; the same hymn in AV XIV.1.3). 'O Soma, guarded by that which is meant to cover you, guarded by him who lives in the high (heaven?), you stand listening to the pressing stones. No earthly one eats you.' (RV X.85.4).

See:

http://bharatkalyan97.blogspot.in/2011/07/java-island-of-goddess-worship.html Java: An Island of Goddess Worship

http://bharatkalyan97.blogspot.in/2015/01/sekkizhar-periya-puranam-candi-sukuh.html Histoire ancienne des Etats hindouises along the Tin Road from Haifa to Hanoi.

http://bharatkalyan97.blogspot.in/2015/01/meluhha-hieroglyphs-and-candi-sukuh.html Meluhha hieroglyphs and Candi Sukuh hieroglyphs related to metalwork

Lembah Bujang or Bujang Valley dates from 100 CE and located in Kedah State to the north west of Sungai Petani, Malaysia. http://en.wikipedia.org/wiki/Bujang_Valley

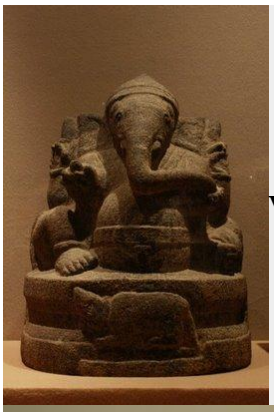
Cepu batu- bekas menyimpan alat-alat pemujaan

Salah 1 cepu dengan 9 lubang - Chandi Bukit Batu Pahat

Barangan dalam cepu Chandi Bukit Batu Pahat:
1. Batu permata.
2. Dewi bersemadi atas kuntum Teratai. Di tangannya terdapat "trisula", lambang Siva dan "padma" iaitu teratai lambang Buddha.
3. Kepingan emas separuh bulat dan bentuk linga.
4. Kepingan emas bulat.

Metal-smelting Workshop

"The archaeologists found a metal-smelting workshop replete with a network of furnace nozzles which was unearthed in an oil palm plantation in "Sungai Batu" (means Stone River). The system of metallurgy found here similarly resembles the techniques used in ancient India. There were also like ceramics, pots, bracelets and beads. "This is the first time that an advanced metal industry from such a period has been confirmed to have existed in this region", says Associate Prof Dr. Mokhtar Saidin from the Centre for Global Archaeological Research (CGAR) from the USM. He points out that they are gradually uncovering the remaining mounds which requires a lot of patience." http://veda.wikidot.com/info:kadaram



Vinayaka statue found in the site of ancient Kedaram.

One of the six stone boxes, which were found buried beneath Candi Bukit Batu Pahat. It had a copper container inside it, and underneath that some ritual objects made of gold and silver. https://budsegoesmalaysia.wordpress.com/category/kuala-lumpur-malaysia-asia-asia/museums-kuala-lumpur-2/

The semantics of rasa are significant and important to identify Soma as electrum, gold-silver amalgam. Rasa is explained as quicksilver, mercury-- thus it is a liquid metal. When Soma is

described metaphorically, the divinities are identified as absorbing the pavamAna, the flowing, the potable Soma or amzu.

Rig Veda states that the Dasyus had Ayas (RV 2.20.8). In RV 4.2.17, "the gods [are] smelting like copper/metal ore the human generations". The oldest evidence of the use of regular copper artifacts comes from the Nal Cemetery in Quetta, dating back to 3rd millennium BC. Mehrgarh in Baluchistan has given some fragments of the earliest copper fragments datable to the 5th millennium BCE.

रस[p= 869,2] mercury , quicksilver (sometimes regarded as a kind of quintessence of the human body , else where as the seminal fluid of शिव) Sarvad.any mineral or metallic salt Cat.a metal or mineral in a state of fusion (cf. उप- , महा-र्°)*m.* (ifc. *f*(आ).) the sap or juice of plants , Juice of fruit , any liquid or fluid , the best or finest or prime part of anything , essence , marrow RV. &c (Monier-Williams)

rasḥ Gold. A metal in a state of fusion रसः [रस्-अच्] **1** Sap, juice (of trees); इक्षुरसः, कुसुमरसः &c. **-2** A liquid, fluid; यष्टव्यं पशुभिर्मुख्यैरथो बीजै रसैरिति Mb.14.91.21; न्यस्ताक्षरा धातुरसेन यत्र Ku.1.7. **-3**Water; सहस्रगुणमुत्स्रष्टुमादत्ते हि **रसं** रविः R.1.18; Bv.2.144. **-4** Liquor, drink; Ms.2.177. **-5** A draught, potion.(Samskritam. Apte)

r.s.i: va_madeva gautama; devata_: agni; chanda: tris.t.up

सुकर्माणः सुरुचो देवयन्तोयो न देवा जनिमा धमन्तः
सुचन्तो अग्निं वव्रधन्त इन्द्रमूर्वं गव्यं परिषदन्तो अग्मन्

4.002.17 Performers of good works, brilliant and devout, the praises of the gods have freed their birth from impurity, as (a smith heats) bronze; exciting Agni, elevating Indra, and wandering about (in search), they have gone to the vast (hidden) herd of cattle.

http://archiv.ub.uni-heidelberg.de/savifadok/509/1/00jrgzm_all.pdf
Mirror: https://www.scribd.com/doc/266981452/The-copper-hoards-of-the-Indian-subcontinent-preliminaries-for-an-interpretation-Paul-Yule-1989

https://www.academia.edu/1233037/RASA_RASAYANA_RASATANTRA_EXPLORING_CONCEPTS_AND_PRACTICES in: *C. Palit and Nupur Dasgupta eds.,*
An Ancient Indian System of Rasayana -Suvarnatantra: A Treatise on Alchemy,
Kalpaz Publications, Delhi, 2009, pp. 9–58.

“Prthiviparamanytanmatravayava” evolved in the Indian philosophy,
for example, in the Yoga sutra of Patanjali. These tanmatras were
understood to be of five basic categories:
sabdatanmatra,

sparsatanmatra,
rupatanmatra,
rasatanmatra and
gandhatanmatra. (Patanjali, yogavartika, Vyasabhasya, Sutra 14, Pada, IV.)

Connection with S.E. Asian tradition is reflected in the Matrkabhedatantram and its alchemical ideas, *IJHS* 1968, 3 (1), pp. 42-9; Vide Lawrence Palmer Briggs,review article,
"The Hinduized States of Southeast Asia: A Review", (being a review of *Histoire Ancienne des Etats Hindouises*
d'Extreme-Orient. by George Coedes), in *The Far Eastern Quarterly* , Vol. 7, No. 4. (Aug., 1948), pp. 376-393; F. E. Treloar,
In Malayalam and Sinhalese, the term for cinnabar is lingam.
Alchemicam samskAras

Cinnabar is if one of the eight amalgamated elements (ashtabandha) used in the installation of divine idols. The rasalinga is formed of either an amalgam of gold and mercury or of sulfur and mercury, i.e. of synthetic cinnabar.

Mercurial linga is seen as embodying the eighteen-armed Rasa-Bhairava and his consort RasAnkus'I-BhairavI. The lings is of rasa, 'mercury'.
RA (2.59) names: mAkSika (copper pyrites), Vimala (iron pyrites),
S'aila (s'ilAjatu, bitumen); Capala (selenium); Rasaka (calamine);
Sasyaka (copper sulfate);
Gandhaka (sulfur) and TAla (haratAla, orpiment).

Rasarnava, RA (11.4) compares the mortar in which mercury is pounded to the yoni-shaped chasing (pITha) in which the image of Sivalinga is set and the mercury is the linga itself. RA (11.102) notes that merucy that has been calcinated in a particular mixtur of gemstones, minerals and herbs becomes phallomorphic (lingAkAra). Indian alchemy uses 'mercurial phalluses' called gulikAs, 'pills'.

Siddhinandan Misra, Ayurvediya: "The Goddess in the form of gold, Sasasiva in the form of mercury, the linga made through the union of theseis called the rasalinga." (p.83).

"The Use of Mercury in Metal Ritual Objects as a Symbol of Siva", *Artibus Asiae* , Vol.34, No. 2/3. (1972), pp. 232-240; Stanley J. O'Connor, "Metallurgy and Immortality at Candi Sukuh, Central Java", *Indonesia* , Vol. 39. (Apr., 1985), pp. 52-70, for reference on archaeological evidence and tradition of Saiva Tantric alchemy in SouthEast Asia.

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Sarasvati Research Center
May 29, 2015

RRS (6.21) says the rasalinga is to be locaed on the eastern side of the alchemical altar (itself located at the center of the rasamandapa).

The Chandi Bukit Batu Pahat (Malaysia) alchemical complex site studied by Francis Treloar has its rasalinga at the center of the structure.

The rasamandapa described in the RA (2.52) also has the rasalinga at its center.

Treloar notes that the mercurial linga unearthed in Chandi Bukit Batu Pahat was set in a silver semicircle.

Purification of metal as an analogue for metamorphosis of the soul after death

"...at the heart of the technological metaphor presented by the Sukuh relief, I would argue, is the visionary claim that the operations of the smith and smelter parallel cosmic processes and that, with their ability to alter the mode of being of metals, the smiths also possessed the key to the means of spiritual transcendence...Specifically, I will argue that a substantial body of evidence provides, either by compelling implication or by explicit statement, support for the view that iron working was a metaphorfor spiritual transmutation in ancient Java. The evidence presented includes myths surrounding the smith; a description of s'rAddha rites in the fourteenth century text, the NAgara-KertAgama; an echo of parallel Tantric rites in palace ceremonies in Central Java recorded early in this century; the precise insight into Indonesian death rites offered by Robert Hertz's classic essay, 'A Contribution to the Study of the Collective Representation of Death'; the internal evidence of the relief itself; and finally, acting as a control, the sense that mountain and water temples like Sukuh constitute a kind of genre in which ancestor worship and ritual for the liberation of the soul are centrally at issue...The Toraja of Sulawesi have a smith god who reforges souls...It is not only the smith who possesses supernatural power but, at least on special occasions, the smithy itself is seen as a shrine. Rassers has noted that , before forging a kris (a short rapier that is a symbolically important weapon), the smithy is decorated in ceremonial fashion. Among the Land Dyak of Sarawak, a ritual knife (pendat) is still forged in a smithy that has three altars. Today, some Toraja say that the site of a forge was formerly considered a special place and its potency was such that it was a place 'which makes things become large'...in the nineteenth century Balinese dynastic chronicle, the Babad Bueleleng, provides perhaps the most penetrating insight into the symbolic importance of metallurgy. In it we see kingship both legitimated and empowered by the possession of a kris that serves as the palladium of the kingdom. The weapon is described as pasupati-astra, a reference to a flaming arrow given by Siva to the hero Arjuna to make him invincible. It is also referred to as the 'essence of power'. Finally, both the royal chaplain (purohita) and the son who succeeds him in that strategic office, are described as skilled in the manufacture of swords and kris...Metallurgy, especially the complex and, to the pre-scientific mind, mysterious process by which ores drawn from the living earth are reduced to a molten state, transformed into a rough iron mass of residual slag and iron chips by the smelter, and then purified, hardened in the presence of carbon, and forged into beautiful and useful objects by the smith, makes a fruitful analogue for the metamorphosis of the soul after death." (O'Connorr, Stanley, opcit., pp.53-56).

This aadhyaatmika perspective is paralleled by Kota language which records kole.l 'smithy' as kole.l 'temple' and by Marathi traditions venerating Khandoba Siva as the weilder of the sword, khaNDa.

Continuing the brilliant parallel between metamorphosis of the soul and metal winning-fabrication processes, Stanley O'Connor continues to explain the archaeometallurgical significance of Candi Sukuh and life-activities of metalcasters: "The relief also calls upon the viewer's understanding that the smith is pattern-welding or 'marrying' nickelous meteoric iron (pamor), fallen to earth from the heavens, with iron drawn from the maternal body of the earth. By a series of laminations, resembling a many-layered torte, he interleaves the diverse forms of iron so that their differential crystalline structure will become visible in the finished blade.

After etching, dark traces of nickel will form patterns which the smith is able to envision and control through a long series of operations sometimes involving the development of almost one hundred layers of iron and steel before forging out a finished weapon. Thus the mysteries of metallurgy trace the structure of the rites for the dead. The ores are destroyed, reduced to a bloom of wrought iron, just as cremation or putrefaction reduces the body. The bloom is gathered together and reconstituted by heating in the presence of charcoal to charge it with carbon, just as the reduced products of the body are given ritual processing during an intermediate stage of funeral ritual. Finally, a new and perfected body is forged in the smithy, joining the quasi-sexual, polar, but mutually attractive elements -- terrestrial and celestial iron -- into a new unity, and this stage is marked on the plane of ritual by the release of a new being constituted by an effigy (pushpa) in the final rites of liberation." (p.57)

Bhima, the Tantric Vajrasattva in a quest for immortality

"Bhima, who is the physically immense, powerful, and forthright hero of the Mahabharata, undergoes a sea change in Javanese literature and becomes a spiritual guide who 'knew the path that leads to perfection.'

He would be admirably suited to master the esoteric mysteries governing the liberation of the soul, the fires of hell in the Bhimasvarga. This poem is recited on the twelfth day after cremation. Bosch has discussed both a Sanskrit text from Bali in which Bhima is identified with the Tantric Buddhist figure, Vajrasattva, and a tenth century Javanese text describing him as the supreme teacher and guide to absolute knowledg. Professor Johns observes that through his quest for immortality and esoteric knowledge in the ninety stanzas of the possibly sixteenth century text Dewaruci, Bhima was admitted into the 'rights and privileges of the Tantric pantheon'. Pigeaud in his summary of the Javanese-Balinese epic prose tale, the Windu Sara, describes Bhima as having taken pity on the pitaras who were plunged into the fires of hell in the shapes of animals...the meaning of the dancing elephant-man...Ganesa, the guardian of thresholds, the remove of obstacles, and his presence here, in my view, embodies the process of crossing over from one state to another through the transformative power of the metallurgist's art...Tantric Ganesa from Candi Singasari in East Java... "(pp.59-60).

"If we read the Sukuh relief as a performative utterance, then what it performs, through a presentation of craft mysteries, is the transfiguration, transformation, or transportation of spirit.

In the spatial art of sculpture we have a parallel to the ritual gestures in time by which the Balinese Brahmin priest prepares toya pagentas, the water for 'shipping over' the souls of the dead to the hereafter."(p.65)

"over six feet long and five feet in circumference...the linga bears an inscription down its length which Martha Muusses has translated from Old Javanese into Dutch. The relevant portion is: 'Consecration of the Holy Gangga sudhi...the sign of masculinity is the essence of the world.'...a kris or sword is carved in reliev on the shaft of the linga. Thus the armorer's art and the creative principle are joined together in a symbol of release that crowns and culminates the terrace temple...to confirm the central importance of metallurgy at the site and to reinforce our reading of the smith's art as a metaphor for spiritual transfiguration and release. Conclusion: The Question of Alchemy. To speak at length, as here, about the transmutation of metals within the frame of a spiritual tradition as Tantrism, is to touch the essence of alchemy without ever employing the term. Whatever other more material and fanciful goals it may have, such as the transformation of base metals into gold, alchemy through a system of correspondences offers a correlative for spiritual redemption. The perfection of spirit is figured in the perfection of metals, and, in a sense, imposes itself in the poetic logic of the metal workers' physical operations...there is some tantalizing archaeological evidence that does suggest that a very precise knowledge of Indian alchemy existed in the archipelao in the period of the thirteenth to fourteenth century. This comes from the research of the late FE Treloar who, as a chemist, took an interest in applying chemical analysis to archaeological material excavated in Southeast Asia. Through an analysis of pieces of gold foil cut into the shape of linga, and excavated in a ritual deposit in the Merbok Estuary of Kedah which dated from the thirteenth to the fourteenth century, Treloar was able to establish that the structure of the gold had been altered by the addition of mercury, which had been rubbed into the metal. What is so important about Treloar's study is that he traced this practice to an Indian text on alchemy of the eleventh to the twelfth century, the Rasaratnasamuccaya. Treloar followed up this line of investigation by studying a type of coarse earthenware bottle excavated in substantial numbers at Santubong, Sarawak, in a thirteenth to fourteenth century context. He believed that the bottles were employed in the shipment of mercury. Similar bottles have been found at Angkor in Cambodia and Fort Canning in Singapore. It is noteworthy, too, that Chinese merchants in the latter part of the Sung dynasty regarded cinnabar as a staple of their trade with Java. Although it is used in mining to separate gold from quartz, and is used too for producing red pigment, mercury is a central ingredient in Indian and Chinese alchemical texts, where it plays a role in the transformation of base metals into gold and also in the preparation of elixirs and medicines for longevity, virility, strength, or beauty. In India, these texts flourished in the period from the tenth to the sixteenth century, which is well within the date of th Sukuh complex...According to Maung Htin Aung, alchemy can be traced in Burma to the fifth century..." (pp.67-69)

[quote]The Candi (Temples) of Bujang Valley

In the 1840's two surveyors found a ruin of a candi (temple) on top of Mount Jerai. Subsequent researches and archaeological discoveries proved that the area around the foot of the mountain was an ancient city that prospered between the 3rd and 12th century. Since the discovery of the first temple, more temple ruins have been found. To date, a total of 50 temples have been reported. Some of them have been partly reconstructed or relocated and some remain at their original sites, still open for new discoveries.

Though it was first discovered over a century ago, Bujang Valley still holds many surprises for researchers. The temples found indicate strong Hindu and Buddhist influences, prompting early researchers to believe that the area was colonised by the Indians. However, recent analyses refute the earlier theory and suggest that before the arrival of Indian traders, there was already an established civilization in Bujang Valley and that the temples were built by the Hindu or Buddhist traders.

Further researches also indicate that the local people who built the temples did not actually embrace Hinduism or Buddhism as was previously believed. Instead, they were merely hired by the visiting merchants.

Candi Bukit Batu Pahat

The biggest and most significant temple in Bujang Valley is Candi Bukit Batu Pahat. Located on the east side of Batu Pahat River about 3km to the north of Sungai Merbok Village, the temple was excavated and reconstructed in the late 1950s. It is believed to have been built during the 11th century A.D. Among the ruins found here is a temple dedicated to the Hindu god, Lord Siva. The temple is believed to be built of granite and wood and has 66 round bases where the wooden poles used to be.

The artifacts found here comprise eight closed reliquaries with nine chambers containing jars, beads, and gold foil in various shapes. The bronze artifacts include a statue pedestal and a trident belonging to the god Siva. Other artifacts found were ceramic shards and iron nails. In 1960, the temple ruins were reconstructed at its original location with expert help from Universiti Malaya, Kuala Lumpur, and the Angkor Wat Conservation Centre, Cambodia.

Candi Pendiat

This temple was found on the left bank of the Bujang River in Kampung Pendiat, Mukim Merbok, in 1936 and was excavated in 1974. It was believed to have been built during the 9th century A.D. The temple ruins were relocated and reconstructed at Bukit Batu Pahat in 1974.The main building was made of laterite blocks, loose laterite and bricks. Granite was used to make the pillar bases. Artifacts found here include a bronze reliquary containing gemstones, a golden bowl and various animal shapes such as a golden lion, a silver bull and a copper horse. Other finds include bronze artifacts such as a bell, two lamps, a finger from a statuette and an aureole.

Candi Bendang Dalam

The temple ruins were originally situated at Kampung Bendang in Mukim Merbok. It was found in 1969 and was excavated in stages between 1974 and 1982. Based on the data, it was believed to have been built during the 12th century A.D. The Candi Bendang Dalam was relocated and reconstructed at Bukit Batu Pahat in 1983. This temple was mainly built of laterite blocks as well as loose laterite. Other materials include bricks, river stones and granite. Artifacts found at the temple comprise ceramic shards, Middle Eastern glass, charcoal and resin.

Candi Pengkalan Bujang

Candi Pengkalan Bujang was originally situated on the left bank of the Bujang Valley River, at Kampung Pengkalan Bujang in Kuala Muda. It was found in 1936 and excavated in 1976. The temple ruins were relocated and reconstructed at Bukit Batu Pahat in the same year. The data collected showed that the temple was built during the 11th century A.D.

It was built mainly of bricks with pillar bases chiselled from granite and a roof made of tiles. Artifacts found at the temple include a terracotta Buddha statuette, a terracotta elephant statuette, a terracotta Boddhisattva statuette, a bronze statuette possibly representing the goddess Bhrkuti,

a gold ring, earrings, bricks inscribed with Pallava letters and marked with animal footprints, ceramic shards, iron nails and beads in various colours and shapes.
This temple was believed to possess a stupa (a dome-shaped monument), used by ancient Buddhists. [unquote]
http://corporate.tourism.gov.my/mediacentre.asp?page=feature_malaysia&pagemode=search&news_id=2&subpage=archive

The Development of Kedah's Early History Based on Archeological Finds

By Adi Haji Taha, National Museum
(Translation by Haji Hashim bin Samin)

A variety of glass fragments found in Bujang Valley.

A variety of beads founds in the Bujang Valley.

The development of **Kedah's early history**as in other states in Peninsular Malaysia was caused by its strategic geographical location. From the point of prehistory Peninsular Malaysia was at least regarded as a bridge or a highway upon which man had to pass in their migration from the north to the south and on to **South East Asia and the Pacific.** Later, when the development maritime trade was at its height, the Peninsula once again played an important part because of its position between two of the largest trade centres, i.e. India and other Arab countries to the west and China to the east. At a time when shipping movement depended on the monsoons, there was a time when traders needed to wait out for the monsoon to change in order to make their return journey, and the Peninsula not only provided the necessary shelter, but the opportunity to trade among themselves.
Based on the above point, we would find that Kedah had its on special position, which indirectly contributed to its uniqueness in the development of its history. Many limestone caves, which

offered both shelter and homes to prehistoric communities, could be found in the districts of Kubang Pasu, Kota Setar and Baling. What is even more interesting is the existence of a majestic mountain along its shores believed to be a landmark for sailors plying the Indian Ocean in ancient times. Besides, Kedah was easily assessable via land routes to states in the East Coast of the Peninsular (Wheatley 1961 : xxvi ; Braddle 1980).

All the above factors pointed to a history full of glory for Kedah in particular and Peninsular Malaysia in general.

Archeological research in Kedah could be divided into two general sectors, that is early prehistory which included Bujang Valley. The importance of archeological research in Bujang Valley is never in dispute, so much so that the popularity of its research had dimmed researches of other prehistoric communities of a much earlier period in Kedah history. So, in this paper I feel it would be better for me to go into prehistoric periods in this State and later go into discussion on the development of its early history based on present archeological finds.

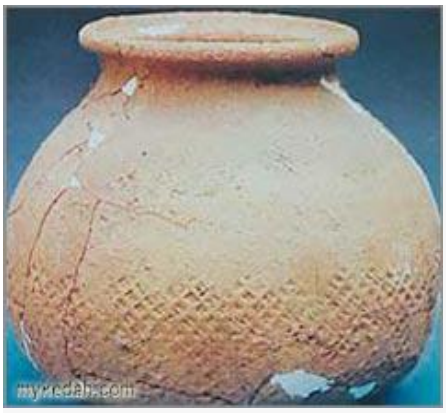
Archeological research into Kedah's prehistoric period is limited to cave sites, although some artifacts could be found albeit unintentionally, in open grounds. H.D. Collings was the first person to reveal the existence of some prehistoric archeological sites in Kedah based on his **research in Baling Mountain.**Diggings were made in two caves; Gua Debu and Gua Kelawar (Collings 1936). Among the artifacts found were stone axes of the **Hoabinhian** period, stone axes and adzes of the Neolithic period, sharpening stones, stone pounders and pottery. River snails were the main remains of food items found on the site while bones of animals were found in less significant quantities.

What is interesting about the research was the remains of pottery (Neolithic period) found in the same level of earth which contained artifacts from Hoabinhian period and according to Collings (1936:10) there was no sign that that level of earth was ever disturbed. So, based on these findings, two conclusions could be derived from the connection between the Hoabinhian and the Neolithic period. They are:

- Two communities with different cultures but living as neighbours who interacted between one and the other, or
- One community living in transition from the Hoabinhian period into the Neolithic period as this involved the use of tools both old and new.

http://www.mykedah2.com/e_10heritage/e101_1.html

Colling had decided on the first possibility



A pottery found at Site 17, Bukit Fendiat, Pengkalan Bujang, Bujang Valley.

At the same time, an artifact made of quartz, which was shaped as either an arrow head or the head of a spear was found in Sintok, (Callenfels 1936, Collings 1937). It was found as a result of tin mining activities and this made it difficult for any concrete conclusion to be made based on the artifact alone. However, the find was of great importance into the research of our nation's prehistory as it was the only example to be found indicating the use of arrows of the Neolithic period in our country. We know that natives of the Negrito tribes once used arrows for hunting, although they are now more keen to use blow pipes instead (Endicott 1979). However the evidence from Sintok showed that it was more likely that ancient communities used**bows and arrows to hunt.** To obtain a more concrete proof, more research must be made on the matter.

Shortly after the Second World War, P.S.R. Williams-Hunt, explored the Northern part of Peninsular Malaysia with the hope of finding more prehistoric sites in the area. One of the places he visited was Bukit Keplu in Kodiang in the district of Kubang Pasu. On this site he uncovered three stone axes of the Neolithic period and tens of pieces of pottery in the shape of cones. Some of them had holes in them. As the pottery pieces were rather unique he came to a conclusion that "The exact function of these objects remain speculative…..it can only be suggested that they have some ritual significance, possibly, in association with Buddhism" (William-Hunt 1952:182).

Sieveking disagreed. Based on the way it was made and the designs found on them, he believed that the pottery was made by community of the Neolithic period (Sieveking 1956:194).

A more detailed study of the pieces of pottery found in Kodiang, was made by B.A.V. Peacock (1964). His interest was aroused when an excavation made in Ban Kao in Thailand uncovered three- legged pottery (Sorensen 1972). Peacock managed to reconstruct the pieces of pottery in Kodiang and the result was a three-legged pottery, similar to those found in Thailand. Up to this time, such pottery could be found in other parts of Peninsular Malaysia like Dengkil in Selangor (Leong Sau Heng t.b.) and in Jeram Kawi, Tembeling, in Pahang (Linehan 1928).

Even though it was rather difficult to determine the exact use of such pottery, what was more important was the discovery that there was a connection between these places a long time ago.

It is still rather difficult to make any concrete conclusion on these finds, if it was based on the archeological studies on prehistory, which was made in Kedah. One of the reasons was that these studies were made in an unsystematic manner, resulting in the neglect of subordinate proofs and findings. It also resulted in our knowledge based on the sites being flawed. It is even more difficult to make more study of the sites as most of them, especially those in caves, had been destroyed by bat guano collectors who sold the guano as fertilizers in rice fields as well as for other crops. In any case, it would be difficult for us to find archeological sites in exposed areas as such land in Kedah would had been cultivated for rice resulting in such sites being continuously inundated and disturbed by ploughing activities.

However, there was more than enough evidence to suggest the existence of a long sequence of history, from the Neolithic and the Hoabihian period in the Peninsular. There is of course, no precise dates that could determine the start of one period and the end of another. In any case such finds as stone axes of the Neolithic period at the Hindu/Buddha sites at Permatang Pasir

(Sullivan 1958 pl 17) and Gua Kepah, Seberang Perai (Quaritch-Wales 1947) made it clear that communities in Kedah were still using stone implements when Indian traders reached the shores of the State around the fourth and fifth century A.D.
http://www.mykedah2.com/e_10heritage/e101_1_p2.htm
The Development of Kedah's Early History Based on Archeological Finds

Early History - Bujang Valley

A remains of a shrine which was reconstructed again at Bukit Batu Pahat, Bujang Valley.

The remains of shrine at Site 21, Pengkalan Bujang, Bujang Valley.

The importance of Bujang Valley in the development of Kedah's early history could not be disputed. This is based on two sources:
a) written records by Chinese and Arabian seafarers, as well as from Indian literary works
b) archeological proofs
Braddle (1949, 1950, 1980) andWheatley (1957, 1961) made broad studies of written records made by Indian and Arabian seafarers and literary works of Indian writers. It is not my intention, however, to make a close study of their explanation. It would be sufficient for me to make a general and brief comment of their conclusion.
The earliest writing on Kedah could be found in a Tamil poem called Pattinapalai, which was written sometime between the second and third century A.D. It mentioned Kedah as Kalagam, which had the same meaning as Kandaram or Kedah. Stone writings produced in 1030 A.D. by the Kingdom of Chola clearly indicated that Kandaram was Kataha. This was mentioned in old Sanskrit texts (Puranas), especially in the drama called Kamudimahotsava, which was written around the seventh and the eighth century A.D. (See Whitley 161: 279-280 and Braddle 1980: 41- 43 for further details on the subject). Besides this Kedah was also mentioned in a Prakrit work called Samaraiccakaha produced during the eighth century A.D. as well as Katha writings such as Khatasaritsagara. In all these work, Kedah was projected as a peaceful and glorious country, like "the seat of all felicities" (Wheatley 1958).
Kedah was also known as Chieh-ch'a to Chinese sailors during the seventh century A.D. At that time, there were many Buddhist missionaries making their way to India and back to China, and

one of them was I-Tsing (I-Ching) who made his maiden voyage in 671 A.D. from China and arrived in Srivijaya (Palembang) in 672 A.D. to learn Sanskrit. The following year he made a trip to Kedah via Melayu to take a passage to India on board a royal Indian vessel. He studied for 12 years in the University of Nalanda before returning to in 685 A.D. On this return trip he once again made a stop over in Kedah. From his writing, we found that that Kedah was a centre for trade and commerce and was the most important port in the region especially for the Kingdom of Srivijaya. Besides the evidence from I-Tsing's writing, Wheatley was of the opinion that Kedah, which was also known as Chia-cha had sent its ambassadors to meet the emperor of China in 638 A.D. (Wheatley 1961:278)

Evidence from Arab sailors was rather late, chronologically, as the writing of Sulaiman-al-Mahri on the fifteenth century A.D. only indicated that Kedah (spelt as Keda) was in the same latitude as Kelatan.

Although there were some information made on Kedah by Chinese and Arab seafarers and also from Indian literary works, the information given were rather unclear and sketchy. We now know that there was a growth of towns and settlements in estuaries and river mouths in most part of the peninsular. This difficulty was compounded when it was found that at one stage Langkasuka and Kedah was indicated as one and the same (Winstedt. 1920), when in actual fact they two different states altogether (see colles 1969). Mistakes in referring to names of places will end up in bigger mistakes in making synthesis.

A History of Archeological Research in Bujang Valley

Archeological evidence in Bujang Valley was first examined by Colonel James Low in 1864, but how much study was done remained unclear as there was no complete report on the matter. However his notes had at least pointed to the sites where the artifacts were found. Early in the twentieth century two surveyors, working at the summit of Jerai Mountain found the site of an abandoned Hindu temple. Further studies in Bujang Valley was enthusiastically made by Evans in the 1920s and 1930s. In 1921, on a visit to Sungai Batu, he found images of Durga Devi and Mahishahura. On another trip to the same area in 1923, he found an image of Ganesha. He found many other artifacts in the years that followed (Evans 1927).

Both these people opened a new chapter in the study of Kedah's early history. According to Low and Evans the artifaacts and monuments found in Kedah bear evidence of Hindu influence, and that Hindus and Buddhists had arrived in the region as colonists. Both Low and Evens were right when they concluded that Langkasuka was located in the South of Kedah. While Evans placed the settlement in Sungai Batu, Low was more correct when he placed it in Bukit Meriam. Evans believed that the Kingdom of Srivijaya which was centred in Plaembang had a very strong influence in Kedah. Therefore, besides opening a new chapter in the archeological study of Bujang Valley, these two also gave their conclusions on matters related to the area.

Between 1937 to 1938, H.G. Quaritch-Wales and his wife made an extensive study of Bujang Valley, and as a result uncovered 30 temple sites. Twenty nine of these were in Bujang Valley and one in Seberang Perai (Quaritch-Wales and Quaritch-Wales 1947). Shortly after the Second World War, they continued their study and this time the area they concentrated on was Bujang Valley. It must be remembered that the arrival of Qauritch-Wales in Bujang Valley was in the service of 'Greater India Research committee', which was based in Calcutta. The objective of the Committee was to study the extension and impact of Indian colonization in the area. Bujang Valley was singled out based on its geographical position, which was between and China. In this context, we found that the studies made by Quaritch-Wales, even though made systematically, was biased. This was because of his own strong theory, which he wanted very much to prove. It

was because of this that he was often criticized for his conclusions based on archeological finds in Bujang Valley.
Work on Bujang Valley stopped for a while and was resumed in1956 when the Archeology Society of the University of Malaya, under the direction of K.G. Treggoning and M. Sullivan surveyed and excavated the area around Seberang Perai and Bujang Valley (Sullivan 1958). Although a study made by Lamb was done in a more systematic manner, he needed to obtain the co-operation of a few specialist from overseas to search and re-construct the temple of Batu Pahat, a task which was done in years between 1959 and 1960 (Lamb 1960). Lamb went on to make new inroads into the study by unearthing heaps ceramic pieces from the bottom of the said river (Lamb 1961).
In early 1970, further study of Bujang Valley was undertaken by staffs of the Museum Department under the direction of Al-Rashid and later by the writer himself. Recently its study was placed under Encik Kamarudin Zakaria. It must be mentioned here of the special study made by Leong Sau Heng on Pengkalan Bujang which played a role in determining Bujang Valley's importance in international trade.

Bujang Valley's History Based On Archeological Finds

Another site of a shrine at Bendang, Bujang Valley.

Shrine at Site 11, Bujang Valley, Merbok.
Based on archeological studies made in over a hundred year, a few conclusions could be derived on tshe history of Bujang Valley. Wales (1940) forwarded a hypothesis on the development and stages of Indian colonization in this region. The four stages were:

The first stage involved a time scale of between the first and the third century A.D. This was based on Roman beads a few pieces of pottery found in Johor Lama. Not much evidence of this era could be found in Bujang Valley.

The second stage began around 300 A.D. to 500 A.D. based on stone writings and sites 1 to 3, which indicated the first stage in Bujang Valley. It community was a Hindu one, and its government was under the influence of Funan. Other similar sites were found in Kinta Valley.

The third stage pointed to a cultural change which occurred around 550 A.D. to 750 A.D. and Kedah came under the domination of Pallava Hindus and its influence spread to the east coast of the Peninsular. All this is indicated by the finds in site 4 to 9, considered to be a temple site dedicated to Shiva.

The fourth stage was between 750 A.D. to 900 A.D. and it showed the influence of Pala Mahayana Buddhism from South India.
The above concept forwarded by Quaritch-Wales was said to have been made without sound archeological base. Studies carried by Lamb on the Batu Pahat Hill temple made it clear that there were similarities between the temple and the site of Hindu temples uncovered in Indonesia, especially those found at Biarosi in Pdang Lawas, Sumatera (Lamb 1961:1-9). Lamb also proved that the stone container found buried under the Batu Pahat temple was characteristically South East Asian, in the sense that it showed that the type of prayers being carried out was of the tantrik type and not of one involving the Shiva sect as believed by Quaritch-Wales.

Besides Wales, Wheatley also put forward his own periodization in relation to the development of the history of Bujang Valley (wheatley 1961: 275-278). According to him, the history of Kedah began when Jerai Mountain, Penjara Hill and Batu Lintang Hill were still islands where Indian traders made contact with the locals. Buddhism was already entrenched in Bujang Valley by the fifth century A.D., and Kedah had a firm relationship with India. However, three centuries later, Buddhism was influenced by Saivism and settlements began to be concentrated in areas towards the centre of Bujang Valley. The shape of its temples and the easterly direction it faced, pointed to the practice of Linga among Kedah Hindus. In the period between the eighth and ninth century Mahayana influence made a comeback in Kedah. Arab and Chinese traders began to be actively involved in trades in the region. By the tenth century, the people of Bujang Valley returned to Hinduism, and new settlements in Sungai Muda were opened. According to Wheatley, Kedah was paralysed after facing several raids by the King of Chola, Rajendra 1, between 1025 to 1030. He wrote:

'Precisely when this decline set in is difficult to say but it may well date from the great raid of Rajendra 1, when Kedah, as one of the twin foci of the empire, was selected as a major objective. Srivijaya apparently recovered from this reverse after a few years, but Kedah never seems to have recovered its lost prestige.' Wheatley 1961 - 281).

Lamb forwarded a more concrete and acceptable alternative based on archeological finds. He divided the populating of Kedah into four phases:

The earliest phase was Buddhism, proven by Low and Quartich-Wales based on three inscriptions they had found indicating ye dharma ways said to have been made by the order of Buddhagupta to ensure the safety of all ships. All three inscriptions bore the same text and was dated on the fourth and the fifth century A.D.

This was the Srivijaya phase, proven by the such finds as bronze sculptures similar to those found in Sambas, Kalimatan, Indonesia and those finds on site 16 and 16a. Trade activites was still concentrated in Takuapa, Thailand, which practiced Mahyana Buddhism, interspersed with tantrik practices. This sort of religious practice were also evident in settlements found in Perak. This phase was dated between the seventh and the ninth century A.D.

The Bujang Valley phase could not have taken place earlier than the eleventh A.D., as its rise was an indication of the decline of Takuapa as a trading centre. This phase also indicated the expansion of settlements around Sungai Bujang and Merbok, and Batu Lintang and Tikam Batu. The decline of trade in Bujang Valley could not have taken place later than the fourteenth century because of the absence of blue and white ceramics find. Artifacts found in this phase rejected Wheatley's conclusion on the date of Bujang Valley's decline. According to Lamb, Bujang Valley started to prosper after the raids launched by the King of Chola. This phase also indicated its role as a centre of communication; connecting the interior to the outside world.

The Kuala Muda phase developed after Bujang Valley reached its zenith, characterized by finds of white and blue ceramics. It was at his time, it is believed, that the Muda River changed its course as this development was mentioned in the 'Hikayat Merong Mahawangsa'.
Of the three opinions mentioned above, we found that the one expressed by Lamb was more logical because it was based on clear archeological evidence, even if it sometimes clashed with historical facts as found in Chinese chronicles and Indian literary work.

The question in everyone's mind was, when did the area declined in its importance? According to Lamb, the decline was caused by changes to the river system in the Valley. The Bujang and the Merbok Rivers had become shallow and much further inland. In any case, traders had begun to exploit areas to the south of the Peninsula such as Malacca and Singapore. The clearest evidence on the end of Lembah Bujang was the grave of Sultan Muzaffar Shah who became a Muslim around 1474 (Winstedt 1920:30)

Archeological Finds Outside Bujang Valley

There was no planned archeological study made in Kedah. This does not mean that early history other that that of Bujang Valley is less important. We have heard of the kingdom of Siputeh where once upon a time lived Princess Lindungan Bulan whose beauty became the source of competition and fights between kingdoms. The only evidence of the legend was a tombstone with Achinese characteristics. However, in 1957 a treasure trove containing twenty- three pieces of ceramic objects, glass instruments, coins and pottery were found. By looking at the quantity of the materials found, there is a great possiblity that other similar finds would be uncovered in the future. Based on the ceramic found in Siputeh village, the date was placed around late sixteenth or early seventeenth century.

Conclusion

Other than the studies made in Bujang Valley and sites of pre-historic archeology, no study has been made on other possible sites. One of the reasons for the situation is the lack of qualified personnel that would make it possible for excavations to be made in order to find the information

that would never be found recorded in local history. The second problem is the proper identification of sites of certain settlements. This problem is more evident when studies of sites are made in flat areas. As Kedah is the rice bowl of the nation, such area are usually converted into rice fields and are always inundated. This would of course, make the work of early research more difficult.

As a conclusion, we found that Kedah's early history began around the fourth or the fifth century A.D. in Lembah Bujang. The area developed briskly, reaching its zenith in the fourteenth century, and after that the centre for commerce moved to Sungai Muda. At that time, the Malays were either Hindus or Buddhists and only converted to Islam in1474 in the footstep of their king.

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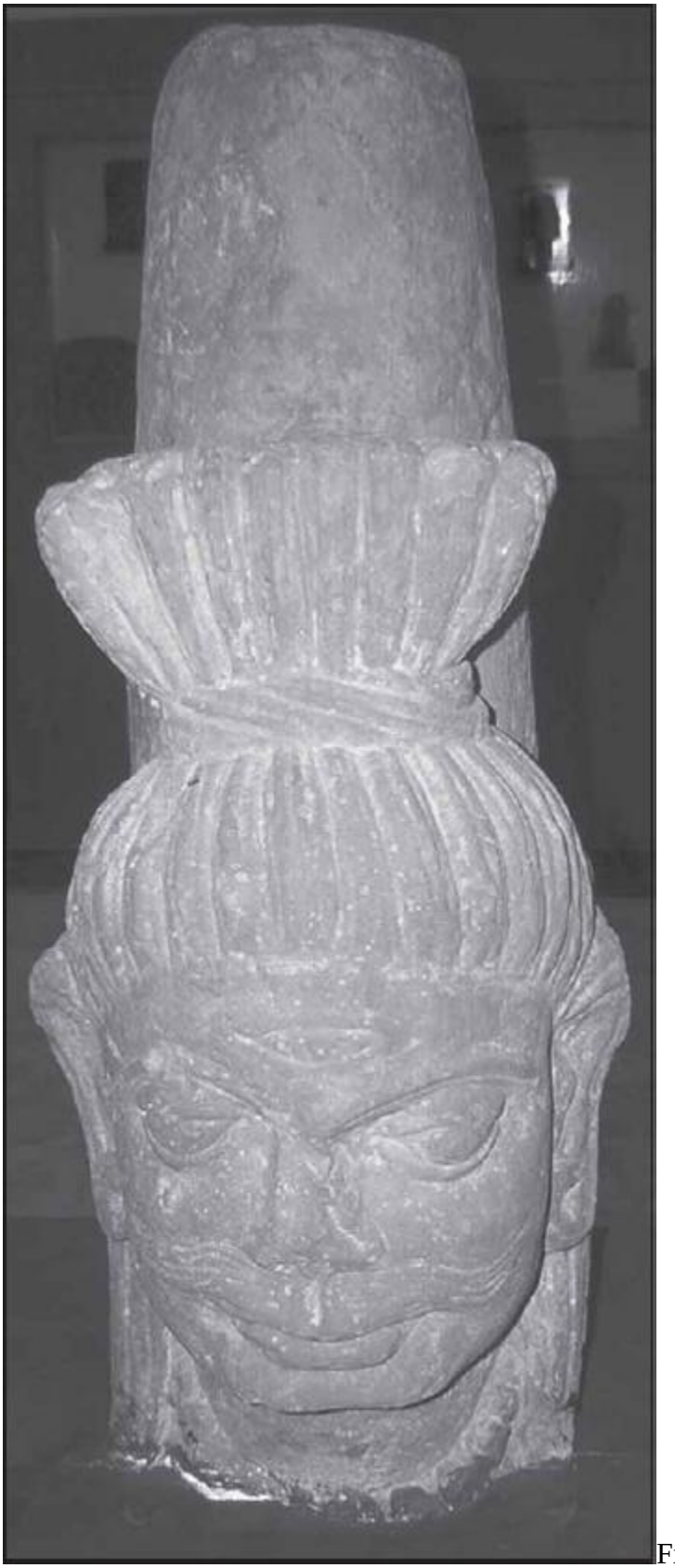

Fig. 4. Dvimukha Sivalinga, Aring, Mathura

Source: https://www.academia.edu/11313717/Mathura_in_History_of_Ancient_India_Vol._VII_ed._D.K._Chakrabarti_and_Makkhan_Lal_VIF_and_Aryan_Books_International_N._Delhi_2014

Mathura in History of Ancient India, Vol. VII, ed. D.K. Chakrabarti and Makkhan Lal, VIF and Aryan Books International, N. Delhi, 2014

Naga Erapata Worshipping Tree emanating from smelter: Bharhut, Early 1st century BCE

A tree associated with smelter and linga from Bhuteshwar, Mathura Museum. Architectural fragment with relief showing winged dwarfs (or gaNa) worshipping with flower garlands, Siva Linga. Bhuteshwar, ca. 2nd cent BCE. Lingam is on a platform with wall under a pipal tree encircled by railing. (Srivastava, AK, 1999, Catalogue of Saiva sculptures in Government Museum, Mathura: 47, GMM 52.3625) The tree is a phonetic determinant of the smelter indicated by the railing around the linga: **kuṭa**, °*ṭi* -- , °*ṭha* -- 3, °*ṭhi* -- m. ‘ tree ’ Rebus: *kuṭhi* 'smelter'. ***kuṭa***, °*ṭi* -- , °*ṭha* -- 3, °*ṭhi* -- m. ‘ tree ’ lex., °*ṭaka* -- m. ‘ a kind of tree ’ Kauś.Pk. *kuḍa* -- m. ‘ tree ’; Paš. lauṛ. *kuṛā´* ‘ tree ’, dar. *kaṛék* ‘ **tree**, oak ’ ~ Par. *kōṛ* ‘ stick ’ IIFL iii 3, 98. (CDIAL 3228). See:
http://bharatkalyan97.blogspot.in/2015/05/worship-of-siva-linga-is-cultural-bond.html

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Java Metallurgy and Immortality at Candi Sukuh Central Java

Metallurgy and Immortality at Candi Sukuh Central Java by Srini Kalyanaraman
The copper hoards of the Indian subcontinent preliminaries for an interpretation (Paul Yule, 1989)