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PAYMENTS ON SUMATRA DURING THE HINDU PERIOD

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1. INTRODUCTION

During the Hindu period of Indonesia, Hinduism and Buddhism were the main religious movements [1]. Two important kingdoms then ruled over large territories: Srivijaya (7th-13th century [2]) on Sumatra [3], and Madjapahit (13th-16th century) on Java [4]. A comprehensive study of the means of payment (coin-like pieces and true coins) they have issued has already been published [5]. The present article on the payments on Sumatra during the Hindu period, based on some newly discovered pieces, is an addition to and partial correction of the latter publication.

Two different pieces used on Sumatra belong to this period:

- *Lotus flower djampels* are found in the vicinity of the Batang Hari River (Jambi River) near Muaro Jambi in central Sumatra. Their origin and monetary use will be explained. The corrections and addition to the aforementioned publication concern their dating and the fact that they were *not* used as means of payment.
- *Cross coins* were found recently in the Musi River (*Sungai Musi*) near Palembang, in southern Sumatra. These coins have not yet been covered in any existing publication. This article will explain their origin and why the cross symbol was used on them.

Palembang is generally assumed to have been the main city on Sumatra as well as the capital of Srivijaya [6]. However, this assumption must be wrong. As said, *Lotus flower djampels* are exclusively found in the vicinity of Muaro Jambi, suggesting that the issuing authority (*i.e.* the king) must have resided there, which would imply that Muaro Jambi was Srivijaya's capital [7]. This could also mean that *Cross coins* found near Palembang do not date from the Srivijaya period.

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[1] Although the period is called the 'Hindu period' of Indonesia, Buddhism was also an important religion.

[2] Munoz 2000, p. 171, writes 2nd to 14th century. However, Srivijaya started with Dapunta Hiyan Sri Jayanasa in 682 and ended in 1288, when Kern Arok from Singhasari in the Pamalayu expedition conquered Palembang, Jambi and much of Srivijaya.

[3] Zakharov 2009.

[4] Boisselier 1989-1990.

[5] Leyten 2017a.

[6] Coedès 1930, 1934, 1944 and 1983; Soekmono 1985; Manguin 1993.

[7] For an extensive substantiation thereof, see Leyten 2017b.

2. PAYMENTS ON SUMATRA

There are numerous publications about the development of the way in which payments were made on Sumatra. The oldest are by Marsden [8] and McLean [9]. Later, Einzig [10], Wicks [11] and Wisseman Christie [12] have added a lot of information. Also the Tang Chinese Buddhist pilgrim I-Tsing (Yijing or Yì Jīng) [13] contributed data regarding the use of gold coin-like pieces on Sumatra.

Marsden writes in two different places:

"*Gold is generally employed as currency instead of coin; every man carries small scales about him, and purchases are made with it so low as to the weight of a grain or two of padi* [14]." [One grain of *padi* (rice) weighs *c.* 0.03 g]

But payments are commonly made in gold dust, and for that purpose everyone is provided with small scales or steelyards, called daching.

They carry their gold about them, wrapped in small pieces of bladder (or rather the integument of the heart of the buffalo), and often make purchases to so small an amount, as to employ grains of padi or other seeds for weights [15]."

On this last point, McLean writes: "*We are therefore led to the conclusion that weighing and valuing were synonymous in the earliest days, and that weight was only present in the practical minds of commercial men as the test of value, which was determined by the heaviness of a standard measured quantity of a stated precious material* [16]."

Album mentioned Indian systems without standardized denominations, similar to the Sumatran situation: "*In such systems, the gold and silver coins were struck at essentially random weights, rather than in regular multiples of established denominations. Thus, the coins were more akin to stamped ingots, intended to be weighed and not counted. In general, randomly struck coins seem to be of relatively uniform fineness, so that entire lots of coins could be weighed and tallied together.*" [17]

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[8] Marsden 1811 (reprint 1975).

[9] McLean 1912.

[10] Einzig 1951.

[11] Wicks 1986 & 1992.

[12] Wisseman Christie 1984/85, 1991, 1994, 1995 & 1996.

[13] Yijing (義淨; I-Ching; 635-713) was originally named Zhang Wenming (張文明). In 19th-century publications, his name appears as I-Tsing, following an antiquated method of Chinese Romanization.

[14] Marsden 1811, p. 171.

[15] *Ibid.*, p. 401.

[16] McLean 1912, p. 19.

[17] Album 1977, p. 24.

Wicks writes, referring to a tribute offered in the kingdom of Srivijaya[18]: "*The nature of gifts has changed, limited now to gold, silver and different qualities of textiles or garments. Some gifts were only associated with specific amounts of precious metal and no other commodities*[19]."

On the exchange of goods on Sumatra, Wicks writes that: "*from the year 860 on, a number of inscriptions began to provide some insight into the details of purchases.*"

He points out: "*There are instances in which quantities of cloth are provided with monetary valuations through reference to a specific amount of gold. An inscription of 876, for instance, records the distribution of woman cloth (kain) with a gold value (inmas) of 4 Mā. Even more significant is the fact that in the early tenth century the term for 'weight' (wrat/brat), used in descriptions of gold rings called 'simsim', took on connotation equivalent to 'monetary value' when applied to cloth, such as man's kalyaga-cloth worth (brat) 5 Māssa (of gold). Argha (Sanskrit for 'worth', 'value', 'price') is likewise found with reference to cloth in the early tenth century*[20].

They calculate first the value of their articles according to their equivalents in gold or silver, and then engage in barter of these articles at fixed rates[21].

The key to the operation of the market is found in this line, where the value of the articles offered for sale was calculated in terms of gold or silver, after which time the merchants were allowed to trade at those fixed rates[22]."

Wicks refers to Zao Rugua's account from the 13th century, which states about the kingdom of Srivijaya: "*They have no stringed copper Cash, but use chopped lumps of silver in their business transactions*[23]."

I-Tsing says: "*They use no copper cash, but their custom is to trade in all kinds of things with gold and silver*[24]."

In conclusion, daily payments on Sumatra were not made in coin but in barter articles, like gold and silver '*ingots*'[25] and garments and cloth, whose value was evaluated in terms of gold and silver.

[18] Wicks 1992, p. 260.

[19] *Ibid.*, p. 261.

[20] *Ibid.*, p. 262.

[21] *Ibid.*, p. 227.

[22] *Ibid.*

[23] *Ibid.*, p. 232.

[24] Takakusu 1998, p. XLII.

[25] An *ingot* is a piece of relatively pure precious metal.

3. THE LOTUS FLOWER *DJAMPELS*

These coin-like pieces are exclusively found close to the Batang Hari River near Muaro Jambi, and not in other places on Sumatra or Java.

According to statements of I-Tsing and Marsden [1811], they were not used in daily payments. Millies [1871] called them *djampels*.

Figure 1 – A gold Lotus flower djampel (scale 500%)

Much has been written about Oriental coins [26], and Sumatran and Javanese coins are frequently mentioned in the literature [27]. But it was not until 2017 that these *djampels* of Sumatra were described in detail [28]. They have a stylised picture of the *Lotus flower* on the obverse, and the Devanagari letter *Va* (व) on the reverse, the meaning of which is presently unknown [29].

Figure 8 in § 9.1.1 displays further gold pieces with the lotus flower.

Similar pieces exist in silver (Figure 9 in § 9.1.2) and copper (Figure 10 in § 9.1.3).

4. THE CROSS COINS

Specimens of native coinage with a cross on the obverse (Figure 2) have been found recently exclusively in the Musi River, in the surroundings of Palembang on Sumatra; they have never been found in any other region on Sumatra or Java, and thus seem to have circulated only in the Palembang area. Surprisingly, and contrary to the Sumatran *Lotus flower djampels* from Muaro Jambi, these pieces follow a standardized weight system and thus are truly coins, albeit all rather small.

These pieces are cast in a mould, and the cross on the obverse is stamped after casting. This deforms the reverse, making it unclear what, if any, symbol should have appeared on that side of the coin (note that on the coins discussed in this article, no significant symbol could be recognized).

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[26] Mitchiner 1977-1998.

[27] Moquette 1899; Netscher & van der Chijs 1864; van der Chijs 1896; Millies 1871.

[28] Leyten 2017A, p. 36.

[29] *Ibid.*, p. 52.

Figure 2 – Obverse of a gold Cross coin (scale 500%)

Figure 3 – Reverse of a gold Cross coin (scale 500%)

See for these coins also Figure 11 in § 9.2.1.

5. THE USED SYMBOLS

It is important to explain the origin and meaning of the symbols used on these *Lotus flower djampels* and *Cross coins* to understand their background.

Macdonald, citing Thomas Burgon's writing about the symbols on coins, says that: "*… from the first striking of money, down to the extinction of the Byzantine Empire, religion was the sole motive of the types on coins; and that is the invariable principle which is to guide our search in endeavouring to explain them.*" [30]

Burgon called them "*symbolical representations of divinities* [31]."

As a matter of fact, all symbols appearing on the known Sumatran and Javanese coins from before and during the Srivijayan period, as well as from the Madjapahit period, indeed have a religious background [32].

Indonesian heraldry and the Hindu-Buddhist religion can explain the meaning of the symbols.

5.1 Indonesian heraldry

Little is known about the heraldic system of the first centuries after the introduction of Buddhism in Indonesia [33]. It can be assumed to have been an adaptation of Hindu-Buddhist sources, introduced at the time of the Hindu Buddhist kingdoms on Java and Sumatra, *i.e.* during the 6th and 8th centuries.

The use of the Buddhist heraldic system was continued during the Madjapahit era, but largely abandoned when Islam was introduced in the 16th century. It was however maintained by Madjapahit refugees on Bali. This Buddhist heraldic system in itself had its roots in ancient Mesopotamia, from where it was dispersed to the East on the waves of Hellenistic expansion.

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[30] Macdonald 1969, p. 16.

[31] *Ibid.*, p. 17.

[32] Leyten 2017a, p. 35.

[33] Hubert de Vries, Wikipedia [30/IX/2010].

5.2 The lotus as a heraldic symbol

In Indonesian heraldry the authority symbols are the *Lotus*, the *Conch* and the *Club*, representing respectively administrative, religious and military authority.

Hence, stamping a lotus symbol on the *djampels* could point to the administrative authority, indicating that the local authority (*i.e.* the king) was responsible for issuing these pieces and maintaining their quality.

5.3 The lotus as a religious symbol

The lotus is a very important symbol in Hinduism and Buddhism, and is an ancient and polyvalent symbol in Asian culture.

Hindus revere it with the gods Vishnu, Brahma and to a lesser degree Kubera, and the goddesses Lakshmi and Saraswati. The symbol is often used as an example of divine beauty and purity, Vishnu often being described as the 'Lotus-Eyed One', with the flower springing from his navel while he is in Yoga Nidra. The lotus plant blooms uncovering the creator god Brahma in lotus position. Its unfolding petals suggest the expansion of the soul.

The growth of its pure beauty while rooting in mud holds a benign spiritual promise. Particularly Brahma and Lakshmi, the divinities of potency and wealth, have the lotus symbol associated with them.

This has also taken root in Chinese culture, with a famous statement made by the 11th-century Confucian scholar Zhou Dunyi: "I love the lotus because while growing from mud, it is unstained."

The lotus flower is a symbol of eternity, plenty and good fortune, reflects religious purity, and is possibly also as a guaranty for the purity of the metal.

5.4 The *Chakra* as a heraldic symbol

Also the cross on the *Cross coins* has both a heraldic and a religious meaning. These coins have a raised rim (see Figure 2 and 11), reflecting that in fact a four-spoked wheel is intended, representing the *Chakra* or *Wheel of Law,* an important religious symbol.

Indonesian heraldry can be identified as the *Surya-Naga-Garuda* system: the empire was symbolized by the sun (*Surya*), the ruler by a snake (*Naga*) [34], and the state by a birdman (*Garuda*).

On the other hand, according to Hindu and Buddhist iconography, the state could be represented by a *Chakra* or *Wheel of Law*.

[34] The Chinese replaced it by a dragon.

Figure 4 – Chakra with spearhead

Figure 5 – A Tombak with the Chakra

Figure 4 shows a picture of a Chakra with spearhead [35]. It has the form of a compass rose and is a representation of heaven. In the Indonesian context, the *Wheel of Law* seems to have been abandoned quite early, as there are only a few examples known.

The symbol is also found on *Pusakas*, *i.e.* heirlooms holding magic power essential in pursuance of royal authority. Among them were a *Keris* (dagger) and a *Tombak* (lance), which can be qualified to be the *de facto* royal arms. *Tombaks* carry the symbols of the empire and the ruler, *viz.* the *Chakra*. Figure 5 shows an example of a 17th-century *Chakra*-lance.

In fact, a better name for the 'cross' on the coins would be *Chakra*, but for reasons of convenience, it is preferable to use the name *Cross coins*.

5.5 The *Chakra* as a religious symbol

The Sanskrit word *Chakra* literally translates as *Wheel* or *Disk*. In the Hindu iconography, the wheel is an attribute of the god Vishnu and a symbol of the absolute weapon that controls desires and passions.

Initially, the *Chakra* was a symbol of sovereignty but later came to symbolize the Buddhist doctrine. In Buddhism, the wheel is one of the most important symbols, as it represents the teachings of the Buddha. The Buddha was the one who 'turned the wheel of the *dharma*' [36], and hence the wheel symbol is the

[35] *Chakra* with spearhead, from Selumbung, Blitar, East Java, 13th–14th century. H. 30 cm ∅ 16 cm, National Museum Djakarta, inv. 5961.

[36] In Hinduism, *dharma* stands for behaviours that are considered to be in accordance with the order that makes life and universe possible, and includes duties, rights, laws, conduct, virtues and 'right way of living'. In Buddhism, *dharma* means 'cosmic law and order', but it is also applied to the teachings of the Buddha.

Figure 6 – Vishnu with Chakra

Dharma chakra or *Wheel of Law*. The wheel's motion is a metaphor for the rapid spiritual change engendered by the teachings of the Buddha. It also represents the endless cycle of *Samsara* (rebirth), which can only be escaped by means of the Buddhist teachings [37]. The symbols are found in several combinations, the most extended being the effigy of Vishnu who carries a *Chakra* and symbols of authority in his four hands, and is sometimes depicted riding a *Garuda*, his exclusive vehicle.

Figure 6 shows the crowned four-armed god Vishnu, standing on a *Lotus*; behind his head a *Sun*, in his hands a *Chakra*, a *Conch*, a *Club* and a *Jewel*. At his right a winged man holds a *Snake*; this figure is a somewhat deviant form of a *Garuda*, as he is depicted as an angel and not as a birdman. This plaque displays the main symbols of the socio-political system [38]. The symbol on the *Cross coins* in Figure 2 is identical to the one in the hand of Vishnu in Figure 6, representing the issuing authority as well as the teachings of Buddha.

5.6 Conclusions regarding the used symbols

Based on Indonesian heraldry and the Hindu-Buddhist religion the following conclusions can be made:

- The *Lotus* on the *djampels* stands for purity, eternity, plenty and good fortune, and also refers to the administrative authority.
- The *Chakra* on the coins symbolizes the (Buddhist) *Wheel of Law* and the teaching of Buddha, as well as the empire, the issuing authority.

[37] Both Buddhism and Hinduism believe in an (almost) endless cycle of rebirths, known as *samsara*. They both seek release from this cycle of rebirths.

[38] This 9th-century plaque of Vishnu was found at Gemuruh, near Banyu Kembar, Leksono, Wonosobo, Central Java – 34.5 × 16.6 cm – National Museum Jakarta, inv. A31 486a.

6. THE WEIGHT OF THE MEANS OF PAYMENT

With regard to a weight standard of the Sumatran coins, Wicks wrote: "*A related concern has to do with why surviving coin series did not adhere to weight standard*[39]." And indeed, these Sumatran *Lotus flower djampels,* recovered from the Muaro Jambi region, are of varying weights that do not fit into a weight system[40].

The *Lotus flower djampels* exist in gold, silver and copper, but they have a pre-monetary nature and are not truly coins, since they have no standardized weights and no indication of their value. This means that, when they were used in a trade transaction, they had to be weighed to establish their value.

This is not the case of the pieces with the cross, whose weights correspond to a standardized system, and which thus can be labelled as true coins.

It can be deduced from the correct dating of the Wonoboyo hoard[41] that the kingdom of Madjapahit on Java (1292-1527) introduced coins[42] based on an Indian weight system, imported via the trade relations with India[43]. This was a binary system using the *Suvarna* of about 9.6 g[44] as its main unit. The name *Suvarna*, *Su* in short, is the word used for gold in Old Javanese literature[45]. It was also used as the unit indicating the intended value of Hindu gold coins of Madjapahit on Java. Coins with (rounded off) weights of 9.6, 4.8, 2.4, 1.2 and 0.6 g are found, thus being equivalent to 1, ½, ¼, ⅛ and 1⁄16 *Su* respectively.

The recorded weights of the *Cross coins* are 2.46 g and 0.664, 0.620, 0.614 and 0.600 g. This complies (within the normal margins) with weights of ¼ and 1⁄16 *Su*. It is thus reasonable to assume that the basis for the weight standard of the *Cross coins* on Sumatra was identical to the weight system used by Madjapahit on the island of Java.

Madjapahit issued a binary series of gold, silver and copper coins, weighing from 9.6 to 0.3 g. Since the *Cross coins* follow the same binary weight system, *Cross coins* weighing from 9.6 to 0.3 g may also have been issued, but, as said, only gold coins weighing *c.* 2.4 and 0.6 g have so far been found. Moreover, it is also feasible that *Cross coins* have been issued in silver and even in copper.

The use of coins with a standard weight also introduced a new phenomenon, *viz.* reducing the weight and thereby the value of the coin, by removing some of

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[39] Wicks 1992, p. 241.

[40] McLean 1979, p. 19.

[41] Wartowikrido 1999, p. 31.

[42] Leyten 2017a, p. 32.

[43] Prakash 1968; Sircar 1968; Thakur 1972; Klimpert 1972.

[44] Colebrooke 1817.

[45] The weight of 9.6 g is a rounded off value. The weight of the *Suvarna* is based on natural seeds whose weights vary. Therefore, the exact value can vary somewhat. Recorded are weights between 9.04 and 10.05 g, with an average of 9.54 g.

the metal, known as 'clipping'. By only counting the coins, this can go unnoticed. By weighing the coins, as was the older habit, this kind of cheating could not occur.

Figure 7 – Reverse of a clipped coin (scale 500%)

The reverse of the coin in Figure 7 is completely flat. It is obvious that some of the metal on the reverse the coin was removed. This coin weighs only 0.54 g, while other coins of similar size (*c.*5 mm) weigh over 0.61 g; the value of this coin has thus been reduced by over 10%.

7. DATING THE *DJAMPELS* AND THE *CROSS COINS*

7.1 Putting the *djampels* in Sumatran history [46]

There was plenty of gold in the Srivijaya kingdom. Chau Ju-kua writes about San-to-ts'i (Srivijaya): "*Each succeeding king before ascending the throne has cast a golden image to represent his person, and they are most particular to make offerings of golden vessels all to these images, and the golden images and golden vessels all bear inscriptions to caution future generations not to melt them down* [47]*.*"

Upon arriving at Muaro Jambi in 671, I-Tsing writes: *"In the fortified city of Bhoga, Buddhist priests number more than 1,000, whose minds are bent on learning and good practice. They investigate and study all the subjects that exist just as in India; the rules and ceremonies are not at all different. If a Chinese priest wishes to go to the West in order to hear and read the original scriptures, he had better stay here one or two years and practice the proper rules* [48]*."* It takes a considerable time to build a community of 1,000 priests and to erect the abundant number of temples that are uncovered in the Jambi River area. This means that there must have been Buddhist priests already long before 671.

In his memoirs he further calls Muaro Jambi *Chin-chou* (the golden island) [49] where "*People used to offer the Buddha a lotus flower of gold* [50]*. They used golden jars, and had images of gold* [51]." These *lotus flower of gold* were the golden variety of the *djampel* from Figure 1. By offering them to the Buddha, people likely supported the livelihood of the priests. When I-Tsing wrote about the offering of golden *lotus flower*s in 671, it may well have been that he witnessed a long-standing practise that could have been in use since centuries.

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[46] See the appendix for a brief history of Sumatra.

[47] Chau Ju-kua 1911, p. 61.

[48] Takakusu 1998, p. XXXIV.

[49] Takakusu 1998, p. XLI.

[50] *Ibid.*, p. 49.

[51] *Ibid.*, p. 45-46.

Wicks called the gold coin-like *djampels* 'coins', and he wrote: "*It is likely that Srivijaya began issuing its own coinage sometime in the eleventh century following the shift of the capital to Jambi. Support for this argument derives from the fact, that while no specimens of native coinage have been reported from the vicinity of Palembang, the gold Sandalwood flower coins* [this is Wicks' incorrect description of the *Lotus flower djampel*[52]] *have been recovered from Gandi Gumpung at Muaro Jambi*[53]".

However, as explained above, the *djampels* were in use before 671, and therefore, it is not "*likely that Srivijaya began issuing its own coinage sometime in the eleventh century*" [54] at Muaro Jambi, as Wicks assumed.

According to Chao Rugua, Srivijaya had abandoned Muaro Jambi after the Chola raids in 1025 whereby Muaro Jambi was destroyed, and its capital shifted to Palembang. This means that after the 11th century, Srivijaya lost the gold mines of Muaro Jambi, and this could have meant the end of the issuing of the *Lotus flower djampels* at Muaro Jambi rather than its start.

The *Lotus flower djampels* were, as per the description of I-Tsing, not used as coins for payment but as offerings to the Buddha (and the Buddhist priests). As the Buddhist temples and the huge amount of Buddhist priest were still at Muaro Jambi after the Chola raid in 1025, it is possible that the circulation of the *Lotus flower djampels* continued sometime after the destroying of Muaro Jambi and the shifting of its capital to Palembang. However, since Muaro Jambi was no longer the capital and the issuing power was no longer present there, it seems unlikely that new *Lotus flowers djampels* were issued after 1025.

7.2 Putting the *Cross coins* in Sumatran history

The *Cross coins* adhere to a fixed weight system and apparently only circulated in the Musi river district surrounding Palembang. The question is who the issuing authority was, and in what period.

Based on their form and style, the gold *Cross coins* date from the Hindu period on Sumatra and not from the later Islamic period. The fact that they are exclusively found in the Palembang area makes this city the main capital of the issuing authority in that period.

Madjapahit rose to power on Java after 1293. It issued coins, based on a well-established weight system originating from India [55]. In the 14th century, it ruled over much of Sumatra as the successor of Singhasari. If it would have been Madjapahit itself that introduced the coins based on a binary weight system, it would likely have chosen its own type of coins as in use on Java [56]: Why would

[52] Leyten 2017A, p. 36.

[53] Wicks 1992, p. 232

[54] *Ibid.*, p. 232.

[55] Leyten 2017A, p. 28.

[56] *Ibid.*, p. 40.

it have introduced a new coin type within its own territory? In other words, the unique design of the coins suggests that a more or less independent authority was responsible, most likely around the same time that the binary fixed weight system was introduced, or already in use, on Java. This was most probably prince Adityawarman who in 1347 received responsibilities over Sumatra from Hayam Wuruk, the fourth king of Madjapahit. He controlled a vassal state of Madjapahit with its capital at Palembang. Prince Adityawarman did not copy the Javanese Madjapahit coins, but instead introduced the *Cross coins* type. On the other hand, it was logical that his new coins were based on the same binary weight system that he knew from Madjapahit. Madjapahit's dominance in Sumatra ceased to exist completely by 1414, when Parameswara, the kingdom's last prince, converted to Islam and founded the Sultanate of Malacca on the Malay Peninsula. This places the *Cross coins* in a timeframe between 1347 and 1414. This short period explains their scarcity, the lack of distribution beyond the Palembang area, and the fact they were not mentioned in earlier literature.

The Muslim states and Madjapahit (and also Sumatra under control of Adityawarman) probably realised that fixed weights made payments easier, by simply counting the coins instead of by having to weigh them. They all used the same weight system that originated from India, but their coins had different shapes and symbols, with the ones of Muaro Djambi and Madjapahit (on Java and Sumatra) taking their origin in the Hindu-Buddhist religion.

8. CONCLUSIONS

1. All symbols used on the *Lotus flower djampels* of Muaro Djambi and on the coins of Madjapahit on Java and Sumatra are sacred (Indian) Hindu-Buddhist religious symbols, and do not represent a specific weight or value.
2. During the Srivijaya period (7th to 14th century) on Sumatra, daily payments were made in barter articles, like gold and silver ingots and garments and cloth, whose value was evaluated in terms of gold and silver. People did not use any kind of coin.
3. The *Lotus flower djampels* circulated on Sumatra and are only found in the Muaro Jambi region. They were introduced in or prior to 671, well before Dapunta Haying founded the empire of Srivijaya in 683, and do not follow a fixed weight system.
4. These *Lotus flower djampels* were used as offering to the Buddha and to sustain the Buddhist priests. Given their limited distribution, they were not used or intended for use in daily commerce.
5. This emission ended probably in 1025, when Muaro Jambi was destroyed by Rajendra Chola, although it is possible that they continued to circulate.
6. From the end of the 11th century until 1347, there was no coinage on Sumatra. Srivijaya was in that period a vassal of different regional powers (Singhasari, Madjapahit) and briefly a tributary state of the Khmer Empire and later of the Sukhothai kingdom.

7. In 1347, prince Adityawarman, vassal of Madjapahit, introduced the *Cross coins* on Sumatra, based on the same fixed weight system as was in use in Madjapahit. To distinguish his new pieces from the Javanese ones, he used a cross symbol on his coins. This coinage ended in 1414 when Madjapahit's dominance on Sumatra ceased.
8. The cross symbol on the coins is actually the *Chakra.* The coins are generally called *Cross coins,* but they should more appropriately be called *Chakra coins.* They have only been found in the Musi River district near Palembang.
9. These *Cross coins* follow a fixed, binary weight system, already in use by Madjapahit on Java and based on the Indian *Suvarna* (*Su*) of 9.6 g. The known weights of *Cross coins* are 2.4 and 0.6 g (¼ and 1/16 Su).
10. It is possible that *Cross coins* of 9.6, 4.8, 1.2 and 0.3 g have existed, and that silver or copper coins with the same symbol were issued. Until today, none of these have been found.
11. If there is a symbol on the reverse of the *Cross coins*, it is not recognisable.

9. CATALOGUE OF SUMATRAN *DJAMPELS* AND COINS

The *Lotus flower djampels* of Muaro Djambi on Sumatra are already known from earlier publications[57]. They were called 'coins', but this study made it clear they had a pre-monetary nature and were not used for daily commerce, but served as offerings to the Buddha (and the Buddhist priests). The recently found *Cross coins* can now be added to the catalogue. These were truly coins, intended for use in daily payments and commerce, with weights following a fixed binary standard.

9.1 The *Lotus flower djampels* of Muaro Djambi on Sumatra

Type S1 Gold *djampels* with on the obverse the *Lotus flower* and on the reverse the Devanagari letter *Va* (व)

Type S2 Silver *djampels* with on the obverse the *Lotus flower* and on the reverse the Devanagari letter *Ma* (म)

Type S3 Copper *djampels* with on the obverse the *Lotus flower* and on the reverse the Devanagari letter *Ma* (म)

These pieces are found only in the Muaro Djambi area on Sumatra and are all very rare. They circulated as *ingots*, with a value depending on their weight. Millies called them *djampels* and published three gold and one silver specimen. He also compared the pieces of Sumatra to the ones of Java, from which they clearly differ: the silver and copper *djampels* on Sumatra used the short letter *Ma* (म), whereas Madjapahit on Java used a long letter *Mā* (मा). [58]

[57] Leyten 2017a, p. 41.

[58] *Ibid.*, p. 47.

9.1.1 The gold *Lotus flower djampels* of Muaro Djambi on Sumatra

Figure 8 – The gold Lotus Flower djampels of Muaro Djambi on Sumatra (scale 225%)

The weight of the gold *Lotus flower djampels* in Figure 8 is (from left to right): 0.12, 0.19, 0.33, 0.55, 1.14, 1.82 and 2.27 g. The gold *Lotus flower djampels* published by Millies weight 0.15, 0.26 and 0.73 g. From other sources, *djampels* are known weighing 0.09, 0.16, 0.57 and 2.35 g. Overall, the known gold *djampels* weigh from 0.09 to 2.35 g, meaning that there is no indication of a system in their weights, and the different values obviously do not fit in the weight scheme of 0.6, 1.2 and 2.4 g.

9.1.2 The silver *Lotus flower djampels* of Muaro Djambi on Sumatra

Figure 9 – The silver Lotus flower djampels of Muaro Djambi on Sumatra (scale 225%)

Millies published only one silver *Lotus flower djampel* of Sumatra weighing 0.15 g. The weights of the *Lotus flower djampels* in Figure 9 are 2.00, 0.94 and 0.45 g. Mitchiner [59] lists *djampels* of 2.38, 2.30, 2.20, 2.05, 0.95 and 0.85 g. Other *djampels* with different weights are known. There is no indication of a system in the coin weights, and the different values obviously do not fit in the weight scheme of 0.6, 1.2 and 2.4 g.

[59] Mitchiner 1998, p. 215.

9.1.3 The copper *Lotus flower djampels* of Muaro Djambi on Sumatra

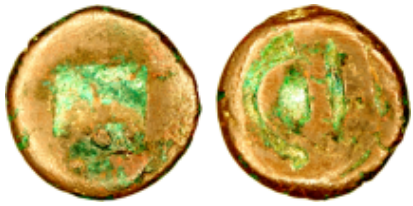

Figure 10 – The copper Lotus flower djampel of Muaro Djambi on Sumatra (scale 225%)

The weight of the copper *Lotus flower djampel* in Figure 10 is 1.64 g. Mitchiner [60] lists two copper *djampels* of 0.95 and 0.85 g; he does not describe the letter on these *djampels*, so it is impossible to know if the coins are from Srivijaya or Madjapahit. There is no indication of a system in the coin weights, and the different values obviously do not fit in the weight scheme of 0.6, 1.2 and 2.4 g.

9.2 The *Cross coins* from Palembang on Sumatra

A new fourth type can be added, *viz.* the coins found in the surroundings of Palembang, issued during the period of Madjapahit's dominance over that part of Sumatra.

Type S4 Gold coins with on the obverse a cross representing a *Chakra* and on the reverse an unrecognisable symbol

Figure 11 – The gold Cross coins of Palembang (scale 400%)

The weight of the gold *Cross coin* on the top in Figure 11 is 2.4 g. The weight of the gold coins in the second row are (from left to right) 0.66, 0.64 and 0.54 g. It is obvious that some gold is removed from the reverse of the last coin. From other sources, gold *Cross coins* are known weighing 0.62 and 0.60 g.

[60] Mitchiner 1998, p. 215.

10. APPENDIX: A BRIEF HISTORY OF SUMATRA

Figure 12 – Map of Sumatra

In order to put the *Lotus flower djampels* and the *Cross coins* on the timeline of the history of Sumatra, a brief description thereof is necessary.

Before 682, the dominant kingdoms on Sumatra were Jambi, with its capital at Muaro Jambi, and Malayu (the old kingdom of Melayu included the modern province of Malayu and Riau), with its main harbour Panai. They controlled the shipping through the Malacca strait.

10.1 Jambi / Malayu / Srivijaya

I-Tsing decided to visit the renowned Buddhist university of Nalanda, in Bihar, India, to further study Buddhism. He arrived in Bhoga[61] (Muaro Jambi on Sumatra) in 671, where he spent the next six months learning Sanskrit grammar and the Malay language. At that time, Muaro Jambi was a centre of Buddhism where foreign scholars gathered. With the help of the king of Jambi, I-Tsing sailed in 15 days to Panai in Malayu. At that time, Jambi and Malayu existed as independent kingdoms.

In the year 687, on his way back to Tang China, I-Tsing returned to Muaro Jambi, where he experienced that Jambi and Malayu were incorporated in the new kingdom of Srivijaya[62], founded in 682 by Dapunta Hiyan Sri Jayanasa

[61] Others called it Foshi, presumably the locality known as Shillifoshi or Sanfoqi in later Chinese sources.

[62] Srivijaya (also written Sri Vijaya, Indonesian/Malay: *Sriwijaya,* Sankrit: *Śrīvijaya*, known by the Chinese as *Shih-li-fo-shih* and *San-fo-ch'i*). In Sanskrit, *Śrī* means 'fortunate', 'prosperous' or 'happy', and *vijaya* means 'victorious' or 'excellent'.

(671-702). I-Tsing stayed another two years on Sumatra, translating into Chinese the Buddhist papers that he brought back from India. In the year 689 he returned to Guangzhou to obtain ink and papers[63] and returned again the same year. In year 695, he completed all his translation works and finally returned to China.

The Kedukan Bukit inscription describes the campaign in 682 by Dapunta Hiyan and the founding of Srivijaya. This was an ancient Malay kingdom and a dominant thalassocratic city-state[64] based on Sumatra. It influenced much of the Malay Archipelago[65] and was an important centre for the expansion of Buddhism from the 8th to the 12th century. Srivijaya was manifestly not an Empire, but rather a coalition of city-states which owed fealty to the largest economic entity in the coalition, typically located at the city Muaro Jambi. Srivijaya was just the name of the dominant polity. At its height, it controlled most of Sumatra, parts of Java, the Malayan Peninsula, the Sunda Strait and the Strait of Malacca. The capital, Muaro Jambi, was administered directly by the ruler, while the hinterland remained under its own local *Datus* or chiefs, who were organized into a network of allegiance to the Srivijayan Maharaja or king. From Dapunta Hiyan's conquest in 682 on and until the 11th century, Srivijaya rose to become a hegemon in Southeast Asia.

In the period from 650 to 1025, the ruling lineage of Srivijaya was intermarried with the *Sailendras*[66] of Central Java. In 1025 Rajendra Chola I (1012-1047), king of the Chola-mandala kingdom, launched a naval expedition to Southeast Asia, conquering the maritime power Srivijaya and its harbour cities on Sumatra and the Malay Peninsula. After the attack by Rajendra Chola and the destruction of Muaro Jambi, the Maharaja Sangrama Vijayottunggavarman of Srivijaya was imprisoned and most of its cities destroyed. The leaderless Srivijaya mandala entered a period of chaos and confusion. The invasion also marked the end of the ruling Sailendra dynasty.

According to the 15th-century Malay annals (Sejarah Melayu), Rajendra Chola married Onang Kiu, the daughter of Vijayottunggavarman, after his successful naval raid in 1025. This invasion forced Srivijaya to make peace with the Javanese kingdom of Kahuripan. The peace deal was brokered by the exiled daughter of Vijayottunggavarman, who managed to escape from Palembang and came to the court of King Airlanga on East Java. She also became the queen consort of Airlangga named Dharmaprasadottungadevi and in 1035, Airlangga built a Buddhist monastery named Srivijayasrama dedicated to his queen consort.

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[63] In Srivijaya, they used no paper and ink.

[64] A thalassocracy is a state with primarily maritime realms, a sea-based empire.

[65] Munoz 2006, p. 171.

[66] The Shailendra dynasty (*Śailēndra* derived from Sanskrit combined words *Śaila* and *Indra*, meaning 'King of the Mountain', also spelled Sailendra, Syailendra or Selendra) was the name of a notable dynasty that emerged in 8th-century Java and whose reign marked a cultural renaissance in the region.

Despite the devastation, Srivijaya mandala still survived, as the Chola invasion ultimately failed to install direct administration over Srivijaya, since it was short and only meant to plunder. Although the invasion was not followed by direct Cholan occupation and the region was unchanged geographically, there were huge consequences to trade. The invasion gravely weakened the Srivijayan hegemony and enabled the formation of regional kingdoms like Kahuripan and its successor, Kediri, on Java. They were based on agriculture rather than coastal and long-distance trade. The destruction of Muaro Jambi also resulted in the shifting of the Srivijayan capital from Muaro Jambi to Palembang in 1025.

Sri Deva was enthroned as the new king of Srivijaya, and the trading activities resumed. He sent an embassy to the court of China in 1028[67]. Sri Deva from Pa-lin-fong (Palembang) built the Tien Ching temple in Kuang Cho (Kanton) for the Chinese Emperor.

With the growing presence of Tamil guilds in the region, relations improved between Srivijaya and the Cholas. Chola nobles were accepted at the Srivijaya court and in 1067, a Chola prince named Divakara or Devakala was sent as a Srivijayan ambassador to the Imperial Court of China. The prince, who was the nephew of Rajendra Chola, was enthroned in 1070 as Kulothunga Chola I.

Later during the Kedah rebellion, Srivijaya asked the Cholas for help. In 1068, Virarajendra Chola launched a naval raid to help Srivijaya reclaim Kedah. Virarajendra reinstated the Kedah king at the request of the Srivijayan Maharaja and Kedah accepted the Srivijayan sovereignty.

The city of Pa-lin-Fong (Palembang) is further mentioned in 1079 by an envoy by Kuloyhunga Chola, and in 1156 by an envoy by Rajaraja Chola II.

10.2 The Javanese dominance over Sumatra

In 1222, the Javanese king of Kediri was assassinated by an adventurer, Kern Arok, who had founded the new kingdom of Tumapel, better known by the name of its capital, Singhasari. In 1288, during the Pamalayu expedition, Singhasari conquered Palembang, Jambi and much of Srivijaya[68]. This was the end of the Srivijaya kingdom. The expedition arguably established Javanese domination upon Malayu and trade in the Strait of Malacca.

In 1293, a rebel from Kediri, Jayakatwang, killed Kertanagara, the ruler of Singhasari. This was the end of Singhasari[69] and marked the beginning of the rise of the Madjapahit Empire (1293-1400[70]). After 1293, Madjapahit ruled much of

[67] Farhud 2017, p. 6.

[68] The Pamalayu expedition was a military expeditionary force sent by the Javanese king Kertanegara of Singhasari to conquer the Sumatran Melayu kingdom. It was decreed in 1275, though perhaps not undertaken until later.

[69] Raffles 2010 & 2013.

[70] Timeline of Indonesian History.

southern Sumatra as the successor of Singhasari. In 1347, Hayam Wuruk, the fourth king of Madjapahit, gave prince Adityawarman responsibilities over Sumatra [71]. He ruled the southern part of Sumatra as a vassal state of Madjapahit with its capital at Palembang. The last known inscription mentioning a crown prince, Ananggavarman, son of Adityawarman, dates from 1374.

In the years after 1350, sedimentation on the Musi river estuary cut Palembang off from direct sea access. This strategic disadvantage crippled the trade and started further decline. Around the same time southern Sumatra became briefly a tributary state of the Khmer Empire and later the Sukhothai kingdom. [72]

Madjapahit suppressed a rebellion in 1377, but it left the area of southern Sumatra in chaos and desolation. The Madjapahit dominance over Sumatra ceased to exist completely by 1414, when Parameswara, the last prince (the great-great-grandson of Raden Wijaya), converted to Islam and founded the Sultanate of Malacca on the Malay Peninsula. [73]

10.3 Conclusions about the history of Srivijaya and Jambi

1. Before 682 the dominant kingdoms on Sumatra were Jambi, with its capital at Muaro Jambi, and Malayu, with his main harbour at Panai. They controlled the shipping trough the Malacca strait.
2. After Dapunta Haiyang's conquest in 682, the Jambi kingdom, the Malayu kingdom and many others became part of the Srivijaya Empire.
3. Rajendra Chola destroyed Muaro Jambi, the capital of Srivijaya, in 1025. This event ended the dominance of the ruling Sailendra dynasty over Sumatra.
4. From 1025 until 1347, Srivijaya was in disorder and briefly a tributary state of the Khmer Empire and later the Sukhothai kingdom.
5. Srivijaya experienced a short revival when Hayam Wuruk, the fourth king of Madjapahit, gave prince Adityawarman responsibilities over Sumatra in 1347.
6. The Hindu Sumatran period ended completely by 1414, when Parameswara, the last Madjapahit prince, converted to Islam and founded the Sultanate of Malacca on the Malay Peninsula.

[71] Adityawarman (also Adityavarman) was born in east Java and a follower of Tantric Buddhism. He conquered the Jambi region, and later the Tanah Datar region, north-west of Jambi, to take control of the gold trade. Adityawarman then founded the royal dynasty of Minangkabau in Pagar Uyung (near Batusangkar, the capital of Tanah Datar). He presided over the central Sumatra region between 1347 and 1375.

[72] The kingdom of Sukhothai was an early kingdom in the area around the city Sukhothai, in north central Thailand. The kingdom existed from 1238 until 1583

[73] Groeneveldt 1880 & 1896.

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