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### ONS NEWS

#### Meetings

##### New York

The North America section of the Society held its annual meeting in conjunction with the New York International Numismatic Convention on Saturday, 10 January, at the Waldorf-Astoria Hotel in New York. There were four speakers:

Michael Bates spoke on "How Ziyad made a name for himself." When he died in the year 674 at the age of 52, Ziyad bin Abi Sufyan governed the largest domain in Eurasia, commanded the largest army, and was the brother of the Caliph and the brother-in-law of the Prophet. But the patronymic "bin Abi Sufyan" was not one Ziyad was born with; Ziyad was the son of a prostitute and never knew who his father was. But the young man must have been talented, as he had a meteoric rise. He was initially known just as Ziyad bin Abihi (Ziyad, son of his father). His earliest coins did not even name him. As governor of Basra, Ziyad issued coins with the slogan *bism Allāh rabbī* (in the name of God my Lord). But in 670, Ziyad was named governor of the entire eastern portion of the Caliphate and issued coins naming himself Ziyad bin Abi Sufyan, along with the slogan *bism Allāh rabbī*. How he acquired this name was the scandal of the seventh century! For Abi Sufyan was the father of the then Caliph, Mu'awiya bin Abi Sufyan. What the Caliph did, most probably at Ziyad's behest, was to find witnesses who would swear that, at the time when Ziyad was conceived, Abi Sufyan was the only client of Ziyad's mother (remember, she was a prostitute) and therefore must have been Ziyad's father! In this way, Ziyad made a name for himself.



*Silver drachm of Ziyad bin Abi Sufyan  
(Bank of Canada Collection)*

Murli Narayan gave a brief "show and tell" on the Garuda coins of Vijay Raghava Nayaka (1634-73), the last Nayaka of Thanjavur (Tanjore). He issued an attractive series of coins in four denominations, featuring the image of Garuda, the eagle vehicle of the Hindu god Viṣṇu, on the obverse and his name *śrī rāghava* on the reverse.

Robert Schaaf talked about "Azarmidukht, the Bearded Queen," looking into the question of why the Sasanian queen, Azarmidukht (630-31), was depicted on her coins with a beard. He argued that while the coins were struck in her name, the representation itself was not of her, and that her faction, having no strong control of minting, and wanting to adhere to the type established by her father, Khusro II, were forced to recut whatever appropriate dies were available. These included Khusro II and perhaps Hormazd VI, as well as the beardless boy king, Khusro III. Examples of recutting were shown, which included the royal name, the mint and the regnal year.



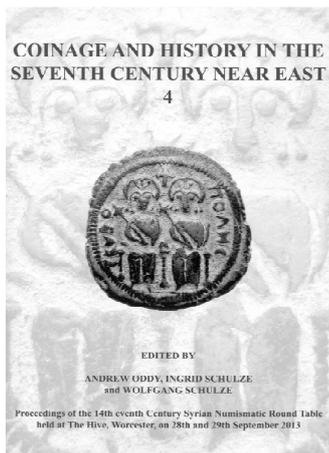
*Silver drachm of Azarmidukht, with recut name, mint and regnal year*

Finally, Aleksandr Naymark presented his new discoveries on the "Coinage of South Sogdia." This region had two active mints during the period from the 1<sup>st</sup> to the 4<sup>th</sup> centuries, but so far it has not been possible to assign the known coins to these mints. In his presentation, Naymark showed how, thanks to new discoveries, it has been possible to construct a complete sequence of coinage that must have been produced at the mint in Nakhshab. The sequence began with a coinage based on imitations of the coins of Eucratides. This was replaced by coins of the "Samarqand archer" type, with certain distinct features being characteristic of Nakhshab. The archer type eventually evolved into a "Swordbearer" type, which was the last silver coinage of Nakhshab. Over time, these coins grew more and more debased, eventually being reduced to nothing but copper. The final coinage of the sequence was a copper lion-slayer type. Constructing the sequence of coins at Nakhshab now allows us to settle a long-standing question: where were the so-called Zeus-Hercules types minted? Since they clearly belong outside the Nakhshab sequence, they must have been minted at the other mint, Kesh. Two other coin types, pre-dating but closely related to the Zeus-Hercules coins, namely the Alexander imitations and the coins of Phseighacaris, must also then have been minted at Kesh.





**New and Recent Publications**



Just published – April 2015  
*Proceedings of the Seventh Century Syria Numismatic Round Table*, held in Worcester, UK, in September 2013.

Contents:  
*James Howard-Johnston*, 'The Sasanian Empire at its apogee in the 620s';  
*Henri Pottier*, '7<sup>th</sup> century 'barbarous' folles: a secondary mint in the eastern part of the Byzantine Empire under Persian rule';

- Tony Goodwin*, 'Some aspects of 7<sup>th</sup> century Egyptian Byzantine coinage';
- Tasha Vorderstrasse*, 'Byzantine and early Islamic coinage at excavations in Jericho';
- Marcus Phillips*, 'Coinage and the early Arab state';
- Luke Treadwell*, 'Symbolism and meaning on the early Islamic copper coinage of Greater Syria';
- Gabriela Bijovsky*, 'Arab-Byzantine coins from excavations in Israel – an update';
- Ingrid Schulze*, 'Can we believe what is written on the coins? Enigmatic die links and other puzzles';
- David Woods*, 'Notes on two Imperial Image obverse types: the Falconer and the Seated Couple';
- Andrew Oddy*, 'The Phase 2 coinage of Scythopolis under Mu'awiya and his successors';
- Wolfgang Schulze and Andrew Oddy*, 'The spear on coins of the Byzantine-Arab transition period';
- Tony Goodwin*, 'The Egyptian Arab-Byzantine coinage';
- Trent Jonson*, 'The earliest Islamic copper coinage of north Africa';
- Lutz Ilich*, 'Marks and isolated words on copper coins issued by the 'Treasury of Aleppo' in 146-148 H: a clue to the interpretation of marks on early Islamic coppers?';
- Frank R. Trombley*, 'The Coinage of the Seleucia Isauriae and Isaura mints under Herakleios (ca.615-619) and related issues'.

Price £29.50 + UK postage of £3.90. (EU postage £10.96, USA postage £16.35, other destinations please inquire). Please email your order with delivery address to [waddy@googlemail.com](mailto:waddy@googlemail.com)

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*Numismatique Asiatique*, issue 13, March 2015, the review of the Société de Numismatique Asiatique, Nantes, France, has been published recently and includes the following items:

- Craig Greenbaum: 'The dating of Korean amulets'
- JD Gardère: 'Vers un Musée de l'Economie et de la Monnaie à Phnom Penh'
- 'Une curieuse monnaie cambodgienne'
- 'La collection Da Costa de monnaies du Siam'

'Le procédé de frappe des sapèques Bão Đai mis au point par René Mercier en 1933

A review (in French) of Jean-Daniel Gardère's book, *Money and Sovereignty. An exploration of the economic, political and monetary history of Cambodia*, Phnom Penh, 2010, pp728.

For more information please contact the Society at [numis.asi@orange.fr](mailto:numis.asi@orange.fr)

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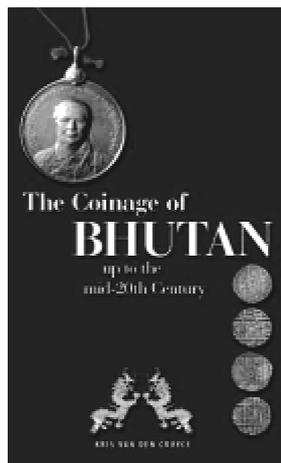
*The Numismatic Chronicle* vol. 174, published by the Royal Numismatic Society, London, 2014, includes the following items of Oriental interest:

- S. Glenn: 'Heliocles and Laodice of Bactria: a reconsideration'
- H.M. Malek: 'New coins from the reign of Kavad II'
- M. Alram: 'From the Sasanians to the Huns. New numismatic evidence from the Hindu Kush'
- S. Heidemann: 'A hoard from the time of the collapse of the Sasanian Empire (AD 638-9) – Part II; Analysis of the minting system of Ardashir III'
- A. Vardanyan & G. Zlobin: 'A mixed hoard of eleventh century coins found in Azerbaijan'
- M. Fedorov & A. Kuznetsov: 'A hoard of early-mediaeval drachms from the eastern Sogd'

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*Legends of Travancore - A Numismatic Heritage*, by Dr. Joseph Thomas. 275 pages (colour), 20 chapters; 'includes all documented coins of Travancore'. Price; IRs 1250/-.

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*The Coinage of Bhutan up to the Mid-20<sup>th</sup> Century*, by Kris van den Cruyce; ISBN: 9789090289403; Hard cover, A4, pp 176. Price: 65 euros plus postage. English text.

The author writes: "When K. Bronny published his catalogue of Bhutanese coins, apart from Nicholas Rhodes' publications, no extensive work on Bhutan numismatics was available. Ten years ago I started to collect and study Bhutanese coins and became more and more involved with this subject and decided to work out my own catalogue, completely independently of Bronny's work [see review in JONS 221, Ed.]. Because of the different approach taken by the two publications, I am confident that both catalogues will supplement rather than contradict each other. This new book is thus the result of a 10 year study. During that period, about 3200 coins were studied in total, of which 2400 form the basis of this book. They include coins of several important collections, the Rhodes collection being the most comprehensive and famous. All these coins were individually weighed, measured and photographed.

Images are included of some 'spectacular' pieces, like the early gold rupee. Hitherto, nothing had been published on the ancient golden and gold-washed coins. It is also the first time that the low-weight coins are given the attention they deserve, although they are sometimes difficult to recognise. Up to now these coins were attributed to "unofficial" mints and, therefore, considered as less interesting.

The 2400 coins are organised using a clear, comprehensive and straightforward classification system, splitting them up into 10 groups, 230 types and 675 variations. The classification system also has a fourth level, the die-variation. There are varieties for which more than 25 die-variations are known, but only one die-variation is shown. Otherwise the book would have had double the number of pages.

A 4 cm diameter illustration is provided for each major variation, allowing the reader to have a detailed view of the designs.

Very useful as well is the presence per type of a drawing, re-composing the original die, based upon available coins. For each type one can also see how many coins were studied.

At the end of the book, a chapter has been dedicated to dubious coins and forgeries, old and recent.

I have also decided to continue taking advantage of the internet and email. The book is a real starting point. People buying the book will receive, after registration, a yearly update with new types, varieties, better pictures, and will, thus, be kept informed of new discoveries.

Why this approach? Already by the time the catalogue was being printed, I had seen or acquired a few hundred coins which are not classified nor included in the book – many of them being low-weight coins. By sending these yearly updates I can share the results of the never-ending story of discoveries with the world of coin collectors. I hope to do this for at least the next 25 years. Another advantage of internet postings is that the low-weight coins show little relief in print, which makes it difficult to have a clear image. A picture seen on the screen solves this problem.”

A flyer can be [REDACTED]

## Other News

### 24<sup>th</sup> Shukla Day Exhibition and Coin Fair in Mumbai – Honouring the memory of a scholar-collector

Mumbai's World Trade Centre hosted yet another successful Coin Fair from 17 to 19 April albeit with a difference. This two-and-half decade old (af)fair called Shukla Day Coin Fair owes its origin to the commitment of Farokh Todywalla to commemorate the memory of his preceptor, noted numismatist, S. M. Shukla. Shuklaji (1910-1992) as he was known was born on 24 April 1910 in Mumbai and mentored a generation of numismatists in Mumbai by orienting their collecting interests towards Indian coins. In Mr Todywalla's own words, "One day in 1967 Bapuji (Mr. Shukla) visited my home and sorted my grandfather's coins neatly into Indian coin series. To my amazement, he put the rest into the waste paper basket and, pointing to the Indian coins, he said "You must concentrate on those series only."



and R. D. Bhatt who benefited not only from his knowledge of various series but he also provided them some coins for study and collection.

Thus, when Shuklaji passed away in March 1992, Farokh Todywalla began a tradition of commemorating his birthday on 24 April by organizing an Exhibition-cum-Coin Fair. On its twenty-fourth anniversary this year, Shukla Day Coin Fair saw 101 stalls of various coin, banknote and stamp dealers who exhibited their wares to a discerning public. The Indian numismatic community supported the fair by sending representatives from various parts of the country as it served as a networking platform for various collectors and dealers. The ONS was allotted a free stall by Mr Todywalla for the second consecutive year as a mark of support for

In addition to Mr. Todywalla, many collectors from Mumbai benefited from Mr Shukla's Sunday sessions for over three decades at his modest terrace home in Raval Building at Lamington Road in South Mumbai. These included veterans like R.T. Somaiya, Pervez R. Patel, Jagdishbhai Gandhi, Daamji Shah and Pukhraj Surana. Mr Shukla also mentored younger collectors like Girish Veera, Dhiren Gala, Haresh Gala, Dilip Rajgor

its activities in the sub-continent. The Shukla Day had 2 coin exhibitions, one by Shuklaji's student, Haresh Gala, on Mughal copper coins and another by Zuber Motiwala on coins of Lunavada. In their effort to boost exhibits, the organizers announced cash prizes for the 3 best exhibits for the twenty-fifth edition. These exhibits help in increasing the social outreach of the fair to a large number of impressionable school and college students who visit the fair each year at the invitation of the organizers. The Shukla Day also had five successful auctions including three by Todywalla Auctions, one each by Oswal Auctions and Bombay Auctions. Thus, the Shukla Day Coin Fair has come to encapsulate the vision of a collector-scholar who helped the hobby thrive in its early period, and has served its purpose in more than one way for all sections of Indian numismatics under one roof. I would like to thank Farokh Todywalla and Girish Veera for their input regarding this report.

Mahesh Kalra

## Book Reviews

Klaus Vondrovec, *Coinage of the Iranian Huns and their Successors from Bactria to Gandhara (4<sup>th</sup> to 8<sup>th</sup> century CE)*, Studies in the Aman ur Rahman Collection Vols. 4, Verlag der Österreichischen Akademie der Wissenschaften, Vienna, 2014: 2 vols, pp.960.

Matthias Pfisterer (with type drawings by Theresa Eipeldauer), *Hunne in Indien: Die Münzen der Kidariten und Alchan aus dem Bernischen Historischen Museum und der Sammlung Jean-Pierre Righetti*, Österreichischen Akademie der Wissenschaften, 2013: pp.333

Reviewed by Robert Bracey

These two books are both sylloges, in the sense that they publish the contents of particular collections. In the case of Vondrovec's *Coinage of the Iranian Huns* (KV) the collection of Aman ur Rahman, and in the case of Pfisterer's *Hunnen in Indien* (MP) the collection of Jean-Pierre Righetti and the collection at the Bern Historisches Museum. They cover what Robert Göbl termed the 'Iranian Huns', whose coins were issued from the mid-fourth century until the arrival of Arabs in Afghanistan and Pakistan. MP covers just the Kidarites and Alchons, while Vondrovec also takes in the Nezak, Hephthalites, and Western Turks. In addition to the catalogue, KV gives overviews of the coinage and history, and MP includes lengthy discussions of different series of Alchon coins.

The books are organised differently and this review will follow the organisation of KV. This is because the text of MP is in German. With modern software that is no longer an insurmountable barrier but this reviewer does not feel comfortable to discuss the lengthy arguments. MP can be divided in two: in the first part (to p.196) is the discussion of the iconography, which is well illustrated with many enlargements of coin details and drawings, as well as tables illustrating iconographic development. This tends to focus on particular groups, or series, which are tabulated in each section. There are nine main sections, all examining the Alchons in broadly chronological order. This is followed by a short section (p.197-204) listing the various inscriptions which appear on the coins. The two volumes by KV break up the catalogue into ten sections. In each section KV has a text which first explains the organisation of the coinage and then discusses the historical background before introducing a catalogue of the coinage.

Both books present similar catalogue entries, with 1:1 images of each example. The type numbers follow those of Robert Göbl but are organised differently. MP arranges the catalogue in type number order as a single section. KV arranges the types according to his own reconstruction and divides the catalogue amongst the ten sections. This review will follow the order presented in KV.

The first three sections cover the Kidarites. The Kidarites, named after the ruler Kidara, whose coins are most common, are the earliest of the Hunnic groups. The Roman author, Priscus, uses the name for a Hunnic group in the mid-fifth century but that is much later than most of the coins, which seem to belong to the late fourth

century. KV discusses this basic problem quite ably (p.45-49). The Kidarites seem to have established political control over areas in Afghanistan and Pakistan controlled by several different dynasties, including the Sasanians, the Kushanshah Wahram, and the Kushan state in the Punjab. They, therefore, continue each of these disparate coinage traditions. Zeymal, as noted in KV (p.48), has even attributed to them a small Sogdian coinage.

Following Göbl, KV and MP deal only with a subset of the coinage. The silver drachms derived from Sasanian types are covered in chapter 1 of KV and in the catalogue of MP. KV also covers in chapter 1 issues of copper that exhibit Kidarite influence. These have become well known as a result of the publications by Nasim Khan (2008) on the caves at Kashmir Smast. The Aman ur Rahman collection hugely increases the number of types known and KV gives them a systematic treatment. Those which can be linked typologically to Kidarite, Alchon, or Sasanian issues are included in those sections of the catalogue. The rest are placed in chapter 10.

KV's chapter 2 includes the Kidarite gold coinage, which derives from the issues of Wahram, the last Kushanshah. The Kushanshah was established after the defeat of the Kushan Empire by the Sasanians in c.AD 230 but by the mid-fourth century had begun to collapse, leading to the first of many direct interventions by the Sasanian kings, this time under Shapur II (AD 309-379). The issues of the Sasanian emperor, Peroz (AD 459-484), and the Alchon rulers, Mehama and Adomano, which continue the typology of the Kidarite types, are also included in this chapter.

KV's treatment of the copper material is entirely new and hugely important. MP identifies three new types in the Kidarite silver (types 10A, 18A, and 18B). However, neither is complete, either in terms of representing all types or in representing the whole Kidarite coinage. The Kidarites also issued coins succeeding the gold coinage of the Kushan Empire, probably in the northern Punjab, which ultimately influenced a very long-lived series in Kashmir. The closest to a complete account of this remains that by Cribb (2010) though both of these volumes add material.

The main purpose of the Kidarites being included in both volumes is that they provide a numismatic prelude to the coins of the Alchons. The Alchons (Alchan/Alkhan) are the principle focus of MP and a major part of KV (pages 159 to 386). As explained in KV (p.159ff), Alchon is a numismatic term, usually ignored by scholars from other disciplines, who continue to subsume them under the terms Hephthalite or Hun. These coins are connected together by the use of the term, a connected group of tamgas, and portraits in which the rulers have deformed skulls. The first coins copy Shapur III (AD 383-388) and so commence in the late fourth century, and Alchon coinage continues to be issued until the sixth century.

A problem that KV returns to on numerous occasions is the lack of provenance for most coins. The known hoards are small in number, and many types have no recorded find spots. Establishing where coinage was circulated and, therefore, where particular kings ruled involves a great deal of guess-work. So when KV attributes the earliest Alchon coinage to Kabul (p.177) it is on relatively slight evidence. One of the difficulties is that there must have been multiple Alchon polities issuing coins simultaneously. The group Khingala, Mehama, and Lakhana, must be distinct from what KV terms the 'eastern Alchons' (p.202ff), Adamano, Purvaditya, Triloka, excepting perhaps the overlap of Javukha between them. And the 'Indian Alchons' (p.211ff) of the early to mid-sixth century, Toramana, Mihirakula, Barana, Narendra, are distinct from both. One of the few clues, other than the coins, to resolving this issue is the year 68 copper scroll recently published by Meltzer (2006).

This scroll records a donation at a Buddhist site and mentions the names of several of these kings: Khingala, Toramana, Mehama, and Javukha. KV takes this at face value and assumes these kings were all ruling in the year 68, which, on the assumption it is the Laukika era, is AD 492/3. If the scroll was dedicated in eastern Bactria at Talaqan and was dedicated in the kingdom of Mehama then Mehama may be identical with the Khar of Rob, whose archives form such a large part of the Bactrian documents published in the last twenty years. This is very interesting as one of

the few fixed dates in the chronology of this period is the defeat of the Sasanian king Peroz by the Hephthalites in AD 484, and it would mean that Alchon rulers continued to rule and issue coins in Southern and Eastern Bactria, even while subject to the Hephthalites.

Almost every aspect of Melzer's interpretation of the scroll is open to challenge. The era of the date is uncertain and La Vaissière (2007) has challenged both the assumption the kings were contemporary and that the scroll was dedicated in Afghanistan, preferring a location south of the Hindu Kush more compatible with the bulk of Alchon territory.

The difference between MP and KV is well illustrated here. Where KV simply summarises the evidence, each section of MP develops an argument around a particular group of coins. So in Fig.3.5.8-10 MP illustrates the sharing of types, what he refers to as a common minting, 'Gemeinschaftsprägung', between Khingala, Javukha, Lakhana, and Mehama. In the year 68 copper scroll the four kings mentioned are the same as his 'Gemeinschaftsprägung' except that Toramana replaces Lakhana. MP rejects the argument by La Vaissière that some of these kings may have been deceased at the time of the scroll. The strong similarity of this common striking, and the occurrence of four kings in both places he suggests, tentatively, may represent a formal four-fold division of the Alchon kingdom in which Lakhana is succeeded by Toramana in the most southerly part.

Chapter 4 of KV is dedicated to the coins of Tobazini, an issue in the early fifth century, probably in Bactria. This is followed by chapter 5 on the Hephthalites. The coins which use 'eb' on their obverse as an abbreviation of 'ebodalo' or Hephthalite base their designs on the types of the Sasanian emperor, Peroz, who textual sources tell us was defeated by the Hephthalites in AD 474 (p.405-6). The Hephthalites dominated Bactria until AD 560 when they were defeated by an alliance between the Sasanians and the Western Turks.

However, it should be remembered that, though KV gives the story sequentially, there are in fact several parallel numismatic (and historical) narratives here. It is precisely in the early Hephthalite period that the Alchons were achieving their greatest geographic power, ranging from the southern borders of Bactria to the northern parts of India. From about AD 500 until the defeat of the Hephthalites there were issues of Nezak coins from the Kabul and Zabulistan regions, two series known as the 'š' and 'ā' groups. KV ably outlines the relative chronologies of this group, though he is very uncertain at various points about which group to assign to which region (see particularly p.486-8). The Nezak coins are clearly distinguished by the use of a bull's head on their crowns, but they represent another of the mismatches between textual and numismatic evidence that plagues the study of Iranian Huns. All the textual evidence, as KV explains, relates to the period AD 651-710, and so is connected to a later but related group of coins which continues the 'ā' group.

There are major changes after AD 560, when the Hephthalites are defeated, and for a time the Sasanians had a mint at Balkh, known for the years 9 to 11 of Ohrmazd IV and the year 2 of Wahram VI (AD 588-590), and a mint at Rakhvad in Zabulistan (p.518), AD 588-593. The order of the chapters at this point will confuse readers a little. KV places the chapter about the Sasanian coins (chapter 6) before the chapter on the Imperial Nezak (chapter 7), though chronologically they follow. Likewise the successors of the Nezak, the Alkhan-Nezak (chapter 8) and the later Nezak, are split up, with the later Nezak being included in the Western Turks (chapter 9). The Alkhan-Nezak are also discussed in MP in section 3.9 on the end of the Alkhans.

Chapter 9 on the Western Turks is another very large section (p.509-696). It is not really clear why this is presented as a single chapter rather than being subdivided into the continuations of the Nezak, and the three geographic divisions of Bactria, Khorasan, and Zabulistan, which is how the text and catalogue are ordered. This chapter encompasses a substantial period, from the defeat of the Hephthalites in AD 560 to the battle of Talas in AD 750, as long again as the previous sections. With the end of the Sasanian Empire there is of course an end to Sasanian-inspired coinages in Bactria, though they continue in India for several centuries. The

numismatics of this period are complex and the accounts in KV are valuable guides, quite independent of the usefulness of new material in the catalogues.

The final chapter 10 is a miscellaneous section to cover all of the copper from Gandhara which could not be linked to any particular Hunnic group. This is followed by a typological overview showing one to one images of each type as a quick reference, and then various concordances all of which are very useful. The one frustration is that KV, unlike MP, does not retain the order of Göbl's type numbers in the catalogue and does not include a concordance from type number to page number, necessitating most users to prepare one themselves (see [https://www.academia.edu/11844743/Concordance\\_for\\_Iranian\\_Huns](https://www.academia.edu/11844743/Concordance_for_Iranian_Huns)).

It is understandable but unfortunate that both volumes have used Robert Göbl's type numbers. Göbl himself expanded the numbers subsequent to his initial publication (1967, 1983, 1987, 1993) and both KV and MP add expansions of their own. So in a few cases a number now refers to multiple types, for example 18B could indicate a previously unpublished type in MP or the Cribb (2010) type D6 in KV (p.70). In some cases, such as the Kota rulers of the Punjab, a group which is not Hunnic was included by Göbl but has since been excluded by others working on the coins; so there is a gap in the series.

Unfortunately neither MP nor KV took the opportunity to extend the definition of Iranian Huns. KV does not include those Alchon coins struck in Gupta style with the title Prakashaditya (Tandon, 2015) though Göbl realised as early as 1990 that the coins were Hunnic. MP does, and discusses the type on p.148. Neither includes the coinage of Sind, which commences in the fourth century with gold issues which imitate the coinages of the Sasanians and is succeeded by silver issues in the names of Ranaditya, Bhima, Yaashaditya, and Pracandendra. Numismatically, as coins derivative of contemporary Sasanian types, they fit into the general pattern of Hunnic coinage, and the testimony of Hsuan Tsang and Taranatha suggests that Multan at least was subject to Hunnic rulers. The changing devices before the face of the king on the Sind coins are reminiscent of the tables of changing symbols presented by MP for Purvraditya and Zabocho, and a full picture of the Iranian Huns, and particularly the Alchons, needs the inclusion of these types.

These omissions cannot reasonably be held as criticism of either of these publications. They are principally sylloges of important collections. In that respect they are well laid out and the photographs are of high resolution, though those in KV are darker than is ideal. In addition, both offer new material: KV a detailed summary of current understandings of the numismatics and associated evidence, MP a lengthy analysis of the iconography of the Alchons and of particular series. In the process, by their additions and revisions they illustrate the need for a replacement for Göbl's *Iranian Huns* though they are not intended to do that. Both volumes will be essential reading for anyone with an interest in the period.

#### A few apparent errors

MP p.306 Item 'g' in the table is labelled as type 306, which it clearly is not.

KV p.95 and 96 both types K8 and K9 are referenced to Khan 303-306. 303 is K8 – the other two are very worn. The illustration and text suggest the difference between K9 and K8 is the absence of the crescent and traces of legend, however on K9-1, Khan 305 and 306 that part of the coin is not visible. On K9-2 I feel sure I can see traces of the crescent in the picture. I am doubtful about this being a distinct type.

Khan 503 and 504 are GC-A 1 not GC-A 3 as listed, though Khan 510 does appear to be.

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## Articles

### THE CHRONOLOGICAL FRAMEWORK OF AKSUMITE COINAGE IN ITS FIRST HUNDRED YEARS

(AFTER AD 295 TO C. 400)\*

### IV) THE METROLOGICAL AND TYPOLOGICAL EVOLUTION UNDER KINGS EZANAS AND OUAZEBAS

By Wolfgang Hahn

#### The pagan Period of Ezanas (c. 345 – 360)

#### EZANAS, pagan



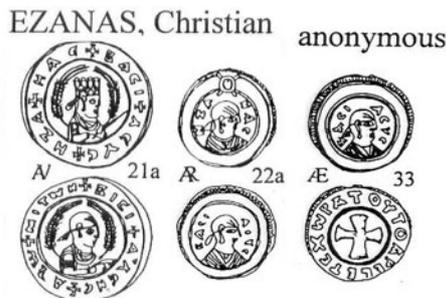
As long as Ezanas followed the old dynastic cult there was no need for typological innovation in his coinage. The use of issue marks on the gold coins (H.17) continued as it had been under Ousanas. The clan name of the king (Alene) is always written with a *spiritus lenis* (placed after the vowel) at the beginning, as an equivalent of the Semitic *ain*; some dies of the gold coins also have it in the king's personal name.

Both the silver denominations declined in weight, probably by one-eighth; thus the larger coin (H.22b, with the triple rim) fell to a standard weight of 0.85g (=1/32 ounce) and the smaller coin (H.18, with clipeus) to 0.42g (=1/64 ounce), which also meant that 32 larger or 64 smaller silver coins equated to one chrysos. Overstriking on coins of his two predecessors is occasionally observed.

The copper coins, which are still only known in limited numbers (probably because they were mostly recoined after Christianisation), seem to have undergone a similar weight

reduction. The lepton (H.20) resumed the ear of corn from Aphilas' time, but combined it with an obverse legend (containing the king's name) whilst the reverse (with his title) has the bust with the three rims in parallel to the contemporary silver type. As these rims are the symbols carrying the religious message, an uncertainty arose whether it was necessary to keep the crescent at all. Besides, both silver types were also used directly for the striking of copper coins (H.23 and 19), possibly a practice to make more use of existing dies, if it was not intended to have more than one copper denomination.

### Ezanas the Christian (360 - up to 380?)



The date of the change in the king's religious cult as manifested in his coinage is of no less importance for the numismatic chronology than for the history of religion in Ethiopia. If we, heretically, set aside the hagiographic tales in the church historiography because of their romantic character<sup>1</sup> two authentic testimonies of literary and epigraphical nature are extant only (besides the coins): the much quoted letter<sup>2</sup> of the Roman emperor, Constantius II, addressed to Ezanas, and the latter's victory inscriptions. The letter was most probably written in 356 and, amongst the inscriptions, there is one with thanksgiving to the Christian Trinity<sup>3</sup> and a dating by day, month and week, which can be calculated as coinciding with three possible years (349, 355 and 360)<sup>4</sup>. The most probable of these seems to be the lattermost, not only because it matches the numismatic circumstances best, but also because the beginning of an Ethiopian era (amata mährat = era of mercy) was later reckoned from the 76<sup>th</sup> year of the era of martyrs (=Diocletianic era counting from 284)<sup>5</sup> and this leads us to 359/60. Perhaps the king's victory reported in the inscription was decisive in winning him over to the new religion – part of a cultural process which can be seen as an *imitatio imperii Romani* – and Frumentius might have been the intermediary.

\* Prepared with the kind assistance of Vincent West from an article originally published in German (*Mitteilungsblatt des Instituts für Numismatik und Geldgeschichte der Universität Wien* 49, 2014, 16-22)

<sup>1</sup> In the form of a novelette entitled *Aedesius gone astray in Ethiopia*, Vienna 2009, I tried to cope with this sort of tradition in an adequate way; earlier, F. Thelamon, *Païens et chrétiens au IV<sup>e</sup> siècle – L'apport de l'Histoire Ecclésiastique de Rufin d'Aquilée*, Paris 1981, p.48 thought of an "imagination" by the first narrator of the tale.

<sup>2</sup> It is preserved within the writings of Saint Athanasius, the patriarch of Alexandria (*Apologia ad Constantium*, Patrologia Graeca 25, Paris 1834, 636) and requests the rulers of Aksum, Ezanas and Saizanas to extradict Frumentius for reorientation because he had unlawfully been ordained bishop by Athanasius. When the letter was written, the arrival of Frumentius in Aksum seems to have not been known to the imperial court. He, therefore, must have been ordained during Athanasius' third term of office (346/56). In the *Apologia* the exotic rulers are called tyrants by Athanasius, which term was thought appropriate for rulers of a city (in this case Aksum) whereas a basileus (king) had to be appointed by the Roman emperor. There might be a connection with the emphasis on the title *basileus* of the *Abyssinians* on 5<sup>th</sup> century gold coins (from king Noe onwards).

<sup>3</sup> *Recueil des inscriptions de l'Ethiopie*, Paris 1991-, no.271.

<sup>4</sup> F. Anfray, A.Caquot, R. Schneider, Une nouvelle inscription grecque d'Ezana, *Journal des Savants* 1070, 1970, 260-74 (cf. p. 269); the inscription refers to a Saturday, 4<sup>th</sup> of March (Julian Calendar).

<sup>5</sup> O. Neugebauer, *Ethiopic Astronomy and Computus*, *Sitzungsberichte d. phil.-hist. Klasse d. Österr. Akademie d. Wissenschaften* 347, Vienna 1979, pp.16ff.

If we, therefore, estimate Ezanas' pagan rule as lasting for roughly 1½ decades we should be able to conclude the total duration of his reign from the relation between the number of (calculated) dies engaged in the striking of his pagan coins against that of the Christian period, provided the metal supply (chiefly that of gold) for the mint did not suffer abrupt changes<sup>6</sup>. There is, however, a problem in the existence of two varieties to be observed in Ezanas' Christian gold coins and it is not unlikely that one was issued posthumously. Thus we should have to divide the Ezanas coinage into three parts and, transferring the number of dies<sup>7</sup> into periods, the approximate result would be: c.345-60, 360-c.380, c.380-c.395. So Ezanas would have had a reign of around 35 years<sup>8</sup> and gold coins continued to be struck in his renowned name by a successor, i.e. Ouazebas, of whom only copper coins are known (see below).

The chrysoi of Ezanas' Christian period (H.21a) have his image together with the ears of corn surrounded by a clipeus outside of which there are four small Greek crosses interrupting the circumscription at 12, 3, 6 and 9 o'clock. There is another cosmological symbolism behind this as the four crosses apparently stand for the universal dominance of Christ to the four ends of the world, a prerequisite of His second coming<sup>9</sup>.

The legends of these chrysoi still start at 6 o'clock (with the cross at the bottom) and on both sides unabbreviated, but the division into the four quadrants appears uneven. The notation of the *spiritus lenis* is restricted to the clan name on the reverse. The drawing of the dies is standardised and privy marks are almost completely lacking.

Only the silver denomination with the triple rim was continued (H.22a) and a small, but significant symbol was added: over the king's head a solar (luminous) cross in the shape of a gilt disc with four rays (like an oblique cross) beams over the triple rim. Here the gilding for the first time is merely used as means of emphasising a pictorial detail (not for substantially increasing the value of the coin). This luminous cross will play a significant part in the subsequent Aksumite coinage<sup>10</sup>.

The Christianisation of the copper coins was no less spectacular. On their obverse the ear of corn was replaced by a large cross within a round shield (H.33) and a corresponding circumscription; it must be taken for an *imago clipeata* of Christ which, of course, took precedence in hierarchy over the king's bust and legend, which was confined to the reverse, with its triple rim and only mentioning the title, basi-leus. The result was an "anonymous" type and this could have been issued for a long time following the death of Ezanas; in fact it is the most commonly found coin of Aksum and it had the widest distribution, even outside Ethiopia<sup>11</sup>. The obverse legend consists of the peculiar Greek motto *touto arese te chora* = "this (sign) may please the country"; it seems to derive from a juridical formula, perhaps the title of a conversion decree, as the verb *areskein* was a special term used in official resolutions<sup>12</sup>. This is the first case of a religious

<sup>6</sup> This supposes that the local mining and washing of gold remained stable over longer periods; cf. W. Smidt, *Stammte das Gold der Aksumiten doch aus Tigray?* – Lokale Traditionen widersprechen antiken Quellen, *Money Trend* 45/9, 2013, 186-91.

<sup>7</sup> The relation is 19 : 25 : 20.

<sup>8</sup> The medieval kings' lists which are, from a historical viewpoint, almost worthless give him 30 years; such a long reign appears to compare him to St Constantine the Great.

<sup>9</sup> Mark 13, 10. For a detailed treatise cf. W. Hahn, Symbols of pagan and Christian worship on Aksumite coins, *Nubica et Aethiopica* 4/5, 1999, 431-54.

<sup>10</sup> For an extensive discussion cf. W. Hahn, Diener des Kreuzes – Zur christlichen Münztypologie der Könige von Abessinien in spätantiker Zeit, *Money Trend* 32/6, 2000, 58-63 and: St Cyril's holy cross cult in Jerusalem and Aksumite coin typology, *Israel Numismatic Journal* 13, 1999, 103-17. The appearance of a shining cross in the skies over Jerusalem in 348 had a widespread effect on the Christian propaganda of this time.

<sup>11</sup> It was found in Nubia, Egypt and Palestine, but the occurrence of many miniature copies which were cast in Egypt (amongst Roman coin types) from shrunken moulds as a kind of token money must be taken into account.

<sup>12</sup> Cf. W. Hahn, The anonymous coinage of Aksum – typological concept and religious significance, *ONS Newsletter* 184, Summer 2005, 6-8.

slogan used as a legend on Aksumite coins and it appears repeatedly later on.

### What happened subsequently: the development under Ouazebas



As we have already understood, there was no Ousanas II as co-ruler and/or successor to Ezanas<sup>13</sup> and the king's "brother", Saizanas, who is known from the Constantius letter and some inscriptions, does not appear in the coinage, where a certain immobilisation took place. Nevertheless, there are changes in metrology to be observed. The second variety of the gold coins struck in the name of Ezana (H.21b) adheres to a lighter weight standard resulting from a reduction by a quarter; so they came down to 30 chalkoi in weight = 12 habba =  $\frac{1}{16}$  ounce =  $\frac{1}{192}$  pound (= 9 Roman carats = 1.70g).

This was certainly not an issue of a separate denomination in parallel to the other variety (H.21a) but its replacement, as is confirmed by hoard evidence<sup>14</sup>. All of the later chrysoi were struck on this standard. Though it is also known as the  $\frac{3}{8}$  solidus of 9 carats in Rome, no connection can be surmised because this Roman pendant coin was only a ceremonial coin then and was replaced by the  $\frac{1}{3}$  solidus of 8 carats (tremissis, 1.51g) in c.385<sup>15</sup> – never to be adopted into the Aksumite coinage system as it could not be defined in chalkoi of weight.

Again, we can only speculate on the causes of the weight reduction of the Aksumite chrysoi and try to connect it with a value change in the relation of silver to gold, perhaps resulting from a shortage of silver. If the ratio was reduced to 1 : 15 the new chrysos of 30 chalkoi weight was worth 30 argyroi and the argyros, which had half the weight of the chrysos (15 chalkoi), corresponded to a value of 1 chalkous gold (0.0567g) – round numbers indeed and a deterioration in fineness would not interfere if it affected both metals concurrently.

The reduced chrysos was indicated (at least to insiders) by a small typological variation: the obverse legend now starts at 12 o'clock (which means an invocation with the upper cross like crossing oneself) whereas the reverse legend continues at 3 o'clock; resorting to abbreviations, a more balanced division of the legends (into 4 x 3 letters) was achieved, but the writing suffers from an increasing degeneration (C = C = □ = B; A = Λ; N = H; Ξ = I and inversions). Issue marks are now found on many of the coins, either placed over the king's head or to the left of the bust: there we find dots as before, but also letters (numbers?). The obverse legend was cut short by removing the terminal C (=s) at the ends of the king's name and title. Thus, we may get the impression of vocative case forms (which, on posthumous coins, would not be without sense)<sup>16</sup>.

But who was the king succeeding Ezanas and declaring his name on coins? Most probably it is Ouazebas who fills the gap<sup>17</sup>. The name of this king appears to be the Greek form of Wzb, but he cannot be the same person as the Wzb who issued pagan coins half

a century earlier (H.15, 16). The question as to why only copper coins exist with the name of the Christian Ouazebas – struck simultaneously with other coins of either posthumous or anonymous character – can be answered by pointing out that they represent a new denomination which had to declare the name of the initiator by whom it was authorised. It seems that they were intended to have double the weight<sup>18</sup> of the anonymous coppers, but they must have had more than double the value because of the gilding which was applied to the round shield image on one side. This is the first appearance of gilding on copper coins and it can be interpreted as a functional parallel to its earlier use on the silver coins ("chrysargyroi") of Aphilas (H.8) and Ousanas (H.14a) increasing the material value of the coins. According to this model the type consists of a royal image on both sides.

The side with the king's name and title shows his bust as it had been under Ousanas, encircled by the ears of corn, but, of course, with a cross above (initiating the legend). On the side with the clipeus we read the *touto arese te chora* slogan which was taken from the anonymous lepta. It does not seem to match the image<sup>19</sup>, i.e. the king, but it must refer to the cross at 12 o'clock and, as suggested by R. Keck, there is a strong probability that the bust in the clipeus is not that of Ouazebas – rather, that of the deceased Ezanas from whom the slogan stemmed. The fact that the bust itself is not gilt (like that of Aphilas and Ousanas in pagan times), only the halo, may be significant: the immortalised king does not radiate but he is illuminated by the divine light. Such a typological composition would stand in line with the issuing of posthumous Ezana gold coins and it is the only case where a Christian king of Aksum is honoured by a gilt halo.

As in the case of the "chrysargyroi" previously, the gilding determined a certain part of the new denomination's value, the copper being the carrier of the gold. If there was in fact a temporary shortage of silver an additional value could have been desirable as a substitute, so that we should reckon with a fraction of the argyros. It remains uncertain, however, which fraction it was intended to represent and there seems to be no way to be sure. We may, however, play with some reflections: a fraction of e.g.  $\frac{1}{2}$  argyros (=  $\frac{1}{60}$  chrysos) would require a gilding of  $\frac{1}{2}$  weight chalkous gold (0.028g); smaller fractions like  $\frac{1}{3}$ ,  $\frac{1}{4}$ , down to  $\frac{1}{6}$  argyros accordingly less. On the other hand, the new denomination should also have been a round multiple of the copper lepton, the exchange rate of which depended on the ratio of gold and copper. At this point we can only refer to the conditions in the Roman empire as a guideline. The only relevant source of approximately the same time is a decree published in 396 which sets an exchange rate of 1 : 1800, but we do not know whether this was a confirmation of an actual valuation or the legalisation of an alteration<sup>20</sup>. Deducing from it a theoretical value of 2700 lepta (weighing 54.000 chalkoi of copper) to buy one chrysos we should need at least 15 lepta for one Ouazebas coin if it represented not more than  $\frac{1}{6}$  argyros. Anyway the Ouazebas coppers are the last coins on which the partial gilding was used as a value-adding component.

<sup>13</sup> Cf. JONS 221, Autumn 2014, 7-9.

<sup>14</sup> Whereas the Okelis hoard contained only coins up to the first Christian Ezanas variety, the oldest coins in the Al Madhariba hoard were those of the second variety, cf. W. Hahn, Eine Spurensuche im alten Jemen – vom axumitischen Okelis zum türkischen Scheich Said, *Money Trend* 32/10, 2000, 58-63.

<sup>15</sup> This Roman denomination was the equivalent of 24 scripula (=144 carats) in weight of silver in the form of 6 miliaresia = 12 light siliquae = 8 argentei if we suppose a 1 : 18 ratio of the metals.

<sup>16</sup> For the use of the vocative on Roman coins cf. J.P.C. Kent, Gallienae Auguste, *Num.Chron.* 1973, 64-8.

<sup>17</sup> The Ouazebas entry in the *Encyclopaedia Aethiopia* 4, p.81 (G. Fiaccadori) prefers to move him into a much later time, viz. after "Eon" (i.e. Noe) in the 5<sup>th</sup> century, but this is unfounded.

<sup>18</sup> The weight norm of the copper coins can only be guessed because of the large margins to be observed even when dealing with well-preserved examples (which are less commonly met with): the Ouazebas coppers fluctuate between 1,8g and 3,25g whereas the anonymous lepton may have been struck on a theoretical standard of  $\frac{1}{24}$  ounce (1,13g).

<sup>19</sup> So it is understandable that, by error, this legend could have been written on a die of the other side, cf. V. West, 'A variety of king Ouazebas of Aksum', *Num. Circ.* 95, 1987, 39; even a mule struck from two dies with the slogan is known (Spink 181, March 2006, 1094).

<sup>20</sup> *Codex Theodosianus* 11, 21, 2; there the solidus of  $\frac{1}{72}$  pound gold is rated at 25 pounds copper.

## THE COPPER COINS OF THE SASANIAN USURPER VISTAHM<sup>21</sup>

By Nikolaus Schindel

Recently, Bob Schaaf and I had the chance to see a small collection of Sasanian coins. There, we came across a small bronze (no. 2) which struck us as somewhat unusual: it already used the phrase *ʾpzw̄n GDH, afz̄un khwarrah* (“royal glory, increase”) in the obverse legend introduced by Khusro II (590–628) at the beginning of his 2<sup>nd</sup> reign. Yet, this coin did not feature multiple obverse borders typical of this king’s issues, as well as those of most of his successors. It took us some time to find out that it was one of the bronze coins struck by the usurper, Vistahm (590s), whose rebellion against Khusro II in Rayy apparently lasted for several years. To be precise: Khusro II introduced the formula *GDH ʾpzw̄t, khwarrah afz̄ut* (“he increased the royal glory”), which has both a slightly different wording, as well as a different arrangement of the two words, than that of the coin in discussion, but still, there can be little doubt that Vistahm’s variant results from Khusro II’s innovation. One might wonder whether Vistahm chose the different arrangement to further distinguish his issues from those of his adversary. While not actually being unique, both the rarity of his copper coins, as well as the fact that they have so far never been properly described gave me the idea of presenting them here.

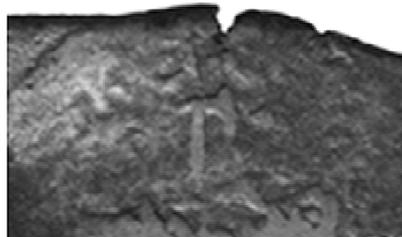
A detailed study of Vistahm’s drachm coinage by Susan Tyler-Smith is currently in preparation, which will also include a die analysis, and this will greatly enhance our understanding of this interesting episode in Sasanian numismatics. Thus, no further comment on Vistahm’s silver coinage is necessary.<sup>22</sup> We can, therefore, concentrate on the copper coins. As far as I know, it was Jacques de Morgan who first published a copper coin of Vistahm (no. 1), even if he erroneously listed it as an issue of Khusro II.<sup>23</sup> The correct attribution can be found in Göbl’s handbook, even if he fails to provide a reading for either the mint or date.<sup>24</sup> Another Vistahm copper coin was published by the late Malek Iradj Mochiri in 1977 (no. 3); he correctly read both the mint and date.<sup>25</sup> One more coin can be found in Amini, even if no source for it is given (no. 4).<sup>26</sup> All coins are catalogued below; due to the loss in photo quality by scanning, and then reproducing these scans, I have refrained from re-publishing the already known specimens here, and just show the new piece enlarged, together with an image of the part with the ruler’s name.

While late Sasanian drachms (if complete) hardly ever pose attribution problems, the copper coins mostly do, being either badly struck, corroded, or both. Both the basic obverse type as well as the reverse image are, in themselves, not unusual, and follow the patterns established by Khusro I (531–578). Probably the single most important feature to identify a copper coin of Vistahm is the obverse legend to the right of the bust: it is arranged in two lines, the inner one (nearer to the king’s face) bearing the title *pylwy*, “the victorious”, the outer the name *wsthm*, “Vistahm”. Since the flans tend to be too small to show the full die impression, we cannot rely much on borders and astral symbols outside the borders. All obverses show a single border (especially clear on nos. 2, 3, and 4). In marked contrast to the drachms, the reverses seem to feature two borders. Nos. 3 and 4 show two parallel dotted lines, which cannot simply result from overstriking or double-striking. The flan of no. 1 is too narrow to make out the borders; on no. 2, a blind spot at 6h obscures the only portion of the coin where remains of the borders could have been visible. Taking together all

coins known so far, it seems highly plausible that Vistahm employed a special type on his copper coins: the reverses show two rather than only one dotted border.



(no. 2; enlarged)



Enlargement of part of the coin with the ruler’s name

The same phenomenon can be observed also on base-metal issues of Shapur II (309–379),<sup>27</sup> Yazdgerd II (438–457),<sup>28</sup> Peroz (457–484),<sup>29</sup> and Kavad I (488–531).<sup>30</sup> For reasons unknown to us, some – but by far not all – copper or lead coins have more borders than the drachms,<sup>31</sup> even before multiple borders on precious-metal issues were first introduced by Valkash (484–488).<sup>32</sup> I cannot make out any further typological peculiarities on Vistahm’s bronze coins. A well-known feature of his coinage, which can be also observed on these copper issues, is the arrangement of the hair on the neck in several pearl rows, rather than in the usual globular form (clearly visible on no. 2).

Finally, let us have a look at the mint signatures and dates of these four coins. Needless to say, due to the bad quality of striking as well as corrosion, these vital elements of late Sasanian copper coins are often completely illegible, or cannot be made out with the degree of certainty required for a safe attribution. In the case of the Vistahm bronzes known so far, we are in the lucky situation that all pieces can be attributed. Apart from rare drachms of APL,<sup>33</sup> and a unique dinar bearing the otherwise unattested inscription *ŠTL*,<sup>34</sup> most coins of Vistahm feature the mint signature of LD (Rayy, to the south of present-day Tehran, in Media).<sup>35</sup> On nos. 1, 3, and 4, remains of this abbreviation can still be made out; on no. 2 the mint signature is basically illegible due to a blind spot. Still, there

<sup>27</sup> Schindel 2004, vol. 1, p. 212 f., 218.

<sup>28</sup> Schindel 2004, vol. 1, p. 371; to the single copper coin known to me then several lead pieces now can be added, Schindel 2015, p. 312.

<sup>29</sup> Schindel 2015, p. 312.

<sup>30</sup> Schindel 2004, vol. 1, p. 463 f.

<sup>31</sup> Schindel 2004, vol. 1, p. 75 f.

<sup>32</sup> Schindel 2004, vol. 1, p. 420.

<sup>33</sup> Some pieces are listed in Mochiri 1977, no. 17, 18, 65, 66; none are shown in Amini 1389 or Gyselen 2004.

<sup>34</sup> See Mochiri 1977, p. 35, no. d (mint abbreviation read as APL) = Gyselen 2004, p. 87, no. 93 = Amini 1389, p. 219, no. 798. Gyselen reads the mint signature as *ŠTL*; the first letter clearly is a *Š* since it has a horizontal stroke to the left on the bottom line; the second is a T and not P because of the typical vertical stroke to the left. She links *ŠTL* to *shahr*, “province, country”, Gyselen 2004, p. 64. Despite the fact that her explanation is definitely correct from a paleographic point of view, since this signature is otherwise not attested one might ask (using Ockham’s razor, so to speak) whether *ŠTL* might still be a misspelling of APL. If not (the AYLAN dinars of Wahram VI might form a parallel for the coin with *ŠTL* if they, too, refer to an administrative term rather than to a straightforward mint abbreviation), then three different signatures were used by Vistahm, viz. LD for the majority of coins, APL for some rare drachms, and *ŠTL* for the unique dinar. Tyler-Smith’s die analysis will certainly shed more light on this question.

<sup>35</sup> For an overview on the reading and localisation of this signature see Schindel 2004, vol. 1, p. 140, 164.

<sup>21</sup> For valuable discussion I have to thank Susan Tyler-Smith, Bob Schaaf, for help with literature Jean-Pierre Righetti.

<sup>22</sup> An overview of the regal years attested so far (RY 2–6) can be found e.g. in Amini 1389, p. 218 f.; in addition e.g. Babelon/De Morgan 1927, p. 325; Göbl 1971, pl. 13; Mochiri 1977, p. 48.

<sup>23</sup> De Morgan 1933, vol. 2, pl. 74, no. 15.

<sup>24</sup> Göbl 1971, pl. 13, no. 207. On p. 80, he simply states “Vistāhm. 1/6 unit”.

<sup>25</sup> Mochiri 1977, p. 48, 504, no. 22.

<sup>26</sup> Amini 1389, p. 219, no. 800.

is no reason to believe that it was struck anywhere else than in Ray since the faint remains of the signature seem to conform to LD. With the dates, we are fairly lucky: on no. 2, the first letter of the date is somewhat obscure, but can still be identified as a T. It is followed by three clear letters which read L, Y, and N, and thus form the heterogram *TYLN*, “2”. The same date seems to be attested on no. 1;<sup>36</sup> there, the basic form of the first letter (a T) is still recognisable, and the three parallel strokes of L, Y, and N rule out – at least to my eye – any other date than regnal year 2. Nos. 3 and 4 attest another date, namely regnal year 5. In both cases, we have to rely on the respective author’s readings, but I believe that, even if both photos are not perfect, this date can be regarded as certain; in particular, the remains of the date on no. 4 seem to allow no other reading than *HWMŠA*, “5”. One wonders whether it is merely the result of chance that, out of five regnal years of Vistahm, only two are so far attested in copper coinage. Did the king strike copper coins in every year, and do we still lack specimens for regal years 3, 4, and 6? Or was his copper coinage more limited in scope, and were copper coins, therefore, not struck on a regular, yearly basis? It might be added that the dinar mentioned above is also from RY 5. At the same time, considering the basic rarity of Vistahm’s drachms, the existence of four copper coins might be labelled somewhat surprising. Before the emergence of no less than 20 copper coins of Ohrmazd IV from the Muzeh Melli in Tehran,<sup>37</sup> all of which have the same inventory number, and thus apparently formed a small hoard, I was able to include only two bronze pieces of this king, who ruled the entire Sasanian Empire for 13 years, into my SNS 4 database. One might, therefore, guess that Vistahm struck – at least in relative terms – more copper coins than Ohrmazd IV. This might, in the longer run, have been the result of different political (or also economic) concepts;<sup>38</sup> a more detailed analysis of this topic, however, has to be postponed until more material becomes available.

### Catalogue

#### Mint LD

##### RY 2

1. 0.83 g. 14 mm. De Morgan 1933, vol. 2, pl. 74, no. 15 (listed as Khusro II) = Göbl 1971, pl. 13, no. 207 (no mint or year given)
2. 0.54 g. 14 mm. 3 h. Private coll.

##### RY 5

3. Mochiri 1977, p. 49, no. 22
4. Amini 1389, p. 219, no. 800

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<sup>36</sup> Especially clearly legible on Göbl’s original photo in the Numismatische Zentralkartei of the Institute for Numismatics and Monetary History, Vienna University.

<sup>37</sup> Curtis et al. 2010, pl. 100–102, nos. 1457–1476.

<sup>38</sup> E.g. Schindel 2010, p. 10 f. for Umayyad copper coinage in the Caucasus region.

Schindel 2004: N. Schindel, *Sylloge Nummorum Sasanidarum Paris – Berlin – Wien. Band III: Shapur II.–Kavad I. / 2. Regierung*, 2 vols., Vienna 2004.

Schindel 2010: N. Schindel, Umayyad Copper Coinage in the Name of Marwan II. b. Muhammad from the Caucasus – Additional Comments, *Journal of the Oriental Numismatic Society* 202, 2010, p. 8–11.

Schindel 2015: N. Schindel, Sasanidische Bleimünzen, in: W. Szaivert/N. Schindel/M. Beckers/K. Vondrovec (eds.), *TOYTO APECH TH XWPA. Festschrift für Wolfgang Hahn zum 70. Geburtstag*, Vienna 2015, p. 303–330.

## A ZIYANID HALF-DIRHAM TYPE

By Ludovic Liétard

### 1. Introduction

The Ziyanids ruled in north-western Algeria from the 13<sup>th</sup> century until the middle of the 16<sup>th</sup> century (AH 633 – 962 / AD 1236 – 1555)<sup>39</sup>. Originally, they were vassals of the Almohads, but, in AH 633 / AD 1236<sup>40</sup>, they assumed independence. Tlemcen was their capital and the Ziyanid kingdom was bordered by the lands of the Hafsid to the east and those of the Marinids (and then of the Wattasids) to the west. The Ziyanids were opposed to the Marinids and to the Hafsids. The Marinids had attacked and briefly occupied Tlemcen (Tilimsan), the Ziyanid capital, twice, in AH 737 / AD 1337<sup>41</sup> and in AH 753 / AD 1352<sup>42</sup>. The Ziyanids tried to expand their lands eastwards (they occupied Algiers at one point), but were always stopped from advancing far in that direction by the Hafsids<sup>43</sup>.

From Ibn Khaldun<sup>44</sup>, we know that the Ziyanids put the legend *How near is the consolation of God* (ماقرب فرج الله) on their coins. The origin of this phrase lies in the sudden lifting of the siege of Tlemcen<sup>45</sup> in AH 706 / AD 1307. The event was so extraordinary it was considered a miracle, a sign of God’s direct intervention. The siege against Tlemcen had been led by the Marinid ruler, Yusuf ben Ya’qub<sup>46</sup>, and it had exhausted the town. The Ziyanid ruler, Abu Ziyān<sup>47</sup>, who was among those besieged in Tlemcen, had had the intention of launching a final sally and dying heroically in battle. However, the sally never happened because the Marinid ruler, Yusuf ben Ya’qub, had been murdered by one of his own men, and the Marinids had abandoned the siege of Tlemcen. According to Ibn Khaldun’s teacher<sup>48</sup>, who was an intendant for the Ziyanids, it was “one of the most extraordinary things that ever happened to man.”<sup>49</sup> To commemorate this liberation of Tlemcen, the Ziyanids had the particular legend *How near is the consolation of God* (ماقرب فرج الله) inscribed on their coins.

Yet, only two gold dinar types assigned to the Ziyanids bear this legend (Hazard [8] 646 and 647)<sup>50</sup>. They were struck during the years which immediately followed the death of Yusuf ben Ya’qub and the liberation of Tlemcen. Until now, no silver coins have been confirmed as being Ziyanid.

In section 2, this article introduces an unpublished half dirham<sup>51</sup> which can be assigned to the Ziyanids. In section 3, the

<sup>39</sup> [4] page 43.

<sup>40</sup> [1] page 5, [3] page 144, [10] page 871.

<sup>41</sup> [4] page 43 and [10] page 1176.

<sup>42</sup> [4] page 43 and [10] page 1231.

<sup>43</sup> [4] page 43 and page 44.

<sup>44</sup> [10] page 902.

<sup>45</sup> Full details on the siege (and liberation) of Tlemcen can be found in Ibn Khaldun [10] (pages 898-906), [1] pages 40 and 41, [3] pages 166-167.

<sup>46</sup> Yusuf ben Ya’qub, Abu Ya’qub al-Nasir (AH 685 – 706 / AD 1286 – 1307).

<sup>47</sup> Abu Ziyān, Muhammad I ben ‘Uthman (AH 703 – 707 / AD 1304 – 1308).

<sup>48</sup> Muhammad ibn Ibrahim al-Abili ([10] pages 900 and 902-904).

<sup>49</sup> [10] pages 902-904.

<sup>50</sup> I would like to thank Edmund Hohertz for bringing this to my attention (private communication).

<sup>51</sup> On the basis of 1.5 g for a full dirham.

attribution of an already published half dirham type to the Ziyanids is strengthened. Section 4 compares these two half-dirham coins.

## 2. A Ziyanid half-dirham type

This section introduces an unpublished silver half dirham (0.85 g and 12x13 mm). The only known example (see Figures 1 and 2) has been cut, and a line at the top of the obverse and at the top of the reverse may be missing (see section 4 for a discussion of this hypothesis).

The obverse side (see Fig. 1) bears:

عبد الرحمن  
ماقرب فرج الله  
الجزاير

This can be translated as:

*'Abd ar-Rahman*  
*How near is the consolation of God*  
*Al-Jaza'ir*



Fig. 1: obverse side of a half dirham struck in Algiers

The reverse side (see Fig. 2) bears:

محمد رسولنا  
القران امامنا

This can be translated as:

*Muhammad is our Messenger*  
*The Quran is our leader*



Fig. 2: reverse side of a half dirham struck in Algiers

The obverse side bears the name *'Abd ar-Rahman*, the Ziyanid motto *How near is the consolation of God* and the mint *Al-Jaza'ir* (Algiers, in Algeria).

The name *'Abd ar-Rahman* most likely refers to the Ziyanid ruler *'Abd ar-Rahman I ben Musa I* (AH 718 – 737 / AD 1318 – 1337) because:

- This coin bears the Ziyanid motto *How near is the consolation of God*
- This coin was minted in Algiers and the Ziyanid *'Abd ar-Rahman I* occupied Algiers (as attested by a foundation plaque dated AH 723<sup>52</sup>)

- This coin bears the name of *'Abd ar-Rahman*, like the gold coin attributed to the Ziyanid ruler, *'Abd ar-Rahman I*, by Hazard (see Hazard [8] 647, *Madinat Tilimsan*)<sup>53</sup>

- Among the three Ziyanid rulers with the name *'Abd ar-Rahman*, *'Abd ar-Rahman I* is the best choice for several reasons. The Ziyanid motto only appears on coins that he and his predecessor, *Abu Hammu Musa I* (AH 707 – 718 / AD 1308 – 1318), issued. This is probably because their reigns were the most contemporaneous with the liberation of Tlemcen (in AH 706 / AD 1307). As for *'Abd ar-Rahman II ben Musa II* (AH 791 – 796 / AD 1389 – 1394) and *'Abd ar-Rahman III ben Muhammad III* (AH 813 – 814 / AD 1411), these rulers were politically weak (*'Abd ar-Rahman III* ruled for only two months and few days<sup>54</sup>) and, as far as I know, no coins are confirmed for them<sup>55</sup>. I believe that any coins they might have issued would not have borne the Ziyanid motto as their reigns were several generations after the liberation of Tlemcen in AH 706 / AD 1307 (and as no Ziyanid coins struck after AH 737 / AD 1337 bear this motto).

The Marinid ruler, *Abu Zayd 'Abd ar-Rahman* (AH 776 – 784 / AD 1374 – 1382), is also a potential candidate, but he never ruled outside the region of Marrakesh (Morocco)<sup>56</sup>. Additionally, he competed for the throne with the Marinid, *Abu'l 'Abbas Ahmad*<sup>57</sup>, who attacked Tlemcen several times<sup>58</sup>. So, as far as I know, the Marinid ruler, *'Abd ar-Rahman*, never went to the region of Tlemcen and could never have occupied Algiers.

So, this new coin should be assigned to *'Abd ar-Rahman I ben Musa I* (AH 718 – 737 / AD 1318 – 1337) and to the Ziyanids.

## 3. The attribution to the Ziyanids of a half-dirham type is strengthened

The new coin introduced in section 2 can be compared with a published silver half-dirham type<sup>59</sup> described by Hazard ([8] 1147), El Hadri ([6] 135, 136) and Hohertz ([9] 272). It is illustrated here (0.89 g and 13 mm) in Figures 3 and 4 (Fig. 4 shows an incomplete reverse). The obverse side (see Fig. 3) bears:

لا اله الا الله  
الامر كله لله  
ماقرب فرج الله  
تلمسان

This can be translated as:

*There is no god except God*  
*The whole commandment is unto God*  
*How near is the consolation of God*  
*Tilimsan*

The reverse side bears (see Fig. 4):

الله ربنا

<sup>53</sup> Hazard [8] 647 is the unique coin attributed by Hazard with certainty to the Ziyanid *'Abd ar-Rahman I*. Hazard presents the attribution of Hazard [8] 648 (*Madinat Tilimsan*) and 649 (*Madinat Jaza'ir*) to this ruler as being very doubtful.

<sup>54</sup> [1] page 273.

<sup>55</sup> Hazard [8] introduces two tentative attributions to these rulers but with no certainty (Hazard [8] 652 and Hazard [8] 658). According to Stephen Album ([2], footnote 198 on page 84), the first coin is probably a variant of a coin issued by *'Abd ar-Rahman I*. Independently, El Hadri attributes a half dinar to *'Abd ar-Rahman II* (coin 8 in [7] page 413). This half dinar bears the mint *Tilimsan* and the name *'Abd ar-Rahman*. There is no particular reason for an attribution to *'Abd ar-Rahman II*, and *'Abd ar-Rahman I* may also be possible. None of these coins bear the Ziyanid motto.

<sup>56</sup> El Hadri [5] page 166.

<sup>57</sup> Two reigns in AH 775 – 786 / AD 1373 – 1384 and in AH 789 – 796 / AD 1387 – 1393.

<sup>58</sup> El Hadri [5] page 162.

<sup>59</sup> Album [2] M520 (page 84).

<sup>52</sup> [1] page 74.

محمد رسولنا  
القران امامنا

This can be translated as:

*God is our Lord  
Muhammad is our Messenger  
The Quran is our leader*



Fig. 3: obverse side of a half dirham struck in Tlemcen  
(Hazard [8] 1147, El Hadri [6] 135,  
Hohertz [9] 272)



Fig. 4: reverse side of a half dirham struck in Tlemcen  
(Hazard [8] 1147, El Hadri [6] 135,  
Hohertz [9] 272)

This coin type (Album [2] M520) has been found both with the mint *Tilimsan* (Tlemcen)<sup>60</sup> and without mint<sup>61</sup>. El Hadri (El Hadri [6] 137) proposes *Marrakesh* as another mint for this coin type, his description being based on a unique coin from the Rachid Sbihi collection (no. 727 in the description of this collection by Noureddine Meftah [11]). However, Rachid Sbihi has confirmed it is a misreading; an ornamentation has been confused with the name *Marrakesh*<sup>62</sup>. So, the mint *Marrakesh* does not exist for this coin type and only *Tilimsan* (Tlemcen) needs to be retained.

This coin (with or without the mint *Tilimsan*) is attributed to the Marinid Abu'l Hasan 'Ali (AH 731 – 749 / AD 1331 – 1348) by Hazard, El Hadri and Hohertz, while Stephen Album<sup>63</sup> challenges this attribution to the Marinids and suggests a possible attribution to the Ziyaniids<sup>64</sup>.

Due to this coin's resemblance to the new coin described in section 2, we can assume a common origin for the two coins. So, the results of section 2 strengthens the attribution of Album [2] M520, Hazard [8] 1147, El Hadri [6] 135, 136, Hohertz [9] 272 (with or without the mint *Tilimsan*) to the Ziyaniids.

<sup>60</sup> Hazard [8] 1147, El Hadri [6] 135, Hohertz [9] 272.

<sup>61</sup> El Hadri [6] 136.

<sup>62</sup> I would like to thank Rachid Sbihi for his help (private communication).

<sup>63</sup> Cf. the description of M520, page 84 in [2].

<sup>64</sup> This coin (Hazard [8] 1147, El Hadri [6] 135, 136, Hohertz [9] 272, Album [2] M520) is introduced by Hazard as struck by Abu'l Hasan 'Ali (AH 731 – 749 / AD 1331 – 1348) after his conquest of Tlemcen (*Tilimsan*) in AH 737 / AD 1337. Like Stephen Album (see page 84 in [2]), I think this attribution can be challenged because of the Ziyaniid motto.

#### 4. A comparison

The example of the new half dirham coin described in section 2 has been cut and the first line on each side may be missing (see Figures 1 and 2). If this is the case, a comparison with the coin type of section 3 gives a tentative full description for this new half dirham type described in section 2.

A comparison with the coin type of section 3 suggests that the missing first line of the reverse is *الله ربنا*. Since the legend on the obverse of the coin type from section 2 starts with 'Abd ar-Rahman, it is also possible that the laqab or title of 'Abd ar-Rahman I is missing from the first line of the obverse from section 2 as well. From Hazard [8] 647, we learn that 'Abd ar-Rahman I has the title of *Commander of the Muslims* (امير المسلمين) and the laqab *He who relies upon God* (المتوكل على الله).

In the case of a missing first line on both sides, a full description for the new half dirham type described in section 2 can now be proposed. The description follows with the proposed missing parts being enclosed in square brackets.

The obverse side bears (with three possibilities for the first line):

[امير المسلمين]  
OR  
المتوكل على الله  
[المتوكل] OR  
عبد الرحمن  
ماقرب فرج الله  
الجزاير

This can be translated as:

[*Commander of the Muslims* or *He who relies upon God* or *He who relies (upon God being implicit)*]  
'Abd ar-Rahman  
*How near is the consolation of God*  
*Al-Jaza'ir*

The reverse side bears:

[الله ربنا]  
محمد رسولنا  
القران امامنا

This can be translated as:

[*God is our Lord*]  
*Muhammad is our Messenger*  
*The Quran is our leader*

#### 5. Conclusion

An unpublished silver half dirham which can be assigned to the Ziyaniids and to 'Abd ar-Rahman I ben Musa I (AH 718 – 737 / AD 1318 – 1337) has been introduced in this article (in section 2). Section 3 has strengthened the attribution of an already published silver half dirham type to the Ziyaniids (it is attributed to the Marinids by some authors).

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## THE COINAGE OF THE MUSHASHA'

By A. V. Akopyan (Moscow), F. Mosanef (Tehran).

### I. History of the Mushasha'

The Mushasha' (*mushasha'at* مشعشعة means 'shining, bright') were a radical Shī'ite dynasty, that ruled in South-Western Iran and Southern Iraq.<sup>65</sup> Their rulership can be divided in two parts. The first period was between AH 844 until AH 914 – before the rise of Shāh Isma'īl Šafavī as king of the whole of Iran. In this period the Mushasha' ruled in their territory independently and struck several types of coins. The second part of their rule started from AH 914 and continued till the end of the AH 1100s. During this time, after that they were defeated by Shāh Isma'īl, they were governors of the Safavids. The total rule of the Mushasha' in their lands continued for more than 350 years including the time when they were governors of the Safavids.

This dynasty was founded by Sayyid Muḥammad b. Sayyid Fallāh, who pretended to, or was reputed to be a descendant of the prophet Muḥammad. He was born in Wasīṭ, and in his youth he studied religious sciences in al-Ḥilla. After some time, despite his teaching being opposed by other Shī'ite clergy, he declared himself *al-Mahdī*. Strong opposition by the clergy and the populace forced Sayyid Muḥammad to flee the city and join some local tribes. He continued to declare himself the Mahdī when amongst them, and this resulted in some Bedouins accepting his claim and becoming his followers. After AH 844, as they became stronger, Sayyid Muḥammad and his followers started to attack villages and towns in southern Iraq. Thus, they successfully attacked Huwayza in Khuzistān in AH 845, where Sayyid Muḥammad defeated the Tīmūrid ruler and captured the city.

<sup>65</sup> General references for these periods are as follows — Ghāzī Nūrallāh Shūsharī, *Majalis al-Mu'minīn*, Vol II, Tehrān, SH 1377; Ghīyāth ad-Dīn Muḥammad Khwāndamīr, *Ḥabīb al-Siyar*, Vol. IV, Tehrān, SH 1362; Ghāzī Aḥmad Ghaffārī, *Ta'rīḥ-i Jahān Ārā*, Tehrān, SH 1343; Muḥammad 'Alī Ranjbar, *Musha'shi'yān*, Tehrān, SH 1387; Aḥmad Kasravī Tabrīzī, *Musha'shi'yān*, Tehrān, SH 1378; 'Abd al-Nabī Ghayyem, *Pānsad sāl Ta'rīḥ-i Ḥuzistān*, Tehrān, SH 1388; 'Abdallāh b. Fathallāh Baghdādī, *Al-ta'rīḥ al-Ghīyāthī*, Vol. V, Baghdād, 1975; Sayyid Muḥammad b. Fallāh, *Kalām al-Mahdī* (MS, in the library of the Iranian Parliament, inv. no. 10222). A brief review about Mushasha' history and their numismatics is contained in R. Matthee, *The Safavid Mint of Ḥuwayzeh: the Numismatic Evidence*. In: Society and Culture in the Early Modern Middle East. Ed. by A. J. Newman. Leiden–Boston, 2003. P. 265–291 (see P. 268–274).

Civil war between the Tīmūrid princes and, in the meantime, war between the Tīmūrids and the Qara Qūyūnlū in addition to disagreements among the Qara Qūyūnlū provided an excellent opportunity for the Mushasha' to consolidate their power in Khuzistān and southern Iraq. In order to stabilise his power, Sayyid Muḥammad cunningly pretended to be loyal to Aspan, the Qara Qūyūnlū ruler of Baghdād, who was Shī'ite. And indeed Aspan, despite the attacks of Sayyid Muḥammad in southern Iraq, was tolerant towards him.

Sayyid Muḥammad, with the help of his son, known as Mawlā 'Alī (possibly a nickname — 'client of 'Alī'), stabilised his rule and extended his territory from Khuzistān to some parts of Fārs and Lur-i Buzurg. Mawlā 'Alī's loyalty to his old father did not last very long, as, in AH 858, he set his father aside. Mawlā 'Alī had even more radical religious ideas as he declared that the spirit of 'Alī b. Abī Ṭālib was in his body. This idea was strongly condemned by other Shī'ite clergy, who were opposed to his blasphemous behaviour.

In the meantime, Pīr Budāq Qara Qūyūnlū, who had started a war against his father, Jahān Shāh, left Baghdād and marched towards Shīrāz to capture it. Because of this, Mawlā 'Alī moved his army to Wasīṭ and Baṣra. When those cities were captured, he attacked and captured al-Ḥilla and the holy cities of Karbalā' and al-Najaf. He ordered the shrine of Imām 'Alī to be destroyed, saying that Imām 'Alī was the appearance of God (Allāh) in human form, and as God never dies then he had no need of any shrine. In other words, he declared the appearance of the spirit of Imām 'Alī within his body to be the appearance of Allāh in a human form. Local Shī'ite clergy who dared to oppose him were killed.

In AH 860, Mawlā 'Alī attacked Baghdād. During this operation he captured Mada'in, suburbs and some districts of Baghdād. On 22 Ramaḍān, AH 860, Mawlā 'Alī attacked Bihbahān in Fārs. In this siege Mawlā 'Alī was shot with an arrow and the man who claimed to have some embodiment of God died. Pīr Budāq, the son of Jahānshāh Qara Qūyūnlū, beheaded him and sent his head to Baghdād in AH 861.

After the death of Mawlā 'Alī, his father returned to power. To mitigate the effects of Mawlā 'Alī's radical behaviour, Sayyid Muḥammad sent some letters to the Shī'ite clergy in which he strongly condemned such behaviour. Sayyid Muḥammad reunited the Mushasha' army, which had suffered losses from the attacks of Pīr Budāq Qara Qūyūnlū. Sayyid Muḥammad ruled the Mushasha'id territory in Khuzistān and Southern 'Irāq until his death in AH 870 (or in AH 866),<sup>66</sup> avoiding any form of radical and aggressive behaviour.

After Sayyid Muḥammad's death, his son, Sayyid Muḥsin (AH 870–905), replaced him. He stabilised, and then improved the Mushasha' rule in south-western Iran and southern Iraq, including the cities of Baṣra, Shūshar, Dizfūl, Bihbahān, Dowraq, Wasīṭ and even in some parts of Kohgīlūyeh. He ruled wisely and took advantage of conflicts between various rivals to expand the Mushasha'id lands. He passed away in AH 905.

The most complex period of Mushasha' history involves the events during the period AH 905 to 914. There is a great variance in the literary sources about these events.

1) According to *Majalis al-Mu'minīn*, written by Ghāzī Nūr al-Dīn Shūsharī, after the death of Sayyid Muḥsin (called in *Majalis al-Mu'minīn* 'sulṭān Muḥsin') his successors, 'Alī and Ayyūb, ruled over the Mushasha' territory. But they were accused of indulging in radical behaviour such as claiming to be al-Mahdī, that was strongly opposed by other Shī'ite communities especially in Iraq, and by Shāh Isma'īl Šafavī, who, having heard about their claims, moved his army from Baghdād to Huwayza. 'Alī and Ayyūb respectfully came to Shāh Isma'īl and tried to change his mind about themselves, but he did not accept their explanations and ordered them to be executed in AH 914.<sup>67</sup>

2) In *Ta'rīḥ-i Musha'shi'yān* all the events are described in the same way until the attack of Shāh Isma'īl on Huwayza. According to this reference, 'Alī and Ayyūb sent a letter and gifts

<sup>66</sup> Muḥammad 'Alī Ranjbar, *Musha'shi'yān*. Tehrān, SH 1387, p. 165.

<sup>67</sup> *Majalis al-Mu'minīn*, p. 395–402.

to Shāh Isma‘īl. In that letter they explained their beliefs and denied all the gossip about themselves. The shāh accepted their explanations and gifts and appointed them as his governors in Khuzistān. Later, both brothers were killed in a local conflict with the governor of Shūshtar in AH 924.<sup>68</sup>

3) In *Ḥabīb al-Siyar*, written by Ghiyāth al-Dīn Muḥammad *Khwāndamīr*, it is mentioned that, after the death of Sayyid Muḥsin, his son, Fayyādh (called in *Ḥabīb al-Siyar* ‘*sulṭān Fayyādh*’), started to reign. He was accused, however, of having radical beliefs and making unacceptable claims, all of which was condemned by the Shī‘ite clergy. Shāh Isma‘īl, who had captured Baghdād in AH 914 and moved his army to Ḥuwayza, defeated the Musha‘sha‘ids in a great battle in that same year. Fayyādh was killed on the battlefield. It should be noted, that *Khwāndamīr* does not mention anything about any ‘Alī or Ayyūb.<sup>69</sup>

4) *Ta‘rīkh-i Jahān-Gusha‘i-ye Khāqān* tells the same story until the battle between sulṭān Fallāh (son of Muḥsin) and Shāh Isma‘īl. According to this source, when sulṭān Fayyādh faced the Safavid army, he decided on withdrawal. But his son, Abū‘l-Muḥsin, came with 2,000 soldiers to help his father. He encouraged his father to resist, but the latter made an offer of peace and was willing to accept the suzerainty of the Safavid ruler. Shāh Isma‘īl, however, refused the offer and defeated the Musha‘sha‘ in battle.<sup>70</sup>

5) *Ta‘rīkh-i Jahān Ārā* written by Ghāzī Aḥmad Ghaffārī contains some unique information about this period. Ghāzī Aḥmad Ghaffārī wrote that, after the death of sulṭān Muḥsin, his son, Fallāh, succeeded his father and ruled independently for seven years between AH 905–912. After the death of Fallāh, his son, Sayyid Majīd, became ruler, but after some time he was faced with a rebellion by his uncles, ‘Alī b. Muḥsin and Ayyūb b. Sayyid Muḥammad, who soon placed him under arrest. In the meantime, a civil war started between ‘Alī and Ayyūb on the one side, and followers of Sayyid Majīd and Badrān (the brother of Sayyid Majīd, ruler of Dizfūl, who was loyal to Majīd) on the other side. Later, Shāh Isma‘īl entered Musha‘sha‘ territory, and ‘Alī and Ayyūb were killed in the battle of AH 914. In the aftermath, Sayyid Badrān with his troops released his brother, Majīd, from prison, and after Shāh Isma‘īl left Khuzistān, they retook Dizfūl from the Safavid governor. Badrān became ruler of Dizfūl and Majīd became ruler of Ḥuwayza. After some while, the two brothers began to argue again, a state of affairs that ended with the sudden death of Majīd in the swamps. His rule had lasted seven years. Shāh Isma‘īl sent a special order appointing Badrān governor, and Badrān with his successors became loyal governors on behalf of the Safavid shāhs.<sup>71</sup>

As can be seen, the sources do not provide us with a clear narration of events during these years, and in the discussion that follows we will try to use numismatic evidence to illustrate Musha‘sha‘ history during AH 905–914.

## II. Coins of the Musha‘sha‘

Except for a mention in an article by H. L. Rabino di Borgomale<sup>72</sup> and the listing in Album’s *Checklist*,<sup>73</sup> the coins of the Musha‘sha‘ have never been described or catalogued. This article is mainly based on coins from private Iranian collections, with the addition of some specimens offered in auctions during recent years.

### 1. Anonymous, temp. Mawlā ‘Alī (AH 858–861)

The first Musha‘sha‘ coins are anonymous and undated. They are all of one type, struck in Baghdād and al-Ḥilla. They were

previously listed as coins of the Qara Qūyūnlū rulers, Aspan and Fulad Sulṭān,<sup>74</sup> or of Muḥsin.<sup>75</sup> Both Aspan and Fulad Sulṭān were Shī‘a, but not as radical as Mawlā ‘Alī. As Mawlā ‘Alī believed that Allah appeared in the body of Imām ‘Alī, only he could have placed so radical an inscription on the obverse of these coins – only ‘Alī and Allāh instead of the kalima (!). It seems that Mawlā ‘Alī struck these coins after capturing Mada‘in and the suburbs of Baghdād. There are no known coins of his father, Sayyid Muḥammad.

The weight of these coins was based on a standard equal to one mithqāl of ca. 4.27g. This denomination is usually called a *tanka* (a common name for coins of this weight at that time), but we do not know what name was used for this denomination in the Musha‘sha‘ domain. No full tankas of this type are known, only the half-tanka, 2/5 tanka and 1/6 tanka (possibly called a *dānik*, a common name for 1/6-fractions).

### Type 1A, ½ tanka.

Baghdād, no date – coins 1 (2.15g, 10 mm),<sup>76</sup> 2 (2.17g, 10 mm), 3 (2.09g, 9 mm).



Obv.: Repeated four times crosswise *علي والله* – ‘Alī and Allāh (millsail pattern), surrounded by a plain circle.

Rev.: In five lines:

ضرب / الله محمد علي / حسن حسين / جعفر الصادق / بغداد  
*struck / Allāh, Muḥammad, ‘Alī / Ḥasan, Ḥusayn / Ja‘far al-Ṣādiq / Baghdād,*

surrounded by a plain circle. On coin no. 7 the word *علي* is placed at the beginning of the third line; on coin no. 8 the word *الصادق* appears to have been engraved without its definite article as *صادق*.

### Type 1A, 2/5 tanka.

Listed by Album<sup>77</sup> with a weight of 1.7g, of the same type as the ½ tanka, struck in Baghdād and al-Ḥilla.

### Type 1A, dānik (1/6 tanka).

Baghdād, no date – coins 4 (0.70g, 8 mm), 5 (0.70g, 10 mm), 6 (0.69g, 9 mm), 7 (0.71g, 9 mm), 8 (0.70g, 9 mm).

<sup>68</sup> *Ta‘rīkh-i Musha‘sha‘i-yan*, p. 13–18.

<sup>69</sup> *Ḥabīb al-Siyar*, p. 496–498.

<sup>70</sup> *Ta‘rīkh-i Jahān-Gusha‘i-ye Khāqān*, p. 293–295.

<sup>71</sup> *Ta‘rīkh-i Jahān Ārā*, p. 92–94.

<sup>72</sup> H. L. Rabino di Borgomale, ‘Coins of the Jala‘ir, Qara Qoyunlu, Musha‘sha‘ and Aq Qoyunlu’, *Numismatic Chronicle*, 6<sup>th</sup> ser., 10, 1950. P. 94–139. See here also a detailed genealogical chart of the Musha‘sha‘.

<sup>73</sup> S. Album, *Checklist of Islamic coins*. Santa Rosa (CA), 2011. P. 273–274, nos. 2565–2567.

<sup>74</sup> *Op. cit.* P. 279, nos. 2487, 2488, 2489.

<sup>75</sup> H. L. Rabino di Borgomale, *Op. cit.* P. 120.

<sup>76</sup> All coins mentioned in the article are made of silver. If not otherwise stated, all coins are from private Iranian collections, mostly (ca. 70%) acquired as one lot.

<sup>77</sup> *Op. cit.* P. 279, No. 2488. Apparently, these coins are the same as mentioned by H. L. Rabino di Borgomale (in *Op. cit.* P. 120).



Coin 4



Coin 5



Coin 7

Obv.: Repeated four times crosswise *علي والله* – ‘*Alī and Allāh* (millsail pattern). No traces of any borders are visible.

Rev.: In five lines

ضرب / الله ومحمد / علي جعفر / الصادق / بغداد

*struck / Allāh and Muḥammad / ‘Alī, Ja‘far / al-Ṣādiq / Baghdād.*

No traces of any borders are visible.

## 2. Muḥsin (AH 870–905)

During reign of Muḥsin monetary reform took place at least twice. There are coins of AH 889 of *ca.* 3.71g – “light tankas” (type 2A), and halves of a “heavy tanka” of *ca.* 5.15g, dated AH 902–905 (type 2C). Also there is a tanka of 4.53g (that is possibly anonymous), but of unclear year – AH 8x7 or 8x9. It would seem logical to place this standard between the lighter and heavier ones (as type 2B, see below), and assuming a single monetary standard was current throughout the Musha‘sha’ territory at that time, then this coin was probably dated AH 897 or 899. We appreciate, however, that this is somewhat speculative and in need of clarification.

The “light tanka” can be described as 5/6 of a mithqāl (*i. e.* a mithqāl minus one dānik). The “heavy tanka” equates to triple the 2/5 tanka (*i. e.* 6/5 of tanka). Such ratios between denominations may indicate the simultaneous existence of two systems, one based on sixths of a tanka and the other based on fifths of a tanka. How the tanka weighing 4.53g related to the other tankas is unclear.

### Type 2A, light tanka.

Mintname missing, AH 889 – coins 9 (3.69g, 16 mm), 10 (3.73g, 18 mm).



Coin 9



Coin 10

Obv.: Within a plain square (with ‘eyes’ in the corners?) the *kalima* in three lines:

لا إله إلا / الله محمد / رسول الله

*There is no god except Allāh, Muḥammad is the messenger of Allāh.*

The ligature *lām-alīf* is engraved as لا. In the margin are the names of the Shī‘ite Īmāms, with *علي المر [تضي]* ‘*Alī al-Murtaḍā* visible on the left side (on coin no. 10) and *حسن* Ḥasan (?) visible on the left side (on coin no. 9). No traces of borders are visible.

Rev. of coin 9: The sign ۞ (a place of *sajdah*<sup>78</sup>) in the centre; around is the following inscription in seven lines:

ضرب / ب [السلطان] ان المهدي / ٨٨٩ / محسن بن / خلد / ملكه

*struck / the sulṭān al-Mahdī / 889 / Muḥsin bin / ... / perpetuate his rule.*

No traces of any borders are visible.

Rev. of coin 10: Inscription in five lines:

... [السلطان العادل] / [ام]ام المحسن بن محمد / ٨٨٩ / [خلد] الله ...

*The just sulṭān / Īmām al-Muḥsin bin / 889 / Allāh [perpetuate his rule].*

No traces of any borders are visible.

### Type 2B, tanka.

Al-Baṣra, AH 8x7 or 8x9 (897 or 899?) – coin 11 (4.53g, 20 mm).



Coin 11

Obv.: Within a plain square (with ‘eyes’ in the corners?) the *kalima* in three lines:

لا إله إلا / الله محمد / رسول الله

*There is no god except Allāh, Muḥammad is the messenger of Allāh.*

The ligature *lām-alīf* is engraved as لا. In the margin is the partially visible date: سنة – year (at the top), [سبع] – seven or [تسع] – nine on the left. Around are linear and dotted circles.

Rev.: Inscription in four lines:

علي ولي الله / [و] الاحدى عشر / خلفا الله / في البصرة

*Alī is close to Allāh, and eleven deputies of Allāh, in al-Baṣra.*

Around is a plain circle.<sup>79</sup>

### Type 2C, countermarked ‘*adl sulṭān al-muḥsin 902*, ½ heavy tanka.

No mint, AH 902 – coin 12 (2.59g, 17 mm).

<sup>78</sup> *Sujūd*, or *sajdah* means prostration to God in the direction of the Ka‘aba at Mecca, which is usually done during the daily prayers (*salat*).

<sup>79</sup> H. L. Rabino di Borgomale (in *Op. cit.* P. 119–120) mentioned this coin among Musha‘sha’ coins of similar design dated AH 867 and 871. But they in fact are of another type and were struck by Aspen Qara Qoyunlu (see Album, *Checklist of Islamic coins*. P. 279, no. 2486; Zeno nos. 942, 37230, and 93856).



Coin 12

Countermark: within a quadrilobe cartouche, an inscription in four lines:

عدل / سلطان / ٩٢ / المحسن

legal [coin of] sulṭān al-Muḥsin 9[0]2.

The other side is almost blank.

**Type 2D, countermarked 'adl sulṭān muḥsin 904, ½ heavy tanka.**

No mint, AH 904 – coin 13 (2.57g, 17 mm).



Coin 13

Countermark: within a quadrilobe cartouche, an inscription in four lines:

٩٤ / محسن / عدل / سلطان

legal [coin of] sulṭān Muḥsin 9[0]4.

The other side has a partially visible but unclear legend within a plain square with concave sides.

**Type 2E, countermarked 'adl sulṭān muḥsin 905, ½ heavy tanka.**

No mint, AH 905 – coin 14 (2.57g, 17 mm).



Coin 14

Countermark: within a five-lobed cartouche, an inscription in four lines:

٩٥ / محسن / سلطان / عدل

legal [coin of] sulṭān Muḥsin 9[0]5,

د written as B. The other side is almost blank.

**Type 2F, countermarked 'adl sulṭān muḥsin, ½ heavy tanka.**

No mint, no date – coins 15 (2.37g, 17 mm), 16 (2.05g, 17 mm).



Coin 15

Countermark: within a five-lobed cartouche, an inscription in three lines:

محسن / سلطان / عدل

legal [coin of] sulṭān Muḥsin

The is date is missing and the other side is almost blank.

### 3. Fallāḥ b. al-Muḥsin (AH 905–912)

Coins of Fallāḥ b. al-Muḥsin are known of one type, struck on more than one weight standard. At the beginning of his reign (AH 905–907) a tanka of ca. 3.67g was used (type 3A), which was the same as the “light tanka” of Muḥsin. Coins of type 3A were struck very haphazardly with regard to their weight, this ranging from 1.70g to 2.15g with an average weight of 1.83g. For coins of AH 912 we see a lighter standard of c.2.99g for the “light tanka” (type 3B), that is approximately 5/6 of a tanka of ca. 3.67g – *i. e.* the weight of the new tanka was again reduced by one dānik. No tanka coins of Fallāḥ are known; only the halves.

**Type 3A, ½ tanka.**

AH 905, al-Baṣra – coins 16 (1.78g, 17 mm), 17 (1.89g, 15 mm).



Coin 16

AH 906, Baṣra – coin 18 (2.00 g, 16 mm)

AH 906, al-Ḥadhra – coins 19 (2.02g, 15 mm), 20 (2.00g, 16 mm), 21 (1.87g, 16 mm), 22 (1.82g, 18 mm), 23 (2.19g, 15 mm), 24 (1.59g, 16 mm), 25 (1.5g, 15 mm), coin 26 (1.87g, 17 mm, overstruck on both sides), coin 27 (2.19g)<sup>80</sup>.



Coin 23

AH 906, al-Ḥadhra & Dawraq – coins 28 (1.71g, 16 mm), 29 (1.75g, 16 mm), 30 (1.71g, 15 mm; double-struck).



Coin 29

AH 906, Shūshtar – coins 31 (1.80g, 16 mm), 32 (2.03g, 17 mm), 33 (1.91g, 15 mm), 34 (2.05g, 15 mm), 35 (1.97g, 15 mm), 36 (1.79g, 17 mm), 37 (1.7g, 16 mm), 38 (1.96g, 17 mm)<sup>81</sup>.



Coin 34

<sup>80</sup> This coin was offered by Album (List 260, item no. 49534), but was described as struck in “al-Ḥiṣn” with the note “mint name probably applied to the fortress at the city of Ḥuwayza.”

<sup>81</sup> eBay, no. 260757738188 (2011).

AH 906, Wāsiṭ – coin 39 (1.75g, 16 mm).



Coin 39

AH 906, mint missing – coin 40 (2.15g, 15 mm).

AH 907, al-Ḥadhra – coins 41 (1.7g, 16 mm), 42 (1.74g, 17 mm), 43 (1.87g, 17 mm), 44 (1.83g, 17 mm).



Coin 42

AH 907, al-Ḥadhra & Dawraq – coins 45 (1.98g, 15 mm), 46 (1.88g, 16 mm), 47 (1.65g, 16 mm).



Coin 45

Obv.: In the centre, a dotted circle with the date *sanah* 905, 906 or 907 around the circle is a legend, divided by four vertical lines:

لا إله إلا الله محمد رسول الله في البصرة

*There is no god except Allāh, Muḥammad is the messenger of Allāh, in al-Baṣra.*

The design is bordered by plain and dotted circles. In the designation of the year ٩٠٦ (906) the digit ٦ is always engraved as ٤.

The other mints are engraved: الحاضرة – *al-Ḥadhra* (on coins 19, 20, 22 and 23 engraved حضرة شوشتر, *Shūshṭar*, واسط – *Wāsiṭ*, بصرة – *Baṣra*).

Rev.: within a plain quatrefoil, surrounded by dots, a four-line inscription:

عدل / سلطان الاعظم /  
فلاح بن المحسن / خلد الله سلطانه / ملكه بصره

*legal [coin of] / supreme sultān / Fallāḥ b. al-Muḥsin / may Allāh perpetuate his sultanate / [and] rule, Baṣra.*

The mintname on this side repeats the mintname on the obverse. On coin 25 within the letter ح of the name *Fallāḥ* is a four-pointed star +; on some coins, above the letter س of the word سلطانه is a knot of happiness.

On coins 28–30 and 45–47, the mintname on the obverse is الحاضرة – *al-Ḥadhra*, and the mintname on the reverse is دوراق – *Dawraq*.

#### Type 3B, ½ light tanka.

AH 911, al-Ḥadhra – coin 48 (1.53g, 17mm), overstruck.

AH 912, al-Ḥadhra? – coins 49 (1.32g, 16 mm), 50 (1.63g, 14 mm).



Coin 49

Obv.: in the centre is a dotted circle with the inscription ٩١١ في سنة – *in the year 911* (or ٩١٢ في سنة – *in the year 912*). Around the circle is a partially visible legend, divided by four vertical lines:

لا إله إلا الله محمد رسول الله في الحضرة

*There is no god except Allāh, Muḥammad is the messenger of Allāh, in al-Ḥadhra.*

The design is bordered by plain and dotted circles.

Rev.: within a plain quatrefoil, surrounded by dots, a four-line inscription:

عدل / سلطان الاعظم / فلاح بن المحسن / خلد الله سلطانه

*legal [coin of] / supreme sultān / Fallāḥ b. al-Muḥsin / Dawraq / may Allāh perpetuate his rule and sultanate.*

Above the letter س of the word سلطانه is an S-like spiral symbol. On coin 48 this side is almost blank with traces of a host coin.

#### Type 3C, countermarked 'adl sultān fallāḥ, ½ tanka.

Coin 51 (1.65g, 16 mm).



Coin 51

Obv.: coins with the year (912) in a central dotted circle and the *kalima* around; with countermark: عدل سلطان فلاح – *legal [coin of] sultan Fallāḥ* in a four-lobed cartouche.

Rev.: the same as on type 3B.

#### 4. Fallāḥ b. al-Muḥsin and Mājid (AH 908–910?)

All three types of joint coins of Fallāḥ and Mājid (4A, 4B and 4C) follow Fallāḥ's last, light-weight tanka standard with weight c.3.03g. As previously, only ½ tankas were struck.

#### Type 4A, ½ tanka.

Dawraq or Dizfūl, no date – coins 52 (1.27g, 17 mm), 53 (1.57g, 18 mm), 54 (1.65g, 15 mm).



Coin 53

Obv.: within a plain square with an annulet extending outwards from each corner the name ماجد – *Mājid*. Around, in four

segments: و which can be part of ذرفول – *Dizfūl* or دورق – *Dawraq* (top), عدل – *legal* (coin of) (right), السلطان – *sulṭān* (bottom), ضرب – *struck* (left).

Rev.: within a plain quatrefoil (surrounded by dots?) a partially visible four-line inscription:

عدل / سلطان الاعظم / فلاح بن المحسن / خلد الله ملكه وسلطانه

*legal* [coin of] / *supreme sulṭān* / *Fallāḥ b. al-Muḥsin* / *may Allāh perpetuate his rule and sultanate.*

#### Type 4B, ½ tanka.

Mint missing, no date – coins 55 (1.33g, 18 mm), 56 (1.69g, 17 mm), 57 (1.57g, 18 mm), 58 (1.55g, 18 mm), 59 (1.63g, 16 mm).



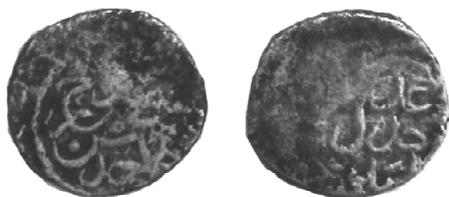
Coin 56

Obv.: within a triangle with a trefoil at each corner the name ماجد – *Mājid*. Around, in three segments: المهدي – *al-Mahdī* (right), بن محسن – *b. Muḥsin* (left), فلاح – *Fallāḥ* (bottom) المهدي فلاح بن محسن. Traces of linear and dotted borders are visible.

Rev.: within a tulip-shaped cartouche with a trefoil above, the inscription: عدل ماجد – *legal* [coin of] *Mājid*. Around is the inscription: السلطان فلاح بن المحسن – *sulṭān Fallāḥ b. al-Muḥsin*, all within a plain border.

#### Type 4C, ½ tanka.

Mint missing, no date – coins 60 (1.59g, 14 mm), 61 (1.35g, 15 mm), 62 (1.45g, 15 mm), 63 (1.54g, 15 mm), 64 (1.29g, 15 mm), 65 (1.68g, 15 mm), 66 (1.52g, 14 mm).



Coin 62

Obv.: inscription within a plain circle: فلاح / بن المحسن / ماجد – *Fallāḥ* / *b. al-Muḥsin* / *Mājid*; margin partially visible: السلطان – *sulṭān*.

Rev.: inscription within a plain circle or quatrefoil: عدل السيد ماجد – *legal* [coin of] *al-sayyid Mājid*.

#### 5. *Al-Mahdī b. al-Muḥsin* (i. e. *Fallāḥ b. al-Muḥsin* or *Mājid*)

It is unclear who issued this coin type with the name *al-Mahdī b. al-Muḥsin* – it could have been either *Fallāḥ b. al-Muḥsin* or *Mājid*, who omitted the name of his father on some coins (see type 6C below). Unfortunately, we do not have the weight of this coin to help us to determine its relative dating. If the dating of AH 914 proposed by H. L. Rabino di Borgomale for two coins of this type is correct, they belong to *Mājid*.

#### Type 5A, unknown denomination.

AH 914?, *Dizfūl* (unknown weight and size),<sup>82</sup> date missing, coin 67 (unknown weight and size).

AH 914?, *Shūstar* (unknown weight and size).<sup>83</sup>



Coin 67

Obv.: within a plain lozenge

محمد علي و / الحسن و / الحسين

*Muḥammad and 'Alī and al-Ḥasan and al-Ḥusayn.*

In the margins the *Sunnī kalima*: لا إله إلا الله محمد رسول الله – *there is no god except Allāh, Muḥammad is the messenger of Allāh* in four segments. H. L. Rabino di Borgomale reads on his specimens after the *kalima* the phrase ضرب ٩١٤ – *struck* [in] 914 but he did not provide any illustration to confirm this and we think it very unlikely.

Rev.: within a plain lozenge

المهدي / ابن المحسن / ذرفول

*al-Mahdī b. al-Muḥsin* / *Dizfūl* (or شوشتر – *Shūshṭar*).

In the margins the partially visible legend:

السلطان الاعظم خلد الله ملكه

*The supreme sultan, may Allāh perpetuate his rule*

(H. L. Rabino di Borgomale reads السلطان الاعظم الله عليه المحاضر أمين – *the supreme sultan, may Allāh cover him, Amen*, which does not seem to be correct).

#### 6. *Mājid b. Fallāḥ* (AH 912–?)

An the beginning of his rule, *Mājid b. Fallāḥ* used his name for countermarking ½ heavy tankas (types 6A and 6B) of type 3B. On later coins he called himself *al-Mahdī* (type 6C), and these coins were struck in a tanka denomination.

#### Type 6A, countermark *mājid b. fallāḥ*, on ½ heavy tanka.

Coin 68 (1.82g, 15 mm).



Coin 68

Obv.: Partially visible host coin of a type with the year in the centre and the *kalima* with year in the margin, but without the mint and date visible.

Rev.: Countermark in a plain circle: ماجد بن فلاح – *Mājid b. Fallāḥ*.

<sup>82</sup> H. L. Rabino di Borgomale, *Op. cit.* P. 120.

<sup>83</sup> *Ibid.*

**Type 6B, countermark 'adl mājid, on ½ heavy tanka.**

No traces of host coin – coins 69 (1.56g, 15 mm), 70 (1.57g, 17 mm), 71 (1.43g, 16 mm), 72 (1.57g, 15 mm), 73 (1.45g, 15 mm).  
 On the type 3B (AH 911, al-Ḥadhra) – coins 74 (1.50g, 17 mm), 75 (1.54g, 16 mm).  
 On the type 3B (AH 912, al-Ḥadhra) – coin 76 (1.31g, 16 mm).



Coin 74

Obv.: inscription within a plain circle: عدل ماجد – legal [coin of] Mājid.

Rev.: almost blank.

**Type 6C, tanka.**

Year and mint missing – coins 77 (4.10g, 18 mm), 78 (4.09g, 19 mm), 79 (4.09g, 19 mm), 80 (3.81g, 17 mm), 81 (3.75, 17 mm), 82 (4.02g, 19 mm), 83 (4.20g, 19 mm), 84 (4.01g, 18 mm), 85 (4.03g, 16 mm), 86 (4.03g, 18 mm).



Coin 77



Coin 83

Obv.: within a plain double square the Sunnī kalima in three lines:

لا إله إلا الله محمد رسول الله

There is no god except Allāh, Muḥammad is the messenger of Allāh  
 And the rashidun around.

Rev.: within a small central square, a pearl ♦ (i. e. the Ka'aba);  
 around is a five-line legend:

السلطان العادل / ماجد المهدي / بن المحسن / خلد الله ... سنة (٩)  
 The just sultan / Mājid al-Mahdī / b. al-Muhsin / may Allāh perpetuate his ... in the year... (?)

**3. DISCUSSION**

According to the catalogued coins, Mawla 'Alī was the first of the Musha'sha' to strike coins. As confirmed by the literary sources, he claimed that Īmām 'Alī was the appearance of god in human form, and that the spirit of Īmām 'Alī (i. e. of God, in terms of Mawla 'Alī) appeared in his own body. This belief was reflected in his coins – thus, on the reverse of the anonymous coins of type 1A and type 1B, that were struck during his siege of Baghdād, the names of Allāh and 'Alī are placed beside each other and interchanged, and there is no kalima or name of the prophet Muḥammad on the coins.

On another anonymous coin, of type 2B, struck in Baṣra, the ordinary Shī'a inscription 'alī walī allāh wa aḥda 'ashara *khulafa*

*allāh* can be found. That is less radical a legend, mentioning, as it does, the succession of Īmām 'Alī and the other eleven Shī'a Īmāms. Maybe this type was struck by Sayyid Muḥammad after the death of Mawla 'Alī, in order to repair Musha'sha' prestige among other Shī'a and especially the Shī'a clergy. But it can also be assigned to Sulṭān Muḥsin as his anonymous type.

Muḥsin was the first ruler of this dynasty to officially use the title of *sulṭān* for himself. Along with it, he also used title of *imām*, that clearly shows his declaration as religious leader (cf. type 2A). Sulṭān Muḥsin was also the first of the Musha'sha' to issue countermarked coins. He used the inscription *sulṭān muḥsin* with date on the countermarks and the last date on his countermarked coins is AH 905 (types 2C–2F). Countermarking, an easier and technically faster process than striking new coins, appears to have been occasioned by an intensification of monetary operations in the Musha'sha' territories. There are no examples of Muḥsin's coins known with a mintname.

According to the coins, Sulṭān Muḥsin was succeeded by Fallāḥ b. Muḥsin. This latter used the title *sulṭān al-a'ẓam* – 'the supreme sultan, and struck coins in al-Baṣra (in Iraq), al-Ḥadhra (which may have been a title for Ḥuwayza, the Musha'sha' capital), Wasīt (nowadays in the city of al-Kūt, Iraq), Shūshtar (in Iran), Dawraq (nowadays Shādegān, Iran). Some coins have two mint places, one on each side: al-Ḥadhra & Dawraq) in AH 905–907 (type 3A), - see all the Musha'sha' mints in Fig. 1. There is no report about Fallāḥ's coins during AH 908–910, and, for later years, only coins of AH 911–912 are known. The last date of his coins, AH 912, is also confirmed by *Ta'rikh-i Jahān Ārā* as the date of his death.

*Ta'rikh-i Jahān Ārā* states that, after the death of Fallāḥ in AH 912, his son, Sulṭān Mājid, succeeded him. The relationship between Mājid and Fallāḥ were not clear in the different sources, but, finally, they are clarified by the legend *Mājid b. Fallāḥ* on the coin of type 5A.

Coins of types 4A, 4B and 4C show joint rule by Fallāḥ and his son, Mājid. In addition to the unusual statement of joint rule by father and son, type 6C bears the title *al-Mahdī*. This was a very provocative declaration by Mājid, the same as his father Fallāḥ made on the coins of type 4B. The use of this title, which was dedicated to last Shī'a imām, was a great sin in the eyes of Shāh Isma'īl. These coins may belong to the time ca. AH 912, when Fallāḥ was still alive, or just after his death.

It is quite interesting to note that Mājid, who was Fallāḥ's son (see type 6A with countermark *Mājid b. Fallāḥ*), omitted his father's name on some of his coins, instead using his grandfather's name as *nasab* (see type 6C), in the manner of some Tīmūrids<sup>84</sup>



Fig. 1. Mints of the Musha'sha'.

<sup>84</sup> Like the coins of Ulugh Beg Tīmūrid (cf. Zeno, nos. 145273 and 145274 – without the name of his father, Shāh Rukh, but citing the name of his grandfather, Tīmūr) and 'Abd al-Laṭīf Tīmūrid (cf. Zeno, nos. 104016 and 125260, who omitted the name of his own father, Ulugh Beg).

We do not know of any coins of Fallāh dated AH 908–910. Perhaps in AH 908 Mājīd shared some power with his father. Or maybe after some rebellion by his uncles, Mājīd stepped aside and gave sole power to his father in AH 911–912. Following the undated joint coins of Fallāh and Mājīd, and coins of Fallāh alone struck in AH 911 and 912 (see Fallāh’s coins nos. 74, 75, 76 dated AH 911 and AH 912 and overstruck with *‘adil Mājīd*), Mājīd then became independent, after AH 912 and at least until Shāh Isma‘īl attacked him in AH 914, as is described in *Ta’rīkh-i Jahān Arā*.

The countermarks *‘adl mājid* and *al-sayyid mājid* on the coins of Sulṭān Mājīd (see type 6B) seem to have been used after Fallāh’s death in AH 912. There are countermarks of Mājīd on Fallāh’s coins of AH 911 and 912, which proves that Fallāh was alive until AH 912, and Mājīd countermarked his father’s coin after his death in AH 912.

## SILVER COINAGE ISSUED AT “KĀKHED” IN THE KINGDOM OF K’AKHETI (GEORGIA): WHEN AND WHERE WAS THIS MINT OPERATING?

By Irakli Paghava and Goga Gabashvili

The only mint of the late period Kingdom of K’akheti (in the east of Georgia) with established location<sup>85</sup> was Zagemi, the economic and political centre (along with Gremi) of this Georgian state. The mint name was spelled *ز کم* or, occasionally, *ز کام*<sup>86</sup>, while the city was denominated *Bazari* in the more or less contemporary Georgian and Russian sources). Until recently, we knew only the silver coinage of Zagemi, but then some *copper* currency produced at the same mint was published.<sup>87</sup> Moreover, some of the copper coins (cf. Fig. 1) minted in the Kingdom of K’akheti bore the name of an entire province as a mint place indication, namely *كاخد* (*Kākhed*). Alternative spellings of this Georgian toponym are known written in Arabic as: *قاخت* of *قاكتي*.<sup>88</sup>

<sup>85</sup> ჭილაშვილი, ლევანი. *კახეთის ქალაქები*. [Cities of K’akheti]. თბილისი: მეცნიერება, 1980. გვ. 163-171.

<sup>86</sup> Кутелия Тинатин. *Грузия и Сефевидский Иран (по данным нумизматики)* [Georgia and Safavid Iran (According to Numismatic Data)]. (Тбилиси: Мецниереба, 1979), 14-25; ფაღავა, ირაკლი. „სეფიანებთან საქართველოს ურთიერთობის ისტორიიდან - კახეთის ქალაქი ბაზარი (ზაგემი) XVII-XVIII საუკუნეებში (ნუმისმატიკური და წერილობითი მონაცემებით)“. [“On the Safavid-Georgian Relations: City of Bazari (Zagemi) in K’akheti in the 17<sup>th</sup>-18<sup>th</sup> c. (According to Numismatic and Written Data)“]. *ახლო აღმოსავლეთი და საქართველო VII* (2013): 218-226; Пагава Иракли, Туркия Севериане. “Новые данные о чеканке сефевидской монеты в царстве Кахети (Грузия)“. [“New Data on Minting Safavid Coinage in the Kingdom of K’akheti (Georgia)“] *Расмир: Восточная нумизматика, 1-я международная конференция, 29-31 июля 2011 г.*, ред. И. Пагава, В. Безпалько, 105-112. Одесса: ТДМ, 2013.

<sup>87</sup> Александр Акопян, Давид Алексанян, “Гянджинский клад и медный чекан Кахетинского царства.“ [“Ganja Hoard and Copper Coinage of the Kingdom of Kakheti“], В сб.: *Путиями средневековых монет: Археолого-нумизматический сборник памяти Алексея Владимировича Фомина* (Москва, 2012): in press; Gabashvili Goga, Paghava Irakli and Gogava Giorgi. “Low-weight Copper Coin with Geometrical Design Minted at Zagemi (in Eastern Georgia)“. In press (JONS).

A work on the copper coinage of Zagemi encompassing a plethora of new discoveries is in currently progress (undertaken by Giorgi Gogava and Irakli Paghava).

<sup>88</sup> Акопян, Алексанян, “Гянджинский клад и медный чекан Кахетинского царства.“ [“Ganja Hoard and Copper Coinage of the Kingdom of Kakheti“].



Fig. 1. Copper coin of Kākhed

In this short article we would like to publish a *silver* coin bearing the same mint name - *كاخد* (*Kākhed*), and consider the possible geographical location of and time-frame for minting the *Kākhed* coinage.

This silver coin was reportedly discovered on the soil surface somewhere in Saingilo (the extreme south-eastern part of historical K’akheti). Its description is as follows:

AR. Weight 1.85 g, dimensions 15-17.5 mm.

Obv.: Fragments of the royal protocol including the name of the Safavid overlord:

سلطان... لطا... محمد

Rev.: Mint formula, mostly legible (within a cartouche?):

ضرب كاخد



Fig. 2. The Shāhī of Kākhed mint in the name of Muhammad Khudābandah

The coin weight is just 1.85 g, but since it is so corroded, this may be a shāhī denomination minted on the 2400-nokhūd tūmān standard (shāhī weight = 2.304 g).<sup>89</sup>

The coin is either undated or the date is off-flan / effaced. Nevertheless, the name of the Safavid shah<sup>90</sup> indicated helps us to date this coin at least approximately. Muhammad Khudābandah ruled for about 10 years from AH 985-995 (1578-1588) and the coin bearing his name will have been minted within this period.

While this find of a silver coin of the *Kākhed* mint would appear to be an interesting discovery *pers se*, it perhaps helps us to date the undated *copper* coinage of *Kākhed* as well. When discussing the copper coins of *Kākhed* which they had discovered, Alexander Akopyan and David Alexanyan took into account the crudeness of the design and relatively higher weight of the extant specimens and assumed that they had been issued before AH 963 (1555), i.e. before *ز کم* (*Zagem*) was indicated on the coins for the

<sup>89</sup> Farahbakhsh Hushang. *Iranian Hammered Coinage, 2nd ed.* Berlin, 2007. 23.

<sup>90</sup> The Kingdom of K’akheti had become a vassal of the Safavids by then.

first time; the scholars conjectured that *Kākhed* coins were minted in the AH 930s (1520s).<sup>91</sup> The new discovery provides us with an opportunity to consider that at least *some* of the coins (the silver ones, at least) with the mint name *Kākhed* were minted somewhat later. Perhaps the copper coinage was issued in the second half of the 16<sup>th</sup> century, too.

It would not be out of place to mention that silver coinage in the name of Muhammad Khudābandah was also minted with the mint name *Zagem* (this has already been researched thoroughly<sup>92</sup>) (cf. Fig. 3). It would now appear that various precious metal coins in the name of this Safavid shah were issued in the Kingdom of K'akheti more or less simultaneously and with different designations for the mint place, one indicating the minting city, while another the whole province or realm.



Fig. 3. Silver Muhammadī of Zagem mint in the name of Muhammad Khudābandah (20 mm)

The question is whether the coins with different mint names were struck at the same location. Though Akopyan and Alexanyan assumed they were all minted in Zagemi, they considered that *Kākhed* and *Zagem* coins were minted asynchronously.<sup>93</sup> If, on the other hand, they were issued more or less concurrently, and at the same location, why would different mint names have been used? It is, of course, possible that the *Kākhed* coins were struck at a different location, for instance, in Gremi, a second capital of the kingdom. Yet, at this stage, we cannot exclude the possibility of the Zagem mint indicating (for unknown reasons) on its coins the city name in some instances, and the kingdom name in others. The find location of this, so far, unique specimen of the silver coinage of *Kākhed* may point (albeit quite indirectly) to Zagemi as the mint place for the *Kākhed* coinage. It is hoped that new coin finds' and hoard evidence will help to clarify this issue in the future.

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3. Farahbakhsh Hushang. *Iranian Hammered Coinage*, 2nd ed. Berlin, 2007.
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5. Акопян Александр, Алексанян Давид. “Гянджинский клад и медный чекан Кахетинского царства.” [“Ganja Hoard and

<sup>91</sup> Акопян, Алексанян, “Гянджинский клад и медный чекан Кахетинского царства.” [“Ganja Hoard and Copper Coinage of the Kingdom of Kakheti”].

<sup>92</sup> Пагава, Туркиа. “Новые данные о чеканке сефевидской монеты в царстве Кахети (Грузия)”. [“New Data on Minting Safavid Coinage in the Kingdom of K'akheti (Georgia)”]. 105-112.

<sup>93</sup> Акопян, Алексанян, “Гянджинский клад и медный чекан Кахетинского царства.” [“Ganja Hoard and Copper Coinage of the Kingdom of Kakheti”].

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#### More images from the recent Tübingen meeting (see p.2)



Dr Lutz Ilisch



Mrs E. M. Alboji



Nikolaus Schindel

# A FREQUENCY TABLE OF THE MAMLUK GLASS WEIGHTS FROM THE GAYER-ANDERSON DIGITAL SYLLOGE

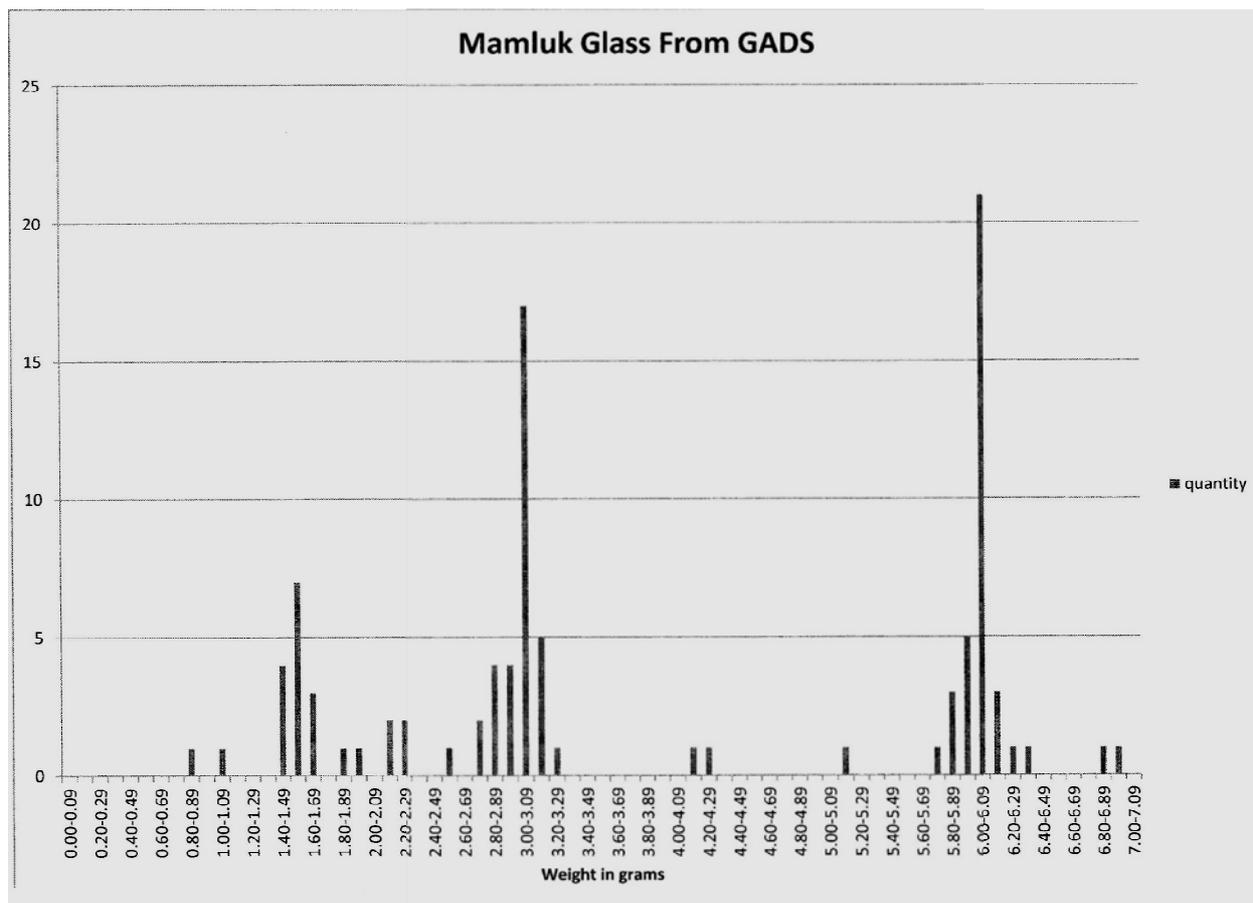
By Warren C. Schultz

In 2003 I published an article, 'Mamluk Metrology and the Numismatic Evidence', which was based upon an analysis of surviving coins and weights (or weight-like objects) from Mamluk-era Egypt and Syria (AD 1250-1517).<sup>1</sup> I concluded that this material culture evidence pointed to values of around 3.0 g for the Mamluk dirham weight unit in Egypt, and 4.3 g for the *mithqāl* unit. Both of these values were slightly higher than the 2.97 and 4.25 g amounts often cited for the period. That study made use of four categories of evidence: coins which contained metrological terms in their inscriptions; coins which were linked to specific weight units in contemporary literary sources; bronze objects usually identified as weights which originate from the Mamluk Syrian provinces; and small, disk-shaped glass objects from Egypt. It is to that last category that I return in this note.

These glass objects are the subject of a wider debate centering on their intended purpose. They first appeared in Egypt during the Fatimid era (AD 969-1171), but their production continued well into the Mamluk period. Some have argued that they were intended as a petty coinage, particularly in the Fatimid era, and others that they served as coin weights, made necessary by the irregular weights of contemporary dinars and dirhams.<sup>2</sup> While that

controversy is beyond the scope of this note, it reinforces the need for more specimens of these objects to be made available for study. My 2003 article made use of the weights of 783 Mamluk-era glass disks, the vast majority of which were examined in the collections of the American Numismatic Society, the British Museum, the Ashmolean Museum, and the Forschungsstelle für Islamische Numismatik, Tübingen. Since then additional specimens from another significant collection have been published.

In 2006 a four-member Egyptian/American research team under the leadership of Jere L. Bacharach digitally published *A Complete Catalog [Sylloge] of the Glass Weights, Vessel Stamps & Ring Weights in the Gayer-Anderson Museum, Cairo* [Mathaf Bayt al-Kritliyya].<sup>3</sup> This bi-lingual work (English and Arabic) contains scanned colour images and descriptions of almost 1100 glass objects stored at this museum, all offered for the express intent of making these objects available for others to incorporate them into their work. The majority of items listed in this digital sylloge date from the Fatimid era. However the collection also contains 109 glass objects identified as Mamluk. Of these 109 objects, thirteen are broken or otherwise damaged in some way, leaving 96 intact objects. The weights of these 96 specimens are plotted in the accompanying frequency table, in which the horizontal axis is divided into tenth-of-a-gram segments, in order to summarise their metrological data. While frequency tables are not without their limits, they are useful tools to draw attention to general metrological patterns.



Several observations are suggested by this table. The first is that there are three spikes or clusters of objects. One such cluster of objects falls in the interval 1.50-1.59 g (7 objects), the second in the 3.00-3.09 g range (17 objects), and the third in the interval of 6.00-6.09 g (21 objects). While the proportional relationship of these three spikes suggests that they are linked to the denominational values of half-dirham, dirham, and double dirham, it is important to note that these terms do not appear on the objects themselves. The second observation is that the weight amount of each of these three ranges supports the assertion that the Mamluk dirham weight value in Egypt was at least 3.0 g. In other words, despite the smaller size of this sample, the results mirror what was that was seen in the frequency tables of the 783 objects in my 2003 study. The third observation is that this sample skews towards the dirham weight value. There are only four specimens that appear in the intervals close to the *mīthqāl* standard of approximately 4.3 g or its half (five if we include a possible quarter-*mīthqāl*). While we know that Mamluk gold coins minted before the appearance of the ashrafi dinar in the reign of sultan Barsbāy (AD 1422-1438) were highly irregular in weight and thus would have needed standardised weights to determine value, there are relatively few such weights pegged to the *mīthqāl* that have come to light let alone been published. Not surprisingly, the need for more specimens remains strong.

#### Notes

1. "Mamluk Metrology and the Numismatic Evidence." *al-Masaq: Journal of the Medieval Mediterranean* 15 (2003): 59-76.
2. For an overview of this debate, albeit focusing on earlier periods, see Michael L. Bates, "The Function of Fatimid and Ayyubid Glass Weights." *Journal of the Economic and Social History of the Orient* 24 (1981): 63-92, who argued for coin-weights; and the response by Paul Balog, "Fatimid Glass Jetons: Token Currency or Coin-Weights?" *Journal of the Economic and Social History of the Orient* 24 (1981): 93-109, who concluded they were a petty coinage.
3. Jere L. Bacharach, Raafat Muhammad al-Nabarawy, Sherif Sayed Anwar, and Ahmed Mohammed Yousef. *A Complete Catalog [Sylloge] of the Glass Weights, Vessel Stamps & Ring Weights in the Gayer-Anderson Museum, Cairo* [Mathaf Bayt al-Kritiliyya]. A web-based publication hosted by the American Numismatic Society's Digital Publications Project. URL: <http://numismatics.org/html/dpubs/islamic/ga/>. For a review see my "Recent Work on the Monetary and Metrological History of Egypt, 868-1517 CE." *Journal of the American Oriental Society* 132 (2012): 675-80.

## GOMITRA – A NEW MITRA RULER OF THE PUNJAB

By Devendra Handa

It was in 1891 that Alexander Cunningham published the round billon/copper/brass coins of Ajamitra, Mahimitra and Bhānumitra under the tribal name Odumbara<sup>1</sup> though James Prinsep<sup>2</sup> had brought to light the earliest such piece which he could not decipher and attribute properly. Charles Rodgers<sup>3</sup> too obtained during his explorations in 1888-89 in the Punjab two similar coins which remained un-attributed. In 1906, Vincent A. Smith published, following Cunningham, coins of these rulers with Mitra-ending names along with the Audumbara coins without making any dynastic distinction, but made the important observation that the Audumbara coins "come chiefly, if not exclusively, from the Kangra district in the Punjab" and that "... Odumbara coins of Bhānumitra are 'quite common' at the foot of the Manaswal plateau, Hoshiarpur district".<sup>4</sup> In 1936, John Allan followed Cunningham and Smith to list the coins of rulers with Mitra-ending names under the Audumbaras, adding a coin of Mahābhūtimitra to the list.<sup>5</sup> The Audumbaras had issued square copper coins depicting a temple with a trident battle-axe by its side and bearing Brāhmī legend

along the margins *Mahadevasa raña* (above) *Śivadasa/Rudradasasa/Dharaghoshasa* (on the right) *Odubarisa* (on the left) on the obverse and, on the reverse, the forepart of an elephant on the right, a tree in railing on the left with the Kharoshthī legend *Mahadevasa raña* above, the name of the king on the left and the tribal name *Odubarisa* on the right. Dharaghosha issued some silver coins bearing a trident battle-axe on the left and a tree in railing on the right with a Brāhmī legend from IX o'clock position on the obverse and the figure of the sage, Viśvamitra, with his name split as *Viśpa* and *mitra* flanking him and the legend in Kharoshthī from II o'clock position along the margin on the reverse.

The coins of the Mitra rulers generally show a male figure to the left holding a spear in the right hand, a vertical wavy line on the right with a Kharoshthī legend citing the name of the issuer, some times with the regal title *Raña* preceding it on the obverse, and, on the reverse, an elephant to the right/left with a Brāhmī version of the legend.<sup>6</sup> On some Mitra coins with a bull on the reverse, excavated at Ghuram near Patiala, a new name, Indramitra, was read.<sup>7</sup> Bhānumitra issued the largest number of coins, which in addition to the well-known devices, also include coins with an elephant on both sides, and also coins with an elephant on the obverse and three symbols (𑀧 𑀘 𑀙) with a wavy line below and a Brāhmī legend on the reverse. Besides the Manaswal plateau and Ghuram referred to above, these Mitra coins have been found from Ropar (Rupnagar), Sunet, Samana (near Patiala), and Sadhaura in Haryana<sup>8</sup>, indicating clearly that their provenance is different from those of Audumbara coins, which come from Pathankot, Kangra, Jwalamukhi, etc. It will thus be erroneous to assign them to the Audumbaras. A Pañchāla ruler bearing the name of Bhānumitra also issued coins with three symbols but their type and symbology (𑀧 𑀘 𑀙) are distinct. Most of the scholars thus now distinguish between the Pañchāla and Punjab coins.<sup>9</sup>

My friend, Shri R.K. Aggarwal, has obtained a hitherto unknown Mitra coin from the old site of Charan in the Shahid Bhagat Singh Nagar (erstwhile Nawanshahr) district, Punjab which is published here.<sup>10</sup> Charan is located about 80 km northwest of Chandigarh and can be approached from Balachaur on the Chandigarh-Phagwara highway from where it is about 10 km to the west. Charan must have been located on the Satluj River which now flows a few km south of the ancient site.

The coin is square in shape and is made of what looks like lead but its exact composition can be determined only after its metallographic assaying. It is patinated and not in a very good state of preservation. It measures 16.5 mm and is 5.36 g in weight. The description of the devices on the two sides is as follows.



*Obv.:* A human figure turned slightly to his right with right hand raised above the shoulder, holding some unidentifiable object, left hand akimbo supporting a round object, probably a water pot; a vertical wavy line on the (viewer's) right. The left margin has a blurred vertical Kharoshthī legend *Gomitasa* and the right margin has what looks like a Brāhmī legend but nothing definite except a letter *sa* in the middle can be made out.

Rev. An elephant to the right with a tree in railing in front; there is a partially visible Ujjain symbol above the back of the elephant and a Brāhmī legend *Gomitasa* above.

The human figure on the obverse wears a *cholaka* 'long coat' which reminds us of the lower garment worn by human figures on Ujjain coins and is identified as Śiva. It is a precursor of the long coat of the Kushan kings. The coiffure of the figure may be matted locks but looks like a crown. The water pot in the left hand indicates the figure to be of some deity, maybe of Kārttikeya, as generally identified on the coins of known Mitra rulers.

The legend gives us the name of Gomitra, which is a new name. The square shape indicates that it was the earliest coin of the Mitras of the Punjab, as all coins of the other known rulers are round in shape. The regal title *Rājāraña* is also absent and there is no space before Gomitra for it on our coin. This, too, points in the same direction. The 5.36 g weight of this coin is also the highest recorded so far for the Mitra coins. It comes to about 46.5 *rattis* and seems to have lost some weight in wear and tear. The standard weight of the original coin may have been 48 *rattis*, i.e. half of the Indian *tola* of 96 *rattis* or 11.10 g. The Kharoshthī and Brāhmī legends indicate their provenance north of the Sarasvatī River, which is supported by the known find-spots of these coins.

This square copper coin is the only piece in this shape, it gives us the name of a new ruler, comes from a definite provenance, and represents the highest denomination; hence its importance.

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I am thankful to Shri Aggarwal for bringing this coin to me for identification and allowing me to publish it. The coin illustration is not to scale.

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An Afrasiyab 6 dirham coin in the name of al-Mahdi Muhammad, struck at Sari in AH 760

## REVISITING NASIR AL DIN MAHMUD SHAH'S REIGN IN BENGAL: A STUDY BASED ON LITERATURE AND NUMISMATIC EVIDENCE

by Md. Shariful Islam and Noman Nasir

### Introduction

Many of the events in the history of medieval Bengal, especially the sultanate period, have remained unexplored. One of the major causes of this is that there was no contemporary official record of events of those rulers of Bengal as is seen in the case of the Delhi rulers. Therefore, the history of the Bengal sultanate was largely dependent on the contemporary historians of the Delhi sultans. Those sources, however, were, by no means, a complete record of the history of contemporary Bengal. Later historians have continuously updated the history of Bengal based on newly discovered coins and stone inscriptions of the sultanate period. This article seeks to add to this process. Its inspiration has been drawn from a few newly discovered coins of Nasir al-Din Mahmud Shah that bear a common date on them which contradicts the hitherto accepted date for the beginning of his reign. In this article, literary sources for the reign of Nasir al-Din Mahmud Shah have been reviewed, the newly discovered coins have been examined and then, based on both these processes, an attempt has been made to draw conclusions about the probable events that might have taken place during that time in the Bengal sultanate that also have implications for the reign of Nasir al-Din Mahmud Shah.

### Review of Related Literature

From the literary sources on the history of Bengal it is observed that the authors or historians provide differing opinions on the reign of Mahmud Shah, especially on the beginning of his reign. The first year of his reign has been mentioned by Ali (1985) and Habibullah (2006) as AH 846; Shahnewaz (2002) as AD 1437/38 (or AH 841); Ali (1998) as AH 839; Alam (2006) and Rahman, *et. al.* (2011) as AH 838; and Karim (2001) as AH 837. Thus, the earliest date for this ruler that has been mentioned by any previous study is AH 837 though few of them have published any numismatic evidence.

On the other hand, Banglar Itihās (The History of Bengal), a Bangla translation of the book by Salim (1788), 'Reaz-us-Salatin', describes Nasir al-Din Mahmud Shah as 'an able ruler who ruled Bengal for a period of 32 years. In another description it is said that he ruled Bengal for 27 years (p.267)'. The first year of Rukn al-Din Barbak has been confirmed from coins of the ruler as AH 864 (Goron and Goenka, 2001). From coins and stone inscriptions of Nasir al-Din Mahmud Shah it is confirmed that he ruled until AH 864 (Coin 8; Karim, 2007; Blochmann, 1968). Taking AH 864 as the last year of Nasir al-Din Mahmud Shah, if the description of his reign of 27 years is accepted, we get AH 837 as the first year of his reign. On the other hand, if the description of his reign of 32 years is accepted, we get AH 832 for the first year of his reign. Hence, there is a clear discrepancy from the literary sources about the start of his reign which has hitherto not been resolved from known coins or stone inscriptions.

### Newly Discovered Numismatic Evidence

We have investigated a few recently discovered coins of Nasir al-Din Mahmud Shah that are preserved in the personal collections of numismatists and dealers in Bangladesh and abroad. This effort resulted in the identification of three coins (Coin 1, 2 and 3) dated AH 837 that belong to type B433 of Goron and Goenka (2001). The date on two of these coins has been engraved in the appropriate direction while on one (Coin 3) the date is engraved retrograde. All of these three coins of

AH 837 were issued from the mint of Firuzabad. It is observed that the dies used for these three coins are all different. Therefore, we can infer that a fairly large number of dies was probably used to issue the coins of that year for this ruler.



Coin 1



Coin 2



Coin 3

The obverse legend on coins 1 to 7 is:  
 السلطان العادل ناصر الدنيا و الدين ابوالجهاهد محمود ساه السلطان  
*al-sultān al-'adīl nāṣir al-dunyā wa al-dīn abu'l al-mujāhid mahmūd shah al-sultān*

The reverse legend on the same coins has the *kalima*:  
 لَا إِلَهَ إِلَّا اللَّهُ مُحَمَّدٌ رَسُولُ اللَّهِ

The date and mint is in the margin of the reverse.

The surprising result of this study is the identification of four coins (Coin 4, 5, 6 and 7) of the ruler with the earlier date of AH 832. No coins with any date between 832 and 837 could be located. Two of these coins (Coin 4 and 5) were issued from the Firuzabad mint while the remaining two (Coin 6 and 7) were from 'Arsa Chatgaon mint. It is observed that the obverse of the two coins of the Firuzabad mint were struck from the same die, while the reverse of these coins was struck from different dies. On the other hand, we noted that the obverse of the 'Arsa Chatgaon mint coins were struck from different dies while the reverse was struck from the same die. This enables us to make the following comments. Firstly, the fact that the obverses of the two Firuzabad coins were struck from the same die suggests the mintage of this year in the name of Nasir al-Din Mahmud was probably very limited. Secondly, the fact that the reverses of the four coins with clear date and mint were struck using three dies and from two different mints provides clear evidence that the date of 832 inscribed on the coins was not the result of an error.



Coin 4



Coin 5



Coin 6



Coin 7



Coin 8

### Conclusion

The numismatic evidence of the two dates, AH 837 and 832 matches the two conflicting dates drawn from the narrative in Salim's work (1788) regarding the initial year of Nasir al-Din Mahmud Shah's reign (27, 32 years). We cannot, however, accept the coins of Nasir al-Din Mahmud Shah that were issued in AH 832 as evidence to record this date as the initial year of his main reign, as Jalal al-Din Muhammad Shah continued his reign until AH 836/37 and his son, Shams al-Din Ahmad Shah, reigned during the year AH 837, too (Goron and Goenka, 2001). But what the coins of Nasir al-Din Mahmud Shah dated 832 from two different mints may well indicate is a probable political conflict between Jalal al-Din Muhammad Shah and Nasir al-Din Mahmud Shah at that time. Karim (2007) commented (translated from his comments), "So, from

the evidence of coins it is assumed that there was political conflict during the reign of Jalal al-Din Muhammad's reign and a group of people was against the family of Raja Ganesha." Karim additionally states "It is also thought that supporters of the Ilyas Shahi family were active in recapturing the throne of Bengal. It seems they could not succeed during Jalal al-Din Muhammad's reign but, after his death, this group became powerful in the reign of the immature Shams al-Din Ahmad Shah who died in their conspiracy and Nasir al-Din Mahmud ascended the throne of Bengal (P. 269)." The discontinuation of the coins of Nasir al-Din Mahmud Shah after AH 832 until AH 837 strongly suggests that Mahmud's attempt to usurp the throne in 832 was not successful.

The coins of Nasir al-Din Mahmud Shah of the year 837 and the continuation of his coins until 864 matches Salim's mention (1788) of 27 years for Mahmud's reign. Therefore, it can be concluded from the numismatic evidence and descriptions by historians that Nasir al-Din Mahmud Shah made an ultimately unsuccessful first attempt to capture the Bengal sultanate in AH 832, but five years later, in AH 837, he successfully captured it and continued his reign until AH 864.

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## DATING AND LOCATING MUJATRIA AND THE TWO KHARAHOSTES

By Joe Cribb

### Abstract:

**This reappraisal of the coins of the satraps Kharahostes, son of Arta[sa], and Mujatria, son of Kharahostes, shows that their domain was in the region of Jalalabad in Afghanistan and that they were ruling during the period of the first Kushan king, Kujula Kadphises, and their satrapy ceased issuing coins in the period of the second Kushan king, Wima Takto. The Kharahostes who appears in the Mathura lion capital appears to have been a separate person with no clear connection with the son of Arta[sa]. This interpretation has been reinforced by the recent discovery of a coin of Kharahostes reigning as satrap at Mathura. Both Kharahostes can now be dated in the late first century AD, ruling just before the Kushan conquest of**

**their domains. (N.B. all images are enlarged to show detail, captions provide the actual size)**

*The coins of the satrap Kharahostes are very rare. They are all square, and bear types of the horseman and lion as on some coins of Azes and Azilises. The father's name would appear to be simply Arta in the native legend, and Artaüs in the Greek legend. The coins are found in the north-west Panjab. They are very rare, as I have seen only seven specimens in fifty years. He must have been a chief of some note, as his name occurs three times in the great satrap inscription from Mathura, which is now in the British Museum. (Cunningham 1890: 127)*

This paper is an account of the coins of Kharahostes and his son, Mujatria, who appear to have been satraps of the province based on the ancient city of Nagarahara (by modern Jalalabad in eastern central Afghanistan). It also examines their historical significance.

These coins have been known since the 1830s, but were not then identified. Alexander Cunningham recognised the word satrap in Kharoshthi on coins of Kharahostes and Mujatria, but could not read their names (1854: 694-5). They were listed by Gardiner (1886) as issues of unknown kings, but he also agreed with Cunningham's reading of satrap and confirmed its appearance in the Greek inscription as well.

### Early research on Kharahostes

The first attempt at reading the full inscription on the coins of Kharahostes was made by Bhagvanlal Indrajit before he died in 1888, but did not appear until 1890, when Rapson published extracts from his posthumous papers on the satraps of India. This article did not give a detailed account of the coins, but referred to the coins as issues of 'the Satrap Arta, the Kharaotha'. This article linked this satrap with the prince also referred to as 'Kharaotha' in the Kharoshthi inscription on a lion capital which he had found at Mathura and presented to the British Museum, (Bhagvanlal and Rapson 1890: 641). Cunningham (1890) was able to correct Bhagvanlal's reading through his access to a wider range of coins. He deciphered the inscriptions correctly reading his name in Kharoshthi as Kharaoستا, son of Arta, but in Greek as Charamostes, son of Artaüs. He also picked up Bhagvanlal's link between the coins and the Mathura Kharoshthi inscription, suggesting that they were the same person (1890: 127-128). Rapson, publishing further notes on Indian satraps by Bhagvanlal (1894), was able to correct both Bhagvanlal and Cunningham's readings of the coins. In a note on Bhagvanlal's commentary he affirmed Cunningham's interpretation of the inscription, but gave a more accurate rendering of the Kharoshthi (1894: 549-550) and dismissed the interpretation presented by Bhagvanlal. In the same year, Bühler also wrote on Bhagvanlal's interpretation of the lion capital inscription and rejected the linkage of Kharahostes, son of Arta (i.e. Arta[sa]) and the Mathuran Kharaoستا, on the basis that he interpreted the Mathura lion capital inscription as identifying Kharaoستا as the son of a different father, the Mathura satrap, Rajuvula (1894: 532).

Rapson (1905: 792-796) again addressed the reading of Kharahostes coins and gave a more assured drawing and account of the inscriptions. He also discussed the relationship between the coin issuer and the Kharaoستا in the Mathura lion capital inscription, addressing Bühler's rejection of the link proposed by Bhagvanlal and Cunningham, but undoing his objections and leaving the possibility open, provided a different interpretation of the Mathura inscription could be made. Fleet (1907a: 1028) provided such an alternative understanding of the Mathura inscription, identifying Kharaoستا as the son of the daughter of the Mathura satrap, Rajuvula, and therefore Arta[sa] could be the daughter's husband. The Greek version of the satrap's name read as Charamostes was also re-examined

by Fleet who showed that it should be read as Charahostes, giving the Greek H its Latin pronunciation as an *h* (1907a: 1029; 1907b: 1041–1042). Lüders summarised the evidence so far assembled on the coins and reinforced Rapson's link between them and the Kharaosta on the Mathura lion capital (1913: 423–424). In his discussion of the Mathura lion capital Sten Konow was adamant that 'there can hardly be any doubt about the identity of this Kharaosta [in the inscription] with the kshatrapa Kharahostes whose coin legends have been dealt with by Professors Rapson and Lüders' (1929: xxxv). The association between the Kharaosta at Mathura and the coin issuer of the same name accordingly became an almost unquestioned part of the history of this period (e.g. Marshall 1947: 23). There were still, however, a few who rejected the link on the basis that the Mathuran Kharaosta was the son of Rajavula, whereas the coin issuer was the son of Arta[sa] (e.g. Dikshit 1952: 165).

#### Discovering Mujatria, son of Kharahostes

The coins of Kharahostes' son were first illustrated by Prinsep (1836: 553, pl. XXVIII, 16), Pigou (1841, fig. 1) and Cunningham (1854, pl. XXXV, nos. 14 and 16), but not attributed until the part of their Kharoshthi inscription meaning 'son of Kharahostes' was recognised by Michael Mitchiner (1975/6: 584 and 598). Although he had not read the inscription, it is interesting to note that Marshall had previously attributed an illegible coin of Mujatria to Kharahostes, 'probably' (Marshall 1951, 'Rare and Unique Coins' 329). His name, however, was not known until found, but misread as Hajatria, by Bob Senior (1997). When Senior republished his coins in 2001 (Senior 2001: 125–126), he suggested his correct name, Mujatria, as an alternative reading in a footnote (2001: 125, fn. 3). This detailed re-examination of his coins confirms the correctness of Senior's alternative reading, identifying the son of Kharahostes as Mujatria.

In 1854 Cunningham had illustrated a coin in the name of Azes (1854: pl. XXXV, 15) together with two coins of Mujatria (nos. 14 and 16), but again it was Mitchiner who first remarked on the link between these coins and those of Kharahostes' son (1975/6: 579). Senior, however, was the first to explicitly set out the linkage of these two series of billon and copper coins in the name of the Indo-Scythian king, Azes, with Mujatria (2001: 123–124). This study confirms their attribution to Mujatria. The billon coins are of particular significance because examples were found in a Buddhist stupa together with an inscribed stone container and a gold casket bearing images of the Buddha. The stupa, known as Bimaran 2, was excavated in 1834 by Charles Masson (Masson 1841: 70–71). It was located in Darunta district to the west of the remains of the ancient city of Nagarahara. There has been a long debate on the dating and historical significance of the Bimaran gold casket and its Buddha images largely prompted by views about the dating of the coins between about 50 BC and AD 75 (Cribb at press b).

#### The Bimaran Stupa 2 – Coins of Mujatria

Masson had already observed in 1835 that the coins of the type found in the Bimaran stupa 2 were not issues of Azes himself: 'The great diversity in the devices of these coins, as well as the circumstances of style and execution, seem to prove that they refer to the numerous race of princes, of whom the first [i.e. Azes] was of such importance that his name was continued by his descendants' (Masson 1835: 18). Wilson followed Masson in suggesting that they 'are evidently of a later and more barbarous period than most of the preceding [i.e. coins of Azes], and probably the coins, not of Azes, although his name appears on them, but of some of his successors' (1841: 331). In spite of these statements most commentaries have attributed the coins to the Indo-Scythian kings, Azes I or Azes II, on the basis of their Kharoshthi inscription naming Azes. What is now clear is that although the coins have the name Azes in their

inscription, they were not issued by that king, but are part of the satrapal coinages which were issued after the reign of the second king called Azes. The attributions of these coins used in the past, to Azes I (c. 46–1 BC) and Azes II (c. AD 1–30), are therefore no longer relevant to their dating and that of the Bimaran stupa 2 relic deposit.

The clearest evidence for the attribution of the Bimaran casket coins to a period after Azes II is:

1. The blundering of the obverse Greek inscription.
2. The inclusion of an additional title, *dhramika*, in the reverse Kharoshthi inscription normally used by Azes II, probably borrowed from its use on some coins of the Indo-Parthian king, Abdagases (Senior 2001 type 227.5).
3. The style of Kharoshthi on these imitations is different from that used on Azes II's own coins, but similar to that used on Indo-Parthian and early Kushan coins.
4. The obverse design showing a mounted ruler in Iranian jacket and trousers, as worn by Indo-Parthian and early Kushan king on their coins, rather than the heavy armour worn by the figure of Azes II on his. Ruler without diadem.
5. The reverse design featuring the Greek goddess Tyche, not used on lifetime issues of Azes II.

All these features place the coins in the period after the end of Azes II's regular coinage in the period of the Indo-Parthian incursion into Gandhara and the Kushan incursion into Taxila and Swat, and the survival of Indo-Scythian rule under local satraps or kings in peripheral regions. The most recent studies of these issues are by Mitchiner (1975/6 and 1978), Robert Senior (2001 and 2006) and Christine Fröhlich (2008). All have included the Bimaran-type base-silver 'posthumous Azes' coins among the issues of the family of the satrap Kharahostes. They have observed that the symbols used on the base-silver 'posthumous Azes' coins, triskeles and Kharoshthi monogram *ṣighasa*, also appear on small copper coins, with Apollo or Heracles on the reverse, in the name of the son of Kharahostes. The base-silver 'posthumous Azes' coins of the type found in Bimaran stupa 2 (see type 13a, nos. 71, 74, 76 and 79 below), therefore, seem to be issues of Mujatria, but retaining the name of Azes. This attribution is reinforced by the presence of the initial *mu* of Mujatria's name on many of these coins issued in the name of Azes.

#### Attempts at Dating and Locating Kharahostes and Mujatria

Establishing the chronology and location of the satraps, Kharahostes and Mujatria, has not been straightforward and has prompted various theories. Most of them were based on the identification of the coin-issuing Kharahostes as the father-in-law of the Mathura satrap, Rajuvula, as first proposed by Konow (1929: 35–36). Recent analyses of the Mathura lion capital inscription have accepted Konow's explanation of the relationship between Kharahostes and Rajuvula, even though they admit that the inscription is not easily understood. Various interpretations have been proposed, making Kharahostes Rajuvula's son, grandson, son-in-law or father-in-law, but the last of these is the one most widely used (Baums 2012: 220–1, n. 44; Salomon 1996: 428, 433, 439–443; Falk 2011: 124–125). The main argument for this is that the coins make it clear that Kharahostes' father is Arta[sa]; therefore, he cannot be the son of Rajuvula.

The most recent studies of the coins of Kharahostes and Mujatria by Mitchiner (1975/6 and 1978), Senior (2001 and 2006) and Fröhlich (2008) all dated the coins of Kharahostes on the basis of their relationship with other Indo-Scythian satrapal issuers and of their acceptance of Konow's identification of Kharahostes as Rajuvula's father-in-law. Mitchiner's dates for Kharahostes were c. AD 1–5 and for his son c. AD 20 (1975/6: 581–586; 1978: 312–313, 343). Senior (2001: 98–100), using a similar analysis, dated Kharahostes to c. 20–1 BC and Mujatria to c. AD 1–20. Likewise, Fröhlich also

dated Kharahostes to the late first century BC (2008: 52–54). MacDowall (1977: 193) dated the coins of Kharahostes before the reign of Gondophares (i.e. before c. AD 32 according to the chronology he was using).

The first attempt to locate the satrapy ruled by Kharahostes, son of Arta[sa], and his son was by Marshall. He asserted that their domain was the Chukhsa/Chach satrapy (Marshall 1951: 55) and located it ‘in the neighbourhood of Taxila’ (1951: 39), perhaps based in the location now known as the Chach valley on ‘a broad alluvial plain in the north of Attock district, alongside the Indus’ (between Attock and Swabi) (1951: 48). He saw it as extending on both sides of the Indus, stretching ‘from the Peshawar valley on its west to most of the Hazara, Attock and Mianwali District on its east, i.e. a large area stretching from Peshawar to Taxila’ (1951: 48). Marshall’s attribution of Kharahostes to Chukhsa was based on his ‘copper coins which suggest that he probably followed Patika in the Chukhsa satrapy’ and placed Jihonika and his father as his successor (1951: 55). There is, however, no inscriptional evidence for associating either the Mathuran Kharahostes or the Kharahostes, son of Arta[sa], with the satrapy of Chukhsa. Inscriptional evidence links Chukhsa with other late Indo-Scythian satraps: Liaka Kusulaka and his son, Patika, (in the Patika and Mathura lion capital inscriptions, Konow 1929: 23–28 and 30–49; Baums 2012: 211–212 and 221) and Jihonika and his father, Manigula, (in the Taxila silver vase inscription, Konow 1929: 81–82). Marshall linked (1951: 61) the lion design of Kharahostes’ coins with that on the coinage of Jihonika (Zeionises), but the lion design was used elsewhere in the Indo-Scythian domains, so this association does not indicate location.

Following Marshall’s views, Mitchiner attributed Kharahostes to the satrapy of Chukhsa, asserting that he ‘is known from his coins to have been governing part of Chach province’ (2075/6: 582), locating it on a map as lying across the Indus, close to Dera Ismail Khan (590, map 51). Fröhlich was of the same opinion, but did not attempt to give it a specific location of Chukhsa (Fröhlich 2008: 52–54). Senior did not identify the territory of Kharahostes and his son as the satrapy of Chukhsa, but showed it in a chart as being in Gandhara (2001: 96), and located the circulation of their coins ‘somewhere north of Taxila, maybe in Hazara’ and on ‘the western fringes of Gandhara’ (Senior 2001: 99–100). MacDowall (1977: 193) also refrained from naming Kharahostes’ satrapy, but located the coins of Kharahostes to the ‘middle Indus’ region.

#### **Evidence for Dating and Locating Kharahostes and Mujatria from finds**

The dating and geographical location of Kharahostes and his son, Mujatria, so far proposed are in conflict with the evidence of the coin finds so far recorded. The evidence presented here locates their satrapy in the region of Jalalabad in eastern Afghanistan and dates them to the latter part of the first century AD.

The numerous finds of Mujatria’s coins in the nineteenth century excavations in Darunta district to the west of Jalalabad suggest that his and his father’s domain was in that region, probably based on the ancient city of Nagarahara, located to the west of Jalalabad. Mujatria’s coins should be dated to the late first century AD as they have been found deposited alongside the Heracles-type coins of Kujula Kadphises, and were current until the arrival of Soter Megas’ coins in the region.

The incidents of the burial in Buddhist contexts of coins of Mujatria (in his own or Azes’ name) have been tabulated by Elizabeth Errington (Errington 2012: 128–9). In her table, the coins of Mujatria in the name of Azes, including the Mujatria coins of the type found in Bimaran stupa 2, are termed ‘posthumous Azes’ and it is possible, with some caution, to work out the incidence of the appearance of these coins from

the published records and surviving coins in Masson’s collection:

Four base-silver ‘posthumous Azes’ coins of Mujatria were found in Bimaran stupa 2 (Masson 1841: 70–71);

Five base-silver ‘posthumous Azes’ coins of Mujatria were found with sixty six of Kujula Kadphises and one of Gondophares in Bimaran stupa 5 (Masson 1841: 75–90);

Two base-silver ‘posthumous Azes’ coins and one copper coin of Mujatria (or Kharahostes) with thirteen of Kujula Kadphises and one of Gondophares in Hadda stupa 3 (Masson 1841: 106);

One base-silver ‘posthumous Azes’ coin (fig. 3) and one copper coin of Mujatria (fig. 1) with one copper coin of Kujula Kadphises (fig. 2) in the Tope-i Kutchera stupa (Pigou 1841);

One base-silver ‘posthumous Azes’ coins and fifteen square copper coins of Mujatria in Passani stupa tumulus 5 (Masson 1841: 95);

Four or more small square copper coins of Mujatria (all in very corroded condition, recognisable through their size and shape) with one or more Kujula Kadphises in Deh Rahman stupa 1 (Masson 1841: 79);

Two base-silver ‘posthumous Azes’ coins of Mujatria in Kotpur stupa 1 (Jacquet 1838: 182–187);

One base-silver ‘posthumous Azes’ coin of Mujatria in the debris around Surkh Tope stupa (Masson 1841: 81 and 96).

Apart from these finds, Masson reported that he had been shown three base-silver ‘posthumous Azes’ coins of Mujatria by Martin Honigberger, which he had acquired in Jalalabad, ‘These coins ... were procured at Jalalabad by M. Martin [Honigberger]’ (Masson 1834: 172, pl. XI, 45–47). In his inventory of 1835, where he illustrated one of the coins of the type from the Bimaran stupa 2 deposit (Masson 1835: 13, pl. 5, 111), Masson further commented on their rarity: ‘so few of his coins being discoverable, two or three only occurring each season [probably meaning in the Jalalabad region]’ (Masson 1835: 13). Of the coins of Azes in general, Masson further commented that ‘they seem to be *rara aves* [rare birds]’ (Masson 1835: 18). In the British Museum and British Library’s India Office Loan collection of Masson coins there are altogether ten examples of the base-silver ‘posthumous Azes’ coins of Mujatria, which appear to represent the examples collected by Masson during his excavations at Bimaran and its neighbouring areas, and some collected in Jalalabad.

James Prinsep illustrated a Bimaran-type coin in his own collection which he acquired from Ventura, who probably bought it in Peshawar (Prinsep 1838: 654, pl. 28, 17). Another example of the Bimaran-type coin, from a Peshawar collection, is in the catalogue of the Peshawar Museum (Ali 2006: 129, PM05797). Cunningham recorded four examples of Mujatria’s small square coppers (Cunningham 1854, pl. XXXV, 14–16), one the piece collected by Masson (16) and the other three he said had been ‘procured in the Punjab [i.e. the north-western territories of British India including the Peshawar region]’, but without more detail. Six base-silver ‘posthumous Azes’ coins of Mujatria were reported from the Taxila Sirkap excavations (Marshall 1951: 783). Three examples from the Bleazby collection and seven from Rodgers’ collection were published in the Lahore Museum collection (Whitehead 1914, nos. 231–240).

A single example of Mujatria’s small square copper, according to Masson, a coin of ‘unknown princes of the Azes dynasty’, was also collected by him with some Indo-Parthian coins at ‘Kabul or Ghazni’ (Masson 1835: 19, pl. 7, 160; Prinsep 1836: 553, pl. XXVIII, 16). Another example of the Mujatria small square copper type in the name of Azes is in the Indian Museum, Kolkata, from the Asiatic Society of Bengal’s collection, a provenance which suggests it may also have come from Masson (Smith 1906: 49, no. 87). Another single Mujatria example ‘possibly Kharahostes’ (Marshall 1951, ‘Rare and

Unique Coins', 329) was excavated at Taxila Sirkap in block B' which also contained coins in the name of Azes and a Heracles type of Kujula Kadphises (Marshall 1951: 194). Another example was recorded from the Rodgers collection in the Lahore Museum (Whitehead 1914: 159, no. 93).

In his third report, Masson illustrated a coin of Kharahostes, but without comment on its provenance (Masson 1835, pl. 7, 158). Wilson also illustrated a Kharahostes copper from Masson's collection (Wilson 1841: 331, no. 27, pl. VIII, 2). A third Kharahostes coin from Masson is in the British Museum (BM IOLC.897). Two examples were recorded from the Rodgers collection in the Lahore Museum (Whitehead 1914: 159, nos. 91–93).

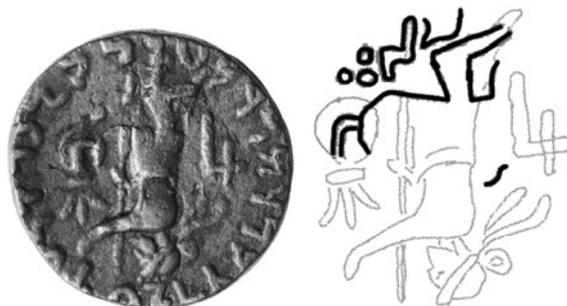
#### Evidence for Dating and Locating Kharahostes and Mujatria from hoards

The only other recorded sources for the base-silver 'posthumous Azes' coins of Mujatria are in hoards seen in the coin trade. Senior (2001: 192, 2006: 81–86) lists three hoards he had seen with collectors and dealers in Pakistan: hoard 37 'Plated Hoard', seen in Peshawar, containing base-silver 'posthumous Azes' coins of Mujatria with Indo-Parthian issues of Gondophares, Abdagases and Sasan and the Apracharaja's general, Aspavarma; hoard 40 'Gondophares-Sasan Hoard 2', no provenance, containing base-silver 'posthumous Azes' coins of Mujatria with issues of Sasan; hoard 41 'Gondophares-Sasan Hoard 3', seen in Peshawar, containing base-silver 'posthumous Azes' coins of Mujatria with issues of Sasan and Aspavarma, the coins in circulation in Taxila and Gandhara before the *Soter Megas* coins of the Kushan king Wima Takto (Cribb at press a). A fourth hoard with a similar composition to Senior's hoard 37 was acquired by the British Museum. As Peshawar is a centre for the trade in old coins in north-western Pakistan and the coins were seen during the period of migration of refugees from Afghanistan, the exact provenance is not clear for these hoards. No hoards containing coins of Kharahostes or issues in the name of Mujatria have been recorded.

The composition of these hoards indicates the same period of issue as the finds made by Masson in the Darunta district, i.e. that the base-silver 'posthumous Azes' coins of Mujatria were current during the reign of Kujula Kadphises, as there is other evidence to suggest that Sasan was ruling the Indo-Parthian domains during Kujula Kadphises' reign. This evidence comes from the Begram finds collected by Masson, which include locally-made coins of the first Indo-Parthian king, Gondophares, and of his nephew, Abdagases, followed by issues of Kujula Kadphises. The coins of Sasan, who was the immediate successor of Abdagases in Gandhara, were not found by Masson among the material he collected from Begram. The sequence showing Gondophares and Abdagases followed by Kujula Kadphises at Begram and by Sasan in Gandhara is supported by overstrikes. Kujula Kadphises' Heracles-type coins have been found overstruck on Gondophares' Begram issues (Mitchiner 1975/6: 681; Widemann 1972). An issue of Sasan made in Gandhara has been found overstruck by a bilingual *Soter Megas* coin in the name of Kujula Kadphises' successor, Wima Takto, (Sims-Williams and Cribb 1995/6: 120). The contemporaneity of Mujatria with Sasan is also illustrated by a second overstrike by Wima Takto's Gandharan bilingual *Soter Megas* type on a base-silver 'imitation Azes' coin of Mujatria (Cribb at press a) (see Fig. 1).



A *Soter Megas* coin in name of Wima [Takto], overstruck on a base-silver coin of Mujatria, types 11 or 12. (Courtesy of The Punjab Museum, Lahore)



Reverse of a *Soter Megas* coin, showing the undertype



Obverse of a *Soter Megas* coin, showing the undertype

Fig. 1 Mujatria overstruck by Wima Takto

#### Evidence for Dating and Locating Kharahostes and Mujatria from the Taxila Excavations

The chronology of this period is also illuminated by the coin sequences at Taxila Sirkap. The coins found during these excavations show that Sasan is likely to have been the only Indo-Parthian occupier of the city, after a lengthy period of rule by Kujula Kadphises. The picture of Indo-Parthian presence in Taxila Sirkap has been confused by the presuppositions made by the excavator (Marshall 1951: 784, 'Rare and Unique Coins' 192–199), particularly his belief that Sasan's coins were issued during the reign of the first Indo-Parthian king, Gondophares, so that in the reports he continually designates coins of Sasan as issues of Gondophares. He also failed to recognise that the 107 issues of Gondophares' reign found there were not issued in the city, but imported issues: 20 examples (RUC 192–194) from Begram (probably imported along with Kujula Kadphises' coins from that location); 80 examples (RUC 195–198) from the eastern Punjab (it is not clear why these are in Taxila as they are not part of its normal currency system); 5 examples from Gandhara (probably imported as part of the currency of Sasan's reign). There are about 34 coins of Abdagases, the Indo-Parthian ruler between Gondophares and Sasan, three of which are from Begram (probably brought to Taxila with the Kujula Kadphises' coins), while the other 31 (RUC 199) have the same types as Sasan's coins and probably entered the city during Sasan's occupation. So the most likely explanation of the coins found in Taxila Sirkap is that the Indo-

Parthian presence in the city was limited to the reign of Sasan, i.e. after Kujula Kadphises' occupation of the city, which followed the reigns of the Indo-Scythian king, Azes II, and his successor, the local satrap Rajuvula, and before the overthrow of Sasan by the Kushan king, Wima Takto. The numismatic record does not show whether there was an Indo-Parthian intrusion into the Taxila region between Rajuvula and Kujula Kadphises's conquest, but this cannot be ruled out, as Gondophares succeeded Rajuvula in the eastern Punjab (Cribb 1985). If there was such an incursion it was likely to have been brief.

The sequence from Kujula Kadphises to Sasan at Taxila Sirkap is also supported by the groupings of coins found in the same context as reported by Marshall. He recorded thirteen instances of coins of Kujula Kadphises found together with issues in the name of Azes, seven of which include copper coins definitely attributable to Azes II's reign or those of his predecessors, the remainder being imitations (Marshall 1951: 149, 155, 162, 166, 170, 182, 185, 190, 194 and 197). This can be compared with the eight instances of coins of Sasan being found with coins in the name of Azes, only one of which includes a copper coin definitely attributable to Azes II's reign (Marshall 1951: 169, 182, 185, 189, 190). A further ten instances place coins of Kujula Kadphises and Sasan together with those in the name of Azes, but only two of these include coins definitely attributable to Azes II's reign (Masson 1951: 160, 170, 174, 182, 185, 190 and 193). Marshall's listings suggest that most of the coins 'in the name of Azes' from Sirkap are posthumous issues, based on issues of Azes II, but continuing to be made and circulating through the reigns of Kujula Kadphises and Sasan. Also it is likely that many of these posthumous Azes coins represent issues during the reign of the satrap Rajuvula in the city, as he is well represented at Sirkap by 158 lead coins (Marshall 1951: 783, RUC 176–81). Alongside these coins, the Sirkap excavations also yielded many coins of the Apracharaja Indravasu and the Apracha general, Aspavarma, and Marshall recorded twelve instances of these being found with coins of Sasan (Marshall 1951: 169, 170, 171, 174, 182, 185, 189, 190 and 193), suggesting that these Apracharajas were also contemporaries of Sasan, and that their coins were brought to the city with Sasan's coins. This is also suggested by their complete absence from the groupings in which Kujula Kadphises and Azes II coins were found together.

#### Dating and Locating Kharahostes and Mujatria

The evidence from the hoards containing the base-silver 'posthumous Azes' coins of Mujatria together with Sasan coins along with the numismatic sequence from the Taxila Sirkap excavations all confirm the chronology suggested by Masson's finds in the stupas of Darunta district. The coins of Mujatria found in the Jalalabad region were issued until the ends of the reigns of Kujula Kadphises and Sasan, which both terminated with the accession of Wima Takto and his conquest of Taxila and Gandhara (Cribb, at press a).

The dating of coins of Mujatria to the period of Kujula Kadphises is in accord with the relative dating proposed by MacDowall, who attributed Mujatria's base-silver coins to Kujula Kadphises (MacDowall 1987: 184). MacDowall's attribution can now be discounted in the light of the close association between these coins and the satrap Mujatria's copper issues, which is sufficient to attribute them to him. Perhaps the common use of the triskeles symbol by Mujatria and Kujula Kadphises is of the same order as the appearance of the symbol used by all Indo-Parthian kings on some coins of the Apracha general, Aspavarma, i.e. as a sign of subordination. The subordination of existing Indo-Scythian rulers to the Kushans is attested by the inscription of Senavarma, king of Odi, which honours the son of Kujula Kadphises (Baums 2012, no. 24).

#### New Evidence from Mathura

The mislocation and misdating of the coins of Kharahostes and Mujatria has largely resulted from the confusion created by the widely accepted linkage of the coin issuer Kharahostes, son of Arta[sa] and father of Mujatria, with the Kharahostes named in both parts of the Mathura lion capital inscription. A new piece of evidence brought to light last year, however, raises serious doubts about this relationship. The new discovery was a Mathuran coin (2.83 grams) issued in the name of a satrap Kharahostes (inscribed *khatapasa kharahostasa*), as part of the same series as the Mathuran coins of the satraps Rajuvula and Sodasa (Classical Numismatic Gallery, Mumbai, auction 11 (15 March. Fig. 3) 9; Senior 2013). Two further examples of the same type have since been discovered (see below. Fig. 2). This new coin type shows that the Kharahostes in the Mathura lion capital inscription was a successor of Rajuvula and Sodasa and that his title "heir apparent", *yuvarañña*, therefore related to his role as their successor, not to his relationship with any other ruler. As the satrap of Mathura, this Kharahostes can now be understood as a separate person from the coin-issuing Kharahostes who was a satrap in Afghanistan.



Fig. 2 Kharahostes, Satrap of Mathura, Royal Asiatic Society, London, 3.82g, 21mm



Fig. 3 Kharahostes, Satrap of Mathura, Classical Numismatic Gallery 11, lot 9, 2.83g.

#### A New Understanding of the Mathura Lion Capital

The various previously proposed readings of the Mathura lion capital, as listed by Baums (2012: 218–219, fn. 44), offered a range of relationships for Kharahostes, as Rajuvula's son, adopted son, son-in-law or father-in-law. The first attempts at reading the inscription understood Kharahostes to be a son of Rajuvula, but the discovery of the name of Arta[sa], the father of the coin-issuing Kharahostes, and a belief that the two Kharahostes had to be the same person led to the rejection of

any reading which made Kharahostes the son of Rajuvula. The separation in place and time of these two Kharahostes created by a better understanding of the coins suggests that they should be separate individuals. The new coin allows the Mathuran Kharahostes to be fitted into the family of Rajuvula. An appendix by Stefan Baums, to be published in JONS 224, will explore the impact of this new discovery on the reading of the inscription.

The impact on our understanding of the Mathura lion capital is also supported by the appearance of the name of the Mathuran Kharahostes on the silver reliquary published by Salomon (1996). This inscription, an ownership label naming Kharahostes, son of a great satrap (*mahakṣatrapa*) on the base of a silver goblet, reused as a Buddhist reliquary by the Apracha kingdom prince (*kumara*) Indravarma, son of general Viṣpavarma. Indravarma is also named as owner on the lid of the reliquary. The reliquary names other members of the Apracha royal family as recipients of the honour created by the donation: kings Indravasu and Viyemitra, and generals Viṣpavarma and Indravarma and their wives. Salomon showed that the inscription relating to Kharahostes predated those relating to prince Indravarma (1996: 433). The relevant part of the Kharahostes inscription reads *mahakṣatrapaputrasa yugaramṇā kharaśostasa*. The reliquary ownership inscription gives the same title 'heir apparent', and therefore son of the great satrap, as the Mathuran Kharahostes.

The Apracha prince, Indravarma, who was responsible for this inscription appears to be the father of the coin-issuing Apracha general, Aspavarma. According to the reliquary inscription, Indravarma's father, Viṣpavarma, at that time still had the title general, so Aspavarma's rule as stratega was long after the silver reliquary's dedication, perhaps after Indravarma had also been general. Aspavarma's coinage places him as a contemporary of Sasan and Mujatria and an immediate predecessor of the reign of Wima Takto.

The person who wrote the inscription clearly made mistakes in the spelling of both Kharahostes name and his *yuvaramṇā* title, as well as using *śa* in place of *sa* and omitting *dh* in the following weight formula (Salomon 1996: 424, fns. 11 and 12. Salomon sought a different explanation of the misspellings and read the inscription as *mahakṣatrapaputrasa (ya)guramṇā khara(yo)stasa* and Baums (missing the *-u* loop on the *ya* and misunderstanding the decorative foot on the *ga* as a *-u*; 2012: 233) followed him to read it as *mahakṣatrapaputrasa [ya]guramṇā khara[yosta]sa*).

Salomon explained the title he read as *(ya)guramṇā* as a portmanteau title combining the Kushan title 'yabgu' with the Indian title 'raja'. This combination seems highly unlikely as the title was only used in combination with the dynastic name 'Kushan'. Normally Kujula Kadphises used either the title 'Kushan yabgu' or the title 'king', but never the two together. A simpler explanation of the title would be to understand it as a misspelling by an incompetent scribe. Baums (2012: 221) also followed Salomon in seeing the misspelling as a new form of title and went on to suggest the possibility that Kharahostes title *yuvaramṇā* and *yuvaramya* on the Mathura lion capital inscription may have been an attempt to assimilate this new title into Indian usage. Falk also interjected an attempt to reconcile this misspelling by suggesting an alternative explanation, reading Salomon's *(ya)guramṇā* as *egaramṇā*, i.e. Sanskrit *ekarāja*, meaning king (Falk 2001: 311, fn. 5; 2010: 77).

The role of the Kharahostes in the Mathura lion capital can be more easily explained if the inscription is interpreted as positioning the Mathuran Kharahostes as the son or grandson of Rajuvula or the son of Sodasa. This explains the place of Kharahostes (perhaps as an identifier for his mother) in the list of female donors of the relic in the first part of the inscription and makes sense of the second half of the inscription in which the satrap Sodasa acts on behalf of his heir apparent, Kharahostes, in dedicating land for the Buddhist community.

This Kharahostes is unlikely to be the satrap Kharahostes whose coins identify him as son of Arta[sa].

### Dating Kharahostes, satrap of Mathura

The new Mathuran coins of the satrap Kharahostes can be placed at the end of the satrapal coinage of that city, i.e. immediately before the Kushan conquest during the reign of the second Kushan king, Wima Takto. The inscriptional record at Mathura creates a clear view that the reign of the satrap Sodasa, Kharahostes predecessor, came shortly before the Kushan conquest, as it is only during his reign that the earliest examples appear of the type of Brahmi inscriptions which became numerous at Mathura under the Kushans (Salomon 1998: 87–88 and 143–144). The Mathura lion capital is in Kharoshthi, but has a similar content to the Brahmi inscriptions which began under Sodasa and continued into the Kushan period. The Mathura lion capital, therefore, seems to provide evidence that the fashion for such inscriptions came from the north-west, where Kharoshthi inscriptions of a similar kind had already been current for several decades.

The coin sequence at Mathura also places Kharahostes at the end of the pre-Kushan period. The local coinage of Mathura began with regal issues with the majority having names ending *-mitra*, followed by kings with names ending *-datta* (Allan 1936: 179–191). The coins issued by the kings had, as their obverse, a triple elephant design (one *-datta* king has a single elephant). When Mathura came under Indo-Scythian influence the title of the rulers changed to satrap and one of the *-datta* rulers adopted this title. He was followed by several rulers with both Indian and non-Indian names (e.g. Hagamasa). All these satrapal coins have a running horse design on their obverse. The coins of Rajuvula, Sodasa and Kharahostes all have an image of Gaja Lakshmi (the goddess Shri Lakshmi flanked by elephants, standing on lotuses, who pour water over her). The reverse of almost all Mathura local issues from the *-mitra* kings to the last satraps have a goddess image accompanied by various symbols, which change with the transitions between the different groupings of the rulers. The coins of Kharahostes have the same design features as those of Rajuvula and Sodasa. There have been some scholars who seek to place the satrapal issues with horse obverse after Rajuvula and Sodasa (Gupta 1988: 131; Handa 2012/2013: 50–51), but the numismatic sequence and the epigraphic evidence support the archaeological evidence from the excavations at Mathura, which show *-datta* coins and horse-type satrapal coins (of Hagamasa) in the level below coins of Rajuvula and Sodasa (Ray 1988: 143).

Kharahostes' reign as satrap at Mathura probably lasted until a date between c. AD 90 and 113, i.e. until Wima Takto's conquest of the city. Rajuvula's rule in the Jammu region was ended during the reign of Gondophares, who ruled c. AD 32–60; thus, Sodasa came to the throne before AD 60. If, as Falk (2011: 279) suggested, the year 42 in his Amohini inscription was a regnal date then his reign could have lasted until c. AD 100, i.e. compatible with his successor ruling in the period just before the Kushan conquest. Mathuran Kharahostes is, therefore, a contemporary of Mujatria, son of Kharahostes, son of Arta[sa].

### Kharahostes, son of Arta[sa], coins

The standard coins of Kharahostes son of Arta[sa] are square copper pieces of the same denomination (c. 7g) and have the same designs. There are also a half and a quarter denomination with the same designs.



*Kharahostes copper No. 13*

On the obverse there is a horseman, apparently bare-headed, wearing Scythian plate-mail armour and a banner with two streamers attached to the back of his collar, and holding a lowered spear. He is riding a walking horse towards the right (on most examples the horseman's left arm is not visible, but it can be seen on the coins of types 1a, 2c–e, 4a and 7a; on some dies the tip of the spear is not visible, see for example types 3a–c and 4b). The horse's mane and tail appear to be braided, some details of the horse trappings can be seen. The design is surrounded by a Greek inscription, with a Kharoshthi letter control mark before the horse's front legs.

On the reverse there is a lion with raised head walking towards the right, surrounded by a Kharoshthi (Prakrit) inscription, with Greek X before the lion's front legs and a Kharoshthi monogram *kharo* above the lion's back. (when in good condition, the lion's tongue can be seen as two lines below his jaws).

The square shape is common in Indo-Scythian coinage from the time of the first Indo-Scythian king, Maues, and continues into the period of the satrapal (Senior 2001: type 134) and Indo-Parthian coins (type 215) issued after the end of the reign of the last Indo-Scythian king, Azes II. The horseman in armour carrying a lowered spear is also a common Indo-Scythian design from the time of Spalahores, Spalgadama, Azes I and Azilises. The treatment of this design on the Kharahostes coins suggests that its designer was familiar with the coins of these rulers; possible prototypes are the square copper coins with horseman design of Azes I (Senior 2001: types 84, 92 and 121), and of Azilises (types 54 and 58). The lion design appears to be derived from the coins of Azes II (types 102 and 110) or of the satrap Jihonika, his contemporary (type 133). Lion designs with a raised front paw, first seen on coins of Maues (type 12), Azes I (type 79) and Azilises (type 42) are also used in the same period as Kharahostes on imitation Azes II (types 111, 123 and 124) and by satraps (types 137, 153) and Indo-Parthians (type 221).

### Classification and inscriptions

There are four main groups of coins according to the Kharoshthi letter which appears before the horse's legs: *pa*, *sam*, *jha* and *pra*. All except the first group are then further distinguished by the presence or absence of a Kharoshthi letter *sam* above the lion's back to the left of the monogram *kharo*. The *pra* obverse group all have the additional *sam*. Senior distinguishes between issues with added *sam* and *sa*, but it appears that there is only the one version, *sam*, and the pieces appearing to have *sa* are all showing a weakly defined version of the *sam*.

The classification of the coins by their obverse control marks suggests a sequence of the coins with the *pa* group coming first as it does not use the additional *sam*, and its spelling of the Greek inscription is different from all the other varieties (the form of the Greek Σ is also different from those used on the other varieties). Both the *sam* and *jha* groups have varieties with and without the added *sam*, suggesting that they might be contemporary, but the *sam* group are likely to be first as it contains the only variety with the Greek YIOY spelled

correctly. The series seems to end with the *pra* group as it always has the added *sam*.

The coins can then be further subdivided according to the detail of their inscriptions. The inscriptions are arranged in a square around the edge of the design and in most cases the inscription begins at the top of the coin, Greek from the top left corner (except for variety 6e) and Kharoshthi from top right.

The following versions of the Greek inscription have been noted (the only difficulty with the inscriptions, apart from the condition and misstriking of the coins is the confusion by the die engravers and misstriking of the letters T and Y; / represents the legend breaks at corners and ... denotes unreadable letters):

- 1a ΧΑΡΑΗΩ .../... Υ ΣΑΤΡ .../ΟΥ ΑΡΤΑ .../Σ ΠΙΟΤΡΟΣ
- 2a ΧΑΡΑΗΩΣΤΕ/Ι ΣΑΤΡΑΠ/ΕΙ ΑΡΤΑ.../Σ ΥΙΟΥ...
- 2b ΧΑΡΑΗΩΣ/ΤΕΙ ΣΑΤΡΑΠΕΙ Α/ΡΤΑ ΥΟΥ
- 2c ΧΑΡΑΗΩΣ/ΤΕ ΣΑΤΡ/... ΡΤΟ/ΥΟΤΑΙ
- 2d ΧΑΡΑΗΩΣΤ/ΕΙ ΣΑΤΡΑΠ/ΕΙ ΑΡΤΑΥΟ/... ΑΤΟΥΥΟ
- 2e ΧΑΡΑΗΣΤ/ΕΙ ΣΑΤΡΑΠΕΙ .../...Α ΥΟΙΥ
- 3a ...ΡΑΗΩΣΤΕ/Ι ΣΑΤΡΑΠ/ΕΙ ΑΡΤΑ.../...
- 3b ...ΑΡΑΗ.../ΕΙ ΣΑΤΡΑΠ/ΕΙ ΕΡ .../...ΤΑ ...
- 3c .../ΕΙ ΑΤΙΠΗΣ/ΕΙ .../ΑΤΙΠ ...
- 4a ΧΑΡΑΗΣΤ/ΕΙ ΣΑΤΡΑΠΕΙ ΑΡ/ΤΑ ΥΟΙΥ
- 4b ΧΑΡΑΗΩ .../ΕΙ ΣΑΤΡΑΠ/ΕΙ ΑΡ.../ΥΟΤΑΤ
- 5a ΧΑΡΑΗΣ .../.../ ΑΡΤΑΥΟΥΟ/ ΤΟΤΙΟΤΙ
- 6a ΧΑΡΑΗΩΣ/ΤΕΙ ΣΑΤΡ.../ΠΕΙ ΑΡΤΑ/ ΥΟΥΥΟΙ
- 6b ΧΑΡΑΗΩΣΤ/ΕΙ ΣΑΤΡΑΠ/ΕΙ ΑΡΤΑ .../ ΟΥΤΟ...
- 6c ΧΑΡΑΗ .../ .../ .../... ΤΥΥΟΥΡ
- 6d ... ΑΡΑΗΩ .../.../ .../ ... ΥΤΑΤΟΙ
- 6e .../ ΙΧΑΡΑΗ/ΩΣΤ.../ ...
- 6f .../ ... ΣΑΤΡΑ.../ .../ ...
- 7a .../ ... ΣΑ.../ .../ ...ΤΑΤΑ...

Apart from mistakes (like the missing Ω in 4a and 5a) and complete blundering (as 3c), the Greek inscriptions show a consistency in the name and title (Kharahostes the Satrap), but the spelling of his patronymic (son of Arta[sa]) is more erratic. One variety (1a) has a standard Greek, but a Hellenised version ΠΙΟΤΡΟΣ of the Prakrit for the word 'son'. The other types seem to attempt the standard Greek genitive for son ΥΙΟΥ (2a), but are mostly miswritten. The ending of his father Arta[sa]'s name in Greek is very unclear, seeming to be a genitive ending in Σ (1a, 2a), or –ΥΟΥ in some cases (2b, 2d). The Kharoshthi version of his name *arṭasa* gives no indication as to how the Greek version of his name is to be spelled or inflected. In the context of the inscription, the Greek version of the name of Arta[sa] should be in the genitive case however the Greek inflection is formed. In previous studies the father's name is treated as Arta as though the final syllable in the Kharoshthi inscription is a genitive, but there is no justification for this as almost all other coin inscriptions of this period do not inflect the father's name, but suffix *putra* to the uninflected father's name, cf. his son's patronym is *kharastaputra* (see below), Itravasu's is *vijayamitrputra*, Aspavarma's is *imtravarmaputra*; see also Sodasa's patronym *rajuvulaputa* (Brahmi). Jihonika's patronym is written as either *manigulaputra* or *manigulasaputra* (Senior 2001), leaving the possibility that Kharahostes father could be Arta or Artasa.

Only one type (1a) has the standard Greek masculine genitive inflections for the satrap's name and title –ΟΥ, but the rest have clearly the satrap's title and name ending in –ΕΙ, which does not feature in any form of Greek genitive inflexion. Rapson (1905: 792–793) was the first to comment on this curious inflexion, but offered no explanation. Lüders (1912: 424) also observed this inflexion and observed its Iranian origin, comparing it with Khotanese Saka (which he referred to as Nordarisch) and Sogdian. More recently, Falk (2009: 115) misunderstood the inflexion, mistaking it, together with the initial Σ of the following title satrap, as the Greek form of the name Kharahostes. The linking of the inflexion with Iranian languages by Lüders was a more significant lead, as the same

form of genitive appears on a rare coin type of Kujula Kadphises, where his name and title are rendered as ΚΟΖΟΥΛΟ ΚΑΔΦΙΣΕΙ ΚΟΡΣΑΝΕΙ (Cribb and Bracey in preparation; for published examples see also Göbl 1993: no. 15; Mitchiner 1978: no. 2869, Zeimal, 1967: no. 2 and three examples in the British Museum 1922,0424.2976; IOLC.1089 and IOLC.1056). The use in a Kushan context could indicate that this is an early Bactrian form of the oblique case (N. Sims-Williams, by correspondence). The use by the Indo-Scythian ruler Kharahostes could, however, hint equally at an undocumented language of Iranian origin being used by the Scythians in this area.

The Kharoshthi inscriptions on Kharahostes' coins are very uniform, almost all having the same spelling *kharosta/sa artasalputrasa ksaltrapasa* and the same position in relation to the design. The only letter shifting position is the initial letter of the satrap's name, *kha*, which is written at the top right-hand corner, shifting its position between the start of the top part of the inscription and the end of the right-hand part, often sitting in the corner. On most coins except type 1a, the end of the inscription has the letter *pra*. The meaning of this extra syllable is not yet understood. There is no evidence in these coins of the usage discussed by Falk (2011: 124 and see below) that the name Kharahostes was spelt with a Kharoshthi *r*, as *kharasta* in the Mathura lion capital (see also below in the discussion of Mujatria's coins).

A so far unremarked aspect of the Greek and Kharoshthi inscriptions of Kharahostes is the location of his name at the start of the inscription. It seems more normal in such inscriptions for the titles to precede the ruler's name, but the structure of the inscription on these coins places them after the ruler's name. This is evident because the Greek inscription always places the start of the satrap's name in the top right-hand corner, whereas all other words begin in random locations depending on how the inscription spacing progresses. The Kharoshthi inscription is more fixed in its structure with the satrap's name always starting in the top left-hand corner; the location of the additional letter *pra* in the Kharoshthi inscription seems to mark the end of the inscription.

The field marks on the reverse: Greek X before the lion's front legs and Kharoshthi monogram *kharo* above the lion's back appear to be the initials of the satrap, rather than control marks. This is an unusual form of field mark, which normally appear to be official control marks, probably representing the officials responsible for the production, issue and control of the coins and more rarely mint marks (de Callatay 2012).

This survey has been based on 67 full unit examples, struck from 45 obverse dies. The sample is not large enough to exclude the discovery of new varieties or to predict the exact number of obverse dies used for the whole coinage. Recent analysis of the prediction of die numbers from surviving coins suggests that about a third of the dies have been recorded and there could have been approximately 137 dies used to strike the coinage (Esty 2011: 46). There are, therefore, likely to be more varieties discovered.

Senior has suggested that a small group of silver coins issued in the name of Azes might be attributed to Kharahostes or Mujatria. He (2001: 69, type 98.500) pointed to a base-silver coinage with horseman holding whip/Athena to right types in the name of Azes II on the basis of the use of a Kharoshthi *kha* mark on its reverse and a Kharoshthi *sam* mark on the obverse. This coin also has a second mark on the reverse: a Greek monogram which could be deconstructed as XPO, XOP, PXO, POX OXP or OPX. This Greek monogram is exceptional for this type, but appears on other Azes II coins with no other clear connection with Kharahostes or Mujatria. The Kharoshthi mark *sam* on the obverse also appears in this position on many of Azes II's coins. The *kha* is, therefore, the only exceptional feature of the coin's design and appears like many other single letter marks on the Azes II series in this position, so is unlikely to have the meaning Kharahostes.

### Weight and denomination

The weights of the surviving examples of Kharahostes' coins show an average of c. 7.00g, but many are worn, so a higher weight standard may have been intended. Their weights are well below the Indo-Scythian square horseman-type coins: c.13g standard of Azes I (Senior 2001: type 92) or the c.10g standard of Azilises (type 84), but similar to those of the square horseman coins of the Indo-Parthian Gondophares (type 215), which mostly weigh c.6g, although there is one example weighing 10.4g. The only Kharahostes quarter unit weighs 2.32g (variety 7a), suggesting a full unit weighing closer to 10g, perhaps the intended denomination for the Azilises and Gondophares square coins too

no. of coins	2	2	1	9	17	19	7	3	2	1
grams	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0

Table 1: weight distribution of Kharahostes' copper coins

### Mujatria, son of Kharahostes I – base-silver coins in the name of Azes II



Mujatria base silver No. 8

Mujatria's base-silver coins were all issued in the name of the Indo-Scythian king, Azes II. They are recognisable as his issues because of their association with his square copper coins. The second half of the issue have his initial as a field mark. The design of these coins is based on the silver issues of Azes II, but differs in many details.

Their obverses all show a horseman in a jacket and leggings riding suit, riding a horse walking to the right on a base line, extending his right hand above the horse's head, sometimes holding a whip in this hand. The absence of the whip on many examples is probably due to poor copying by the die engravers. The horseman appears to be bare-headed. Some details of the saddle and horse trappings can be seen. The image is surrounded by a circular inscription in Greek letters, attempting to give the name and titles of Azes, invariably blundered to a variety of degrees and without a fixed starting point. A field mark, located before the horse's front legs, takes the form of a circular device, composed of a small circle at the centre with three equidistant spokes radiating from it, each reaching the middle of three arcs lying along the circumference of the device. Various other marks, either Kharoshthi or symbols, appear in the field on some varieties.

The reverses all show a facing figure of the goddess of good fortune, Greek Tyche, in a long dress, extending her right arm and holding a cornucopia (horn of plenty) in her left arm and over her left shoulder; the details are unclear, but the shape of her head suggests that she is intended to be shown wearing the mural crown headdress worn by Tyche. The design is surrounded by a Kharoshthi inscription, beginning about 5.00 o'clock, giving the titles of Azes, and ending at about 7.00 o'clock; the name of Azes in Kharoshthi is below the goddess and positioned to be read from the edge of the coin from 5.00 to 7.00 o'clock. In the field to the right of the goddess is located a Kharoshthi monogram which appears to read *shghasa* when read from top to bottom. Occasionally the vowel mark is missing, or of different form, making the reading *shghasa* or *seghasa*, but probably by error. In the left field is the

Kharoshthi letter *kha*. In addition to these Kharoshthi marks, various other marks, either Kharoshthi or symbols, appear in the field on some varieties. The commonest marks are the *nandipāda* symbol, one dot, three dots and rosettes consisting of 6–8 dots, otherwise single Kharoshthi letters *pra*, *ya*, *bu*, *mu*, *dha* and *kha* also appear in various positions and combinations.

The imitation of base-silver coins by Mujatria places him alongside the Apracha issues of king Indravasu and general Aspavarma, both of whom issued coins copying Azes II and retaining blundered inscriptions of that king. Like Mujatria, the Apracha issues also include *nandipādas*, rosettes and small Kharoshthi letters as control marks. As discussed above they have also been found together in hoards, showing that they were current at the same time.

### Classification and inscriptions

These coins can be classified by the presence or absence of the various additional control marks on obverse and reverse, and by the treatment of the inscriptions. There are two main groups according to their obverse control marks, either without or with the Kharoshthi letter *mu*, perhaps intended to be the initial of the satrap's name, positioned behind the horseman's head. Those without *mu* generally have more accurately rendered Greek inscriptions. Those with the *mu* have progressively degenerating version of the Greek, so that those which appear to be the latest have no correspondence with the original inscription at all. Various field marks break the groups down into obverse and then reverse varieties.

The Greek inscription on these coins starts as a misconstrued and misplaced version of the original inscription of Azes II, but with the king's name following the titles in the same direction, unlike the original where it is written separately at the bottom of the design and in the opposite direction. It is also written with the two parts of the title ΒΑΣΙΛΕΩΣ ΒΑΣΙΛΕΩΝ reversed. This structure for the inscription is retained until, gradually, the misspelling becomes so distorted that the original is no longer recognised, and some letters are even written in mirror form. The degeneration seems to be progressive and, therefore, suggests the sequence of the varieties. The groups and varieties can, thus, be sequenced approximately by this progressive degeneration and by the sharing of the various symbols and Kharoshthi letter marks.

The Kharoshthi inscriptions are fairly consistent: *maharajasa mahatasa dhramikasa rajatirajasa – ayasa* (king, great, righteous, king of kings – Azes), always including the title *dhramika* (righteous) among the king's titles, which, as on the front, are in an order different from those of Azes II. The title *mahata* (followed by the *dhramika*) sits between the titles *maharaja* and *rajatiraja*, whereas on Azes II coins it comes after *rajatiraja*. Some varieties are distinguished by a novel feature, not appearing on any other coins of this period, the substitution of a *nandipāda* in place of a letter (marked \*), the first *ja* in *raj\*atiraja* on one variety (11c) and the *ta* in *mahat\*a* in others (12b–e).

The introduction on many varieties of the initial *mu* of the satrap's name behind the horseman's head appears to be a signature mark to identify the issues as Mujatria's. It is possible that the *kha* appearing on the reverse is an allusion to his father. The Kharoshthi monogram *ṣighasa* seems to be an integral part of the design, rather than an occasional control mark. On some copper coins it appears again, but it also appears separated as *shi* on one coin type and as *ghasa* on another, so its meaning is obscure and it does not necessarily represent a single entity.

The hoard finds of these coins alongside issues of the Indo-Parthian Sasan and the Apracha general, Aspavarma, are also indicative of the sequence of the coins. In the hoards designated by Senior as 'Gondophares-Sases hoards 2 and 3' (Senior 2006: 81–68), only the penultimate phase of the Mujatria imitation Azes coins (varieties 7b and 11c, respectively) is represented. The same is the case for the hoard

in the British Museum which contained fifty eight examples of Mujatria imitation Azes coins, most of which were of the penultimate phase, varieties 11 and 12 (variety 1d x1; variety 4a or b x1; variety 5a x2; variety 11c x12; varieties 12b or c x26; varieties 12d or e x16). One coin of the last phase (variety 13a) was in such a hoard (Senior's 'plated hoard'). This suggests that the coins of the penultimate phase were in full circulation at the time of the last issues of Sasan and Aspavarma, but the earlier phases had already passed and the last phase was only just beginning. The Bimaran stupa 2 deposit coins all belong to the last phase of this coinage, suggesting that they were assembled at the end of the reigns of Sasan and Aspavarma.

Apart from the hoard material, 87 examples have been recorded, struck from 57 obverse dies. This suggests about a third of the dies have been seen and that approximately 165 dies could have been used to produce this coinage (Esty 2011: 46). There are, therefore, likely to be more varieties discovered.

### Weight standard and denomination

The weight standard of this coinage appears to be between 9 and 9.5 g, with some very light examples which appear to have suffered from corrosion (e.g. most of the Mujatria coins in the hoard in the British Museum have a weight between 7 and 8g due to their corroded condition). It appears that the intended weight standard of these coins is close to that of the Indo-Greek Indian tetradrachm standard used by the Indo-Scythians. The contemporary coins of Sasan and Aspavarma tend to be slightly heavier with most weighing between 9.5 and 10 g.

no of coins	2	-	4	5	16	45	9
grams	6.5	7.0	7.5	8.0	8.5	9.0	9.5

Table 2: Weight distribution of Mujatria base-silver coins

The debasement of the Indo-Scythian and Indo-Parthian tetradrachm coinage was at its lowest point when these coins were issued and, like the issues of Sasan and Aspavarma, there was no apparent silver in the coinage, which normally circulated with a coppery appearance. Analysis suggests that these coins and Mujatria's had between 3 and 6% silver content, i.e. enough to make them look silver when issued, due to surface enrichment, but to have lost that appearance soon after they entered circulation (Santosh and Cribb in preparation). This is the denomination adopted by the first (bilingual) issues of Wima Takto when he conquered Gandhara and imitated the issues of Sasan. The copper Soter Megas coins being issued at Begram without any silver content soon drove the last base-silver coinages out of circulation (Cribb at press a).

### Mujatria son of Kharahostes – square copper coins



Mujatria copper no. 9.

Mujatria's square copper coins present a complicated pattern of issue, which it is difficult to explain. His copper coins all have a mounted horseman design on the obverse, but facing both right and left. On their reverses there are three different designs: a lion walking to the right, and what appear to be a seated Apollo and a standing Heracles. These coins were issued with two different types of Kharoshthi inscriptions, one naming

Mujatria: *kṣatrapasa kharaostaputrasa mujatriasa*, the other Azes II: *maharajasa mahatasa dhramikasa rajatirajasa ayasa*. The Greek inscriptions either name Azes II or are illegible. The coinage is further complicated by the variety of weight standards according to which they were issued.

Types 1 and 5 around 6.0g, types 6a-b clusters around c.4.5g, type 7a, 6c and 12 weighs about 3.0g and types 2–4 and 8–11 have weights focused around the standard of c.2.0g. All the weight groupings include coins in the names of both Azes and Mujatria. All the highest-weight coins have the lion reverse, the middle-weight group are all the same Apollo reverse type except one piece of a Heracles type (3a) of which all other examples are of the lower-weight group. The lowest group contains both Apollo and Heracles types, apart from one exceptional type 3a Heracles piece in the 4.5g group. All the left-facing horseman types are in the lowest-weight group.

The obverse types all show the same horseman design as the base-silver coins of Mujatria, with the horseman wearing nomad riding dress, normally facing right, but a few types are facing left. The horseman's whip can be detected on a few types (6a–c, 11a–b), but the details on most examples are too small to include this detail. Apart from one type, where it might have been omitted by accident (1b), all types have the circular device used on the base-silver coins, normally in front of the horse's legs, except in one type (12a) where it is behind the horseman's head.

The reverse designs are all very small and lacking detail. The lion type is copied from the coins of Kharahostes and retains the Greek letter X in front of the lion's legs, but the Kharoshthi mark, *ṣi*, above the lion's back is novel. The Apollo type shows the god seated on the *omphalos* (earth navel), as in Greek art, particularly on Seleucid coins, but has no other identifying characteristics. The Heracles type shows the god standing with his right hand raised and his left hand on his hip. The identification of the image as Heracles rests on the similarity of the posture to Greek images of Heracles crowning himself and the traces of a scarf, hanging from the left forearm, recalls Heracles' lion skin.

### Classification and inscriptions

The classification of Mujatria's square copper coin is complex and to some extent arbitrary. The main groupings are by the inscriptions and types. For this account of the coinage, the Kharoshthi inscriptions are first used to separate the coins: those in the name of Azes (types 1–4) and in his own name (types 5–12); then by the obverse design: facing right (types 1–3a and 5–10, or left (types: 3b and c–4 and 11–12); then by reverse type: Lion (types 1 and 5), Apollo (types 2, 6–7 and 11–12), Heracles (types 3–4 and 8–10). Beyond these distinguishing features, the coins can be separated by their use of control marks and arrangement of inscriptions.

The inscriptions on the coins in the name of Azes closely resemble those on Mujatria's base-silver coins, showing the same misordering and misspellings, with type 1 matching the inscriptions on base-silver type 1. The following types show a degeneration of the inscriptions, with complete disorder of the Greek inscriptions and, apart from type 2, the absence of the title *dhramika*.

The field marks on the coins in the name of Azes also show a progression corresponding to Mujatria's base-silver coins. The Kharoshthi *mu* appears from type 2, a feature first appearing on the base-silver coins from type 5. The Kharoshthi monogram *ṣighasa*, which appears on all the base-silver coins does not appear until types 3–4. On type 4 coins it is joined by the Kharoshthi letter *dha*, which appears on types 5–12 of the base-silver coins.

The inscriptions on the coins issued in Mujatria's own name seem to follow a similar pattern, with the Greek inscriptions on the obverses of types 5 and 6 still resembling the inscriptions of the early base-silver issues. The added letter

*mu* also appears behind the horseman's head, but only on types 8–11. The Kharoshthi monogram *ṣigasa* is also featured on the reverse of types 8–10.

86 examples of Mujatria's square copper coins have been recorded, struck from 60 obverse dies. This suggests just less than a third of the dies have been recorded and that approximately 198 dies could have been used to produce this coinage (Esty 2011: 46). There are, therefore, likely to be more varieties discovered.

The weights of these coins are also relevant in the construction of a classification and sequence for the varieties so far recorded. The weights, designs and control marks of these coins suggest that the coins in the name of Azes and those in the name of Mujatria were issued in parallel. The dropping weight standard and the designs show the following sequence, with the design changing as the weights dropped, but with the changes not completely synchronised between the two sets:

Phase	appr. wt.	reverse	Azes types	Mujatria types		
1	6g	Lion	1	5		
2	4.5g	Apollo	[3]	6a-b		
3	3g	Apollo		6c 7 12		
4	2g	Apollo	2	11 (··)	mu	
5	2g	Heracles	3 4	8 (··) 9 (··) 10	mu	ṣighasa

Table 3: Phases of Mujatria copper coins

The introduction of *mu* behind the horseman's head suggests that the fourth-fifth phases of the square copper coins were contemporary with types 5–13 of the base-silver coinage of Mujatria. The addition of three dots to the design on square coins types 11, 8 and 9 also suggests that the fourth and fifth phases were contemporaneous with the use of the same device on base-silver types 11 and 12.

The Kharoshthi inscription naming Mujatria was originally read as Hajatria, understandably as the orientation of the initial letter of the name was not always clear. Senior (2001: 99) and Falk (2011: 124) used this reading to suggest that the son of Kharahostes was mentioned in the Mathura lion capital. Falk identified the person named in the inscription, Hayuara, as Hajatria, following Senior's more tentative suggestion. He produced an orthographic explanation of the connection between the two names, suggesting that Hajatria should be read *hajarīa* (= Hayuara) on the coins, because he found Kharahostes' name written *kharaosta* on the Mathura lion capital, i.e. using the letter *ra* with a lateral stroke to the right from its foot. On the coins with Mujatria's name the form of the name Kharahostes is *kharaosta* without the additional stroke, so there is no reason to suggest that the *tri* in Mujatria's name should be read as *ri*.

The positioning of the Kharoshthi inscriptions on these coins are far more random than on those on the coins of Kharahostes. The sequence of the inscription, *kṣatrapasa kharaostaputrasa mujatriasa*, places the satrap's name at the end of the inscription rather than the start as on his father's coins. On some varieties (6, 7 and 11), however, the word 'satrap' is separated from the rest of the inscription, placed at the bottom of the coin, so that it is read from the edge, rather than the centre of the coin. This orientation is normally preserved for the ruler's name on Indo-Scythian coins, as on Mujatria's base-silver coins in the name of Azes (except type 3a).

### Weight standard and denomination

As observed above, the square copper coins of Mujatria were struck on a progression of falling standards, starting at a weight well below the standard of his father's issues, with three further steps down in weight. At the end of the coinage the issues are

on a 2g standard which corresponds to the copper standard used for the anonymous Soter Megas issued by Wima Takto in Gandhara. Similar drops in weight standard can be observed in two other contemporary coinages: the coins in the name of Azes with lion and Tyche types (Senior 2001: types 122 and 123), issued during the reigns of Kujula Kadphises and Wima Takto, which start as a round copper coinage of c. 8g and descends in steps to c. 2g (Cribb and Bracey in preparation); and the lead coins of Rajuvula which seem to follow a similar pattern of descent (Senior 2001: type 153; the series found in abundance at Taxila, Marshall 1951: 783). In spite of the various weights, Mujatria's square copper coins are all the same denomination and the successors of the square copper coins of his father. The changes in design are probably intended to signal to their users the change in standard.

Types/ number of coins												
1									1	1	2	2
2			1	1								
3		1	3	3				1				
4		2	2									
5												1
6				1		1	1	2	1			
7				1	1							
8		6	14	4								
9	1	4	3	1								
10			1									
11	1	5	7	2								
12			1	1								
gr.	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5

Table 4: Weight distribution of Mujatria square copper coins

#### Coins of Kharahostes, satrap of Mathura

So far, three examples of the coins of Kharahostes, satrap of Mathura, have been found. They are all clearly legible providing the inscription *khatapasa kharahostasa*. The identification of this issue as of a satrap of Mathura is based on the similarity of the designs and inscriptions to the issues of Sodasa found in number at Mathura (Ray 1988: 143). In common with the coins of Sodasa and his father, Rajuvula, the obverses show the goddess Shri Lakshmi standing, raising her right hand, holding a lotus and resting her left hand on her hip and flanked by elephants standing on lotuses and pouring water over the goddess' head from water pots held in their raised trunks. The reverse also shows the goddess, but now flanked by symbols: a snaky line representing water on her left and a three-pronged device representing a tree on her right, all surrounded by a circular inscription giving the satrap's title and name. On the three Kharahostes' coins the beginning and the end of the inscription as transcribed above are at the edge of the visible part of the design, so it is not possible to tell if that is the whole inscription. On the coins of Rajuvula there are additional letters: *mahākhataṣa rājuvulasa* (Allan 1936: 187), and on Sodasa's there are three different versions with additional letters: *mahakhatapasa putasa khatapasa ṣoḍāsasa*; *rājuvulaputasa khatapasa ṣoḍāsasa*; *mahakhatapasa ṣoḍāsasa* (Allan 1936: 190–191). On this basis it seems likely that the Kharahostes inscription ends with his name, but there could have been a patronym or superior title on the die, but off the edge of the coins so far seen.

The weight of the three known examples are 3.82g (Royal Asiatic Society collection: no. 950, Fig 2), 2.83g, (Senior 2013; CN Gallery, Mumbai, auction 11, 15 March 2013, lot 9, Fig. 3) and 3.09g (in trade, Bankar and Jain, in preparation). The denomination appears to be the same as the standard c. 3g unit of Sodasa's coinage. The weight standard used for the coinage of the satrap, Hagamasa, (and his associates) appears to have been higher at about 4g, having dropped during his reign from a higher standard of c. 5–6g used by the pre-satrapal rulers of Mathura. Rajuvula's coinage is too rare to determine the weight standard from the surviving examples.

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#### Abbreviations:

BM = British Museum, London  
 OX = Ashmolean Museum, Oxford  
 BN = Bibliothèque Nationale, Paris  
 Berlin = Staatliche Museen, Berlin  
 CNG = Classical Numismatic Group, London  
 CNGallery = Classical Numismatic Gallery, Mumbai  
 IM = Indian Museum, Kolkata  
 PM = The Punjab Museum, Lahore  
 BMC = British Museum Catalogue (Gardner 188)  
 OD = Obverse Die; RD = Reverse Die

#### Kharahostes square copper coins

##### 1a pa / kharo

1. BM 1921,0331.60, 6.96g, 21x19mm (=Senior 2001: 143.1). OD as 2.
2. Senior collection K6, 6.76g, 19x18mm (Senior 2008:16, 8). OD as 1.
3. CNG: e-auction 287, 26-9-2012: 269, 8.06 g, 21mm.

##### 2a sam / kharo

4. BM 1860,1220.169, 8.82g, 21x21mm, ex Hay, BMC 2. OD as 5–7 and RD as 5–7.
5. OX, 8.42g, 22x19mm, ex Elliott 1859. OD as 4, 6 and 7 and RD as 4, 6 and 7.
6. Linenthal collection, 8.4g. OD as 4, 5 and 7 and RD as 4, 5 and 7.
7. Senior collection K9, 8.94g, 20x22mm. OD as 4–6 and RD as 4–6.
8. Private collection.

##### 2b sam / kharo

9. BM 1894,0506.1720, 5.22g, 19x19mm ex Cunningham (Cunningham 1890: 68–9, pl. XV: 9). OD as 10.
10. BM 1894,0506.2421, 5.16g, 19x19mm, ex Cunningham. OD as 9, and RD as 11.
11. BM 1922,0424.3750, 6.47g, 20x22 mm, ex Whitehead. OD as 12–14, and RD as 10.
12. CNG e-auction 255, 4-5-2011: 179, 7.15g, 22mm. OD as 11, 13 and 14.
13. PM 91, 21mm, ex Bleazby (Whitehead 1914: 159, pl. XVI: 91; Rapson 1905: 790, pl. VI: 9; =Senior 2001: 143.3). OD as 11, 12 and 14.
14. Tandon collection 257.08, 7.14g, 20x22mm. OD as 11–13, and RD as 13.

##### 2c sam / kharo

15. BM 1889,0105.1182, 6.38g, 21x20mm, ex Bhagvanlal Indrajai.
16. ANS 1944.100.66765, 6.41g, 22x21mm. OD+RD as 17.
17. CNG e-auction 149, 4-10-2006: 175, 6.95g, 21mm. OD+RD as 16.
18. VCoins, Sphinx Numismatics 546FC, 7.32g.
19. Wilson 1841: 331, pl. VIII: 2, ex Swiney.

##### 2d sam / kharo

20. OX, 7.22g, 22x20mm, ex Elliott 1859. OD as 21.
21. CNGallery 12, 2-6-2013: 17b, 7.45g, OD as 20.
22. CNG e-auction 265, 5-10-2011: 243 (e-auction 255, 4-5-2011: 180), 7.20g, 20mm.

##### 2e sam / kharo

23. OX 9.26g, 19x22mm, ex Langmore 1957. (cf. type 4a Greek inscription).

##### 3a sam / kharo-sam

24. BM, 6.99g, 19x20mm ex Cunningham (BMC 6; Cunningham 1890: 68–69, pl. XV: 11). OD as 25.  
25. ANS 1944.100.66767, 6.49g, 22x20mm, ex Newell. OD as 24.

### 3b *saṃ / kharo-saṃ*

26. BM 1894,0506.2420, 6.20g, 20x21mm, ex Cunningham. OD as 27.  
27. OX Senior 2581, 7.17g, 21x22mm. OD as 26.  
28. OX Senior 2580, 7.38g, 20x21mm.  
29. ANS 1944.100.66764, 5.94g, 20x19mm, ex Newell.

### 3c *saṃ / kharo-saṃ*

30. CN Gallery 12, 2-6-2013: 17a, 7.13g.

### 3? *saṃ / kharo-saṃ illegible*

31. ur Rahman collection 975, 7.00g, 21x19mm (Bopearachchi and ur Rahman 1995: 220–221, 975).  
32. Masson 1835: 19, pl. 7: 158 ('from defaced coins picked up at Kabul or Ghazni').  
33. Zeno.ru 2225, 6.7g, 21x21mm.

### 4a *jha / kharo*

34. BM 1894,0506.1722, 7.86g, 21x20mm, ex Cunningham, ex Court. OD as 35 and 36; RD as 36.  
35. BM IOC.241, 6.62g, 20x21mm, ex India Office (BMC 5). OD as 34 and 36.  
36. OX Senior 2582, 6.50g, 20x24mm. (=Senior 2001: 143.5, i). OD as 34 and 35, RD as 34.

### 4b *jha / kharo*

37. OX Senior 2583, 7.02g, 20x21mm. (=Senior 2001: 143.5, ii). OD as 38, 39 and 40, RD as 40.  
38. OX Senior 2588, 6.20g, 23x21mm. OD as 37, 39 and 40.  
39. OX Senior 2584, 6.18g, 20x21mm. OD as 37, 38 and 40.  
40. Tandon collection 547.87, 7.77g, 20x22mm. OD as 37–39, RD as 37.  
41. OX Senior 2585, 6.62g, 21x21mm.

### 5a *jha / kharo-saṃ*

42. BM 1894,0506.1721, 6.56g, 21x19mm, ex Cunningham, ex Court. (=Senior 2001: 143.6). OD as 43.  
43. BM 1887,0710.3, 7.13g, 21x21mm, ex Talbot. OD as 42.  
44. OX Senior 2587, 6.63g, 21x22mm.  
45. OX Senior 2589, 6.68g, 20x23mm.  
46. Senior collection K10, S27.1 (143.9), 7.21g, 21x23mm (Senior 2002: 16, 54).  
47. Zeno.ru 67892, 6.8g, 18x21.5mm.  
48. Zeno.ru 133018, 4.99g.

### 6a *pra / kharo-saṃ*

49. BM IOC.240, 7.29g, 22x21mm, ex India Office (BMC 4). OD as 50 and 51.  
50. BM 1847,0421.21, 7.18g 21x20mm, ex Murphy (BMC 1, Cunningham 1890: pl. XV: 10). OD as 49 and 51.  
51. Zeno.ru 4133, 7.2g, 21x22mm. OD as 49 and 50.  
52. BM 1894,0506.1723, 7.04g, 20x20mm, ex Cunningham.  
53. OX Senior 2579, 7.68g, 21x21mm.  
54. OX Senior 2578, 6.79g, 24x19mm.  
55. OX no provenance 7.52g, 21x19mm.  
56. Senior collection K11, 6.50g, 19x20mm (=Senior 2001: 143.7 ). OD as 57.  
57. Tandon collection 131.16, 7.71g, 23x18mm. OD as 56.

### 6b *pra / kharo-saṃ*

58. BM IOLC.897, 6.73g, 22mm, ex Masson.  
59. BM 1894,0506.2422, 7.01g, 19x20mm, ex Cunningham.  
60. OX Senior 2577, 7.72g, 22x19mm. (=Senior 2001: 143.2).  
61. OX Senior 2590, 6.16g, 19x21mm. OD as 64.  
62. BN 384, 6.36g, 20x20mm, ex Jouveau-Dubreuil (Fröhlich 2008: 384).  
63. ebay.com, 4 December 2014.

### 6c *pra / kharo-saṃ*

64. CNG e-auction 250, 23-2-2011: 194, 6.85g, 20mm. OD as 61.

### 6d *pra / kharo-saṃ*

65. BM 1853,0103.8, 7.12g, 20x21mm, ex Thomas (BMC 3)

### 6e *pra / kharo-saṃ*

66. OX Senior 2576, 6.99g, 21x21mm.

### 6f *pra / kharo-saṃ*

67. BN 383, 7.85g 15x17mm (Fröhlich 2008: 383).

### 7a *illegible*

68. OX Senior 2586, 4.92g, 20x13mm (cut fragment).

## Fractional denominations:

### 8a half denomination *saṃ / kharo-saṃ*

69. Senior collection K7, 3.19g, 17x18mm (Senior 2008:16, 9).

### 9a quarter denomination *pra / kharo-saṃ*

70. Senior collection K8, 2.32g, 16x13mm (Senior 2006: S27.2b).

## Mujatria base-silver imitation Azes coins

### 1a (Senior 139.22)

1. OX Senior 2551, 8.64g, 21mm (=Senior 2001: 139.22). OD as 2.

### 1b (Senior 193.21)

2. OX Senior 2550, 8.98g, 21mm (=Senior 2001: 139.21). OD as 1.

### 1c (Senior 193.21)

3. BM 1894,0506.636, 9.37g, 20 mm, ex-Cunningham.

### 1d (Senior 139.24)

4. OX Senior 2553, 9.27g, 22mm. (=Senior 2001: 139.24). OD as 5.  
5. BM 1990,0515.345, 7.52g, 22mm, ex BM Sasan-Aspavarma hoard. OD as 4.

### 2a (Senior 139.20)

6. OX Senior 2546, 9.34g, 21mm. OD as 8 and 9 (recut as 10 and 11).  
7. OX Senior 2549, 7.61g, 20mm.

### 2b (Senior 139.20)

8. OX Senior 2547, 9.42g, 21mm (=Senior 2001: 139.20). OD as 6 and OD+RD as 9 (OD recut as 10 and 11).  
9. BN, 8.97g, 19mm, ex Allard 1843. (Fröhlich 2008: 374). OD as 6 and OD+RD as 8 (OD recut as 10 and 11).

### 2c (Senior 139.23)

10. OX Senior 2552, 9.26g, 21mm (=Senior 2001: 139.23). OD as 11; OD (recut) as 6, 8 and 9.  
11. Berlin, 8.98g, 22mm, ex von Gansauge 1873. OD as 10; OD (recut) as 6, 8 and 9.

### 2d (Senior 139.10)

12. OX Senior 2546, 9.44g, 19mm. (=Senior 2001: 139.10).

### 3a (Senior 139.30)

13. OX, 9.28g, 21mm, ex Langmore 1957 (Mitchiner 1976, 873d)

### 4a (Senior 139.30)

14. OX Senior 2554, 8.84g, 20mm (=Senior 2001: 139.30).

### 4b (Senior 139.30)

15. Senior collection K2: 9.83g, 22mm. (Senior 2006: S25.1). OD as 16.  
16. BM 1843,0812.23, 9.45g, 21mm, ex Ellenborough (BMC 195). OD as 15.  
17. Berlin, 8.76g, 23mm, ex Imhof Blumer 1900.

### 5a (Senior 139.40)

18. OX Senior 2556, 9.35g, 21mm. (Senior 2006: 83, ex Gondophares-Sases hoard 2, 12).  
19. BM EIC.90, 9.14g, 21mm, ex East India Company, ex Masson (= Masson 1835: 111; BMC 192).

### 5b (Senior 139.40)

20. OX, 8.83g, 21mm, ex Elliott 1859.  
21. BM 1853,0301.1305, 9.21g, 20mm, ex Eden (BMC 193).

### 6a (Senior 139.40)

22. OX Senior 2560, 9.15g, 21mm.  
23. Berlin, 8.81g, 21mm, ex Fox 1873.  
24. BN, 9.13g, 19mm (Fröhlich 2008: 376).  
25. Prinsep 1835: pl. XVII, 22.

### 7a (Senior 139.40)

26. OX Senior 2559, 9.48g, 20mm. OD as 27–31.  
27. BM 1835,0901.7, 9.42g, 20mm, ex Honigberger (BMC 191). OD as 26 and 28–31.  
28. BM 1889,0105.1082, 9.15g, 20mm, ex Bhagvanlal Indrajai. OD as 26–27 and 29–31, RD as 29.  
29. BM IOLC.889, 9.34g, 20mm, ex Masson. OD as 26–28 and 30–31, RD as 28.  
30. Berlin, 9.32g, 21mm, ex Fox 1873 (Mitchiner 1975/6: 873b.3). OD as 26–29 and 31.  
31. Masson 1834: plate XI, 47, procured at Jalalabad by Martin Honigberger (Jacquet 1837: pl. XIII, 2). OD as 26–30.  
32. ur Rahman collection 957, 7.65g, 20mm (Bopearachchi and ur Rahman 1995: 196–7, ex Mir Zakah treasure II).  
33. ur Rahman collection 958, 6.90g, 20mm (Bopearachchi and ur Rahman 1995: 196–7, ex Mir Zakah treasure II).

34. ur Rahman collection 959, 6.85g, 22mm, Bopearachchi and ur Rahman 1995: 196–7, ex Mir Zakah treasure II).

#### 7b (Senior 139.40)

35. OX Senior 2555, 9.39g, 19mm. (=Senior 2001: 139.40; ex Gondophares-Sases hoard 2, Senior 2006: 81 and 83).

#### 8a (Senior 139.40)

36. OX Senior 2558, 9.51g, 20mm.  
37. Prinsep 1838: pl. XLIII, 17, ex Ventura.  
38. Tandon collection: 121.24: 9.34g, 20 mm

#### 9a (Senior 139.40)

39. CNG e-auction 268 (16-11-2011): 167a, 8.92g, 21mm.

#### 10a (Senior 139.40)

40. OX Senior 2557, 8.94g, 21mm (overstruck on itself, trace of reverse under obverse, below horse and traces of Greek inscription above Tyche on reverse).  
41. BM 1853,0301.1281, 8.52g, 20mm, ex Eden collection (BMC 194).

#### 11a (Senior 139.50)

42. OX Senior 2567, 8.49g, 21mm.  
43. Berlin, 8.18g, 21mm, ex Guthrie 1876.  
44. CNG e-auction 274 (22-2-2012): 247, 9.38g, 21mm. OD as 45.  
45. Zeno.ru 4091, 9.30g, 22mm. OD as 44.

#### 11b (Senior 139.50)

46. OX Senior 2566, 8.50g, 20mm (=Senior 2001: 139.50).

#### 11c (Senior 139.51)

47. OX Senior 2565, 9.39g, 20mm (=Senior 2001: 124, 139.151; ex Gondophares-Sases Hoard 3, Senior 2006: 86, 5).  
48. BM IOLC.887, 9.07g, 20mm, ex Masson. OD as 49.  
49. Zeno.ru 127284, 9.17g 20mm. OD as 48.  
50. BM 1954,0708.4, 9.59g, 20mm, ex Baldwin (overstruck by a nineteenth century Afghan coin).  
51. BN, 9.23g, 18mm, ex Allard 1843 (Fröhlich 2008: 378).  
52. Mitchiner collection, 9.10g, 20mm (Mitchiner 1976: 873a; 1978: 2456).  
53. Tandon collection 220.03, 9.41g, 21 mm.

#### 12a (Senior 139.43)

54. OX Senior 2564, 9.31g, 20mm (=Senior 2001: 139.43). OD as 55 and 56.  
55. Zeno.ru 27627, 9.39g, 21mm. OD as 54 and 56, RD as 56.  
56. Zeno.ru 145136, 9.39g, 20mm. OD as 54 and 55, RD as 55.

#### 12b (Senior 139.42)

57. OX Senior 2562, 8.52g, 20mm. OD as 58.  
58. OX Senior 2563, 9.51g, 19mm. OD as 57.  
59. OX, 9.06g, 20mm, ex Elliott 1859. OD as 61.  
60. Tandon collection 131.15, 8.07g, 20 mm.

#### 12c (Senior 139.42)

61. Zeno.ru 133456, 9.21g, 20mm. OD as 59.

#### 12d (Senior 139.41)

62. OX Senior 2561, 9.47g, 21mm. (=Senior 2001: 139.41). OD+RD as 63 and 64, and OD as 65.  
63. BM IOLC.888, 9.00g, 21mm, ex Masson. OD+RD as 63 and 64, and OD as 65.  
64. CNG e-auction 268, 16-11-2011: 167b, 9.31g, 21mm. OD+RD as 62 and 63, and OD as 65.

#### 12e (Senior 139.41)

65. Berlin, 7.90g, 20mm, ex Guthrie 1876. OD as 62–64.

#### 13a (Senior 139.60 and Senior 139.60v)

66. OX Senior 2568, 9.13g, 19mm (=Senior 2001: 139.60). OD as 67–69.  
67. Berlin, 9.74g, 20mm, ex Guthrie, 1876. OD as 66, 68 and 69.  
68. Mitchiner collection, 9.30g, 21mm (Mitchiner 1976: 873e, 8; 1978: 2458. OD as 66, 67 and 69).  
69. Mitchiner collection, 9.35g, 20mm. (Mitchiner 1976: 873e.7; 1978: 2457). OD as 66–68.  
70. OX Senior 2570, 9.35g, 19mm. (=Senior 2001: 139.60v, ex Plated Hoard, Senior 2006: 81–82, 12). OD as 71 and 72.  
71. BM IOC.204, 9.24g, 20mm, ex India Office, ex Masson (Bimaran stupa 2) (BMC: 199). OD as 70 and 72.  
72. BM 1847,1201.101, 9.70g, 19mm, ex Prinsep. OD as 70 and 71.  
73. OX, 8.77g, 20mm, ex Bodleian. OD as 74.  
74. BM IOC.201, 9.57g, 22mm, ex-India Office (BMC 196), ex Masson (Bimaran stupa 2). OD as 73.

75. BM 1850,0305.153, 8.45g, 21mm, ex Thomas. OD as 76.

76. BM IOC.202, 9.32g, 20mm, ex India Office, ex Masson (Bimaran stupa 2) (BMC 1886: 197). OD as 75.

77. BM 1894,0506.637, 8.02g, 20mm, ex Cunningham. OD as 78.

78. Wilson 1841: pl. VIII, 1. OD as 77.

79. BM 1960,0407.1, 9.28g, 21mm, ex Masson (Bimaran stupa 2).

80. BM 1889,0105.1083, 9.50g, 19mm, ex Bhagvanlal Indrajai.

81. BN, 9.27g, 18mm, ex Le Berre (Fröhlich 2008: 377).

82. Berlin, 8.57g, 21mm, ex Guthrie 1876.

83. Berlin, 219-1881, 8.98g, 20mm.

84. OX Senior 2569, 8.65g, 21 mm.

85. OX, 9.18g, 19mm, ex Elliott 1859.

#### 13b (Senior 139.60 and Senior 139.60v)

86. BM IOC.203, 9.59g, 20mm, ex India Office (BMC: 198). OD as 87.

87. BM 1903,1106.7, 9.28 g, 21mm, ex Talbot. OD as 86.

### Mujatria square copper coins in name of Azes II

#### 1a Horseman right, wheel / Lion right, X-ϣ

1. OX Senior 2543, 5.91g, 19x19mm (=Senior 2001: 138.1 = this coin). OD as 2–6.  
2. OX Senior 2544, 6.25g, 19x18mm. OD as nos. 1 and 3–6.  
3. ANS 1944.100.63376, 5.76g, ex Newell. OD as nos. 1, 2 and 4–6.  
4. IM 49, 18x17mm (Mitchiner 1975/6, 874). OD as nos. 1, 2, 3, 5 and 6.  
5. Ghirshman 1946: pl XXII, 12, excavated in Begram level 1. OD as nos. 1, 2, 3, 4 and 6.  
6. Spink 5014 (28-9-2005): 281B, 6.10g, 22x19mm (Mears, 2006). OD as nos. 1–5.  
7. Kutchera Stupa: Pigou 1841: 1.

#### 1b Horseman right, wheel / Lion right, X-ϣ

8. OX Senior 2545, 6.56g, 21x21mm. OD+RD as 9.  
9. Senior collection K1, 6.53g, 20x20mm (Senior 2006: 138.2). OD+RD as 8.

#### 2a Horseman right, mu-wheel / Apollo, ghasa-mu-ha

10. OX Senior 2571, 2.46g, 17x17mm (=Senior 2001: 140.1). OD+RD as 11.  
11. Zeno.ru 133362, 2.50g. OD+RD as 10.

#### 3a Horseman right, mu-wheel / Heracles, mu-sighasa

12. CNG e-auction 255 (4-5-2011):181, 4.97g, 17mm.  
13. OX Senior 2572, 2.42g, 13x14mm (=Senior 2001: 141.1).  
14. OX Senior 2573, 2.16g, 12x16mm.  
15. OX Senior 2574, 2.63g, 14x14mm.  
16. Zeno.ru 97821, 2.60g.  
17. Senior collection K3, 1.90g, 13x12mm.

#### 3b Horseman left, mu-wheel / Heracles, sighasa-mu

18. OX, 2.33g, 12x12mm, ex de Shortt 1975 (Mitchiner 1975/6, 878b.1).  
19. Senior Collection K4, 2.57g, 13x11mm (Senior, 2002: 16, 55; 2006: S26.1).

#### 4a Horseman left, mu-wheel / Heracles, sighasa-dha

20. OX Senior 2607, 1.64g, 11x10mm.  
21. Senior collection K5: 2.22g, 12x14mm (Senior 2002: 56; 2006: S26.2).

#### 4b Horseman left, mu-wheel / Heracles, dha-sighasa

22. Mitchiner collection, 2.28g (Mitchiner 1975/6: 878a.1; 1978: 2462).

#### 4c Horseman left, mu-wheel / Heracles, dha-sighasa

23. OX, 1.78g, 12x12mm, ex Warren. (Mitchiner 1975/6: 878a.1; Cunningham 1854: 1).

### Mujatria square copper coins in his own name

#### 5a Horseman right, ? / Lion, ?

24. BM 1894,0506.1803, 5.90g 19x18mm, ex Cunningham.

#### 6a Horseman right, wheel / Apollo, ma-dha

25. Spengler collection (=Senior 2001: 145.1). OD+RD as 26 and 27.  
26. Senior collection K12, Zeno.ru 37397, 4.86g, 17x17mm (ex Indus Numismatic Gallery). OD+RD as 25 and 27.  
27. Tandon collection 412.15, 5.19g, 19x18 mm. OD+RD as 25 and 26.

#### 6b Horseman right, wheel / Apollo, dha-ma

28. CNG e-auction 265 (4-5-2011): 181, 4.97g, 17x17mm. OD+RD as 29.  
29. Amit Udeshi collection: 4.25g, 17x17mm. OD+RD as 28.

**6c Horseman right, wheel / Apollo, dha-ma**

30. OX Senior 2591, 2.60g, 16x15mm (=Senior 2001: 145.2). Same OD and RD as 31.  
31. Senior collection K13, 3.66g, 15x15mm. Same OD and RD as 30.

**7a Horseman right, wheel / Apollo, ?-ha**

32. OX Senior 2592, 3.27g, 17x19mm (=Senior 2001: 145.3). OD+RD as 33.  
33. Zeno.ru 27628, 2.83g, 17x17mm. OD+RD as 32.

**8a Horseman right, mu-wheel / Heracles, śighasa-sam**

34. OX Senior 2595, 2.58g, 12x13mm (=Senior 2001: 147.1). OD as 35.  
35. OX Senior 2596, 2.32g, 12x13mm. OD as 34.  
36. OX Senior 2604, 2.04g, 13x12mm  
37. OX Senior 2597, 2.28g, 13x12mm  
38. OX, 2.46g, 12x13mm, no provenance  
39. OX, 1.77g, 12x11mm, ex Elliott 1859  
40. Senior collection K18, 2.40g, 12x13mm. 13x12mm. OD as 41.  
41. Senior collection K19, 1.97g, OD as 40.

**8b Horseman right, mu-wheel / Heracles, śighasa-sam**

42. BM 1894,0506.1892, 2.01g, 11x13mm, ex Cunningham.  
43. BM 1894,0506.1919, 1.87g, 11x11mm, ex Cunningham (Cunningham 1854: 14).  
44. BM G1131, 1.97g, 10mm, no provenance.  
45. OX Senior 2599, 2.37g, 13x14mm (=Senior 2001: 147.2). OD as 46 and 47.  
46. OX Senior 2602, 2.35g, 14x15mm. OD as nos. 45 and 47.  
47. Zeno.ru 108927, 2.12g. OD as nos. 45 and 46.  
48. OX Senior 2603, 2.55g, 13x12mm.  
49. OX Senior 2601, 2.69g, 13x12mm.  
50. OX Senior 2598, 1.73g, 12x10mm.  
51. Mitchiner collection, 2.3g (Mitchiner 1975/6: type 888a.13; 1978: 2479).  
52. Jean Elsen 87 (11-3-2006): 1273, 2.29g.  
53. Tandon collection 644.35: 2.63g, 14x12 mm.

**8c Horseman right, mu-wheel / Heracles, śighasa-sam**

54. BM 1894,0506.1918, 2.13g, 12x12mm.

**8d Horseman right, mu-wheel / Heracles, sam-śighasa**

55. OX Senior 2606, 2.23g, 12x12mm (=Senior 2001: 147.7).  
56. OX, 1.63g, ex de Shortt 1975, 12x10mm.  
57. Senior collection K20, 2.44g, 13x12mm.

**9a Horseman right, mu-three dots-wheel / Heracles, śighasa-sam**

58. BM 1922,0116.34, 2.06g, 11x11mm, ex Parry.

59. BM 1903,1106.49, 2.22g, 13x13mm, ex Talbot.  
60. BM 1922,0116.33, 1.88g, 13x11mm, ex Parry.  
61. BM 1894,0506.1916, 1.97g, 12x11mm, ex Cunningham.  
62. OX Senior 2605, 1.88g, 12x12mm (=Senior 2001: 147.5).  
63. OX Senior 2600, 1.86g, 12x13mm (=Senior 2001: 147.3).  
64. OX, 1.27g, 11x11mm, ex Bodleian.  
65. Mitchiner collection, 2.92g (Mitchiner 1975/6: 877a.1; 1978: 2461).

**9b Horseman right, mu-three dots-wheel / Heracles, śighasa-sam**

66. BM 1894,0506.1917, 2.03g, 11x11mm, ex Cunningham.

**10a Horseman left, ? / Heracles, śighasa-sam**

67. Senior collection K21, 2.12g, 12x14mm (Senior 2006: S29.1; 2002: 17, 58).

**11a Horseman left, mu-three dots-wheel / Apollo, da-ma**

68. BM G1132, 1.79g, 14mm, no provenance. OD as 69–72.  
69. Tandon collection 638.19, 2.60g, 15x14 mm. OD as 68, 70–72 and RD as 73 and 81.  
70. Tandon collection 290.13, 2.00g, 15x15mm. OD as 68, 69, 71 and 72.  
71. Senior collection, K17, 2.14g, 13x14mm, OD as 68–70 and 72.  
72. Senior collection, K16, 1.91g, 14x15mm, OD as 68–71.  
73. Senior collection, K22, 1.39g, 19x20mm, RD as 69 and 81.  
74. OX Senior 2594, 1.89g, 14x15mm. OD as 75–77.  
75. CNG: e-auction 201 (17-12-2008): 201, 2.15g, 16x16mm. OD as 74, 76 and 77.  
76. CNG: e-auction 226 (27-1-2010): lot 329, 2.67g, 16x16mm. OD as 74, 75 and 77.  
77. Zeno.ru 108929, 2.26g. OD as nos. 74–76.  
78. Mitchiner: 2.3g (Mitchiner 1975/6: 890a.3; 1978: 2480). OD as 79.  
79. Taxila excavations 329 (Marshall 1951: pl. 246, 329). OD as 78.  
80. Zeno.ru 108928, 1.79g.  
81. Spink 8012 (26-6-2008): lot 38. RD as 69 and 73.

**11b Horseman left, mu-three dots-wheel / Apollo, da-ma**

82. BM 1922,0116.32, 1.74g, 14x11mm, ex Parry.  
83. OX Senior 2593, 2.38g, 15x15mm (=Senior 2001: 146.1). OD as 84.  
84. CNG mail auction 72 (14-6-2006): 1066, 2.29g. OD as 83.

**12a Horseman left, wheel / Apollo, nandipāda-mu**

85. Senior collection K14, 2.11g, 15x16mm (Senior 2006: S28.1). OD+RD as 86.  
86. Senior collection K15, 3.09g, 15x18mm (Senior 2006: S28.2). OD+RD as 85

No	Senior	inscription	before horse	inscription	l field	coins	obv. dies
1a	143.1	t: ΧΑΡΑΗΩ ...- r: ... Υ ΣΑΤΡ ...- b: ΟΥ ΑΡΤΑ ...- l: Σ ΠΟΤΡΟΣ	pa	t: kharaosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa-		3	2
2a	[143.3]	t: ΧΑΡΑΗΩΣΤΕ- r: Ι ΣΑΤΡΑΠ- b: ΕΙ ΑΡΤΑ - l: Σ ΥΙΟΥ ...	sam	t: araosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kh-		5	2
2b	143.3	t: ΧΑΡΑΗΩΣ- r: ΤΕΙ ΣΑΤ- b: ΡΑΠΕΙ Α- l: ΡΤΑ ΥΟΥ	sam	t: araosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kh-		6	2
2c	[143.3]	t: ΧΑΡΑΗΩΣ- r: ΤΕ ΣΑΤΡ- b: ... ΡΤΟ- l: ΥΟΤΑΙ	sam	t: araosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kh-		5	4
2d	[143.3]	t: ΧΑΡΑΗΩΣΤ- r: ΕΙ ΣΑΤΡΑΠ- b: ΕΙ ΑΡΤΑΥΟ - l: ... ΑΤΟΥΥΟ	sam	t: araosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kh-		3	2
2e	[143.3]	t: ΧΑΡΑΗΣΤ- r: ΕΙ ΣΑΤΡ- b: ΑΠΕΙ ... - l: ... ΑΥΟΙΥ	sam	t: araosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kh-		1	1
3a	[143.4]	t: ... ΡΑΗΩΣΤΕ- r: Ι ΣΑΤΡΑΠ- b: ΕΙ ΑΡΤΑ ...- l: ...	sam	t: raosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kha-	+sam	2	1
3b	143.4	t: ... ΑΡΑΗ ...- r: ΕΙ ΣΑΤΡΑΠ- b: ΕΙ ΕΡ ...- l: ... ΤΑ ...	sam	t: raosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kha-	+sam	4	3
3c	[143.4]	t: ...- r: ΕΙ ΑΤΠΑΗΣ- b: ΕΙ ...- l: ΑΤΠ ...	sam	t: ... osta- l: sa arṭasa- b: putrasa kṣa- r: ... -	+sam	1	1
3?	illegible					3	3
4a	[143.6]	t: ΧΑΡΑΗΩ ...- r: ΕΙ ΣΑΤΡΑΠ- b: ΕΙ ΑΡ ... - l: ΥΟΤΑΤ	jha	t: kharaosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra-		5	2
4b	143.5	t: ΧΑΡΑΗΣΤ- r: ΕΙ ΣΑΤΡ- b: ΑΠΕΙ ΑΡ - l: ΤΑ ΥΟΙΥ	jha	t: kharaosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra-		3	1
5a	143.6; S27.1	t: ΧΑΡΑΗΣ ...- r: ...- b: ΑΡΤΑ ΥΟΥΟ- l: ΤΟΤΙΟΤΙ	jha	t: raosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kha-	+sam	7	6
6a	143.7;	t: ΧΑΡΑΗΩΣ- r: ΤΕΙ ΣΑΤΡ ...- b: ΠΕΙ ΑΡΤΑ- l: ΥΟΥΤΟΙ	pra	t: raosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kha-	+sam	9	6
6b	143.2	t: ΧΑΡΑΗΩΣΤ- r: ΕΙ ΣΑΤΡΑΠ-	pra	t: kharaosta- l: sa arṭasa-	+sam	6	6

		b: EI APTA ...- l: OYTO ...		b: putrasa kṣa- r: trapasa pra-				
6c	[143.2; 143.7]	t: XΑΡΑΗ ...- r: ...- b: ...- l: ... ΤΥΥΟΥΡ	<i>pra</i>	t: kharaosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra-	<i>+saṃ</i>	1	-	
6d	[143.2; 143.7]	t: ... ΑΡΑΗΩ ...- r: ...- b: ...- l: ... ΥΤΑΤΟΙ	<i>pra</i>	t: kharaosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra-	<i>+saṃ</i>	1	1	
6e	[143.2; 143.7]	t: ...- r: Ι ΧΑΡΑΗ- b: ΩΣΤ ...- l: ...	<i>pra</i>	t: kharaosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra-	<i>+saṃ</i>	1	1	
6f	[143.2; 143.7]	t: ...- r: ... ΣΑΤΡΑ ...- b: ...- l: ...	<i>pra</i>	t: raosta- l: sa arṭasa- b: putrasa kṣa- r: trapasa pra kha-	<i>+saṃ</i>	1	1	
						<b>67</b>	<b>45</b>	
7a	S27.2b half	t: ...- r: ...ΗΩ...- b: ...ΑΡΤΑ...- l: ...ΥΙΟΥ	<i>saṃ</i>	t: ...- l: ...- b: ...- r: ...	<i>+?</i>	1	1	
8a	S27.2 quarter	t: ...- r: ... ΣΑ ...- b: ...- l: ... ΤΑΤΑ ...	<i>pra</i>	t: ...- l: sa arṭasa- b: putrasa kṣa- r: trapasa kha-	<i>+saṃ</i>	1	1	
9a	illegible					1	1	

Table 5: Kharahostes square copper coins typology

2e die without omega, as jha1  
7e starts at top right  
t: top; r: right; b: bottom; l: left



Kharahostes no. 1, type 1a  
(BM 1921.0331.60, 6.96g, 21x19mm)



Kharahostes no. 15, type 2c  
(BM 1889.0105.1182, 6.38g, 21x20mm)



Kharahostes no. 4, type 2a  
(BM 1860.1220.169, 8.82g, 21x21mm)



Kharahostes no. 38, type 4b  
(OX Senior 2588, 6.20g, 23x21mm)



Kharahostes no. 11, type 2b  
(BM 1922.0424.3750, 6.47g, 20x22 mm)



Kharahostes no. 42, type 5a  
(BM 1894.0506.1721, 6.56g, 21x19mm)



Kharahostes no. 13, type 2b  
(PMC 91, 21mm)



Kharahostes no. 60, type 6b  
(OX Senior 2577, 7.72g, 22x19mm)



Kharahostes quarter no. 70, type 9a  
(Senior collection K8, 2.32g, 16x13mm)



Kharahostes half no. 69, type 8a  
(Senior collection K7, 3.19g, 17x18mm)

	Senior	o'cl		over rump	in legs	over wheel	by kha	ṣighasa	ṣighasa merged	below ṣighasa	above ṣighasa	Khar. legend	coins	dies
1a	139.22	4	ΒΑΣΙΛΕΩΝ ΒΑΣΙΛΗΩΣ ΜΕΓΑΛΟΣ ΑΖΟΥ				pra- ya n'pā da	X					1	1
1b	139.21.1	4	ΒΑΣΙΛΕΩΝ [ΒΑΣΙΛΕΩΣ] ΜΕΓΑΛΟΣ ΑΖΟΥ				pra- ya	X		nandi- pāda		sa ** missing	1	-
1c	139.21.2	7	ΒΑΣΙΛΕΩΝ ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΟ ΑΖΟΥ				pra- ya	X			n'pāda?		1	1
1d	139.24	8	ΒΑΣΙΛΗΩΝ ΒΑΣΙΛΗΩΙ ΜΕΓΑΛΟΣ ΑΖΟΥ	n'pāda	pra- dot		pra	X		nandi- pāda			2	1
2a	139.20.1	10.	ΒΑΣΑΛΕΩΝ ΒΑΣΛΕΩΣ ΜΗΓΑΛΟ ΑΖΟΥ				pra	X		nandi- pāda			2	2
2b	139.20.2	10	ΒΑΣΑΛΕΩΝ ΒΑΣΛΕΩΣ ΜΗΓΑΛΟ ΑΖΟΥ				pra		X	nandi- pāda			2	-
2c	139.23	10	ΒΑΣΑΛΕΩΝ ΒΑΣΛΕΩΣ ΜΗΓΑΛΟ ΑΖΟΥ	dot			pra		X	nandi- pāda			2	-
2d	139.10	8	ΒΑΣΑΛΕΩΝ... ...ΗΓΑΛΟ ΑΖΟΥ				-	X					1	1
3a	139.30.3	10	ΒΑΣΑΛΗΩΝ ... ΑΖΟΥ				bu n'pā da	X					1	1
4a	139.30.1	8	ΒΑΣΙΛΕΩΝ ΒΑΣΙΛΕΩΣ ΜΗ[ΓΑΛ]Ο ΑΖΟΥ		bu		bu	X		nandi- pāda			1	1
4b	139.30.2	9	ΒΑΣΙΛΗΩΝ ΒΑΣΙΛΗΩΣ ΜΕΓΑΛΟΣ				bu n'pā da	X					3	2

ΑΖΟΥ														
5a	139.40.1	8	ΒΑΣΙΛΩΝ* ΒΑΣΙΛΗΩΣ ... ΟΥ	mu n'pāda			dha n'pā da	X				2	2	
5b	139.40.2	11	ΒΑΣΙΕΩΝ ... ΟΗΙΟΥ	mu n'pāda			dha n'pā da	X ṣaghasa				2	2	
6a	139.40.3	9	ΒΑΣΙ... ΕΛΥΗΟΑΖ*ΙΟΗ ΟΥ	mu n'pāda			dha n'pā da	X				4	4	
7a	139.40.4	10	ΒΙΣΛΛΕΩΙΗΒΣΛ ΛΕΩΝ ΥΜΛΥΟΛΛ	mu n'pāda			dha n'pā da	X				9	4	
7b	139.40.4 a	10	ΒΙΣΛΛΕΩΙΗΒΣΛ ΛΕΩΝ ΥΜΛΥΟΛΛ	mu n'pāda			dha n'pā da		X			1	1	
8a	139.40.5	9	ΒΑΙΛΛΕΩΙΗΒΣΛ Λ... ΥΗΛΥΟΛΛΣ	mu n'pāda			dha n'pā da	X				3	3	
9a	139.40.6	9	... ΛΕΩΝ ΥΗΛΥΟΙΩΝ*...	mu n'pāda			dha n'pā da	X			sayasa†	1	1	
10 a	139.40.7	9	ΣΛΛΕΥΟΛΗΝ*Β ΑΗ... ΥΙΝ*Ω	mu n'pāda			dha n'pā da	X				2	2	
11 a	139.50.2	10	ΒΣΛΛΕΟΩΙΝΒΣ ΛΛΕΩΝ ΥΗΛΟΝΗΑΣ	mu n'pāda			dha n'pā da		X		*	4	3	
11 b	139.50.1	10	ΒΣΛΛΕΟΩΝΙΒΣ ΛΛΕΩΝ ΥΗΛΟΝΗΑΣ	mu ∴			dha	X			*	1	1	
11 c	139.51	10	ΒΣΛΛΕΟΩΝΙΒΣ ΛΛΕΩΝ ΥΗΛΟΛΝΗΑΣ	mu ∴	mu- •	•	dha n'pā da		X		*	n'pāda =ja	7	6
12 a	139.43	10	ΒΣΛΛΕΟΩΝΙΒΣ ΛΛΕΩΗ ΥΝ*ΛΟΛΝ*ΗΑΣ	mu saṃ n'pāda	mu- • -•		dha n'pā da		X		•		3	1
12 b	139.42.1	10	ΒΣΛΛΕΟΩΝΙΒΣ ΛΛΕΩΝ ΥΗΛΟΝΗΑΣ	mu ∴	mu- •		dha n'pā da		X			n'pāda =ta	4	3
12 c	139.42.2	10	ΒΣΛΛΕΟΩΝΙΒΣ ΛΛΕΩΝ ΥΗΛΟΝΗΑΣ	mu ∴	mu- •		dha		X ṣaghasa			n'pāda =ta	1	-
12 d	139.41.1	10	ΒΣΛΛΕΩΝΙΒΣΛ ... Ν ΥΗΛΟΝΗΑΣ	mu ∴	•		dha n'pā da		X ṣaghasa		•	n'pāda =ta	3	1
12 e	139.41.2	10	ΒΣΛΛΕΩΝΙΒΣΛ ... Ν ΥΗΛΟΝΗΑΣ	mu ∴	•		dha n'pā da		X		•	n'pāda =ta	1	-
13 a	139.60	10	ΣΑΛΣΥΟΑΗΝ*Β Λ ΗΥΟΩΕΙΛΒΙΝΩ	mu n'pāda		•	Kha bu		X ṣeghasa		•		20	12
13 b	139.60	10	ΣΑΛΣΥΟΑΗΝ*Β Λ ΗΥΟΩΕΙΛΒΙΝΩ	mu n'pāda			Kha bu		X ṣeghasa		•		2	1
												<b>87</b>	<b>57</b>	

Table 6: Mujatria's imitation Azes base-silver coins typology

\* represents reversed letter; \*\* sa missing from end of *dhrāmika*; † *sayasa* in place of *ayasa*



Mujatria base silver no. 3, type 1c  
(BM 1894,0506.636, 9.37g, 20 mm)



Mujatria base silver no. 8, type 2b  
(OX Senior 2547, 9.42g, 21mm)



Mujatria base silver no. 11, type 2c  
(Berlin, 8.98g, 22mm)



Mujatria base silver no. 38, type 8a  
(Tandon collection: 121.24: 9.34g, 20 mm)



Mujatria base silver no. 13, type 3a  
(OX, 9.28g, 21mm)



Mujatria base silver no. 39, type 9a  
(CNG e-auction 268 (16-11-2011): 167a, 8.92g, 21mm)



Mujatria base silver no. 14, type 4a  
(OX Senior 2554, 8.84g, 20mm)



Mujatria base silver no. 46, type 11b  
(OX Senior 2566, 8.50g, 20mm)



Mujatria base silver no. 19, type 5a  
(BM EIC.90, 9.14g, 21mm)



Mujatria base silver no. 62, type 12d  
(OX Senior 2561, 9.47g, 21mm)



Mujatria base silver no. 27, type 7a  
(BM H7, 9.42g, 20mm)



Mujatria base silver no. 76, type 13a  
(BM IOC.202, 9.32g, 20mm)

No	Senior/ Mitchiner	type horse	inscription	over rump	before horse	type	inscription	r field	l field	notes	coins	obv. dies
1a	138.1	right	l: ΒΑΣΙΛΕΩ t: Ν ΒΑΣΙΛΕ r: ΩΝ ΜΕΓΑ b: ΛΟΣ AZOY	-	wheel	lion r	r:maharajasa maha- t: tasa dhramika- l: sa rajatira- b: jasa – ayasa*	X	ḡi	*ayasa : from edge	7	2
1b	138.2	right	l: ΒΑΣΙΛΕΩ t: Ν ΒΑΣΙΛΕ r: ΩΝ ΜΕΓΑ b: ΛΟΣ AZOY	-	-	lion r	r:maharajasa maha- t: tasa dhramika- l: sa rajatira- b: jasa – ayasa*	X	ḡi	*ayasa : from edge	2	1
2a	140.1	right	l: ΣΑΥΕΒ r: ΛΕΩΝΥΝ* t.: ΒΑΣΙ b: ΑΣΙΝΑΟ	mu	wheel	Apollo	r: maharajasa maha- t: tasa dhramika- l: sa rajatira- b: jasa – ayasa*	ghasa	mu ha	*ayasa : from edge of coin	2	1
3a	141.1	right	l: ΒΜΑΩ t: ΣΟΑΣΥ r: ... b: ΑΝΜ	mu	wheel	Heracles	l: mahara[jasa]- b: mahatasa- r: rajatiraja- t: sa ayasa	mu	ḡhasa		6	6
3b	S26.1	left	illegible	mu	wheel	Heracles	r: maharaja[sa]- t: mahata[sa]- l: rajatira- b: jasa – ayasa*	ḡhasa	mu	*ayasa : from edge	2	2
4a	S26.2	left	r: MA b: AON	mu	wheel	Heracles	r: mahara[jasa]- t: [mahatasa]- l: rajati[ra- b: ja]sa – ayasa*	ḡhasa	dha	*ayasa : from edge	2	2
4b	M878a.2	left	b: AON	mu	wheel	Heracles	l: maharajasa- b: mahatasa- r: [rajatiraja- t: sa] ayasa	dha	ḡhasa		1	1
4c	M878a.1	left	r. MAO	mu	wheel	Heracles	b: maharajasa- r: [mahatasa- t: rajatira- jl: asa] – ayasa	dha	ḡhasa		1	1
											23	16

Table 7: Mujatria square copper coins in name of Azes II typology



Mujatria copper no. 6, type 1a  
(Spink 5014 (28-9-2005): 281B, 6.10g, 22x19mm)



Mujatria copper no. 10, type 2a  
(OX Senior 2571, 2.46g, 17x17mm)



Mujatria copper no. 9, type 1b  
(Senior collection K1, 6.53g, 20x20mm)



Mujatria copper no. 13, type 3a  
(OX Senior 2572, 2.42g, 13x14mm)



Mujatria copper no. 21, type 4a  
(Senior collection K5: 2.22g, 12x14mm)

No	Senior/ Mitchiner	type horse	inscription	over rump	before horse	type	inscription	r field	l field	notes	coins	obv dies
5a	-	right	r: ΛΟΣ A... b: ... E...	?	?	lion r.	l: tria[sa] [kṣatra b: pasa] khara- [ostapu] - t: trasa muja-	?	?		1	1
6a	145.1	right	t: ΒΑΣΙΛΗ ... r: ΝΒΑΣΙΛ ... b: ΩΣ ΜΕΓ... ΛΟΣ ΑΖΟ...	-	wheel	Apollo	b: kṣatrapasa* r: kharaosta- t: putrasa- l: mujatriasa	ma	dha	*kṣatra -pasa from edge	3	1
6b	-	right	t: ΒΑΣΙΛΗ r: ... ΝΒΑΣΙΛ b: ... ΣΜΕ... ΛΟΣ ΑΖ...	-	wheel	Apollo	b: kṣatrapasa* r: kharaosta- t: putrasa- l: mujatriasa	dha	ma	*kṣatra -pasa from edge	2	1
6c	145.2	right	b: ΑΣΙΛΕ...	-	wheel	Apollo	r: kṣatrapasa t: kharaosta- l: putrasa- b: mujatriasa	dha	ma		2	1
7a	145.3	right	r: ΟΣΑΝ... b: ΩΥΟΥ... l: ΜΑΓΗ...	-	wheel	Apollo	b: [kṣatra]pasa* r: [khara]osta- t: [pu]trasa- l: mujatria[sa]	?	ha	*kṣatra -pasa from edge	2	1
8a	147.1	right	l: ΧΑΡΑΩ b: ΣΙΛΝΛ	mu	wheel	Heracles	l: kṣatrapasa b: khara[osta]- r: putrasa- t: mujatriasa	ṣighasa	saṃ		8	6
8b	147.2	right	l: ΟΜΙΟ t: ΛΛΒ b: ΟΝΟ	mu	wheel	Heracles	t: triasa kṣa- l: trapasa- b: kharaosta- r: putrasa muja-	ṣighasa	saṃ		12	10
8c	-	right	r: ΑΣΟ b: ΤΟ	mu	wheel	Heracles	l: asa kṣa[tra- pasa khara- osta]putrasa- t: mujatri-	ṣighasa	saṃ		1	1
8d	147.7	right	t: ΛΛΛ	mu .:	wheel	Heracles	t: kṣatrapa[sa l: kharaosta- b: putrasa]- r: mujatria[sa]	saṃ	ṣighasa		3	3
9a	147.3, 147.5	right	r: ΣΑΣ l: Ο	mu .:	wheel	Heracles	t: kṣatrapasa- l: kharaosta- b: putrasa mu- r: jatriasa	ṣighasa	sa		8	8
9b	-	right	illegible	mu .:	wheel	Heracles	r: [kṣa]trapa[sa- t: kharaosta]- l: putrasa - b: [mu]jatria[sa]	ṣighasa	sa		1	1
10a	S29.1	left	illegible	?	?	Heracles	t: kṣatra- l: pasa [kharao- b: staputrasa- r: mujatria]sa	ṣighasa	sa		1	1
11a	M890 (2480)	left	t: ΑΣΟ r: ΗΑΝΑ b: ΟΝ ...	mu .:	wheel	Apollo (*kha back- wards)	b: kṣatrapasa* r: kha*raosta- t: putrasa- l: mujatriasa	da	ma	*kṣatra -pasa from edge	14	6
11b	146.1	left	r: ΟΝΑΥ b: Α l: ΝΑΥ	mu .:	wheel	Apollo	b: [kṣatra]pasa* r: kharaosta- t: putrasa- l: mujatriasa	da	ma	*kṣatra -pasa from edge	3	2
12a	S28.1, S28.2	left	t: ΟΙΗΟΣ*ΑΟ r: ΟΣ*Λ r: ΛΛΣ*	wheel	-	Apollo (*kha back- wards)	l: kṣatrapasa kha* - b: rao-sta r: putrapuputrasa- t: mujatria[sa]		nandipād a- mu		2	1
											<b>63</b>	<b>44</b>

Table 8: Mujatria square copper coins in his own name typology



Mujatria copper no. 24, type 5a  
(BM 1894,0506.1803, 5.90g 19x18mm)



Mujatria copper no. 45, type 8b  
(OX Senior 2599, 2.37g, 13x14mm)



Mujatria copper no. 26, type 6a  
(Senior collection K12, 4.86g, 17x17mm)



Mujatria copper no. 62, type 9a  
(OX Senior 2605, 1.88g, 12x12mm)



Mujatria copper no. 29, type 6b  
(Courtesy of Amit Udeshi (personal collection): 4.25g, 17x17mm)



Mujatria copper no. 63, type 9a  
(OX Senior 2600, 1.86g, 12x13mm)



Mujatria copper no. 33, type 7a  
(Zeno.ru 27628, 2.83g, 17x17mm)



Mujatria copper no. 67, type 10a  
(Senior collection K21, 2.12g, 12x14mm)



Mujatria copper no. 37, type 8a  
(OX Senior 2597, 2.28g, 13x12mm)



Mujatria copper no. 76, type 11a  
(CNG: e-auction 226 (27-1-2010): lot 329, 2.67g, 16x16mm)



Mujatria copper no. 83, type 11b  
(OX Senior 2593, 2.38g, 15x15mm)



Mujatria copper no. 85, type 12a  
(Senior collection K14, 2.11g, 15x16mm)

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