

# ONS



## Journal of the Oriental Numismatic Society

No.227  
Spring 2016

ISSN 1818-1252

Editor: Robert Bracey, [REDACTED]

### ONS NEWS

Members are thanked for their patience as the journal is again a few months behind schedule. This should be rectified by the end of the year.

In this journal we have fifteen contributions of various sorts. These range from detailed arguments on the iconographic interpretation of particular aspects (see Sanjeev Kumar's contribution on the question what exactly the Gupta emperor is holding) through scientific analysis of coins (the very interesting paper by Lyce Jankowski and colleagues pairs conservation techniques with new forms of digital modelling) to a number of articles presenting new types (Pankaj Tandon, Devendra Handa, and others) and unfortunately, but very importantly, new forgeries (see Heinz Gawlik's article). The ONS journal is a very broad church and has always encouraged a wide range of contributions. I am grateful for the patience of authors in answering queries and responding to editorial requirements.

Robert Bracey (Editor)

### Electronic Catalogue of the Egyptian National Library

In a recent issue of the *ONS Journal*, no. 225, Autumn 2015, p. 10, Jere Bacharach and Sharif Anwar informed readers about the new on-line catalogue of the Egyptian National Library located at [enl.numismatics.org](http://enl.numismatics.org). The project was jointly sponsored by the Egyptian National Library, USAID and the American Numismatic Society. The latter also helped previously to digitize the important collection at the Gayer-Anderson Museum in Cairo now available on-line at the ANS website. I found the new site for the library easy to navigate, so I was quickly able to address my interest in glass weights.

This project has highlighted an unfortunate fact: access to Islamic collections in Egypt is now impossible, which makes this catalogue even more important. Therefore, I must admit that I was among the extremely fortunate few able to have seen and studied both collections as well as that of the Islamic Art Museum in early 1982. At that time, they were available to scholars, European and non-European alike, which has not been the case for decades. So, even though my forthcoming catalogue of Mamlūk glass weights is long, long overdue, it contains some vital records and more information about each piece than the on-line catalogues do. Comparing my notes with the new Egyptian National Library catalogue, I discovered that item 5860 was not a Fatimid imitation or forgery as identified by Nicol, al-Nabarawy, Bacharach and Anwar but a unique Mamlūk piece with the inscription of *bi-smi-Allah* in two lines with an outer circle. I shared this correction with Jere Bacharach, who urged me to encourage any user of the electronic catalogue to inform him at [jere@uw.edu](mailto:jere@uw.edu) of any other errors. It is one of the great advantages of an electronic catalogue that it can be updated and corrected at relatively little cost and time unlike

previous printed publications. In fact, Bacharach said that my e-mail was the second one he had received as another scholar had caught an error in the reading of one of the Spanish petty kings dirhams. I hope other scholars who see where corrections can be made will share them as I have done. In the meantime, Bacharach and Anwar deserve praise for succeeding at an extremely difficult task to provide numismatists access to the immense and rich collection of the Egyptian National Library.

Judith Kolbas [REDACTED]

### Report for South Asia

The 25th 'Shukla Day Coin-Philately-Banknote Fair' was held in Mumbai from 22 April to 24 April at the World Trade Centre, Cuffe Parade, with exhibitions of rare artefacts on display for visitors from all over the country.

The Fair, held since 1992 in the memory of Indian scholar-collector, Mr. S. M. Shukla had another feather in its cap when a competitive coin display was organized with cash prizes for the participants. Thus, the display had the Bharat Ratna Medal and Citation (India's highest civilian honour) of the erstwhile Prime Minister, Mr. Gulzarilal Nanda and a rare *hun* of Chhatrapati Shivaji, the great Maratha warrior. The first prize for coin display along with the Shukla Trophy was awarded to Mr. Sanjay More, (ONS-SA Member# 230) for his wonderful display on Ancient Coinage of the Vidarbha region of Maharashtra.

The Fair had other attractions as well including the release of special Philatelic Covers and the launch of the Online Museum [www.mintageworld.com](http://www.mintageworld.com). The launch of the online museum was announced by the Chief Minister of the State of Maharashtra, Mr. Devendra Fadnavis in the presence of Mr. Sushil Kumar Aggarwal, the Chief Executive Officer of Ultra Pvt. Ltd. the company which backs the non-profit venture. The website aims to upload descriptions and images of all series of Indian Coinage and educate new collectors in the field.

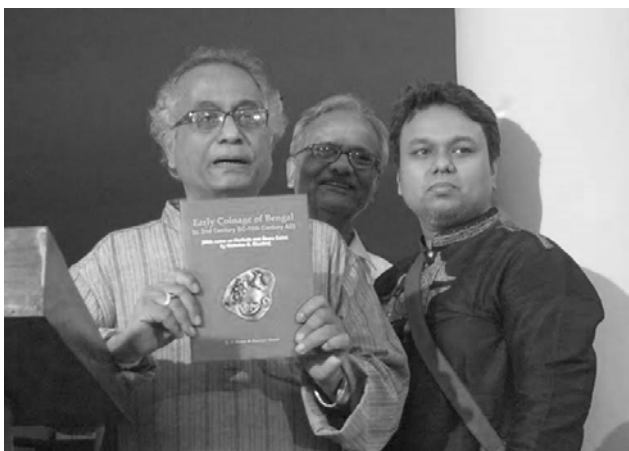


*Launch of www.mintageworld.com at the Shukla Day Fair (left to right) Mr. S. K. Agarwal, Mr. Devendra Fadnavis, Mr. Kaizad F. Todywala*

Another event in India was the launch of the book, 'Early Coinage of Bengal – 2<sup>nd</sup> Century B.C. – 10<sup>th</sup> Century A.D.' written by ONS-SA members, S. K. Bose and Noman Nasir at the Vidyasagar Hall of the Asiatic Society, Kolkata on the evening of 8 June. The event was jointly organized by the Numismatic Society of Calcutta and the Asiatic Society. This was S. K. Bose's tenth book on Numismatics of Eastern India and the first for Noman Nasir, an enthusiastic collector from Bangladesh and the first ONS-SA member from Bangladesh. The two authors jointly collaborated to gather clues about the Early History of Ancient Vanga, a vast cultural region now divided between the Indian state of West Bengal and Bangladesh. Noman Nasir specially flew down from Dhaka to Kolkata for the release of the joint venture.

The function was graced by the presence of Prof. Isha Mahammad, President, Asiatic Society and Prof. Satyabrata Chakrabarti, General Secretary, Asiatic Society who inaugurated the programme. The book's importance was highlighted by Prof. Gautam Sengupta of the Viswa Bharati University (ex-Director General of the Archaeological Survey of India) who pointed out the importance of surviving material remains for the early history of Bengal in view of the absence of literary references for the period.

Mr Bose then presented his views on the early gold coinage of Bengal to the august audience which included curators of local and national museums, lecturers and students of numismatics and history from prominent universities all over India. In his presentation, he displayed images of some very important specimens from all the early series of Early Bengal. He also donated a select set of coins from the Harikela series and Chandraketugarh (punch-marked billon and copper coins) to the collection of the Asiatic Society for the benefit of future research in the subject.



*Prof. Gautam Sengupta releasing the book in the presence of Mr. S.K. Bose and Noman Nasir*

Mahesh Kalra (ONS-SA Secretary)

### **ONS Meeting – Oxford 21 May**

The Oriental Numismatic Society met in Oxford on 21 May for a study day. This began with the General Secretary, Joe Cribb, offering congratulations to Stan Goron for his many years of service to the society.

Sushma Jansari began the day's presentations by looking at the textual accounts of king Sophytes, a contemporary of Alexander in the Punjab. Coins with the name Sophytes on them first came to the attention of numismatists following the Anglo-Sikh wars and their publication by Alexander Cunningham in 1866. The coins were subsequently revisited by R B Whitehead who wanted to attribute them to Bactria, and therefore suggested that they were not coins of the king Alexander encountered.



*Former editor Stan Goron & General Secretary Joe Cribb*



*An introduction to Sophytes types*

Sushma has compiled a corpus of the coins of this king for her thesis, 64 in total, known in several different denominations. She has conducted a die study of the coins, and based on a comparison with the die studies of Diodotids was able to show that the Sophytes coinage was modest – representing a relatively small total economic value.

Sushma finished with a discussion of several recently published coins in the series and presented a compelling case that these were modern forgeries. There was a discussion following this and Shalendra Bhandare pointed out the stylistic similarities between the Sophytes forgeries and a recent forgery depicting Alexander. Karan Singh gave a paper entitled "New Tribal Copper Coin of Ancient Punjab". He began by discussing an unusual coin of the Vrishnis in the British Museum which shows the forparts of a lion and an elephant arranged on a standard. The meeting then discussed various possible attributions for the coin, which Joe Cribb felt by might be over-struck. The possibility that it was a fifth century Hunnic issue was also considered.



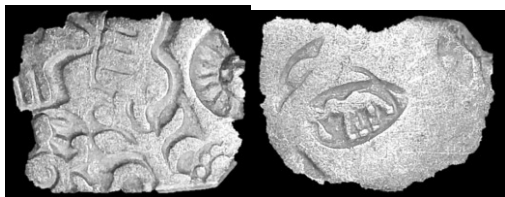


recorded in the annual reports of the archaeology department during those years. Many interesting observations ensued from the study of these coins and the following report is about two countermarked coins one of which is on a punchmarked coin and the other is on an unscripted cast coin. In both cases the countermark consists of an elephant symbol. It would be rewarding to know who issued such coins and who could have countermarked those coins.

#### Description of the coins:

1. Metal: silver; shape: rectangular; size: 17.5 X 12.5 mm; weight: 3.3 g.  
*Obv.:* Five symbols, namely sun, six-armed, tree, an elephant with trunk up and part of another animal.

*Rev.:* an oval punch with a symbol of an elephant facing left with trunk hanging down. Three marks around probably resulted from the method of punching over the earlier marks.



2. Metal: copper, shape: flat base and round at top; size: 14 mm; weight: 5.43 g.  
*Obv.:* Three-arched hill with a crescent on top.

*Rev.:* An oval countermarked elephant mark which is facing left. The trunk is probably hanging down.



#### Discussion:

The first coin is a typical silver punchmarked coin of the imperial type. The Sun and six-armed symbols suggest it is a coin issued by Mauryan and Pre-Mauryan dynasties. Its size and weight correspond to three dynasties which issued such coins, namely Magadha, the Nandas and Mauryans. The absence of an arched-hill symbol probably points to it being an issue of one of the first two dynasties. The presence of two animal symbols support the contention that it is an issue of one of the early dynasties. The second coin is a typical example of unscripted cast coins of the Mauryan dynasty. The three-arched hill with a crescent on top is considered to be a Mauryan symbol. It is interesting to find these similar elephant-symbol countermarks on both a punchmarked and an unscripted coin. Such large countermarks are uncommon on punchmarked coins. The reverse of punchmarked coins are usually found either blank or marked by a variable numbers of small symbols which are said to be mostly different from the types of symbols found on the obverse side of such coins and which are referred to as 'bankers' marks. Countermarks on unscripted coins are also rare. Countermarks tend to be applied by a later ruler, usually belonging to a different dynasty. Which dynasty countermarked both types of coins in the Deccan needs to be investigated. An elephant was the main symbol on the coins of Pre-Mauryan dynasties in the Deccan such as the Asmaka (Patil 1991), Andhra (Aravamuthan 1936; Puljal & Reddy 2005), Vidarbhas, Asika, Chedi and Kalinga (Kulkarni 2005). All these janapadas preceded the dynasties who issued the present coins, but only a post-

Magadha dynasty in the Deccan could have placed these countermarks on the coins in question. The Satavahanas were a major dynasty in the Deccan and they would be the most likely dynasty to have countermarked these coins. In most of the stratigraphic studies in the Deccan, Mauryan coins are followed by those of the Satavahanas. Another reason for this attribution is that the first ruler and founder of this dynasty was Chimuka all of whose coins with his name are of the elephant type (Reddy 2012). While he issued coins in his name, he could have countermarked the earlier coins in circulation in his territory, both punchmarked and unscripted coins, with his symbol. The same practice was followed by the Maurya kings, who countermarked the earlier punchmarked coins with a three-arched hill with a crescent on top. Hundreds of such coins were found in the Amaravati hoard. One such coin is described below (Fig.3).



3. Metal: silver, shape: rectangular; size: 12 x 18 mm; weight=3.40 g;  
*Obv.:* Five symbols: sun, six-armed symbol, elephant facing right, Damru and another, indistinct mark.

*Rev.:* Single punch of a three-arched hill with a crescent on top.

There are hundreds of such coins in this large hoard with a single counter mark, of different types including tree or flower, on the reverse side which raises doubts that these are banker's marks rather than a state activity.

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## SOME NEW COIN TYPES FROM SURASENA

Pankaj Tandon<sup>1</sup>

Some years ago, I bought a small bag of Surasena coins reportedly from Mathura. The bag lay unexamined for all this time, but I recently turned my attention to it. There were 70 coins in the bag, of quite mixed quality. This leads me to believe that this group is not cherry-picked from a larger hoard. Rather, it constitutes either a complete hoard, or a reasonably random sample from a larger hoard. The group also contains some types not recorded in Anne van't Haaff's catalogue of Surasena coins and an interesting overstrike. These coins are presented here, along with a summary description of the parcel. Full-colour enlargements of all the coins in the group are available on the CoinIndia website.<sup>2</sup>

A summary of the types present in the group is presented in Table 1. We see that a wide variety of types is included, almost all of type 1.



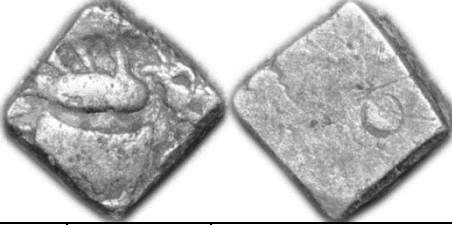

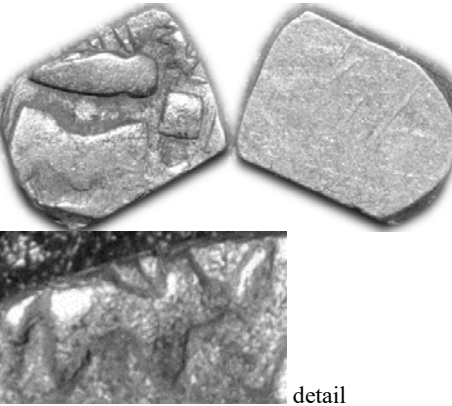
**Table 1: Coin Types in the Group**

Coin Type	Number of Coins
1.2	3
1.3	5
1.4	1
1.9	3
1.10	4
1.11	3
1.12	7
1.15	6
1.16	5
1.17	1
1.18	2
1.27	1
1.29.4	2
1.29.10	2
1.29.12	2
1.29.15	1
1.29.16	1
1.29.18	3
New type A	5
New type B	2
Unidentified (type 1)	7
2.2	1
2.3	1
2.7	1
Overstrike 1.18 / 2.2	1
<b>TOTAL</b>	<b>70</b>

Table 2 presents images of the eight most interesting coins in the group. Coins 1-5 are all examples of an unrecorded type (here called new type A). The type consists of the usual fish over lion right of type 1, along with a new combination of auxiliary symbols which includes a star and two taurines facing each other. An eye copy of the type is presented in Figure 1.

**Table 2: Images and Details of 8 Coins**

No.	Inv #	Details
		
1	mh34.42	New type A 1.67 gm 10 x 9 mm

		
2	mh34.43	New type A 1.81 gm 10 x 9 mm
		
3	mh34.44	New type A 1.78 gm 11 x 8 mm
		
4	mh34.45	New type A 1.74 gm 9 x 9 mm
		
5	mh34.46	New type A 1.73 gm 11 x 9 mm
		
6	mh34.49	New type B 1.76 gm 10 x 8 mm

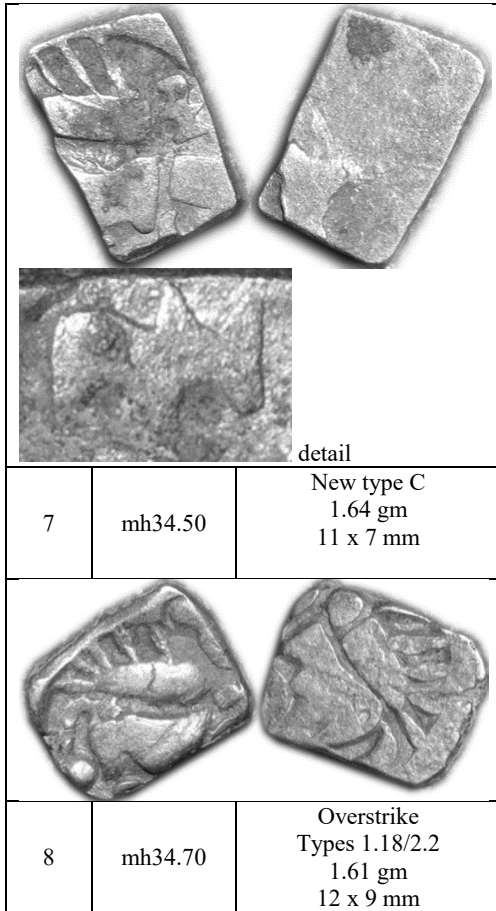


Fig 1: Eye copy of Type A



Fig 2: Eye copy of Type B



Fig 3: Eye copy of Type C

Coins 6 and 7 are both new types (denoted B and C) that look almost the same and feature the first animals among the auxiliary symbols in the Surasena coinage. At first, both I and Anne van't Haaff thought they were the same type. Looking vertically at the symbol in coin 7, I had thought it was an altar. Anne suggested the possibility that both coins featured the image of a dog. But, with the benefit of digital enlargements, we can see that the two coins feature different animals. Type B features an elephant to right facing a solid square with a taurine below and type C displays a humped bull to right with the same solid square and taurine in front. The detail photos in Table 2 show the animals quite clearly. Eye copies of the types are available in Figures 2 and 3. To my eye, the artistry involved in the carving of these tiny animals is very high, much higher than that of the fish and lion that we see on almost all the coins.

Finally, coin 8 is an interesting overstrike which features type 1.18 on one side and type 2.2 on the other. Although both punches look quite fresh, the reverse punch of type 2.2 seems to be somewhat flatter and therefore is likely to have been punched first. Whether this says anything about the relative chronology of types 1 and 2 is difficult to say, but it is suggestive of at least this version of type 1.18 succeeding a type 2.2.

*Notes*

<sup>1</sup> Boston University. I thank Anne van't Haaff for helpful email exchanges, especially in identifying some of the coin types; any errors remain my responsibility.

<sup>2</sup> The images are available at <http://coinindia.com/galleries-surasena.html>.

**A NOTE ON FORGERIES OF BACTRIAN BRONZE COINS**

By Heinz Gawlik

Forgery in coinage is a recurrent issue and several paper deal with it in the Journal of the Oriental Numismatic Society already (Bracey 2008, Tandon 2010). I would like to bring an actual incident to the notice of collectors of oriental coins. I became a witness to somebody offering a large lot of Bactrian  $\text{\AE}$  coins to various dealers participating in the World Money Fare in Berlin on 6<sup>th</sup> February 2016. All the contacted dealer refused to buy the lot or even selected coins. One of the dealers I am friendly with provided me the chance to have a closer look at the lot. The coins were  $\text{\AE}$  units of Indo-Greek and Indo-Scythian kings mixed with some common Kushan coins. All coins have had a dark brownish patina and looked very oily. The person explained that the coins had been bought in Afghanistan and were found as together a hoard. The oil was used to separate and clean the coins. The whole lot looked very suspicious to me because a number of coins looked almost identical. This was a clear indication of cast forgeries, made in moulds, as no two ancient coins look exactly alike. The minting process of die-struck coins always leaves differences on a coin. Such differences come from un-even flans, the alignment of flan and dies but also the strike itself. Moreover, on all ancient coins there would be differences in wear by circulation or even storage over the years.

Now four months later similar coins have appeared in the online market. The coins are identically in appearance with the coins seen in February 2016. It can be assumed that they are from the same lot or must have come from the same source. The mixture of scarce with common coins gives the impression that they are genuine but it is easy to recognize that there is something wrong because similar coins are offered in one auction period or a few days later. The following illustrations show some of the coins in question.

**INDO-GREEK COINS**

**THEOPHILOS, ca. 80 – 60 BC**

Æ bilingual Hemi-obol of Mitchiner type 376. Obverse: Bust of Hercules wearing a lion skin. Reverse: Club (Fig. 1)



Fig 1: Theophilos Æ units Mitchiner type 376

**ARCHEBIOS, ca. 80 – 60 BC**

Æ bilingual Hemi-obol of Mitchiner type 367. Obverse: Winged Nike standing left holding wreath and palm. Reverse: Owl standing right, head facing viewer (Fig. 2).



Fig 2: Archebios Æ Hemi-obol Mitchiner type 367

Æ bilingual Hemi-obol of Mitchiner type 368. Obverse: Elephant standing right. Reverse: Owl standing right, head facing (Fig. 3)



Fig 3: Archebios Æ Hemi-obol Mitchiner type 368

**HIPPOSTRATOS, ca. 80 – 60 BC**

Æ bilingual unit of Mitchiner type 449/450 because the weight is not provided. Obverse: Zeus seated half left on throne with right arm raised. Reverse: Horse standing left (Fig. 4)



Fig 4: Hipparatos Æ units Mitchiner type 449/450

**INDO-SCYTHIAN COINS**

**VONONES GROUP, ca. 100 – 65 BC**

Fig. 5 shows three coins issued by Spalahores with Spalagadames of type 69.3 Senior 2001. Obverse: King mounted on horse with spear in dotted square Reverse: Hercules seated on rocks, holding club in right hand. It is obvious that all three coins look similar and are of the same mould. The small differences of an ancient touch were arrived by minimal tooling and chemical processes to add patina and encrustation to the coins.



Fig 5: Spalahores with Spalagadames Æ units Senior type 69.2



AZES, ca. 60 – 45/35 BC

The next coins (Fig. 6) are ½ units of Azes Senior type 81. Obverse: King mounted on Bactrian camel walking right. Reverse: Yak to right. These coins also show minor differences in appearance caused by the treatment for an individual ancient looking.



Fig 6: Azes Æ ½ units Senior type 81.20

KUSHAN COINS

Common Kushan coins were a surprising element among the scarce and rare coins in the lot. My first impression was that some genuine coins were added to give more weight of genuineness to the lot and to raise the confidence in an interested customer. A careful examination revealed that some of the common coins were also identical in appearance and it appears the whole lot was a fake. The following coins were part of the lot (Fig. 6 & Fig. 7):



Fig 6: Wima Takto Æ unit Göbl 2332



Fig 7: Huvishka Æ units, Göbl 913, Donum Burns 374

The two coins of Huvishka are definitely from the same mould but differ slightly in appearance due to the chemical treatment.

AN ADDITIONAL NOTE ON SOME FORGERIES OF KUSHAN COINS

Tandon 2010 wrote about forgeries of Kushan and Parataraja coins. He discussed and illustrated several tooled Kushan coins of Kanishka with the image of Buddha. Fig. 6f of his paper shows a quarter unit with a seated Buddha. He assumed that the original deity is carved away to be replaced by a seated Buddha. I came across a similar quarter unit with exactly the same details (Fig. 8). It could be the same coin but I believe it is another moulded forgery and not a tooled ancient coin.



Fig 8: Kanishka Æ ¼ unit Göbl type 791

Fig. 9 shows the illustration of three coins with a standing Buddha and the legend BOΔΔO which is unknown for Æ coins of Kanishka and that means all three coins are forgeries. The legend on reverse of genuine coins of this type should be CAKAMANO BOYΔO.



Fig 9: Kanishka Buddha Æ units Mitchiner type (27.0–24.8, 27.0-26.0, 26.1-24.9 mm; 16.73, 16.85, 17.25 g; 12 h)

The next coin (Fig. 10) has a seated Buddha with legend BOΔΔO and some other letters on reverse. It is also a forgery without any reference in standard works. The legend on genuine coins of this type reads: MHTPAΓO BOYΔO.



Fig 10: Kanishka Buddha Æ unit  
(26.5 – 25.7 mm; 16.16 g; 12 h)

Illustrations are not to scale.

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## BHADRAPURIKA – A NEW CITY STATE

By Devendra Handa & Dr. Major M.K. Gupta

During the gradual decline of the Mauryan Empire after Asoka various petty states came into existence with important commercial cities and towns in particular as the nucleus territory. They are mostly known from their coins and sometimes mentioned in inscriptions also. Ayodhya, Bhadravati, Bhagila, Bharukaccha, Bena(kataka), Erakina, Erikaccha, Hathodaka, Kausambi, Kurara (Kuraraya or Kuraghara), Kura-Purika, Madavika, Mahismati, Nandinagara, Suktimati, Tripuri, Ujjayini, Varanasi, Vidisa<sup>1</sup> all issued their own currencies which have come down to us. We thus see that they were mostly located on the river banks in the Ganga and Narmada valleys in northern and central India from which trade was carried out with the western world through Bhrigukaccha (modern Bharuch).

To the city states mentioned above may now be added another name of Bhadrapurika on a copper coin that has recently been acquired by Major Dr. M.K. Gupta at Burhanpur. Its details are given below.



Fig.1 Copper, squarish, 14 x 16 mm, 3.45 g (approximately 30 rattis)

Obverse: Bull trotting to right, a small *svastika* in front below the face of the animal and Ujjain symbol above the back, Brahmi legend *Bhadrapurika* below in characters of second-first century BCE.

Reverse: Six-arched (probably crescented) *caitya* with peacock to left, wavy line below, traces of triangular-headed standard above the *caitya* symbol.

The coin seems to have been struck on an earlier coin as a small hollow square from the under type may be seen to the right of the *caitya* and river symbol. The coin comes from the river Tapti or a tributary stream near Burhanpur. The coin vouches for the existence of a city state of Bhadrapurika.

Now the vital problem is the location of this state. We know of the city state named Bhadravati as noted above. Coins bearing the legend *Bhaddavatiya* were found from a town bearing this name near Chandrapur in Vidarbha, Maharashtra. These coins bear laterally placed five-branched tree in railing above the legend on the obverse and a bold figure of an elephant with upraised trunk walking to right on the reverse<sup>2</sup> and are thus typologically different from our coin. It is therefore clear that Bhadrapurika and Bhadravati were different places.

That purika-ending names were known in ancient times is substantiated by coins bearing the name of Kura-purika. These coins too are substantially different from our coin and Bhadrapurika and Kura-purika cannot be the names of the same state.<sup>3</sup>

The acquisition of our coin from the *sonjharis* (gold dust washers) of the Tapti near Burhanpur indicates that Bhadrapurika was situated somewhere near the Tapti river and not far from Burhanpur. We feel inclined to identify Bhadrapurika with the modern village of Bhadli located about 5 km south of the southern bank of the Tapti and nearly the same distance northeast of the outskirts of Jalgaon city (13 kms from Jalgaon railway station). Bhadli is connected with Jalgaon by road via Asoda and also with Bhusawal which is about 20 km east of it. Both Jalgaon and Bhusawal are well connected with Burhanpur by rail and road. The depiction of peacock as an important device on Bhadrapurika coin indicates that it was a common scene in the area and this is perhaps supported by the depiction of this bird on lead coins of the same period found from Amalner in Jalgaon district.<sup>4</sup>

#### Notes

1. John Allan, *Catalogue of the Coins of Ancient India* (in the British Museum), London, 1936 (*BMCAI*), pp. 239, Pl XXXV.14-15 (Tripuri); 262, Pl. XXXVII.14-16 (Ujjayini). For others see the different issues of the *JNSI, Numismatic Digest, ICS Newsletter, IIRNS Newslite, Journal of the Academy of Numismatics & Sigillography*, etc.
2. Prashant P. Kulkarni, 'Coins and History of Bhadravati and the Bhadra Rulers', *Indian Coin Society Newsletter*, No. 33 (July 2004), pp. 2-4; 'Coins of Bhadravati', *News Bulletin Chandrapur Coin Society*, No. 1 (November 2004), p. 2.
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## TWO NEW KṢAHARĀTA KṢATRAPAS

by Harry Falk

A group of Kṣaharāta kṣatrapa coppers in the style of Apollodotus II are published in R. Senior's ISCH 4: 23, labeled S67.1a and 1b. Because of partial and obliterated legends the name of the issuer is difficult to read. Senior proposed the name Higaraka, which certainly is part of the complete reading but left part of the legend unresolved. He suggested that some key-words link these Kṣaharātas with the same clan in Gujarat, ending there with Nahapāna about one hundred years later. The Kṣaharātas seem to have played a role in the downfall of the last Indo-Greeks in the Panjab. Apart from the said Higaraka issues details are scanty. This paper will first deal with Senior no.S67 and show that there is one more person mentioned on the published type. Then a new coin will be presented which adds yet another Kṣaharāta, overstriking the Higaraka type. Finally a so far singular alliance type is shown which could be interpreted as a document for the united efforts of Apollodotus II and Dionysios to get rid of the Kṣaharātas in Taxila.

## 1. The well-known satrap Higataka and his brother



Fig.1

After Senior's ISCH 4 was published another piece came to the attention of M. Alram, from the collection of Mr. Vollenhofer, Hinterbrühl, Austria. It is nicely preserved, only some parts of the legends are off flan. Comparing this piece to those of Senior removes a number of uncertainties. The Greek side can be reconstituted almost completely:

ΣΑ·ΑΡΑΤΗΣ<sup>1</sup> ΣΑΤΡΑΦΩ ΒΑΡΤΑΡΑ

The first term renders the Indic clan name *kṣaharāta*. A possible third letter is indicated as “.”; it is not preserved in full. Nahapāna, the last of the Kṣaharātas, uses an H in this place (CAHAPATAC). One hundred years earlier, Abhiraka uses a sort of *iota* or mirror-inverted *rho* ΑΙΑΡΑΤΟΥ (zeno.ru #31261). The same one-foot letter is also drawn by Senior for his table (ISCH 3: 63), but not seen on the accompanying drawings. Hastadatta (see below) has a very clear one-footed T instead of the *iota*. In any case, ΣΑ·ΑΡΑΤΗΣ is a nominative singular, “(issuer is) the Kṣaharāta (clan chief)”. The following term ΣΑΤΡΑΦΩ looks strange because of its final *phi* and *omega*. The *phi* results from the local pronunciation of ‘satrap’, and the *omega* makes sense only when we take it as the regular ending of the nominative dual. The third term reads only ΒΑΡΤΑΡΑ, a Greek rendering of an Iranian or local Indic term denoting “brother”, or better “brothers”, possibly meant to be a dual form too. So, ΣΑΤΡΑΦΩ ΒΑΡΤΑΡΑ can be taken together saying “the two brothers”. Who these brothers are is said on the reverse in Kharoṣṭhī:

11°: *kṣaharada-kṣadapa-jayata-higataka-higaraka-bhadara*

The first two terms are known already, the last three can be understood in four ways, depending on whether we take the differences between *t* and *r* as real or as accidental, so that what looks like an *r* in Higaraka is in fact a *t*:

- the brothers Higataka (and) Higaraka
- Higataka and the brother of Higataka
- Higataka and the brother of Higaraka
- the brothers of Higataka and Higataka.

The most natural solution is a) and therefore I take Higataka and Higaraka as the two kṣatrapas which occur on the obverse in the Greek dual. So, what Senior lists under a sole Higaraka is in fact “the Kṣaharāta kṣatrapa, (i.e.) the victorious brothers Higataka and Higaraka”.



Fig.2 Reverse of coin of Apollodotus II overstruck on Higataka type

## 2. The new satrap Hastadatta

The next generation becomes apparent from a coin in the collection of Andrew Freeston, New Zealand, which reached me through the

kind mediation of Osmund Bopearachchi. Just like the Higataka type, it looks at first glance like a round copper of Apollodotus II, showing the standing Apollo holding an arrow in his lowered left hand (Fig. 2). It weighs 8.95 grams and has a diameter of 26 mm. The coin can be clearly recognized as an overstrike. The undertype still reads ΤΗΣ ΣΑ (lower left of fig.3) and thus is another copper of Higataka and his brother.



Fig.3 Reverse of coin of Apollodotus II overstruck on Higataka type

The reverse (fig. 3) reads in Kharoṣṭhī:

*kṣa[haratasa] kṣatrapasa jayata[sa] / [ha]stadatta[sa]*  
“(Coin) of the Kṣaharata kṣatrapa, the victorious Hastadatta.”

The lower horizontal stroke of the *ha* is off flan and so the letter looks like an *a*. The emended reading of the name can be defended by pointing at the corresponding obverse, which reads in Greek letters:

οΣΤοΔΑΤοΥ / ΣΑΤΡΑΠΟΥ ΣΑΤΑΡΑΤοΥ  
“(Coin) of the Kṣatarāta kṣatrapa Hastadatta.”

In the personal name, the initial aspiration must be supplied; the repeated use of *o* instead of *a* seems to follow the local pronunciation.

A *kṣatrapa* by this name is unknown so far. His name “Given by Hasta” is derived from the star constellation Hasta, our Corvus; in its female form *\*hastadattā* it is found on a waterpot published by R. Salomon (1999: 219).

The name of the family reads *satarata* in Greek spelling, which when compared to the Kharoṣṭhī *kṣaharata* shows a surprising *t* in the third position. Maybe the T results from the similar beginning in *satrapa*- or it is an irregular form of the aspiration sign which looked like *iota* or mirror-inverted *rho* on the Greeks legends of Abhiraka (see above).

## 3. Comparing Higataka-Higaraka and Hastadatta

The prototype of the round Apollo coppers by Apollodotus II introduces a Greek monogram on the obverse composed of P, Δ and E, or O, Δ and I and E.<sup>2</sup> Instead of this monogram, the Higataka-Higaraka issues show Apollo on the obverse between a Greek B and a crescent in the left and right fields. Their overstriker Hastadatta returns to the Greek monogram, which is subsequently also used on silver coinage by Dionysios and Zoilos II (ISCH 4: 135). Higataka-Higaraka thus interrupt the use of the monogram for a short while.

Looking at the “control” marks on the reverse, we see Kharoṣṭhī *di* and *a* on Apollodotus II,<sup>3</sup> *di* and *paṃ* on Higataka-Higaraka, and *di* and *ga* on Hastadatta. That means, the reason for the *di* was present from Apollodotus over Higataka-Higaraka to Hastadatta. The second Kharoṣṭhī letter varies with every ruler.

## 4. Apollodotus and Dionysios

It has often been shown that Dionysios should have succeeded Apollodotus II at Taxila, not least because he continues some Apollo coppers types. Also the monogram composed of o, Δ, I and E is found on his silver coinage. A coin on offer at Indus Valley Coins in March 2012 was described as being of Dionysios, which is reasonable as the obverse reads ΔΙΟΝΥΣΙΟΥ along with the common ΒΑΣΙΛΕΟΣ ΣΩΤΕΡΟΣ. However, the reverse reads in Kharoṣṭhī letters

*maharajasa tratarasa / apaladatasā*  
around the usual tripod of Apollodotos.



Theoretically, this issue could be a mule, if Dionysios had ever coined round Apollo types. It could be a fake if not for the general worn appearance and the reverse which shows an unusual combination of Kharoshthi letters by the side of the tripod, *mi* and *di* in a very blurry state, but still unmistakable. A combination of *mi* and *ji* in turn is found very often on Apollodotus' square Apollo types with legends in quadrangular arrangement. As fake and mule are unlikely we could have to deal with an alliance coin, showing that the two kings acted or ruled together. Another alliance issue was published before, having Apollodotus on the reverse and a "Scythian" under Vonones on horseback on the reverse.<sup>4</sup> One more alliance issue is thus not totally surprising and it seems reasonable to propose that Apollodotus and Dionysios reigned at times together and that Dionysios did not simply follow Apollodotus as a son follows his father.<sup>5</sup>

Apollodotus II in turn is known to have taken over Taxila after the death of Maues, losing it to people variously termed Central-Asians, nomads, or Scythians, and then regaining it. The alliance coins could reflect his collaboration with those Scythians having Vonones on their coinage, and also with Dionysios.

His Kṣaharāta enemies Higataka and Higaraka would have copied Apollodotus' coppers while holding Taxila. What we did not know so far is that Higataka and his brother had to give way to another ruler from the same clan, named Hastadatta. This Indian name following Indian naming standards would probably not be used by new-comers unacquainted with Indian culture. A certain period of assimilation may be expected.

### The weights

Weight systems usually receive a number of explanations and here it may suffice to have a look at the general sequence. Apollodotus II starts with the round Apollo-cum-tripod coppers at ca. 16.5 g. The Higaraka-Higataka issues vary slightly around 11 g. The alliance copper of Apollodotus II with Dionysios comes close with 12.3 g. and the final Hastadatta piece is only 8.95 g. This seems to show that all of the warring parties were forced to diminish the standard of this type although the general design was maintained.

### Notes

1 In one case the η was forgotten and the reading is ++APATE.

2 No. 124 in Senior ISCH 3: 74, where it looks as if composed of P, Δ, I, but this *rho* is in most cases a plain *omikron* on top of a *iota*.

3 A minority also show *di* and *nam*. In one case (CNG 1520156) legend and letters were incised unmirrored, pointing to a novice at work.

4 For the reading *vanonasa* cf. Falk 2008: 71a, which was made by inspecting the coin directly. The previous reading was *ayasa* (Widemann 2000: 228), or a legend starting with *ra*, according to Widemann, who cites a List of 1994 by Robert Senior, inaccessible to me. Cf. Senior (2006, ISCH 4: li): "However, towards the end of Apollodotus' reign something happened - maybe the influx of Vonones and his family . . .".

5 This does not devalue the view that Apollodotus II should be older than Dionysios (Bopearachchi 1991: 137), but introduces a period of overlap

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## KUSHAN WIMA TAKTO (C. AD 90-113) VARIATIONS IN ANEPIGRAPHIC OESHO/ARDOCHSHO COINS

By Heinz Gawlik

Only a few examples of uninscribed coins of Oesho/Ardochsho also known as Herakles/Tyche type of Kushan king Wima Takto are found in the literature. In Cunningham 1888 one coin is illustrated. Mitchiner 1973 & 1978 shows two coins from his own collection but in 1973 he mentions the weight of 15 coins in the British Museum (BM). MacDowall mentions the weight with some variations of same 15 coins in the BM. Göbl 1993 refers to one coin in the Kushan collection of Bern. Pieper 2013 has illustrated one coin and Jongeward & Cribb 2015 describe two coins in the collection of the American Numismatic Society. Illustrations of all these coins are rather poor due to the small size and/or worn conditions.

The identification of all details is difficult on a single coin because some parts of the die are always off the flan. That is one of the reasons why all pieces in my possession are illustrated in this paper regardless of condition. Beside the weight and dimensions also the die axes of the coins are provided. The die axes (DA) are expressed by using a clock analogy as o'clock.

Jongeward & Cribb 2015 describe this particular coin of Wima Takto as follows: "Reduced Indian standard copper unit (c. 1.5 g) circulating in Gandhara. Related to posthumous Azes coppers with Tyche reverse".

*Obverse:* Oesho (Type 2) stands facing, head to right; holds staff in right hand, animal skin in left; Kharoshthi letter *vi* to right, tamga to left. No inscription.

*Reverse:* Ardochsho (Type 1) stands facing right, wears long robe, holds cornucopia; flower pot symbol to right, nandipanda to left. No inscription."

The related posthumous Azes coppers with Tyche reverse (Senior 2001: types 122 & 123) are contemporary coinages issued during the reigns of Kujula Kadphises and Wima Takto (Cribb 2015).

The coins illustrated in **Fig. 1-1 to 1-3** are all with goddess Ardochsho of Type 1 as classified by Jongeward & Cribb. In this type Ardochsho stands to the right in a three-quarter profile with both breasts visible. The right arm with elbow is clearly behind the body holding the lower end of the cornucopia (horn of plenty). In **Fig. 1-1** the upper part of the left arm is visible supporting the cornucopia most probably. Oesho (Pieper 2013 writes of a hybrid Herakles-Shiva deity) is of the same style on all examples. The top of the long stick or scepter in his right hand can't be seen on any of the illustrated coins but is probably a trident. A coin in the auction portal Vcoins shows the upper part of the stick (Fig. 4).



Fig. 1-1: *Æ unit Type 1* (12 – 13mm, 1.21g, I o'cl.)



Fig. 1-2: *Æ unit Type 1* (12 – 12.5mm, 1.21g, IV o'cl.)



Fig. 1-3: *Æ unit Type 1* (12.5 – 13mm, 1.76g, II o'cl.)

The next group of illustrated coins (**Fig. 2-1 to 2-5**) shows an Ardochsho standing to the right in an angle of ninety degrees. The left upper arm is almost vertical and parallel to the body. With reference to the classification of Jongeward & Cribb the coins in this group have to be considered as a different type. All other types of Kanishka and Huvishka show Ardochsho in a three-quarter upper profile. Three coins of this variation are illustrated in Cunningham 1888 and Mitchiner 1973 & 1978.



Fig. 2-1: *Æ unit Type new*. (12.3 – 13mm, 1.49g, IV o'cl.)



Fig. 2-2: *Æ unit Type new*. (12.3 – 13mm, 1.60g, VII o'cl.)



Fig. 2-3: *Æ unit Type new*. (12.5 – 13mm, 1.67g, I o'cl.)



Fig. 2-4: *Æ unit Type new* (12 – 13mm, 1.06g, X o'cl.)



Fig. 2-5: *Æ unit Type new* (11 – 11.5mm, 1.28g, I o'cl.)

**Fig. 3** shows Ardochsho in a three-quarter profile as it is in Type 1 with the upper part of the right arm close to the body as in the group of coins shown in **Fig. 2**.



Fig. 3: *Æ unit Type 1 var.* (12.5 – 13mm, 1.45g, DA-II o'cl.)

All coins are almost of a circular form with diameters between 11 and 13mm. The variation in weight is more significant and is between 1.06 and 1.76g. The result corresponds to the weight of coins in the BM with a nearly identical range between 1.06 to 1.83g Mitchiner 1973. The relative positioning of obverse and reverse design (die axis) is irregular. The occurrence of Type 1 and the variation discussed in this paper is almost same. The examples in above mentioned literature have a ratio between Type 1 and the variation of 4:3. Whereas the ratio of illustrated coins in this paper is 3(4):5.

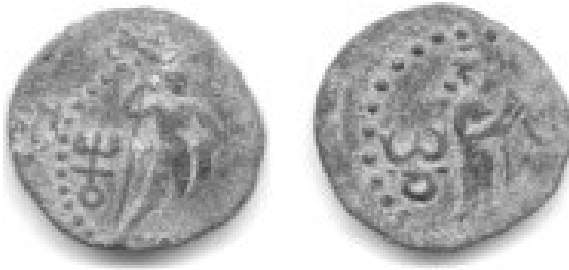


Fig. 4: AE unit (1.2 g, 15 mm) with authorization of Indus Valley Coins

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## THE QUESTION OF A STANDARD VS. A JAVELIN VS. A RAJADANDA ON GUPTA DYNASTY GOLD COINS.

By Sanjeev Kumar

For the past two years I have been diligently working on compiling a comprehensive and updated catalogue of the Gold coins of the Gupta Dynasty. During the past 25+ years of my study into the specialized study of the Gupta numismatics, I have managed to create a substantial database of the Gupta Dynasty coinage, which in addition to my own large collection also includes almost all of the coins that have come to market, auctions, private collections as well as the Dinara database compiled by Ms. Ellen Raven. While the intent was noble, it became very apparent that the task at hand was one that would take many years to complete<sup>1</sup> – the mintage of the Gupta Dynasty was massive and to try to compile a catalogue was no easy task. No wonder no one had attempted this since Dr. A. S. Altekar published his book *The Coinage of the Gupta Empire* in 1957. Prior to that book, John Allan's book *Catalogue of the Coins of the Gupta Dynasties and of Sasanka, King of Gauda* published in 1914 was a good reference. Since then however, hundreds of new varieties and thousands of new coins have come to light and the absence of a comprehensive catalogue covering this important dynasty of Northern India was quite glaring.

Dr. Altekar's book quickly became the bible of the Gupta numismatics and museums, auction houses and collectors have all universally adopted the Altekar classification – one that is quite comprehensive and was cutting edge when it was published in 1957. For someone like me who has been studying the Gupta coins for over

25+ years, apart for the need to compile an updated classification, it also became apparent that Dr. Altekar had invariably made (or rather) perpetuated some old errors in his book which begged to be corrected. One of these major errors was when Dr. Altekar decided to use the term 'Standard Type'. In this paper, I will argue the term 'Standard Type' was in fact the wrong term to use for this type. In the absence of anything else, this classification was unfortunately universally adopted by all when in fact the coins in this group includes *two different distinct* types – The Javelin Type and the Rajadanda Type.

Gold coins struck by the Gupta king's Chandragupta and Samudragupta show the king holding a long staff-like object in his left hand while offering oblations with his right hand. For over 125 years, scholars have been debating what exactly the device that the king holds with his left hand is.

There is much debate on which Chandragupta issued the coins and if in fact Chandragupta I issued any coins at all. In my upcoming book, I expand in detail and show how we can definitely make the case that these early coins were in fact issues of Chandragupta I and not Chandragupta II.

In 1889, Vincent A. Smith<sup>2</sup> referred to the device that king Samudragupta holds in his left hand as a javelin and named these coins as a Javelin or Spearman Type. John Allan<sup>3</sup>, discarded this name in his book on the Gupta coins and made a case that this is indeed a royal standard that the king holds, noting 'It is evident that Samudragupta's Standard Type is a close copy of the later coins of Kushan type'.



Fig.1. Samudragupta Standard Type, 7.85gm, 22mm. Shivlee 1004.

Altekar (TCGE, 1957, p.41) wrote that 'The designation of this type is not free from difficulty'. He pointed out that P.L. Gupta and B.C. Chhabra have both described this as a *Rajadanda* (sceptre) and he goes on to state 'No definite preference can be shown to any of the above names, because the object is not uniformly represented'. To make his case, he points to a few coins that have a spearhead (pointed tip at the end of the spear), while on others it is clearly a *rajadanda*. So he chose to use the term "standard type" to describe these coins in his book and subsequent papers. In recent times, Ellen Raven subscribed to calling all of these coins where the king holds a staff like device as the 'Sceptre Type'<sup>4</sup>, another term that was also picked up by scholars as a secondary description of the type.

However, there was a flaw in Altekar's designation of the Standard Type as well as in Ms. Raven's theory of the Sceptre Type. In Altekar's case, his reasoning was based on the limited number of coins available for his review in 1957. To be specific, of the Chandragupta I Standard Type coin, rather than the Samudragupta Javelin/Rajadanda/Standard Type coins, he had access to only one example, in the Bharat Kala Bhavan at the Banaras Hindu University in Varanasi, India.<sup>5</sup>



Fig.2. Chandragupta I, Javelin Obverse, King and Queen Reverse, 7.45gm, 21.5mm, Bharat Kala Bhavan, BHU 61-8624



Fig.3. Chandragupta I, Rajadanda/Sceptre Type, Tody Auction 55-11, 7.53gm – note rounded pommel at base and top of the staff on obverse.

In discounting the rajadanda/sceptre designation he stated 'rajadanda also has not a ribbon or a fillet or a flag attached to its upper half, and in majority of cases the object has a pointed end like a javelin'. It is apparent that he was struggling with what name to assign to this type in his book, which he knew would be one of the most important works on Gupta coins. He went on to state – 'Since each view is beset with difficulties, we propose to continue the designation of Standard Type, simply because it is well established'.<sup>6</sup>

Unfortunately, he did not have the benefit of the much greater number of coin images we have today, which will help us revisit the conundrum that he faced.



Fig.4. Samudragupta Javelin Type, 7.56gm, 22mm, Shivlee 1020

The flaw in his theory was that he viewed the entire group of coins as one group or type. These included the coins of Samudragupta with the staff like device, as well as the Chandragupta coins with a similar staff like device which led him to group them all together and label all of them with a single label, incorrectly, as the 'Standard Type'. He, as well as other scholars subscribing to this theory, did not understand that in fact there are different devices represented on these coins. When Altekar developed his classification he was working with only one coin of the Chandragupta Standard/Sceptre Type and two coins of the King & Queen on Couch Type coins<sup>7</sup> (where the king holds a standard/sceptre on the obverse). Additionally on the Samudragupta 'Standard Type' coins that Altekar had access to<sup>8</sup>, the bottom end of the staff was off the flan

on the majority of the coins, i.e., the coin was not centered when struck. As such without the pointed spearhead easily visible, it was difficult to say if it was a simple staff or a javelin. Today, with the benefit of digital images and thousands of coins of the 'Standard Type' coins available to be closely studied, we can easily distinguish that there are indeed two different devices used: The Javelin Type issued by both Chandragupta I and Samudragupta and the Rajadanda/Sceptre Type also issued by Chandragupta I and Samudragupta.



Fig.5. Samudragupta Rajadanda/Sceptre Type, 7.62gm, CNG 84-827. Note rounded pommel at base of staff on obv.

So in hindsight, Altekar was partially correct but drew the wrong conclusion when he tried to group *all* of these coins into one group.

In the Journal of the Numismatic Society of India (JNSI) issue IX, 1947-48, PL Gupta published a unique Gupta gold coin with the name *Chandra* under the king's arm on the Obverse 'holding in the left hand a rajadanda'. He however referred to this coin as an issue of Chandragupta II based on an incorrect reading of the legend as beginning with the word '*Sri Deva..*' which led him to a false conclusion. In June 1949, JNSI Vol. XI, Dr. Chhabra published an expanded paper on the very same coin published by PL Gupta, but reclassified it as a coin of Chandragupta I where he corrected the reading of the obverse legend on these coins to '*Vijitya jayati tridivam pritivisvarah*'. (Having conquered the globe, the lord of the earth now conquers the heavens).

Dr. Chhabra then tackled the other key points in a groundbreaking paper that has largely been overlooked and forgotten. He pointed out how the biruda '*Paramabhadragavata*' - the most devout worshipper of Lord Vishnu - was indeed used by multiple kings over the course of the Gupta Dynasty and is in no way limited to Chandragupta II. So to assume that a coin with a biruda of *Paramabhadragavata* should be solely attributed to Chandragupta II is unwarranted. On this point, it is also important to remember that the biruda used by Chandragupta II was *Sri Vikrama* or variations thereof. In 2010, I presented a paper at the Gupta Conference at the University of Punjab, Chandigarh on the same subject, making my case that these coins should be attributed to Chandragupta I. However, old habits die hard, and these coins continued to be classified as issues of Chandragupta II. Let us not forget that on silver coins of Skandagupta, he used the Imperial title *Vikramaditya*, a biruda which scholars erroneously and exclusively apply only to Chandragupta II. Dr. Chhabra further pointed to the lower weight of the coin and the paleography of the legend to make his case that this coin was issued earlier than those of Chandragupta II. Next he tackled the issue of the staff in the king's right hand - the *danda* and he went on to explain in elaborate detail why this device is a *Rajadanda*, 'a *danda*, 'staff', or symbol of royal authority is also a very early conception with the Hindus, described in detail in the *smritis* and in the (ancient) works on polity (*rajniti*)'. Quoting from Valmiki's chapter called *Kachchit Sarga* in the *Itamayana* and the last verse he showed the use of the word *danda-dhara*. Now we can convincingly confirm that coins with a staff-like device held by the king are divided into two distinct Types:

**Rajadanda/Sceptre Type** - Gupta coins where the king holds a staff with a round pommel at both ends: Coins of this type were issued by Chandragupta I (coin 3) and for Samudragupta. It is assumed that the Samudragupta (coin 5), was most probably issued

by a vassal king/field commander who had pledged allegiance to Samudragupta. (Göbl 611 – Punjab Type).

**Javelin Type** - Gupta coins where the king holds a javelin with a sharp spearhead at it's base end. This type of coin was issued both by Chandragupta I and Samudragupta. In the latter's case, it represented approximately 57% of his total gold coins known. (coin 1,2,3)

It is very possible that one day we may find coins of the Javelin Type issued by Chandragupta II as we also know of two very rare specimen of the Lion Slayer Type issued by him where he is shown killing the lions with a javelin. (Coins 7,8). When trying to understand the evolution of the design elements on the Gupta coinage, we clearly see the bow and arrow used extensively on the Archer Type – the same weapon also shows up on the Lion Slayer type where the king is killing the lion with a bow and arrow.



Fig.6. Chandragupta Lion Slayer with Bow and Arrow Type, 7.75gm, 20mm

The Gupta mints continued to produce coin designs using both the bow and arrow as well as the javelin, also as seen on the lion slayer coins. The coins below are the only two known specimens, and came to light only recently. They firmly confirm that the javelin was indeed a design element used by the Gupta die designers.



Fig.7. Chandragupta II, Lion Slayer with Javelin Type, Class I, Var. A, 7.58gm.



Fig.8. Chandragupta II, Lion Slayer with Javelin Type, Class I, Var. B, 7.67gm.

In addition to the above weapons used on the Lion Slayer Type, Gupta engravers also produced coins showing the King killing the lion with a sword. The sword, dagger, spear/javelin, bow and arrow continue to show up on Gupta coins throughout the coinage.

While both Allan and Altekar were incorrect when they used the term Standard Type to describe the device held by the King with his

left hand, the Gupta coins do depict three different kinds of standard – the *garudadhavaja*, *chandradvaja* & *chakradhvaja*.

**Garudadhavaja** - This is the Garuda standard, modeled most likely on a Roman Standard. In Hindu mythology, the Garuda is an eagle-humanoid creature that serves as the mount for the lord Vishnu and was the sworn enemies of the snakes - *Nagas*. As the Gupta Kings were *Vasihnnavites* (followers of Lord Vishnu), their royal seal was the Garuda. On gold coins the King and the Garuda are shown with the Garuda mostly to the right of the King. (coins 1,2,3,4 &12). The Garuda perched on a pillar or a stand is the *garudadhavaja* and is seen on a large number of types of gold coins as well as copper coins of Ramagupta.

**Chandradvaja** – The crescent topped standard was a carry over from the Kushan coins and the Kushano Sassanian coinage of Kings like Hormizd I. This *chandradvaja* device is seen on the King and Queen Types of Chandargupta I, and the Tiger Slayer and Battle Axe types of Samudragupta. After Samudragupta, this crescent topped standard completely disappears from the coins struck by Chandragupta II and reappears on the Kumaragupta I Tiger Slayer coins.



Fig.9. Chandragupta I King & Queen Type, King holds a *chandradvaja* - crescent standard with his left hand on obverse, 7.78gm.

**Chakradhvaja** – The chakra topped standard, which is seen on coins issued by Ramagupta-Kachagupta. (coin 10)



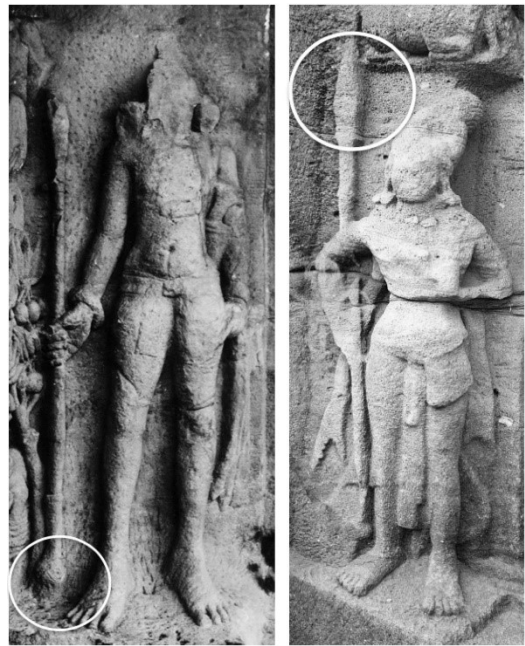
Fig.10. Kachagupta Chakradhvaja Type, 7.63gm. King holds the *chakradhvaja* with his left hand on obverse.

In order to better understand this discussion on the standard vs. javelin vs. rajadanda, it's important to first clearly define each design element. A **royal standard** is a term used to describe an Imperial or Heraldic symbol or a flag used by the monarch or his family, which is usually mounted on a decorated staff and serves to confirm the sovereignty of the king. An excellent example of a royal standard can be seen on the breastplate of Augustus Caesar on a marble statue in the Vatican Museum. I believe the Garuda standard of the Gupta kings was similarly modeled after the Roman eagle standard as the availability of Roman coins in ancient India is well documented. Unlike the Imperial Standard shown above, the javelin is shown with a sharp spearhead at one end and a round knob – pommel- at the base end of the long staff as confirmed by a review of the sculptures from the tomb of Artaxerxes III, Persepolis, Iran; as well the sculptures from the Udayagiri Caves, India. The designs of base of the Javelin with it's rounded pommel has remained consistent over the centuries and conforms to the design of the javelin as shown on the Gupta coins.





Fig.11. Caesar Augustus of Prima Porta, Vatican Museum, 1st Century CE. Eagle standard inset.



14. Udayagiri caves, Guards with spears. 25 BCE, India.



Fig.12. Tomb of Artaxerxes III, Persepolis, Iran, 4<sup>th</sup> BCE, note pommel at base of javelin.



Fig.13. Samudragupta Javelin Type – note spearhead at base below and pommel at the end of the spear. Spearhead resting on the ground while the king is offering oblations on to fire altar.

It is important to also note here that on coins, the king is shown offering oblations onto a fire altar – a scene depicting the worship of weapons prior to heading out to war – a prescribed ritual in ancient India. A clearer representation of the design of the javelin in 3D imagery can also be seen in the *dvara-pala*, standing guard at the entrance to the queen's palace at Udayagiri, Puri, Orissa.

To summarize, there is *no* 'Standard Type' when classifying coins of Samudragupta or Chandragupta in Gupta coins. These coins should be classified as either:

- Javelin Type
- Rajadanda/Sceptre Type

It is my appeal to scholars and auction houses to pay attention to the distinctions above when classifying the Gupta coins to ensure that we do not continue to perpetuate the old outdated terms and classifications.

#### Notes

<sup>1</sup> I am hoping to publish this Catalog of Gupta coins within the year. It will be the most comprehensive listing of all of the types and varieties of Gupta coins including gold, silver, copper and lead, all in one volume. In addition to the full catalog and a new classification, the book will also include an extensive XRF metal analysis of the Gupta coins covering over 300+ Gupta gold coins, silver coinage of the Gupta and it's neighbors - silver coins of Maitrikas, the so called 3dot Sri Gupta coinage (which is in fact from Multan), Kushan gold and silver coins of Western Kshatarapa kings. The XRF metal analysis data for the Kshatrapas has also been shared with Alex Fishman who will also be discussing it in his upcoming book.

<sup>2</sup> V A Smith (1885) *The Coins of the Imperial Gupta Dynasty*, Indian Antiquary, vol 14, pp 179-180.

<sup>3</sup> P L Gupta and Sarojini Shrivastava (1981) *Gupta Gold Coins*, Varanasi, Bharat Kala Bhawan,

<sup>4</sup> Ellen Raven, Festschrift, (1994) *Styles in Early Gupta Gold Coins*,

<sup>5</sup> In lieu of the BkB, BHU coin, I show another specimen with better representation of the pommel at both ends.

<sup>6</sup> A.S. Altekar, (1957) *Coinage of the Gupta Empire*,. Pp. 40-47.

<sup>7</sup> Bharat Kala Bhawan, BHU coins of Chandragupta I King and Queen on couch.

<sup>8</sup> When Altekar tried to disprove the Javelin Type he referred to three coins (PL II 1, 2-5 CGE 1957), pointing out that these coins of Samudragupta did not show a pointed end... of course they didn't, the pointed spearhead was off the flan of these few coins he had to study! However, why he only referred to just three coins is puzzling as he had access to a substantial number of coins from the Bayana Hoard for study. The only explanation I can come up with is that maybe he had already formed his opinion on calling these coins the Standard Type very early on when preparing for the book. In fact he wrote the book in the early 1950's and then left for an extended overseas trip.

# COINS OF THE BANAVASI KADAMBAS

By Govindraya Prabhu Sanoor\*

## Synopsis

Nearly eight years have lapsed since the Kadamba coins came to light in Banavasi. However, proper research has not been done on these coins, mainly due to inadequate inscriptions for facilitating their attribution. The Kadamba dynasty is the pride of Karnataka and the glory of the later Kadambas of Goa is also well known. An attempt is made in this paper to list all the known coins of the Kadambas of Banavasi, as they deserve proper recognition through study and research.

When the Banavasi hoards spilled onto the market in the 2006, several conference papers and numismatic publications were produced that discussed them. Up till now, however, there is no firm attribution for most of these coins other than a few inscribed coins attributed to the ruler Ravi Varman II<sup>1</sup> and Krishna Varman II<sup>2</sup>

## Political history

The names Kadambas and Banavasi are always associated with each other. The Kadamba dynasty holds a very important position in the history of Karnataka and India. Banavasi was the capital town of the Kadamba kings and was one of the oldest and most celebrated towns of Karnataka. Vijayanti was its original name and it was protected on three sides by the River Varada. Located at modern Sirsi in the Uttara Kannada district of Karnataka state, it is a lush green town amidst the Western Ghats with the Madhukeshwara temple at its center. All the important inscriptions of Banavasi that relate to various dynasties were found in this temple.

With the presence of several inscriptions of king Ashoka in southern India, it is assumed that Banavasi, too, was under the Mauryas' dominion at some point. With the decline of the Mauryas, the Satavahanas founded their kingdom on the vestiges of the Mauryas. However, parts of Northern Karnataka, namely, Dharwad, Haveri, Uttara Kannada, Belgaum and Shimoga districts came under the rule of the Kuras. The surrounding Chitradurga region was controlled by the Maharathis of Chandravalli, who were believed to be the feudatories of the Satavahanas. Other petty independent rulers ruled minor kingdoms surrounding Banavasi, as shown by the coins found in the region.

The Kuras did not last long, and it was around the 2<sup>nd</sup> century CE that their kingdom came under the Satavahana ruler, Vasithiputra Siri Pulumavi. A memorial stone in the name of Mahadevi, the queen of Pulumavi, found in the Madhukeshwara temple is indicative of Satavahana sovereignty over Banavasi. Also, the vast number of inscribed Satavahana coins found in the Banavasi region with legends such as Yajna, Pulumavi, Siri Satakarni and Gautamiputra Satakarni indicates that the region was under the firm grip of the Satavahanas.

At the end of the 2<sup>nd</sup> century CE, Satavahana power declined, and the region of Banavasi gave birth to yet another powerful dynasty, which the historians refer to as the Chutus. Although there are not many inscriptions of this dynasty, those attributed to them were found in and around the region of Banavasi. Several rulers of the dynasties are known through coins, namely Budhananda, Sivalananda, Chutukulananda and Mulananda. The prefix Vinhuruda (Vishnurudra) is used by Chutukulananda and Budhananda on their coins. The latter used Satakarni as his surname and coins of Sivalananda and Budhananda show the insignia of a bow and arrow similar to that of the Kuras. The coins were minted initially in Potin, later in copper and finally in lead. The Chutus issued coins in abundance which suggests that the kingdom was prosperous and the economy was probably at its zenith during this time. However, neither coins nor inscriptions of this dynasty have left any clues about the abrupt end of this dynasty.

The biggest mystery of this branch was about their origin. In Karnataka, genealogy-making was a major pastime of the bards, and many times the ruling dynasties felt the need to reconcile their humble origin with great achievements. In such cases, celebrated

*Vamshas* or *Gotras*, and cities came in handy and the local Chutus were opportunistic in referring to themselves as Haritiputra and Vasitiputra<sup>3</sup>. In the Shimoga district, two inscriptions of a king Haritiputra Satakarni of the Vinhuruda-Chutu family, reigning at Vijayanti (Later known as Banavasi) are known. Thus, the Chutus were either a branch of the local Satavahana or an independent branch. Uncertainty still persists regarding their nomenclature<sup>4</sup>, i.e. whether to call this ruling house the Chutus or the lesser Satavahanas.

With the passing of power into the hands of a Brahmin ruler named Mayurasharma, the Chutus were never heard of again. However, the urban town of Banavasi continued to thrive as an important religious site as well as a key commercial centre. Numismatic publications<sup>5</sup> prior to the exposure of the Banavasi hoard, mention that there has not been any coins circulating after the 4<sup>th</sup> century CE until the beginning of the 10<sup>th</sup> century CE. The Banavasi hoard is, thus, very important in helping us to fill this gap in our knowledge.

The chronology and the timeline of the Kadamba sovereigns cannot be easily determined due to the paucity of their inscriptions, which are frequently undated. Thus, the age of the records has often been determined using paleographical evidence, which is neither reliable nor very accurate. Matrimonial relationships with the Gangas and the Alupas, confrontation with the Chalukyas, and other inscriptions of the predecessor and successor dynasties have helped to reconstruct the chronology and timeline for the Kadambas. The influence of the Pallavas is reflected in the nomenclature of the kings, the coinage issued and religious affiliations.

B.L. Rice, the father of Kannada epigraphy, explained the origin of the Kadambas as follows: "Mayurasharma, a Brahmin, with his guru, Virasharma, went to Kanchipuram to study the Vedas. Due to a serious quarrel with a Pallava horseman, Mayurasharma became enraged and unsheathed his flaming sword to conquer the world. He established himself at Sri Parvata (Kurnool District) and eventually was able to levy tribute from the Banas. Soon, he made Banavasi his capital and called himself Mayura Varman. The dynasty bore the new name "Kadamba" because of the sacredness of the Kadamba tree next to the royal house. Mayura Varman was succeeded by his son, Kanga Varman, and grandson, Bhagiratha. Raghu and Kakushtha Varman, the children of Bhagiratha, succeeded one after the other.

Once they were well established, the Kadambas took an interest in every aspect of their kingdom. Unfortunately, the kingdom was divided between two siblings and there came into existence one more branch that ruled from the Triparvata, under the leadership of Krishna Varman. The rivalry was intense between these two branches. It was during the rule of Krishna Varman II that he killed his cousin and rival, Hari Varman. Triparvata was merged back into Banavasi and thus Banavasi became his capital.

The dynasty did not last long but became an influencing factor for all the subsequent dynasties of Karnataka. The emerging dynasty, the Badami Chalukyas, took over Banavasi around the late 6<sup>th</sup> century CE. Eventually the Banavasi Mandala was given to the Alupa ruler Gunasagara<sup>6</sup> by the Chalukyas, as is known from the inscription of Western Chalukya King Vinayaditya.

The chronology<sup>#</sup> of the Kadamba kings is shown here below, all dates CE:

## Vijayanti Branch

Mayura Sharman	(345–365)
Kanga Varman	(365–390)
Bhagiratha	(390–415)
Raghu	(415–435)
Kakushtha Varman	(435–455)
Shanti Varman	(455–460)
Mrigesha Varman	(460–480)
Mandhatri Varman	(480–485)
Ravi Varman	(485–519)
Hari Varman	(519–525)

### Tripurvatha Branch

Krishna Varman I	(455-)
Vishnu Varman	(475-485)
Simha Varman	(485-516)
Krishna Varman II	(516-540)
Aja Varman	(-)
Bhogi Varman	(-)

### The Coinage

Kadamba coins were virtually unknown until 2006 when Jalagars, the river sand harvesters, discovered 5 to 6 coins during a trial excavation in the River Varada. The late Shri Mukunda Prabhu got hold of these coins and published<sup>7</sup> them. These coins had the legends “Māna rāshi”. In the following 2-3 years, Jalagars excavated more than two thousand coins from the same river bed. Satavahana potin coins with the elephant motif made up more than 1500 of this find. These Satavahana coins were found partially submerged in a chipped earthen pot. Around 500 bull-type coin ranked next followed by Kadamba inscribed and un-inscribed coins (around three hundred). Other coin types found here were Kushāna, Romans, Byzantine, Kalachuri, Vakātaka, Traikutaka, Western Kshatrapa, Chutu, Kura and Maharathi. These were based on the total number of coins offered and coin scans received from the primary dealer sources of Sirsi, Shimoga and Tamilnadu who obtained these from the local Jalagars.

The Kadamba coins are crafted meaningfully with the aim of propagating the idea of divine kingship while, at the same time, meeting economic needs. It is interesting to note that all the publications that displayed these coins mentioned Krishna Varma II as having the epithet “Doṣa rāshi” but no citation or reference to the inscription was provided.

This article is aimed at presenting all the known varieties from the said hoard with relevant information, in the hope of them receiving the attention they deserve from researchers and numismatists.

### Observations

The following observations can be made regarding these Kadamba coins.

1. All the known coins are in alloyed metal – copper and other constituents – known generally as ‘potin’.
2. They do not show consistency in weight, rather only the size and average weight are indicative of the denomination.
3. There are four denominations.
4. The bigger units are mostly inscribed; the fractions exhibit the same symbols as that of their bigger counterparts.
5. Attributes of Vishnu, such as a conch, discus, and lotus are the common motifs.
6. Reverse legends show an affinity to Shiva, namely “Śrī Shashānkaḥ”.
7. The legends are in 5<sup>th</sup> century CE Kadamba script and the coins seem to have been minted briefly for about a century.
8. These are well circulated. Uncirculated coins are rare. 50 to 60% of the coins are badly damaged or corroded.
9. Fragile, delicate and good craftsmanship.
10. Coins are of uniform size and thickness.
11. Like Chutu, Satavahana and “bull” coins, fraction or unit is identified by the size, image and motif.
12. It may be that potin was used to mint the coins because it produced broad flans that allowed the proper transfer of the design and was light in weight.

### Iconography

Both Vishnu and Shiva are worshipped although the temple is dedicated to Madhukeshwara, the Shiva personified. The belief is

that here Madhu, the demon, was slayed by Lord Vishnu at the behest of Lord Shiva. The Shiva-linga worshipped in the temple seems to be of a later period, and the idol of Lord Vishnu seems to be the one which preceded the Shiva-linga.

Vishnu is depicted, holding a Padma (lotus flower) in the lower left hand, the Kaumodaki gada (mace) in the lower right hand, the Pānchajanya shankha (conch) in the upper left hand and the discus weapon, Sudarshana Chakra, in the upper right hand.



*Vishnu idol, Madhukeshwara Temple, Banavasi*

### Coin legends and symbols

Typically the inscribed coins carry either king’s name or his personal titles. Kadamba coins are exceptions as the inscriptions in the coins are of different signs that one has to overcome for leading a peaceful life. Perhaps these coins were meant to remind one to throw away those signs while still meeting the monetary function. Shown below are the glossaries of the inscribed legends and the motif that are seen in the coins, which may help to understand the meaning.

- **Rāshi**  
Zodiac sign (it also has other meanings – like quantum, amount, countable etc.)
- **Māna**  
Literally, this means “measure”. It can also mean pride vanity, self-adulation or egocentricity.
- **Doṣa**  
“Dooshyati iti doshaḥ” - that which contaminates is called Doṣa.
- **Kāmalaya**  
Kāma means “sensual desire”, wish or longing. Laya refers to destruction.
- **Tāduva**  
Perhaps this refers to some sort of fetter.
- **Shashānkaḥ**  
Shashānka means “marked by hare/rabbit”; it is one of the names of the moon and could refer to either Lord Shiva or a Crescent.
- **Mana**  
This literally means “mind”, often used to describe various frames of mind, such as restlessness. Please note that this is different from Māna.

- **Lotus:**  
This is one of the four attributes of Vishnu, the *Padma*.
- **Conch**  
This is one of the four attributes of Vishnu, the *Pāñchajanya*.
- **Chakra**  
This is one of the four attributes of Vishnu, the *Sudarshana*.

### The Coins

Almost all the coins are known through various publications such as articles, papers and numismatic books but piecemeal. Here, an attempt is made to compile and organize the known literature in a systematic manner so as to facilitate further study of these coins. The coins with legends “Doṣa rāshi” had been assigned to Krishna Varman II, by the late Śrī M Mukunda Prabhu, based on the epithet of Krishna Varman II in one of the inscriptions but no reference has been provided. The coin with the legends “Śrī Māna rāshi” was earlier published by Mr. Mukunda Prabhu<sup>7</sup> in one of the leading Daily newspapers which pointed to Dr. Prabha’s statement that the epithet is found in King Ravi Varman-II’s copper plate. Again there is no reference provided anywhere in the article. The coins with the legends “Śrī Māna rāshi” has been assigned to Ravi Varman in a numismatic digest while the legends were read as Śrī Mad Ravi Varma<sup>8</sup>. Yet another article by Mr Nithyananda Pai in the Numismatic Digest correlates the legends “Śrī Kāmalaya” to the temple Kāma Jinālaya built by Ravi Varman while assigning to a particular ruler. Though the dynasty is known from too many copper plate and stone inscriptions, no coins have been firmly assigned to a particular ruler.

The weight standard is not known from any of the Kadamba inscriptions. From the statistics, it is found that the unit coins varied in weight from 0.3g to 0.6g. The majority of the unit coins found, however, are around 0.5g in weight, with an average diameter of 12 mm. The half units are 0.2 g in general, and the tiny quarter units even weigh below 0.1gm. In addition to the full, half and quarter units, what appears to be a double-unit type, with a conch and lotus motif and weighing 1g, has also been identified. Four such specimens were weighed and an average weight of 1g was noted. The following table gives a general weight standard based on the weight readings of the hoard coins.

Unit	Weight	Diameter
Double	1.0 g	16 mm
Full	0.5 g	12 mm
Half	0.2 g	9 mm
Quarter	0.1 g	6 mm

*Table: Weight standard of Kadamba coins*

### Variations

So far, six inscribed coin types are known for the “full unit” denomination with Kannada inscriptions of the 5<sup>th</sup> century CE and three symbol types. These are explained and listed here below:

1. Śrī Māna rāshi, 2. Śrī Mana rāshi, 3. Śrī Doṣa rāshi, 4. Śrī Tāduva raashi, 5. Śrī Kāmalaya and 6. Shāshānkah.

The reverse side has either a conch or discus or legends that are part of the obverse of some of the above six types.





Uninscribed coins have symbols of Vishnu’s attributes.

1. Conch, 2. Discus, 3. Lotus







These have blank reverses.













Apart from these, there are some uninscribed coins with six or five segments, but with no legends inscribed. These are believed to be a later, degenerate coinage.





### Double unit

No	Obverse	Reverse
1		
	Conch, the <i>Paanchajanya</i> , within a beaded circle border, 16 mm, 1.0 g	Blank
2		
	Lotus, 16.25 mm, 1.0 g	Blank



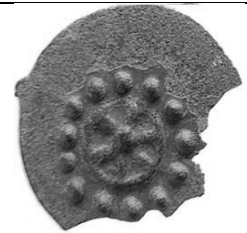
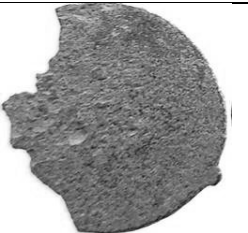

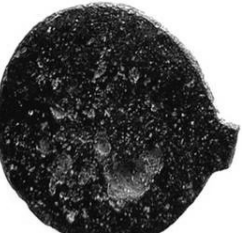
### Full unit

No.	Obverse	Reverse
3		
	Śrī Māna raashi, Lotus bud symbol in the centre, 13 mm, 0.5 g	Discus, the Chakra
4		
	Śrī Mana rāshi, reading anticlockwise with open Lotus symbol in the centre, 10 mm, 0.4 g	Conch, the <i>Pāñchajanya</i>
5		
	Śrī Doṣa rāshi, 14 mm, 0.7 g	<i>Shashānkaha</i>





6		
	<i>Śrī Tāduva</i> <sup>9</sup> <i>rāshi</i> , 14mm, 0.7g	<i>Śrī (Śaśān)kasya</i>
7		
	<i>Śrī Kāma laya</i> , 14 mm, 0.6 g	<i>Śrī Rā</i>
8		
	<i>Śrī Sha</i> ( <i>shānkah</i> ), 9 mm, 0.3 g	Blank
9		
	Chakra, 12 mm, 0.5 g	Blank
10		
	Lotus with seed pod, within a circular border, 13 mm, 0.4g	Blank
11		
	Lotus within a beaded circle border, 12 mm, 0.4 gm	Blank

12		
	Un-inscribed, Six divisions without the legends (Chakra), 14 mm, 0.5 g	Blank
13		
	Uninscribed, five segments without any legends (Chakra), 12 mm, 0.5 g	Blank

Half unit





No.	Obverse	Reverse
14		
	Conch within a beaded circle. Fractional unit of conch type, ½ unit, 9 mm, 0.2 g	Blank
15		
	Lotus , with six petals inside a beaded circle, ½ Unit 9mm, 0.2 g	Blank
16		
	Lotus with five petals inside a beaded circle, ½ unit, 9 mm	Blank













**Quarter unit**





No.	Obverse	Reverse
17		
	Conch within a beaded circle. Fractional unit of conch type, ¼ unit, 6mm, 0.1 g	Blank
18		
	Discus within a beaded circle, ¼ unit, 5 mm, 0.05 g	Blank

**Full unit Variations**

Most of the coins in the hoard had good wear and tear and an average weight of 0.5 g. Hence it is presumed that these were likely the full units. Several die variations have been noted for the full units. The die variations are what one would expect in the quantity of coins that would have circulated over a long period. Each die is able to produce a large quantity of coins. It is hard to know how many coins were produced for each die type, as die variations are also observed when there is more than one mint for coins. We can safely relate it to the thriving economy during the Kadamba period. A few important and notable variations are listed here below.

No	Obverse	Reverse
19		
	<i>Srī Māna rāshi</i> , reading anticlockwise, 12 mm, 0.7 g	Discus, the Chakra
20		
	<i>Srī Mana rāshi</i> in clockwise order (Note: Ma, not Mā), 10 mm, 0.4 g	Conch, the <i>Paanchajanya</i>

21		
	<i>Srī Ma na rā shi</i> , retrograde, anticlockwise, 12 mm, 0.5g	Blank
22		
	Dośa rāshi, (without <i>Srī</i> ), 11 mm, 0.5 g	Blank
23		
	<i>Srī Tāduva</i> <sup>9</sup> rāshi, 12 mm, 0.4 g	Traces of some letters
24		
	<i>Srī Tāduva</i> <sup>9</sup> rāshi, 13 mm, 0.5 g	Traces of some letters
25		
	<i>Srī Kāmalaya</i> (Note: Ka, not Kā), 10 mm, 0.4 g	<i>Srī</i> .... <i>Sha</i>
26		
	<i>Srī Kāmalaya</i> (Note: kā, not ka), 11 mm, 0.3 g	Blank

27		
	Six-petalled lotus <b>without seed pod</b> , 12 mm, 0.7 g	Blank
28		
	Six-petalled lotus with a <b>single-dotted central seed pod</b> , 12 mm, 0.6 g	Blank

#### Notes

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#### Acknowledgement

The author would like to express his gratitude to Mr Murli Narayan, who reviewed and edited the paper for correctness. The author is grateful to Dr. Shailendra Bhandare for the thorough review and suggestions. The author also acknowledges references from the following books, while writing this article.

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## A NOTE ON THE IDRISID FULŪS STRUCK BY RĀŠĪD B. QĀDIM

By Ludovic Liétard and Chāfik T. Benchekroun

Some fulūs struck in Walīla (Volubilis, Morocco) and Tāhart (Tiaret, Algeria) bearing the name of Rāšid b. Qādim were at first

assigned [3,4,6] to an unknown Abbasid governor by historians of the colonial period and later on to a local prince by some Moroccan archaeologists [1,5].

In a recent article [2] published in *Arabica (Journal of Arabic and Islamic Studies)*, it has been demonstrated that Rāšid b. Qādim is the famous Rāšid who belongs to the history of the first two Idrisid rulers from Morocco. He was the faithful companion and guide of Idrīs I (AH 172-175 / AD 788-791) and the regent during the minority of Idrīs II in Walīla (AH 175-213 / AD 791-828).

The fulūs struck by Rāšid b. Qādim can be attributed to the period of the regence (AH 175-186 / AD 791-803). They are described hereafter.

*A fals struck in Walīla by Rāšid b. Qādim*

The obverse bears the name of Rāšid b. Qādim. It can be translated as "Ordered by Rāšid b. Qādim":

مما امر  
به راشد  
بن قادم

The reverse bears the mint name and can be translated by "This fals has been struck in *Walīla*":

ضرب  
هذا الفلوس  
بوليلة

This fals can be described by the following drawing:

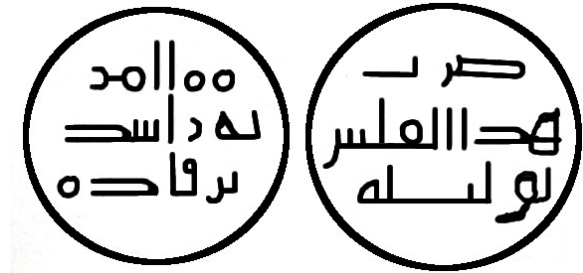


Fig. 1: A fals struck by Rāšid b. Qādim in Walīla

An example (2.45g, 16mm) is shown hereafter (Fig. 2 and Fig. 3).



Fig. 2: Obverse of a fals struck by Rāšid b. Qādim in Walīla



Fig. 3: Reverse of a fals struck by Rāšid b. Qādim in Walīla

A fals struck in Tāhart by Rāšid b. Qādim

The obverse bears the name of Rāšid b. Qādim. It can be translated by “Ordered by Rāšid b. Qādim”:

مما امر  
به راشد  
بن قادم

The reverse bears the mint name and can be translated by “This fals has been struck in Tāhart”:

ضرب  
هذا الفلوس  
بتيهرت

The name Tāhart (تیهرت) is spelt with a letter *ye* (ي) instead of an *alif* after the first letter. It is not a misspelling but an ancient spelling for the long vowel *ā*. This fals can be described by the following drawing:

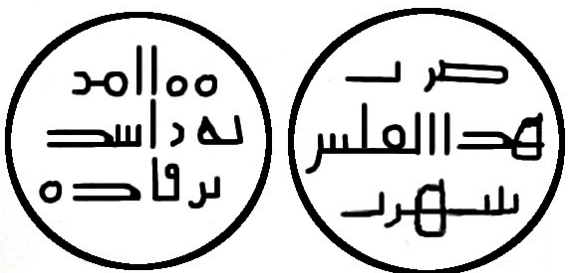


Fig. 4: A fals struck by Rāšid b. Qādim in Tāhart

An example (2.48g, 16.5mm) is shown hereafter (Fig. 5 and Fig. 6).



Fig. 5: Obverse of a fals struck by Rāšid b. Qādim in Tāhart



Fig. 6: Reverse of a fals struck by Rāšid b. Qādim in Tāhart

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# PAX MONGOLICA – COINS OF THE MONGOL EMPIRE

## COMMENTARIES ON AN ASHMOLEAN EXHIBITION

By Marie Favereau

The formation of the Mongol empire was a huge phenomenon that turned the Old world upside down. Under the banner of Chinggis Khan (c.1165-1227), the nomads of the Eurasian steppes unified and expanded on an unprecedented scale. From their core area, in northern Mongolia, they expanded to China in the East; Central Asia, Anatolia and Eastern Europe in the West; Russia and the Siberian plains in the North, Afghanistan and Iran in the South. At its height, the Great Mongol Empire embraced two thirds of Eurasia.

### 1/ The Mongol Empire

As “the only super-power of the thirteenth century”<sup>1</sup>, the Mongols dictated a new world order politically and economically. They brought down the biggest empires of their time from China to the Middle East, integrating the political and administrative legacies of these former powers to the Mongol imperial regime. They displaced the greatest political centres of the continent, with new establishments, such as Qara-qorum, in the steppes, at the heart of Eurasia.

After two centuries of clashes between Christians and Muslims, the Mongols appeared as the third force that could break the status quo and tilt the balance in favour of Christendom. Therefore, the Great Khans received embassies from the Kings of France, England, the Holy Roman Empire and the Papacy. But the Mongols never launched themselves into this age-old conflict. The Crusades were not their fight. The Mongol empire relied on an engendered diversity; in culture, in religion, in traditions. Even after some Mongol rulers converted to Christianity, others to Islam and Buddhism, they never forced their subjects to follow their choice.

In the 1260s, the empire split into four parts. The Yuan dominated East Asia, the Chagatay khanate in Central Asia, the Ilkhanate Iran and Azerbaijan, and the Golden Horde in Russia and Eastern Europe. These four regional empires, all headed by sons and grandsons of Chinggis Khan, remained connected and maintained the dynamics of expansion. The Chinggisid mandate was still driving the agenda even if it did not impede local independent developments. Several military conflicts occurred between the Yuan and the Chagatayids; and the Ilkhanate and the Golden Horde. In 1304, the Chinggisid notion of imperial unity was reasserted and peace was declared between the four regional empires. The Yuan kept the overarching title of ‘Great Khan’ and enjoyed a nominal primacy over the three other parts. Vassâf (c.1265- c.1323), a Persian historian and administrator of the Ilkhanids witnessed this historical moment and described the trade frenzy it caused on the border between the Ilkhanate and the Golden Horde:

“When Toqta inherited the lands which used to belong to Mengü Timur<sup>2</sup>, envoys were exchanged and diplomatic correspondence re-established, so that the roads were once again open to merchants and licensed traders (*ortâqân*). Provisions (*asbâb*) for the immunity and safety of travellers (*mujtâz*) were made. The region of Arran became replete (*kathrat*) with the constant movement (*tamawwuj*) of carriages, tents, horses and sheep. Rare commodities from those lands became plentiful again after an interruption of some years”<sup>3</sup>.

Indeed, at the dawn of the fourteenth century, the economic exchanges intensified integrating all Eurasia - a global phenomenon, historians call Pax Mongolica (the Mongol Peace) because this was a world-shaping phenomenon on par with Pax Romana.

### 2/Pax Mongolica

The post-conquest stability of the Mongol dominions and peaceful relationships between the descendants of Chinggis Khan allowed

such great exchanges. The nomads in power played a key role in the Pax Mongolica phenomenon. Their liberal and attractive policies led to the densification of the connections from the Mediterranean to the Caspian Sea and beyond as far as India and China. These policies combined state control (treaties, currency issue, taxes, roads supervision) and liberal exchange (fluidity in partnership, alliances based on common interest and not on ethnic or religious affiliation, low taxation regime). Significantly, during the Pax Mongolica, we see no discord between globalization and state building.

The Mongols created the best conditions for the market to flourish. The agreements they established with the Mamluks, the Byzantines, the Italians, and others led to the transformation of the mercantile, artistic and intellectual networks. People and caravans could travel safely from Italy to China for the first time. A complex system of currency exchange developed. Multilingual glossaries were produced in Egypt, in Central Asia, in Yemen and in the Golden Horde. Franciscan and Dominican missionaries were requested by their superiors to learn “oriental languages” and worked among the interpreters and secretaries of the khans.

In the early fourteenth century, the nomadic elite of the Golden Horde started to finance the construction of buildings, including facilities for merchants, public baths, mosques, churches and monasteries. The khans valued the merchants, granting them high distinctions, privileges and tax exemptions. The nomads invested in fashionable clothing, travel equipment and weaponry. Furs, leather, and imported luxury fabrics made of silk and cotton were highly appreciated. The steppe had its social markers: riding a horse, carrying expensive weapons and wearing jewels, belts, hats, fine robes and leather boots. High-ranking women had a very distinctive way of dressing and wore conical headdresses (*ku-ku*, *boqta*) as a distinctive symbol of their status. They showed themselves in public spaces, unveiled, displaying their wealth ostensibly. The “Mongol fashion” made an impression on foreign travellers who noted that many people, including Europeans, wanted to look like them.

The Mongols created the largest integrated market in pre-modern history. They used their military infrastructure to shape long-distance commerce. They learnt to exploit natural resources, such as silver, salt, medicinal herbs and wood. They firmly controlled access to grasslands, routes and market places. They enticed people to trade near their headquarters and in their capitals. They diverged pre-existing commercial nexuses, but they also did something more significant: they created an unprecedented continent-wide social and economic order. The coins shown in the Ashmolean exhibition constitute the best examples of the poorly known yet amazing evidence we have at hand for understanding this phenomenon in world history.

### Notes

1 Biran: 534.

2 Toqta (1291-1312) was the son of Mengü Timur (1266-1280). Both were khans of the Golden Horde.

3 Persian text, Hammer-Purgstall: 99 – translated by Marie Favereau and Maya Petrovich.

## ASSESSING COUNTERMARKS ON A CORRODED SILVER *DACHAO TONGBAO*

By Stephanie Ward (Conservator) and  
Lyce Jankowski (Research fellow)

A temporary display devoted to Mongol coinage and entitled "Pax Mongolica (AD 1210-1350)" was recently organised at the Ashmolean Museum<sup>1</sup>. The exhibition was an opportunity to display some rare and lesser known coins from the Islamic and East Asian collections. A rare and historically puzzling silver coin was therefore selected. The coin adopting the shape of Chinese coinage and bears the inscription *dachao tongbao* 大朝通寶 ('Currency of the Great Dynasty') written using Chinese characters. No Chinese

historical source mentions this coin, and archaeological evidence supports an attribution to the beginning of the Mongol Yuan dynasty (AD 1271-1368)<sup>2</sup>. As the exhibition was being prepared, a study of this coinage was meanwhile published by V.A. Belyaev and S.V. Sidorovich<sup>3</sup>. They produced a typology based on the coins inscriptions and reverse countermarks. The corrosion on the Ashmolean coin made it difficult to read the obverse inscription and the presence of countermarks was unclear. The coin was treated during the summer of 2015 by Stephanie Ward to prepare it for display. The following article will detail the treatment chosen with particular reference to the removal of a copper corrosion on this silver coin and the benefit for its study.

The *dachao tongbao* from the Ashmolean collection is a cash coin (round with a square hole in the middle) of 23 mm and weighing 3.3g, see fig. 1. Before any attempt to clean it, it was primordial to assess its metallic content. Different metallic versions of this coinage were discovered: silver, but also bronze and lead<sup>4</sup>. Although the overall appearance of the coin was consistent with that of a corroded bronze coin, closer visual inspection showed patches of silver beneath the green copper corrosion. Examination under a binocular microscope revealed this more clearly. The presence of copper corrosion is not unusual on buried silver coinage. Many 'silver' coins are actually silver alloys, copper commonly being the largest other constituent. When these types of coins are subjected to a corrosive environment (such as through burial), the copper element of the alloy will corrode preferentially to the silver. This is due to the difference in their reactivity (electrode potential) with copper being the more active (electronegative) with a stronger tendency for copper ions to leach out of the coin and react to form corrosion products. As with the Ashmolean specimen, these can then be deposited on the coin's surface and in some instances, can completely obscure the base metal.

The covering of copper corrosion made the examination of the coin inscription difficult. Initial investigation to clarify surface features was carried out using methods that did not require removal of any corrosion. Examination of the coin under raking light and using a binocular microscope was undertaken but did not reveal sufficient detail so it was then photographed using Reflectance Transformation Imaging (RTI), see fig. 2. RTI (also known as polynomial texture mapping) is a photographic method that captures a series of digital images of an object lit from different angles. These images are then processed to allow the viewer to re-light the object virtually and they can be manipulated and enhanced by the user to enable detailed examination of an object's surface on a screen. This method has proved a useful technique in the Ashmolean museum for highlighting surface topography. However, although more detail was revealed, the reverse of the coin was partially decipherable and other methods for retrieving information were explored. Conventional x-radiography and x-ray computed tomography (CT scanning) could have been used to penetrate the corrosion layers without the need to physically remove them, but these techniques were not available in the museum at the time of treatment<sup>5</sup>. Other 3-D scanning and imaging techniques are also available for revealing detailed surface topography but were outside the scope of this project<sup>6</sup>.



Figure 1 The uncleaned coin.



Figure 2 The uncleaned coin using RTI.

The decision was made to remove obscuring copper corrosion products on the coin. As it was to go on public display, it was important to show the silver nature of the coin to make its oddity more striking. Trials were undertaken to remove the corrosion mechanically using simple hand tools such as scalpel and wooden sate stick. In many cases, mechanical cleaning is preferable to chemical intervention as the removal of the corrosion is more easily controlled and a skilled conservator can identify different layers within the corrosion and remove only those unwanted products. Information from a coin's original surface can be held within certain corrosion layers and these need to be retained since the remaining metal core may have lost much of this detail. For the Ashmolean coin however, the tests indicated that mechanical cleaning alone would not be suitable for removing the green malachite corrosion from the coin surface. The hard nature of the corrosion crust overlying the softer silver beneath, together with limitations in the overall strength of the coin core, meant it was vulnerable to damage using this method. The addition of chemicals, to help soften the corrosion products before removal, produced an acceptable method. Formic acid was used as this is a relatively weak acid that does not attack silver. It was applied locally under a microscope allowing slow and controlled removal of the copper corrosion<sup>7</sup>. Care was taken to prevent unnecessary removal of copper from the coin body by limiting the time the acid was in place and using only a low concentration. Formic acid is volatile at room temperature so should not stay on the coin's surface. However, to ensure the time of acid exposure was correctly limited and excess acid was not held anywhere within the coin or corrosion (where it could carry on reacting) the coin was rinsed thoroughly and dried. Fig. 3 shows the cleaned coin. The coin was also lacquered to prevent further tarnishing. Finally, the coin was photographed again using RTI to further enhance the surface details revealed during treatment, see fig. 4.



Figure 3 the cleaned coin



Figure 4 the cleaned coin using RTI

Once cleaned, the obverse inscription became very clear. The calligraphic style of the three characters *da*, *tong* and *bao* is inspired by those of some *Da Ding tongbao* 大定通寶 ('Currency of the Da Ding era'), a coin issued under the Jürchen Jin dynasty between 1178 and 1190. The horizontal stroke of the character *da* is leaning down at the right end similarly to the Jin coinage. But the most interesting feature of this coin is the two countermarks that were revealed on its reverse. These were impossible to see beforehand. One is located next to the central hole at 10.00 o'clock. The other is near the external border placed at 4.00 o'clock.



First countermark

Second countermark<sup>8</sup>

BELYAEV ET.AL. do not give any reading of these countermarks, but understand the first one to be a distorted Arabic word *khan* خان<sup>9</sup>. We can surmise that the second one is a slightly distorted version of the Chinese character *zhai* 債 meaning 'debt, loan, liabilities'. This meaning corresponds to the use of the countermark as an official tax payment proof, as argued in BELYAEV ET ALII.

The limited historical understanding of this coinage gives this coin a real importance. The careful cleaning of the coin done at the Ashmolean Museum removed any corrosion and made visible the distinctive features of the coin, enabling us to compare it to coins of the Jin dynasty, but also opening new possibility to compare it to others *dachao tongbao*. Most of the coins of this type available today are heavily corrode<sup>10</sup>. It is to be hoped that these coins may be cleaned to help further scholarly researches, and we hope that our case may be inspirational in limiting temptations of aggressive cleaning. The unveiling of the two countermarks was particularly rewarding and we are looking to publish more extensively on this subject in the near future.

#### Notes

<sup>1</sup> The exhibition was curated by Lyce Jankowski and Jerome Mairat with the assistance of Marie Favereau.

<sup>2</sup> LEI *et alii* 1989, p. 28-31 et NINGXIA WENHUAJU 1991.

<sup>3</sup> BELYAEV *et alii* 2015. This article became known to the authors only late in the restoration process.

<sup>4</sup> NIU 1999, p 17.

<sup>5</sup> For more details see SCHREINER 2004 and MILES 2011.

<sup>6</sup> This is a rapidly developing field and detailed discussion of these methods is not possible in this document; some general information can be found in PAYNE 2013.

<sup>7</sup> Diluted formic acid (15% volume/volume acid in distilled water) was applied locally on a cotton wool swab and gently rubbed over areas of copper corrosion. After approximately three minutes, the same areas were swabbed with distilled water to stop further reactions whilst hand tools were used to dislodge parts of the corrosion. This process was repeated until most of the corrosion was removed. The coin was rinsed under running tap water for half an hour before being immersed in distilled water and dried on a clean paper towel. It was air-dried for 24 hours before being lacquered with three layers of 5% (weight/volume) Paraloid B72™ (methyl methacrylate/ ethyl acrylate co-polymer) in an approximate 70/30 ratio of acetone/IMS solvent applied with a brush.

<sup>8</sup> These are the countermarks images published in BELYAEV *et alii* 2015, p. 90.

<sup>9</sup> BELYAEV *et alii* 2015, p. 91.

<sup>10</sup> See for example the coins illustrated on the Zeno website (60 coins available on April 6th) - <http://www.zeno.ru/showgallery.php?cat=4428>

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## REVIEW OF SIRĀJ AL-DĪN SIKANDAR (?) SHĀH AND HIS COIN

By Md. Shariful Islam

### Introduction

The coin which is the subject of this paper was published previously by Nasir and Islam in JONS 220 (2014) where the identification of a previously unrecorded ruler of Bengal was discussed. In that paper, the ruler was identified as Sirāj al-Dīn Sikandar (?) Shāh (henceforth in this article referred to as Sirāj al-Dīn Sikandar Shāh), though the reading of the ruler's *ism* as Sikandar was tentative as only the initial part of it was fairly well struck up. Because the coin does not bear any date and mint, the time of proclamation of the said sultan was placed some time during the period AH 790 to 837, with the identification of the ruler being the subject of some plausible conjecture. The present article is an effort to analyse the features of the coin again to add more possibilities that might help us to know about Sirāj al-Dīn Sikandar Shāh.



Fig. 1: The coin of Sirāj al-Dīn Sikandar Shāh

**Obv.:** *al-musta 'in billah  
al-musta'an sirāj al-dunyā  
wa'l dīn abū'l muẓaffar  
sikandar shāh al-sulṭān.*

**Rev.:** *al-musta'sim billah  
nāṣir amīr al-mū'minīn  
khallada mulkahu*

### The Coin of Sirāj al-Dīn Sikandar Shāh

The coin is illustrated below in Fig. 1. The *laqab* (the first name) of the ruler is very clear and can undoubtedly be read as *Sirāj al-Dīn* while the *ism* (last name) cannot be seen clearly as at least half of it has not been clearly struck up. Only the initial letter *Sin* and *Kaf* are clearly visible. The last two letters of the name are visible but not clear enough to read the *ism* conclusively.

## Discussion

The obverse legend starts with *al-musta'in billah al- musta'an* which seems like a title of the ruler presented before the *laqab* Sirāj al-Dīn (Nasir and Islam, 2014). The reverse legend starts with *al musta'sim billah* which is clearly the name of an Abbasid caliph, presumed in the earlier article to be the later Abbasid caliph of Cairo (*ibid*). This, however, is not conclusive. Instead, the analysis of a few historical records of that time show a connection between the Sirāj al-Dīn Sikandar Shāh of the coin with Sirāj al-Dīn of the court of Ghiyāth al-Dīn A'zam Shāh, the *al-musta'in billah* before the *laqab* on the obverse of the coin with the contemporary Abbasid caliph of Cairo, and the *al-musta'sim billah* on the reverse of the coin with the last Abbasid caliph of Baghdad (rather than the later Abbasid caliph of Cairo, which was suggested in the earlier article). So in this section a few historical records are presented from the literature that may help us to explore or confirm the identity of Sirāj al-Dīn Sikandar Shāh, and the significance of the legends on the coin. This may lead us to think differently about a few more rulers and the history of Bengal at that time.

From a historical event discussed by Selim (1788) it is found that the name of a judge (Qadi) in the court of Ghiyāth al-Dīn A'zam Shāh was Sirāj al-Dīn, who once pronounced a verdict against the sultan, whereupon the latter paid an indemnity to a widow for accidentally killing her only son while practising archery. In response to one of the sultan's comments, the judge (Sirāj al-Dīn) had the courage to retort saying 'His Majesty would have been scourged with lashes if he disobeyed the law!' (Selim, 1788, pp.106-108, cited in Ali, 1985, pp. 141-142). This event is evidence that Sirāj al-Dīn was a powerful judge in the court of A'zam Shāh.

Ghiyāth al-Dīn A'zam Shāh was a ruler who maintained good relations with the main stream of Muslim power. His benevolent deeds at the holy cities of Mecca and Medina raised his status in the eyes of the Muslim world of that time (Ali, p. 145). He sent gifts to these two holy cities more than once (*ibid*, p. 143). He once invited the celebrated poet of Persia, Hafiz, to help him to complete a Persian couplet and also invited him to Bengal (*ibid*, p. 145). In the year AH 814, Al-Musta'in Billah Abū'l Faḍl al-'Abbas, the then Abbasid caliph of Cairo, received a large sum and present from Ghiyāth al-Dīn A'zam Shāh (As-Suyuti, 1881, p. 538). His high officials would also have been involved in this act of the Sultan in maintaining relations with the mainstream Muslim world. It is also very likely that Sirāj al-Dīn, as a powerful judge of his court, would have known about all these activities of A'zam Shāh.

From the coins it is evident that Ghiyāth al-Dīn A'zam Shāh died in AH 813 (AD 1410) and that his son, Saif al-Dīn Ḥamzah Shāh, reigned from AH 813 to 815 (AD 1410-1412) (Goron and Goenka, 2001, pp.178-184). Therefore, by the year AH 814 when caliph Al-Musta'in Billah received the gifts from Bengal, A'zam Shāh had already died and had been succeeded by his son, Ḥamzah Shāh. Al-Musta'in Billah was the only Abbasid caliph of Cairo who was made sultan of Egypt in addition to the caliphate. This took place on 25 Muḥarram AH 815, (7 May 1412) (As-Suyuti, 1881, p.534). His short reign as sultan of Egypt has been viewed as a failed attempt at producing an Abbasid revival (Holt, 1993, p.723). Thus, Al-Musta'in Billah received prominence among the weaker and less recognised Abbasid Caliphs of Cairo.

Ali (2008, pp.232-233) describes four phases of obedience by Bengal sultans to the Abbasid caliphs. According to him, in the second phase the Bengal sultans started the practice of not mentioning any specific name of a Caliph but showing obedience to the Abbasid caliphate in general by adopting legends like *yamin al-khalifat* or *nāṣir amīr al-mū'minīn*. This practice was caused by the fact that, during this period of the Bengal sultanate, the Abbasid caliphate in Baghdad was over, while the reinstated Abbasid caliphate in Cairo was yet to receive legitimate acceptance from the Muslim world. This indicates that the Bengal sultanate was aware of the doubt or confusion over the legitimacy of the caliphs of Cairo. Despite this confusion, from the evidence of the gifts sent by A'zam Shāh to caliph Al-Musta'in Billah, it may be presumed that Sirāj al-Dīn continued to follow the developments in the Muslim world and he may well have learnt that Al-Musta'in Billah had been made Sultan of Egypt, too.

At that time in Bengal, Shihāb al-Dīn Bāyazīd Shāh became sultan in AH 815 with the help of Raja Ganesha, who had dethroned the previous sultan, Saif al-Dīn Ḥamzah Shāh. As Sirāj al-Dīn had been a loyal judge of A'zam Shāh and his family, the dethronement of the latter's son, Ḥamzah Shāh, might not have been accepted by him. It is presumed by Nasir and Islam (2014, p.40) that Sirāj al-Dīn fled to the east, rebelled against Bāyazīd/Raja Ganesha and tried to assert his independence using the name Sirāj al-Dīn Sikandar Shāh, but was subsequently captured and killed. Before he was killed he managed to issue a few coins in his name and the coin that featured in the paper was one of them.

Now, taking into consideration the then confusion in the Muslim world over the caliphate and the situation of Al-Musta'in Billah as caliph in the same year that Ḥamzah Shāh was killed (AH 815/ AD 1412), the present article would like to suggest that Sirāj al-Dīn Sikandar Shāh might have chosen to use the inscription on his coin to make a diplomatic move aimed at preventing the seemingly dominant Bayazid/Raja Ganesha alliance from receiving and retaining the support of the Muslim world. While, Al-Musta'sim Billah (AH 640-656) was the last accepted Abbasid caliph of Baghdad whose name had been placed on the reverse of Bengal sultanate coins, the placing of Al-Musta'in Billah before the ruler's *laqab* may have been a deliberate attempt to create ambiguity in the title of the obverse, being readable as part of Sirāj al-Dīn's title while also referring to the Caliph of Cairo. It is worth mentioning that the name of Musta'sim Billah had previously been used on the coins of the Bengal sultanate as late as the year AH 725 (Nasir and Islam, 2014, p. 40), that is almost 70 years after the death of the last Caliph of Baghdad. Subsequently, as mentioned above, the Bengal sultans deliberately used legends like *yamin al-khalifat* or *nāṣir amīr al-mū'minīn* because they wanted to avoid any risk of confusion. It is possible that, 90 years after the previous last citation on the coins of Bengal, Sirāj al-Dīn Sikandar Shāh reinstated the name of the last Caliph of Baghdad on his coins to receive the attention and support of that segment of the Muslim world who were favouring the return of the Caliphate of Baghdad. At the same time he may have deliberately and ambiguously placed the name of Al-Musta'in Billah, the then Caliph of Cairo, before his *laqab* to receive support from the contemporary caliph.

## Conclusion

As there is no other evidence relating to Sirāj al-Dīn Sikandar Shāh, we have to depend upon what is presented on his available single, enigmatic coin. From this coin and what historical records we have, there could well be a link between Sirāj al-Dīn, who was the judge at the court of Ghiyāth al-Dīn A'zam Shāh, A'zam Shāh's relations with the Muslim world at large and with caliph Al-Musta'in Billah of Cairo, the reaction within the Cairo caliphate when A'zam Shāh's son was dethroned by a usurper, and the titles used on the coin of Sirāj al-Dīn Sikandar Shāh. While this is necessarily somewhat speculative, it can be suggested at this stage that Sirāj al-Dīn, the judge at the court of Ghiyāth al-Dīn A'zam Shāh, probably declared himself sultan after Ḥamzah Shāh was killed, as presumed by Nasir and Islam (2014) in their paper; and that Sirāj al-Dīn Sikandar Shāh may have used the name of the last Caliph of Baghdad, Al-Musta'sim Billah on the reverse and ambiguously placed the name of the caliph of Cairo, Al-Musta'in Billah as a diplomatic move to attract the attention and receive the political support of the Muslim world.

## Acknowledgement

The author is an Associate Professor at IBA, Rajshahi University. He is grateful to Stan Goron for his comments during the writing of this article and for editing the final version.

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## ORCHHA ZODIAC RUPEES REVISITED

By John Deyell

In an earlier issue of this journal, two colleagues and I published the first notice of a series of zodiacal rupees issued in the "Orchha" mint-name in the mid-eighteenth century.<sup>1</sup> At that time we identified the zodiacal signs on the coins as Vrisabha (Taurus), Karkata (Cancer), Dhanus (Sagittarius), and Kumbha (Aquarius). Recently, Shailendra Bhandare brought to my notice an online representation of the Indian zodiac, which makes it clear that I had misattributed the Kumbha (Aquarius) coin. This note seeks to correctly attribute that coin.

Whitehead in his study of the zodiacal coins, quoted Edward Moor that "Virgo and Aquarius are said to be the rarest".<sup>2</sup> In reviewing some 243 zodiacal coins of Agra mint, Whitehead noted "Aquarius is by far the rarest sign. Virgo comes next..."<sup>3</sup> He further states, "Virgo is a copy of a Western angel by an Eastern artist"<sup>4</sup> This specimen of a Virgo coin shows what he meant:



Fig.1. Heberden Coin Room, Oxford. Gold mohur, Agra, 1619.

The rarity of the depictions of either Aquarius or Virgo on the original coins of Jahangir, and the distinctive winged appearance of Virgo on Jahangir's coins, were undoubtedly contributing factors in my misattribution of the putative Kumbha (Aquarius) rupee of Orchha. On the latter, the artistic rendition was quite distinct:



Fig.2. Rupee, Orchha Nagar mint, 1763-64 CE.

Had I cast my research net more widely, to review the artistic world rather than simply the numismatic sources, the meaning of this

representation would have been plain. Figure 3, following, shows a mural painting of a zodiacal sign from the walls of the Jantar Mantar astronomical observatory in Jaipur, constructed sometime about 1734. Similarities with the depiction on the slightly later Orchha coin are obvious.



Fig.3. Zodiacal sign, Jantar Mantar, Jaipur, ca.1734

Even more compelling is this Rajasthani miniature painting from a slightly later period, clearly labelled "Kanya" i.e. Virgo:



Fig.4. "Kanya", British Museum 1880.0.2208. Rajasthan, ca. 1790-1810.

The long life of this representation of Kanya is clear from this miniature painting said to originate in Jaipur in the late nineteenth century:



Fig.5. "Kanya", Victoria & Albert Museum IS.44-1990. Jaipur, ca. 1890

This depiction of Kanya was not limited to Rajasthan and its borderlands: in the late nineteenth century it appeared in a painting prepared in Kolkata, labeled in Bangali "Kanya Rashi", i.e. "the Virgo sign":

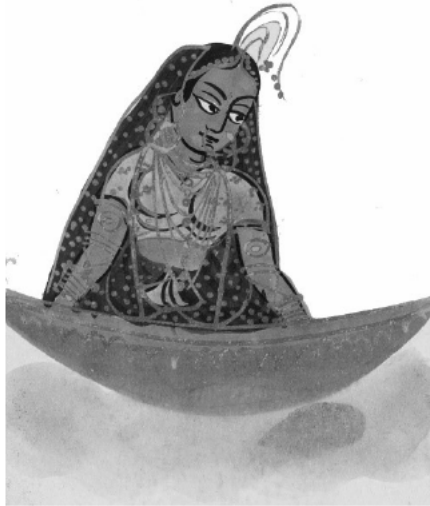


Fig. 6. "Kanya Rashi", Victoria & Albert Museum IS.57-1991. Calcutta, ca. 1890.

The points of comparison between the coin and the painted depictions of Kanya are evident: the woman wears a *dupatta* or shawl; she is usually seated in a shallow boat with pointed ends, floating in water; she sometimes bears a dish or flat bowl in one hand, like an offering.

Given that many of these paintings are near-contemporary with the Orchha coin, it is clear that the zodiacal figure intended in the coin's depiction was indeed Kanya (Virgo).

Referring to the table of concordances in our 2012 article (p. 16), we had calculated that Virgo or Kanya spanned 23 August to 22 September 1765. So this was the latest issue in the Orchha zodiacal series.

#### Notes

<sup>1</sup> Shailendra Bhandare, John Deyell and Jan Lingen, "Late-Mughal zodiac rupees of Orchha Nagar mint", *Journal of the Oriental Numismatic Society*, No. 213 (Autumn 2012), pp. 14-17.

<sup>2</sup> R.B. Whitehead, "The portrait medals and zodiacal coins of the emperor Jahangir", *Numismatic Chronicle*, Ser. V, Vol. XI (1931), p. 97.

<sup>3</sup> *Ibid.*, p. 108.

<sup>4</sup> *Ibid.*, p. 107.

## A COPPER COIN OF TIRATH BINDRABAN

By Devendra Handa

Vrindavan (27° 58' N, 77° 7' E), popularly known as Bindraban, is one of the Hindu places of pilgrimage (*Tirath*), situated on the Yamuna river about 15 km north of Mathura (Fig.1) on the Delhi-Agra section of Northern Railway. The name is derived from *Vrinda* (*ocimum tenuiflorum*, i.e. holy basil or Tulsi) and *vana* (forest, grove). Two small groves of Tulsi still exist at Nidhivan and Seva Kunj at Vrindavan.<sup>1</sup>

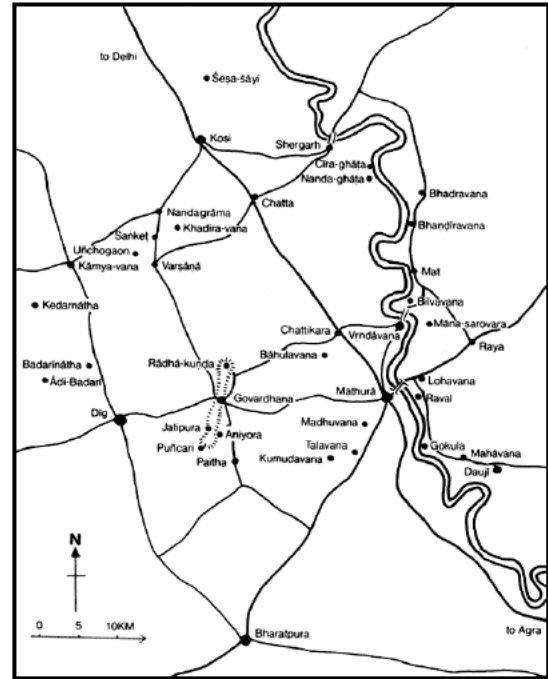


Fig.1. Location of Vrindavan (courtesy vrindavan-dham.com)

Vrindavan embraces Gokul and Govardhan which are associated with the childhood activities of Krishna, described in details in the *Bhagavata Purana*. The area around Mathura, known as Vraj(Brij)bhumi, has numerous old sites some of which have been excavated. Vrindavan, however, was lost in oblivion till CE1515 when Chaitanya Mahaprabhu rediscovered it with the purpose of locating the lost holy places associated with Lord Krishna's transcending pastimes. The foundation of the main temples here dates back to the visit of Akbar in CE 1570, but the temples suffered despoliation during the reign of Aurangzeb, who attempted to change the name of the place to Muminabad. After the third battle of Panipat in CE 1761, the Jats under Suraj Mal seized Mathura-Agra region and revived the old holy places. They were ejected from Agra in 1774 by Najaf Khan Rohilla though they kept their control over a small area around Bharatpur, including Bindraban. The revival of holy places by the Jats and subsequently has made Vrindavan a town of 5000 temples. It is said that the Jats set up a mint in the town in CE 1778 which is confirmed by the available coins of this mint struck in the name of Shah Alam II generally bearing the Hijri year and Shah Alam's regnal year. Before leaving Bindraban the Jats transferred the mint to Bharatpur from where they continued to strike silver coins known as Bindrabani rupees with the mint name of Bindraban on the reverse. In about 1784-85 (AH 1198/26) Bindraban came under the control of the Marathas and Daulat Rao Sindhiya established a mint in CE 1786 (AH 1200/28) from which the local street called the Taksalwali Gali derived its name. The area was occupied by the British in 1803. Maheshwari and Wiggins have catalogued all available silver rupees and copper paisas struck from Bindraban.<sup>2</sup> A new paisa of Bindraban (AH 1207/33) has come to my notice and is published here<sup>3</sup>:

It weighs approximately 7.8g and has a diameter of nearly 20mm. The obverse has preserved only a part of the legend reading *Badshah Ghazi 1207* while the reverse carries [Zar]b Bindraban *tira*[th] in the upper half with fish to right below it and [sanah]-3 at the bottom. There was probably a symbol above the *shin* of Badshah but its exact form is beyond recognition. Under the visible digit 3 of the regnal year on the reverse may be seen three dots in the form of an inverted triangle.



Fig.1 New paisa of Bindraban

It is thus a new type paisa not known earlier. The obverse bears the date 1207 and the reverse regnal year (3)3 of Shah Alam II corresponding to the Hijri date. The mint name bears the adjective *tirath* indicating clearly that the town was regarded as a place of pilgrimage by the Marathas because of its being the play ground of the activities of Lord Krishna. This adjective is not exclusive to Bindraban but has also been used with the name of Haridwar on some Maratha coins struck from there.<sup>4</sup>

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1. *The Imperial Gazetteer of India*, Vol. IX (1909), p. 17.
2. K.K. Maheshwari and Kenneth W. Wiggins, *Maratha Mints And Coinage*, Anjaneri: IIRNS, 1989, p. 147.
3. I am thankful to Shri R.K. and Vaibhava Aggarwal of Ambala for bringing this coin to my notice and also providing its details and scans for publication.
4. Maheshwari and Wiggins, *op. cit.*, p. 156.

## THE PURPOSE OF THE “PYRAMIS” MARKS FOUND ON SOME BRITISH INDIA COINS

By Henk Groenendijk

In his article “The myth of the diamond-shaped Lahore mint-mark”<sup>1</sup>, Dinyar D. Madon gives an overview of the literature concerning the tiny, pyramid shapes on some British India coins. These marks are raised and can be found randomly placed on both obverse and reverse. The number of marks on a given coin ranges from 1 to 4. The author correctly concludes that these “pyramis marks”, as he calls them, are not mintmarks. The author also states that he cannot give an explanation for these Marks.

In this note I will give an explanation of these marks and also of the characteristics observed. Pridmore, on page 89 of his catalogue<sup>2</sup>, writes the following about these pyramis marks: “*The quality of the special steel used in die-making has been a constant problem in all modern mints and research and experiments for improvement in the quality of the die steel is a continuing feature of mint production. The marks on the coins have been caused by some instrument with a fine diamond-shaped point, which appears to have been used to test the quality of the steel after sinking a die.*”

This explanation by Pridmore is correct. The actual test done on the dies is the so-called Vickers Hardness test<sup>3</sup>. Using this test, a pyramid shaped diamond point is pressed into a surface. From the resulting indentation and the force used, the hardness of the material can be calculated. A modern version of this Vickers Hardness test is shown on youtube<sup>4</sup>. The hardness of the surface is a major determinant of die life. Too soft a die will result in high wear and a short die life and hence higher minting costs as more dies will be needed for a given output of coins. In making a die, the material should be soft however, in order to take a complete impression of the hub. Achieving the required hardness for minting is done after hubbing by a heating and cooling cycle. The result of this hardening process critically depends not only upon the specific material, but also upon the exact temperatures and the rate of heating and cooling used. The hardness test is done as a quality control test, to determine if the correct hardness has been achieved and thus the hardening process has been done correctly. It is the hardness of the coining

surface that is important hence the pyramis marks are found on the face of the coins. In fact the other parts of the die, and especially the body, should not be too hard as this may result in early breakage of a die<sup>5</sup>.

The characteristics of the pyramis marks observed can be explained as follows:

- Both the obverse and reverse die have to be hardened and are possibly tested. The pyramis marks can thus be found on both sides of a coin;
- As several dies are simultaneously subjected to the hardening process, not all will have to be tested, so the pyramis mark can be on one side only or may even be absent;
- As the resulting hardness of a die will vary, the indentations are not all equally deep so the size of the pyramis marks will not be uniform;
- When the die is too soft it will not be discarded but subjected to another hardening cycle and, if again tested, this will result in more than one pyramis mark;
- To check for uniform hardness across the surface of a die more than one test may be made, also resulting in multiple marks;
- When the hardening process is under control hardness tests need to be done only sparsely, thus few coins will show a pyramis mark.

Although the pyramis marks are made by the mint they are an artefact of the minting processes and not mintmarks as they are not made to identify specific issues of coins. At the time probably not much thought was given by the mints to these tiny, unobtrusive marks. They did not take present day inquisitive collectors, armed with microscopes, into account!

#### Notes

<sup>1</sup> *Journal of the Oriental Numismatic Society* No. 22, Autumn 2015, pages 36 – 39.

<sup>2</sup> F. Pridmore, *The Coins of the British Commonwealth of Nations to the end of the reign of George VI, 1952. Part 4 India. Volume 2 Uniform Coinage East India Company 1835-58, Imperial Period 1858-1947*. Spink & Son Ltd. London 1980.

<sup>3</sup> This test was developed in 1921 at the British engineering company Vickers Ltd as an alternative to the Brinell method to measure the hardness of materials

<sup>4</sup> <https://www.youtube.com/watch?v=7Z90OZ7C2jI>

<sup>5</sup> Only scant attention is given to the mechanical properties of dies in the standard literature. See for example: B.N. Mukherjee and P.K.D. Lee, *Technology of Indian Coinage*. Indian Museum Calcutta 2000 (p. 46), or Denis R. Cooper, *The Art and Craft of Coin Making, A History of Minting Technology*. Spink & Son, London. 1988 (pp. 159-164). A more extensive description, from a modern view can be found in: Yasbandha, H., *Surface Engineering of Coinage Dies*, Doctor of Philosophy thesis, Faculty of Engineering, University of Wollongong, (pp. 15-23). 2001. <http://ro.uow.edu.au/theses/1838>

## LAST WORD: NUMISMATIC GAMES

By Robert Bracey

On a visit to India some years ago I acquired at the IIRNS, the Indian Institute for Research in Numismatic Studies located near Nasik, a copy of a card game published for the National Mission on Monuments and Antiquities. The card game is intended to educate as well as entertain and features cards with images of a coin on one side and information about the coin on the other.

The rules, explained on a single card are essentially those of a trivia game. Players must correctly identify the coin they are shown but can request clues – three of which are supplied for each coin. Points scored depend on the number of clues requested.

Games revolving around money really began in the early twentieth century with the publication of Pit (1903), The Landlords Game (1904), and The Money Game (1912), representing respectively the stock market, rental business, and primitive money. You may have heard of The Landlords Game under its more famous

title, Monopoly. Since then there have been many educational games about money, including an edition of the card game Sum-It made by Waddingtons to educate people about the change to decimal currency introduced in the UK in 1971.

The game from Nasik – Know Your Coins Learn Your History – is the only one I know of about Indian money and the only one specifically about numismatics.

For a flavour of the cards can you identify the state in which this coin was issued (no picture to make it a little harder), from the following three clues:

1. It was located in the north-eastern part of the country.
2. Its rulers adopted the title of Manikya
3. On many coins of this state, the motif of Lion is seen



Some cards from the game

### CONTENTS OF JOURNAL 227

	Page
ONS news and meetings:	1
TWO INTERESTING COUNTERMARKED ANCIENT INDIAN COINS by D. Raja Reddy	4
SOME NEW COIN TYPES FROM SURASENA by Pankaj Tandon	6
A NOTE ON FORGERIES OF BACTRIAN BRONZE COINS by Heinz Gawlik	7
BHADRAPURIKA – A NEW CITY STATE by Devendra Handa & Dr. Major M.K. Gupta	10
TWO NEW KṢĀHARĀTA KṢĀTRĀPAS by Harry Falk	10
KUSHAN WIMA TAKTO (C. AD 90-113) VARIATIONS IN ANEPIGRAPHIC OESHO/ARDOCHSHO COINS by Heinz Gawlik	12
THE QUESTION OF A STANDARD VS. A JAVELIN VS. A RAJADANDA ON GUPTA DYNASTY GOLD COINS. by Sanjeev Kumar	15
COINS OF THE BANAVASI KADAMBAS by Govindraya Prabhu Sanoor	18
A NOTE ON THE IDRISID FULŪS STRUCK BY RĀŠID B. QĀDĪM by Ludovic Liétard and Chafik T. Benchekroun	23
PAX MONGOLICA – COINS OF THE MONGOL EMPIRE COMMENTARIES ON AN ASHMOLEAN EXHIBITION by Marie Favereau	25
ASSESSING COUNTERMARKS ON A CORRODED SILVER <i>DACHAO TONGBAO</i> by Stephanie Ward and Lyce Jankowski	25
REVIEW OF SIRĀJ AL-DĪN SIKANDAR (?) SHĀH AND HIS COIN by Md. Shariful Islam	27
ORCHHA ZODIAC RUPEES REVISITED by John Deyell	29
A COPPER COIN OF TIRATH BINDRABAN by Devendra Handa	30
THE PURPOSE OF THE “PYRAMIS” MARKS FOUND ON SOME BRITISH INDIA COINS by Henk Groenendijk	31

