



ORIENTAL NUMISMATIC SOCIETY

NEWSLETTER

No. 174

Winter 2003

ONS News

ONS Website

A reminder that the ONS Website can be found at <http://www.onsumis.org>

The site contains a full index of newsletter contents which members may find useful.

Members News

... writes that he expects to have a small window of time in March-April, while recuperating from an operation, when he would like to begin revising the Gupta-Hardaker Catalogue of Magadha-Mauryan punchmarked coins. During the 20 years since the original research was collected he has accumulated a number of new types and would be very keen to hear from any other p/m collectors who have also noted new types. Ideally he needs photos, and also drawings of the types if this is possible. Any collector who thinks he has a new type is welcome to send him a photo and he will respond.

Obituary

Dr Marie H. Martin

The American Numismatic Society is sorry to announce the sudden death of Dr. Marie H. Martin, the Society's former Editor, on Monday, December 9, 2002. About 10:30, Marie collapsed at her local post office and died a few hours later at Columbia-Presbyterian Hospital. She was sixty.

Marie began her association with the ANS in 1978, when she was a member of our Graduate Seminar in Numismatics. In the following year she came to work as Assistant Editor and was subsequently promoted to Associate Editor. In 1983, she left for the business world, but in 1985 she returned to the Society, and was made Editor in 1989. She left at the end of October 1999.

Her academic specialty was the medieval history of India. Her Ph.D. thesis at the University of Michigan, "Bahmani Coinage, and Deccani and North Indian Metrological and Monetary Considerations, 1200-1600" included the results of her research in our Graduate Seminar, as well as materials gathered during several years of research in India, Iran, and Europe. She published a number of articles on the subject. Marie was an active member of the ANS and the New York Numismatic Club. She was President of the Club in 1990-91. MB

Annual General Meeting

The Annual General Meeting of the Society will be held on 7 June 2003 at 1 p.m. at the London Coin Fair at the Holiday Inn, Bloomsbury, Coram Street, London WC1, to transact the following business:

- To receive the Council's report on the activities of the Society during the previous year; and
- To receive and consider the accounts of the Society for the previous year.

After the formal business of the meeting there will be two lectures: the Michael Broome and Ken Wiggins memorial lectures. Details of the speakers will be given later.

Cologne

The meeting for collectors of Indian coins duly took place on 9 November 2002. During the meeting, Mr Brockmeier gave a computerised presentation on various aspects of Indian coins. Mr Timmermann gave a talk on Rohilla issues especially those of Anwala and Rampur. Mr Bronny followed this with a talk on Nepalese coins with reference to India and mutual influences. There were various other queries and discussions on either side of lunch. The next meeting is scheduled to take place on 8 November 2003. For more information please contact Nikolaus Ganske, nikolaus.ganske@ra-ganske.de

London

The next meeting will be at 11 a.m. on Saturday 29 March 2003 in the Department of Coins and Medals at the British Museum, London WC1B 3DG. It will be an informal meeting at which members are encouraged to talk for 10 minutes or so on a topic of interest to them.

More meetings will be held in London and Oxford during the year. Details will be distributed to UK members by post or email and advertised on the Society's website. For further information please contact Peter Smith on 0207 228 6826 or peter.smith@cmck.com

Leiden

The annual ONS meeting at Leiden, Netherlands, took place on Saturday, 19 October 2002. Because of renovation activities in the Museum of Antiquities, room was made available, thanks to the hospitality of the Royal Coin Cabinet, in the library of the same Institute where about thirty people enjoyed a day of interesting reports and talks.

The proceedings began with a presentation by Roland Dauwe about the *Holy City of Qumm, 1000 years of coinage*.

Mr. D. de Boer presented a short paper about Manchu on Chinese coins, with the help of some hand-outs with the original script, translation and transliterations of the various Manchu names and legends found on the coins.

The morning session ended with a paper by Tjong Ding Yih and Ruud Schüttenhelm: "Some reflections on Chaghatayid coins with an S-tamgha from Samarkand".

After the lunch interval, Frank Timmerman presented a paper on the Rohilla coins from the mint of Moradabad. A list of all the dates and mintmarks completed this presentation. Further research is intended by him on the other Rohilla mints, like Mustafabad (Rampur), Anwala etc., in the Rohilkhand district.

The lectures were concluded by Jan Lingen with the presentation of a short note on two small gold coins recently obtained via internet auctions. The first was a ¼ tola issued by a firm, Ahmad & Company. The second internet surprise was a Swadeshi Nishka, a small gold medalet of 1.58 g. minted by certain sarafs at Madras during the 'Swadeshi' movement of the early 1900's.

The afternoon session ended with a small auction of oriental coins and numismatic books, which resulted in useful funds for the ONS. Our thanks are due to those members who kindly donated items for this event. The day ended traditionally with a pre-dinner drink at a nearby pub and a very pleasant dinner at a Chinese-Asiatic restaurant.

The next Leiden meeting is scheduled for Saturday 18 October 2003. Please make a note in your diaries.

Versions of the talks by Roland Dauwe, Tjong Ding Yih & Ruud Schüttenhelm, and Jan Lingen can be found elsewhere in this newsletter.

Jan Lingen

New York

The 2003 Oriental Numismatic Society Winter Roundtable was held at the site of the New York International Numismatic Convention on Saturday, January 18th, from 17:00 to 18:30 in the Beekman Suite (18th Floor) of the Waldorf-Astoria Hotel.

The theme this year was "A Sneak Preview". Speakers were requested to provide preliminary glimpses of current research on Mediterranean, Islamic, and Asian numismatics, especially work being prepared for presentation at the Islamic Numismatics meeting in Padua and the International Numismatic Congress in Madrid. In fact, any sort of presentation in the fields of interest to the Oriental Numismatic Society was welcome.

At the time of writing, Stephen Album, Charles Karukstis and Michael Bates had already signed on as speakers and it was hoped to hear from at least two or three more.

Jena

The regional meeting of the Oriental Numismatic Society in Jena, Germany will take place on the weekend of 3-4 May 2003.

Alternating with the Forschungsstelle für Islamische Numismatik at the University of Tuebingen, the Chair for Semitic Philology and Islamic Studies at the Oriental Coin Cabinet in Jena is in the process of organising this meeting for the third time. The Oriental Coin Cabinet in Jena is one of the earliest Coin Collections exclusively devoted to oriental coins and its history goes back as far as 1840. As in preceding years, participants and guests are expected from many countries of the EU and Turkey. The programme, devised by the participants, will probably comprise around ten lectures on various topics of Islamic and Pre-Islamic numismatics.

Organisation:

PD Dr. Stefan Heidemann

Institut für Sprachen und Kulturen des Vorderen Orients

Lehrstuhl für Semitische Philologie und Islamwissenschaft

- Orientalisches Münzkabinett

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Coinage and History in the Seventh Century Near East - 23 and 24 November 2002

Report compiled by Steve Mansfield, Marcus Phillips and Susan Tyler-Smith

This symposium, held at Birmingham University on 23-24 November 2002, was a continuation of the seventh century Syria 'round tables' held more or less annually at the British Museum since April 1992. Birmingham University is home to the Barber Institute of Fine Arts which has an important collection of Byzantine and related coins. The event was organised by Dr Vicky Georgantelis, Keeper of Coins, and John Haldon, Professor of Byzantine History. Funding from Birmingham University, the Barber Institute, the RNS and the UK Numismatic Trust made it possible to stage a two day event and invite foreign speakers. The declared aim was to bring together historians and numismatists, exchange information and expose areas of potential misunderstanding. Some 20 people took part.

Cecile Morrison's paper "Coinage and its context in seventh century Syria" provided an overview of recent developments in numismatic research. Whatever remained to be resolved concerning the introduction of the reformed Umayyad coinage, there was general agreement on the highly monetised nature of the economy which continued after the Arab conquest. The existence of a number of temporary, possibly military, mints has been established although the limitations of hoard evidence make understanding of their precise role difficult. The end of the supply of Byzantine copper could effectively be dated to the 660s and this appeared to be connected with the decision to move the administration to Syracuse in 663. Despite these upheavals, and the eventual replacement of one machinery of government by another, many parallels could be noted between the pre-conquest imperial, and post-conquest Islamic, system of mints.

Marcus Phillips spoke on "Currency in seventh century Syria as a historical source". His aim was to define the different aims and methods of historians and numismatists. In the case of seventh century Syria, numismatists had the problem that their primary task, to ascertain precisely when, where and by whom coins were struck, was impossible. Historians on the other hand had allowed their pre-conceptions about the function of coinage in ancient and medieval society to determine their view of monetary developments in seventh century Syria. The more we understood about currency at this time the more it would be possible to test these initial assumptions. He also argued for greater understanding on the part of academics of the potential and limitations of numismatic material from commercial sources.

Simon Bendall took up a narrower theme. The existence of a "Byzantine mint of Jerusalem" has been postulated for some time - on the basis of signed copper folles dated regnal year 4 of Heraclius (613-614) and the (more tenuous) evidence provided by various solidi, among them coins bearing inscriptions ending in Π, interpreted as the city ('polis') of Jerusalem. Discussing the possibility of coining at Jerusalem taking place during the last two years of the reign of the emperor Phocas (overthrown in 610) and the first six years of Heraclius (i.e. to 616), he rejected the Jerusalem attribution of a group of Heraclian solidi with the Π suffix which had hitherto been attributed to the mint.

Tony Goodwin delivered a paper entitled the "The strange coinage of jund Filastin". He explained that work during the last 50 years had resulted in the identification of a much wider range of coins attributable to the three mints of the jund (Jerusalem, Ludd and Yubna) than was known hitherto. It was now possible to identify both Umayyad imperial image and standing caliph types for Jerusalem, Ludd and Yubna. The imperial image issue was very brief and it is possible that the Filastin mints pioneered the

standing caliph type. Particular attention was paid to the range of varieties from Yubna, including a new type based on the standing emperor coins of Constans II. The diverse representation of the standing caliph on these coins may have been inspired by Sasanian religious imagery. Another of Goodwin's tentative conclusions - the possibility that Yubna first took over production from Jerusalem, then may have operated as a temporary, military mint during the second civil war during the 680s, was, in part, made possible by examination of the large number of coins of the mint in the Khalili collection.

The sole contribution on Persian history and numismatics - "Calendars and coronations: the numismatic and literary evidence for the accession of Khusrau II" was provided by Susan Tyler-Smith. She argued that the accession date of February 15th 590 for the Sasanian king Khusrau II, which is the date normally accepted by historians, is wrong by five months. Correctly interpreted, both the coins and the very detailed *History* of Theophylact Simocatta point to an accession date after the Persian civil new year, probably July, 590. This difference is important for three reasons. These five months make the difference of one year for the equivalent AD date of all Khusrau's regnal years, thus affecting the dating of all his coins and their use as a historical source. Modern historians have had problems resolving the chronology of Theophylact's account because the date of the pivotal event they were working from was wrong. As a result of this, unjustified doubts, specific or implied, have been thrown on Theophylact's narrative. Examination of the pattern of minting in the final year of Khusrau's reign also supported an accession date of July 590.

Henri Pottier spoke on "Coinage in Syria under the Persian occupation". These coins (he has recorded some 200 specimens) have been known for over 30 years and generated much debate. He argued that they are the coherent product of a mint established to replace Antioch after its fall to the Sasanians in October 610. Production continued until 631. These designs are based on prototypes from the previous three reigns as well as that of Heraclius and there is a high incidence of die-links. The fluctuations in weight appeared to mirror that of the imperial Byzantine mints. Likewise there was a coherent pattern in the numbers of dies used, workshops in operation, and coins known. He concluded that the dates and officinae on the coins were genuine and suggested that the prototypes copied reflected their acceptability, or otherwise, to the occupying Persians.

In "Operation of the mint at Jarash in the jund al-Urdunn", Alan Walmsley, who has excavated at both Jarash and Pella, gave an summary of recent work at Jarash. The prosperity of the region in late antiquity was firmly based on agriculture and it is now clear that this prosperity continued throughout the Umayyad period. The remains of 23 churches have now been uncovered at the site, many containing elaborate mosaic floors damaged by Christian iconoclasts in the eighth century. Buildings from the Umayyad period include two mosques and an administrative complex which could well have been the site of the mint. He also briefly described Byzantine and Umayyad remains at some other Decapolis sites. Gerasa, Scythopolis and Pella could have been administered together as a 'tricornum' and, if so, Pella might have been the mint for Arab-Byzantine coins with the image of Justin II and Sophia which cannot be attributed to Gerasa or Scythopolis.

Lutz Ilisch's paper "Mints and minting rights for copper coinage in jund Qinnasrin in the early Islamic period" was concerned with the reason for the decentralised structures of early minting in jund Qinnasrin. While the Pseudo-Byzantine coins reveal little about their origin, one would think that more might be learned from the standing caliph type and the post-reform coinage of the eighth century. The mints and their locations could be divided into two groups. The first: Qinnasrin, Halab, Tanukh, Qurus, Manbij, Jabrin and at least two unlocated mints, one of which might have been at Butan, are all marked by the addition 'wafin'. The second group, Antakiya, Ma'rat Misrin and Sarmin formed a separate entity.

Special attention was given to alternative readings of Tanukh=Hadir Halab or Talukh=Duluk (= Greek Doliche) and Jabrinn of Halab and Jabrin Qurestaya. The fact that some of these mints were located in villages of no administrative importance was interpreted as an attempt to integrate workshops in which the authorities outside the caliphal administration had previously minted Pseudo-Byzantine coins.

Contemporary imitations reappeared in the early 'Abbasid period. One piece of evidence that might help clarify the relation of these to the copper coinage of the caliphal administration was the official copper coins issued at Khizanat Halab from 146-148. Here the names of individuals replace the mint mark, which seems to reflect the continuing rights of the people to have a share in this copper coinage and the state's attempt to gain control over them.

Andrew Oddy discussed his 'long-running' "Die study of the 'Constans II bust' type coins of Hims (Emesa)" and said that he had now identified 59 obverse and 63 reverse dies. He also pointed out that barbarous imitations of these coins were very common and he had already identified 18 obverse and 28 reverse dies, with more material yet to be analysed. As there was evidence that the 'Constans II bust' types were struck concurrently with the 'standing emperor' types of the same mint name, Oddy suggested that these might represent a Civil (standing emperor) and a Military (Constans II) mint. The barbarous coins could then be explained as forgeries produced by the bored garrison. Lutz Ilisch suggested that one of the series was struck elsewhere in the jund Hims, with the mint name then indicating the jund and not the town.

Oddy *felt* that the evidence indicates a period of minting spread over some years with perhaps two to four mints at work for some of the time. He was sure that the evidence is against a very short period of intense activity. The conclusion is that the coinage may have started in the mid to late 680s, and then been replaced by the standing caliph types. As there was no stylistic similarity between the 'Constans II bust' types and the standing caliph types, perhaps the Constans II coins were struck for a few years (four to eight ?) in the 680s, with the mint then closing for a while before reopening at or just before the reform of 74 (693-4).

The meeting concluded with a paper by John Haldon, "System and tradition, continuity and opportunism in post-Conquest Syrian administration". The picture which seemed to be emerging was one of continuity which applied to the whole of the seventh century. Even the apparent change from land tax to poll tax was not that great since both seem to have existed under the late Romans. The Arabisation of southern Syria at least seems also to have been well under way before the actual conquest. The creation of the new jund al-Urdunn likewise seems to reflect last minute Byzantine re-organisation rather than a radical innovation. There was nothing in the numismatic picture to contradict this but nothing so far that added a great deal. He admitted, however, that he had never really believed in the high degree of centralisation said to have been achieved by the Sasanians until he saw the display of coins which Tyler-Smith used to illustrate her talk! He tentatively suggested that the explanation for the relatively large numbers of copper coins was that the Arabs were prepared to accept taxes in copper and therefore encouraged their production at the local level.

It is hoped to hold the next meeting, at Oxford, on **29 September 2003**. Details will be announced in a forthcoming Newsletter.

Publication Plans

Pottier's research is to be published in the *Cahiers Ernest-Babelon* series early in 2003; Bendall's in a forthcoming *RN*. The contributions of Tyler-Smith, Goodwin and Phillips should appear in the next *Byzantine and Modern Greek Studies* published by Birmingham University. Those of Ilisch and Oddy will be published as part of larger-scale works.

- S. Vasanti: "Coins from the Excavation at Maligaimedu, Tamilnadu"
 T. S. Ravishankar: "An Unfamiliar Sri Vira Type Copper Coin"
 K. Ganesh & M. Girijapathy: "Some Interesting Coins of Karnataka"
 R. Jawahar Babu: "Tamil Coins of Nizamul Mulk Asaf Jah"
 S. Sankaranarayanan: "Two Unknown Arcot Nawab Period Coins"
 H. Khandoba Rao: "Rama - Lakshmana Figure on a Coin of Hyder Ali"
 R. Gopal: "Yet Another Venetian Ducat from Karnataka"
 Balagouni Krishna Goud & Fida Ali: "A Brief Note on the Coins in the Salar Jung Museum"
 D. Raja Reddy and P. Suryanarayana Reddy: "Andhra Coins: A Bibliography"

The *Journal of the Numismatic Society of India* for 1998-99 (Vols LX-LXI) has recently been published!

The contents include the following.

- S. J. Mangalam: "Coins of the early Satavahana kings: Problems and perspectives"
 S. J. Mangalam: "Coins of Satavahana contemporaries found from Maharashtra"
 H. D. Pathak & N.M. Kanshal: "A new type of Samudragupta-Asvamedha gold coin"
 K. B. Tiwari & H.D. Pathak: "A unique gold coin of Jajalladeo I from Tripuri"
 D. Handa: "A note on three coins of Ibrahim Ali Khan of Malerkotla"
 D. Handa: "Alleged Mitra rule of Tripuri"
 B. K. Kundu: "Assessment of Fathabad mint during Habshi Rule in Bengal"
 S. Das: "Note on a coin of Ghiyath-ud-din Mahmud Shah from Barbakabad mint"
 P. K. Mitra & S. Sinha: "931 A.H. coins of Sultan Husayn Shah of Bengal: some related problems"
 M. Nazim: "Suri silver coins from the Bengal mints"
 D. G. Angal: "Review of silver coinage of Vijaynagar"
 B. Lahiri: "Numismatic evidence on the chronology and succession of the rulers of Tripura"
 A. Mitra: "Religious invocation on Ahom coins"
 S.K. Bose: "Denominations of Narainee coins in Assam and N.E. Rangpur"
 S. Panigrahi: "The changing faces of Indian coinage systems"
 S. Goyal: "Historiography of the Punch-marked coins"

New and Recent Publications

MONETA 30 - *History and coin finds in Georgia: Sasanian coin finds and hoards* by Medea Tsotselia

Due for publication in January, 2003, this work comprises 96 pages, maps, graphics, 16 plates, and contains an inventory of single finds and of coins found in 20 hoards. About 300 coins are illustrated (gold, silver, copper).

Price: €50 from Moneta, Hoenderstraat 22, B 9230 Wetteren, Belgium. Fax ++32 93 69 59 25

www.cultura-net.com/moneta/content.htm

Studies in South Indian Coins, Vol. 13 had been published and has the following articles

- S. J. Mangalam: "Towards Further Development of South Indian Numismatics"
 R. Krishnamurthy: "Lion Slayer Motif on an Inscribed Gold Ring From Karur"
 Shashikant G. Dhopate: "Half Denomination Silver Portrait Coin of Yajna Satakarni"
 S. J. Mangalam: "Some Salient Features of Coins of the Satavahanas and their Contemporaries"
 C. A. Padmanabha Sastry: "Three Seals from Three Pallava Copper Plates"
 M. Nityanada Pai: "A Gold Coin of Rashtrakuta Govinda IV"
 T. Satyamurthy: "Two Copper Coins from Manikpatana: An Ancient Sea Port of Orissa"
 A. V. Narasimha Murthy & M. Nityananda Pai: "A Gold Coin of Seuna Singhanadeva"
 K. Ganesh, M. Girijapathy & S. Rajavelu: "A Gold Coin of the Banas"
 P. Shanmugam: "Viraraya Panam of Vijayanagar Rulers"
 Beena Sarasan: "Coins Depicting Venad-Vijayanagar Relations"
 Harihariah Oruganti: "Impact of Vijayanagar Rule on Coins of Tiruvadi Rajya of Kerala - AD 1422-1559"

The Numismatic Chronicle, Vol. 162, London, 2002, published by the Royal Numismatic Society, includes the following articles of oriental interest:

- M. Phillips & S. Tyler-Smith: "A hoard of Venetian grossi and Mamluk dirhems"
 D.G. Tor: "A numismatic history of the first Saffarid dynasty (AH 247-300/ AD 861-911)"
 N. Rhodes: "Coinage of the Mi-nyag, Tangut people, the Xi Xia dynasty"
 C. Vlachou, G. McDonell & R. Janaway: "New evidence for the process used to silver plate counterfeit dirhams"
 E. Askari & W.L. Treadwell: "Catalogue of Buyid coins in the National Museum of Iran"
 M. Fedorov: "A hoard of fourteenth century Chaghatayid silver coins from north Kirghizstan"
 There are also reviews of R. Gyselen: *Arab-Sasanian Copper Coinage* and R.S. Hanashiro: *Thomas William Kinder & the Japanese Imperial Mint, 1868-1875* by S. Tyler-Smith and R.A. Merson, respectively.

E.L.C. Bawa & S.C. Gupta: *Coins of India from 1835-2002 AD* Vol. I, Delhi 2002. Hardbound, 29 x 23 cm.

"The book covers all minted coins from 1835 to 2002 with mints, types and dates, and has more than 400 coin illustrations in

original colour and at actual size. The authors have described many new things probably for the first time in this book, such as a new method for identifying the mints of the 1835 ¼ anna, the cowry or kouri system of money in India which was prevalent up to 1947, their conversion into Indian currency. The authors also claim to have covered all British Indian coins, Republic of India coins including commemorative sets (proof and uncirculated) and Portuguese India coins of this period (except patterns, proofs which are not issued for general public) with their current prices in India."

The price for India is Rs.300 + Rs.100 for postage etc. For overseas buyers its price is on request (depending on quantity) after calculation of postage by seamount or airmail. The sole distributor for the book is Rajneesh Jain, 16a/19, W.E.A. Ajmal Khan Road, Karol Bagh, New Delhi-110005, India
E-MAIL: rajneeshj@indiatimes.com

Lists Received

1. Robert Tye (Loch Eynort, Isle of South Uist, HS8 5SJ, UK; tel ++44 1878 710300; fax ++44 1878 710216; robert_tye@onetel.net.uk) list S2 of oriental coins.
2. Stephen Album (PO Box 7386, Santa Rosa, Calif. 95407, USA; tel ++1 707 539 2120; fax ++1 707 539 3348; album@sonic.net) lists 183 (Oct. 2002), 184 (Nov. 2002) and 185 (Jan. 2003).
3. Jean Elsen s.a. 9Tervurenlaan65, B-1040 Brussel, Belgium; tel ++32 2 734 6356; fax ++32 2 735 7778; numismatique@elsen.be; www.elsen.be) list 223 (Nov/Dec 2002) includes various oriental coins.
4. Galerie Antiker Kunst (Oberstrasse 110, D-20149 Hamburg, Germany; tel ++49 40 455060; fax ++49 40 448244; e-mail DRSIMONIAN@web.de) list of Islamic & oriental coins January 2003.

Auction News

- Baldwin's Auctions will be holding two auctions on 6 and 7 May 2003: general auction number 33 with, among other things, a good variety of Indian coins, and on the 7th, Islamic auction number 6. The latter, which will include a variety of Islamic, Ottoman and Iranian coinage, will probably start, at 2 pm. The venue will be Durham Street Auditorium of the Royal Society of Arts, London, WC2, round the corner from Baldwin's. Those attending should use the Durham street entrance. For more information please contact Charles Riley or Seth Freeman on auctions@baldwin.sh; tel ++44 20 7930 9808; fax ++44 20 7930 9450.
- Morton & Eden Auction, May 2003, will feature a large section of Islamic coins including a fine collection of Arab-Sasanian drachms, to be sold as a single lot. Enquiries to Morton and Eden Ltd, 45 Maddox Street, London W1S 2PE, +44 (0)20 7493 5344 (phone), +44 (0)20 7493 6325 (fax) info@mortonandeden.com www.mortonandeden.com

Other News

The American Numismatic Society announces:
The Heritage of Sasanian Iran: Dinars, Drahts and Coppers of the Sasanian and early Muslim Periods
Co-sponsored by The Center for Iranian Studies at Columbia New York
Thursday and Friday, June 19-20, 2003

Sasanian coins and their subsequent Muslim, Dabuyid and Hunnic imitations formed an important part of the monetary systems of late antique and early medieval Iran. Late Sasanian coins became the pre-eminent silver coinage in the Near East during this period. The early Muslims in Iran and dynasts of northern and eastern Iran later copied the main outlines of these coins while creating distinct provincial and regional coinages. The coins today

represent documents of social, political and economic life at a time of great cultural efflorescence as well as social and political change.

The conference invites papers treating any aspect of Sasanian and early Muslim coins of Iran as artefacts of civilisation and culture. The topics of papers may be numismatic, historical or art historical. They may examine problems in the reading and interpretation of the Pahlavi and Arabic legends or the iconography, the representation of sovereignty, Zoroastrianism and Islam, or the production, use and regulation of these coinages. The conference will also feature a workshop in reading the Pahlavi legends on these coins and a roundtable for the discussion of issues of common interest, and coins if anyone wishes to bring them in.

Queries and abstracts should be sent by e-mail to Dr. Stuart D. Sears at sears@aucegypt.edu or Dr. Michael L. Bates at bates@amnumsoc.org or by mail to: Dr. Stuart D. Sears, The American University in Cairo, Department of Arabic Studies, Box 2511, Cairo, Egypt 11511. Communications by E-mail are preferred. Abstracts must be submitted by March 1st, 2003.

The Symposium on Islamic Coinage

Museo Bottacin, Padua (Padova), Italy 17-18 May 2003

One of the first books on Islamic Numismatics, *Museo Cufico Naniato Illustrato dall'Abate Simone Assemani* was published in Padua, in the printery of the Seminary, two hundred and fifteen years ago in 1788. Inspired by the Assemani's precedent, the Museo Bottacin, which is the numismatic institute of the City of Padua, in collaboration with the Chairs of Numismatics of the Università di Padova and the Università di Udine, will hold The First Padua Symposium on Islamic Coinage on 17-18 May 2003, with support of the Regione di Veneto, the Comune di Padova, Numismatica Bernardi SRL (Trieste), Giulio Bernardi (Trieste), Circolo Numismatico Patavino, and others. The meeting is co-sponsored by the Oriental Numismatic Society and its European Branch. The meeting will be informal and open to anyone who wants to participate with a communication or as an auditor. Those who wish to give a paper should send a title and brief abstract to the organisation as soon as possible for inclusion in the program. There will also be facilities for exhibits by participants, in showcases provided by the Museo, to accompany papers or to stand alone. Contact the organisation for detailed information, including assistance in exhibit mounting, such as enlargements, printed captions and labels, and the like. There will also be an exhibit of Islamic coins from the Museo Bottacin, including especially material from the Ravazzano Donation.

Although those who attend must pay their own expenses, some assistance for young scholars is expected to be available.

Prof Giovanni Gorini, Università di Padova

Dr. Bruno Callegger, Conservatore Museo Bottacin

All those interested should contact the organisation immediately at museo.bottacin@comune.padova.it or

bates@amnumsoc.org

monete@spin.it to be on the e-mail list for announcements and detailed information.

Comune di Padova, Settore Musei e Biblioteche

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Istanbul's New Museum

Istanbul, one of the most visited cities in the world, is to have a museum devoted to the history of banking.

Though now a part of history itself, the first bank established in the Ottoman Empire is to live on, not serving clients but visitors to a new museum, due to open at the end of December. The Ottoman Bank Museum, housed in a building located on the road that was traditionally the centre of Istanbul's banking sector

in Karaköy, will display samples of the bank's archives. Such was the status of the Ottoman Bank, which for many years served as the Empire's Central Bank, that the archives are a record of the Ottoman's financial history. The Ottoman or Osmanlı Bank was merged last year with the Garanti Bank, forming one of Turkey's largest private banks.

When the new museum is open, researches also will be given access to the bank's records, allowing them to shed more light on the history of Ottoman and Turkish finances. For those interested in the history but not able to make the trip to the museum, a website will be launched on the same day as the museum opens. The museum will open to visitors everyday between 10:00 and 18:00. For those interested in the museum details are as follows: The Osmanlı Bankası Müzesi, Voyvoda Caddesi No: 35-37 Karaköy – İstanbul.

Telephone ++ 90 212 245 50 95

E-mail: archive@ottomanbank.com

Website: <http://www.obarsiv.com/muze.html>

Reviews

A New Table of Countermarks by Dr Hans Wilski

This new work by Dr Wilski, previously mentioned in ONS 172, is his second attempt to bring to light a coinage which served the Greek population of the Ottoman domains in the eastern Mediterranean. The secondary use of devalued copper coins in the form of countermarked local market money illuminates the economic activity of the Greek inhabitants of Mediterranean islands and the activity of the Orthodox Church. As such, it is a part of modern Hellenic minting activity and an indication of the diversity of the Ottoman domains.

This second effort is not a simple remake of the first book *Countermarks on Ottoman Coins* but an important new volume which is a must for collectors of Ottoman and modern Greek coins. After the publication of the earlier work in 1995, the author was supplied with a wealth of new information from collectors. The material that had become accessible served to confirm previous readings or raised many new questions.

During the last seven years, considerable progress has been made concerning the knowledge of countermarks on Ottoman copper coins from the 19th century. These countermarks transformed obsolete Ottoman copper coins, minted in Constantinople or in Cairo into "Greek" coins, used mainly in the Aegean region. About 140 hitherto unknown countermarks (including a number of contemporary counterfeits) have been discovered during this period. Moreover, many countermarks in better condition than previously known have come to light and allowed the improvement of numerous drawings and the elimination of some reading errors. Old, forgotten documents surfaced and were brought to the attention of the author. A number of hitherto enigmatic countermarks in Greek as well as Arabic script could be deciphered. All this has led to a new and enlarged table of countermarks on Ottoman copper coins from the 19th century. This table now comprises 600 countermarks, each of them shown in excellent drawings in the original size. The recently found countermarks are also illustrated on nine excellent photographic plates.

Quite new is the second table in this book, showing countermarks on Ottoman copper coins from the 18th century. This table comprises eleven rare countermarks, all of them originating from the area around Lake Van in Kurdistan, Turkey.

The third table comprises countermarks struck in Ottoman times (17th century) in Tunisia on "cobs", ie Spanish pieces of 4 or 8 reales. Six of these rare and enigmatic countermarks are described here for the first time.

The fourth table is an updated list of countermarked "timmins", French coins worth 1/12 écu = 5 sols, and coins from other countries with a similar silver content, all of them being from the 17th century.

This is, therefore, an indispensable work for anyone interested in this field of numismatics.

Volker Popp

Medals of British India, with Rarity and Valuations; Volume One Commemorative and Historical Medals from 1750 to 1947, by Robert P. Puddester, Spink, London 2002. Casebound, full colour laminated jacket, 562 pp, 500 medals illustrated. ISBN 1 902040 50 3. Price: £45. Reviewed by Stan Goron

Back in 1987 Robert Puddester published his *Catalogue of British India Historical Medals (BIHM)*. This was a pioneering work of 245 pages which listed some 400 medals of all types relating to British India. In that book, the author invited collectors and dealers to inform him of additional medals that were not included in that volume. This must have had the desired effect as the present volume is the first in a projected series of four new volumes, three of which will cover the medals of British India and the other those of the princely states. Moreover, the author and his wife have undertaken a good deal of research of their own, most notably among the mint records of the Bombay and Calcutta mints, work which has brought to light much information on medals struck at those two mints.

This new work lists some 1200 medals, ranging in size from 15 to 150 mm, of which around 500 are illustrated and which commemorate and acknowledge events, personages, institutions and significant milestones and achievements of the Raj. A number of princely state medals are also included if there is a particular British interest. The listing is now particularly strong in university medals, much information on which has come from the aforementioned mint records, although specimens of many of the actual medals have yet to come to light.

A new feature of this volume is the inclusion of rarity and a valuation for each medal as far as possible. The rarity system employed is set out in the introduction to the book and is a standard one based on the use of one or more Rs etc to indicate the rarity or otherwise of the medal. The reviewer knows from his own experience that many, if not most, of the medals listed are difficult to find and were probably struck in very limited numbers. The inclusion of a rarity estimate is, therefore, likely to be more reliable than may be the case with coins where the discovery of a hoard can play havoc with the previously held view of a coin's rarity. While, it is rare for the medal type to turn up suddenly in quantity the publication of this volume may well lead to additional examples of rare medals being discovered and, indeed, some of those that are so far known only from mint records.

Valuations are in US dollars, which may appear a bit odd for a book authored by a Canadian and published in the UK and are for medals in extremely fine condition. The values are based on the author's own experience during the years that he has been collecting this series and, as far as the reviewer can determine, appear to be reasonable. It should be pointed out, however, that only a limited number of Indian medals, particularly with respect to the bronze ones, turn up in extremely fine condition. More often than not, they are in very fine condition or lower grade, often with knocks and, at times, decorated with spots of verdigris. To what extent the publication of this book will create increased demand for this series and hence upward pressure on prices is too early to say.

The bulk of the volume consists of the medal listing. The format is similar to that used for BIHM. The medals are listed by date when known. Where possible, prize medals are listed according to the date the medal was originally struck or the prize established and NOT the date of the actual award. The same applies to other medals which were awarded over a period of time. Medals which cannot be so dated are listed together in a section at the end of the catalogue. This concept seems to be based on that employed by Lawrence Brown in his three-volume *Catalogue of British Historical Medals, 1760-1960*. In this latter work the system works well because Brown specifically excluded most prize medals, locally issued medals and many other medals included in the present volume. In other words the medals in BHM can mostly be dated to a specific year whereas many medals in the book under review may well bear a date that is different

from the one under which they are listed. While the present author has provided excellent indices at the back of the book, users may well find this overall format awkward at first. It may have been better to depart from this format and use, instead, a thematic format. Many collectors collect by theme such as prize medals, exhibition medals, agricultural medals, medals commemorating royal events etc rather than all medals relating to a country or time period. To some extent the author has acknowledged this because located throughout the book there are some twenty-five short essays on various subjects such as royal visits to British India, exhibitions and shows, Parsis in India, Viceroy presentation medals, the major universities etc. At the end of each essay is a brief list of all the medals relating to the particular theme and which are to be found in the book. One would normally expect all the relevant medals then to be fully listed after the essay for ease of reference but they are not because they are listed by date of first issue, as previously mentioned. A thematic listing would probably have required a revised numbering system. In view of the large number of additional medals now listed that should not have been a problem, especially if a concordance of old and new numbers were included where relevant. As it is, not all the medals that featured in the BIHM have the same numbers in the new volume.

Reverting now to the catalogue, each entry has a number and title. This is followed by the mint where struck, when known, and then a full description of the obverse and reverse. Then comes the edge type, diameter, and value for each metal in which the medal was struck. This is followed by an illustration, where provided, and notes on the medal, the event, the person commemorated etc. The layout of each listing is exemplary. The illustrations are clear and well reproduced. It should be noted that they are all reproduced at about the same size, irrespective of the actual size of the medal. Readers need to be mindful of this and refer to the actual dimensions noted in the listing.

It is clear that a great deal of research has gone into this work with the result that a vast amount of fascinating information is to be found through the catalogue. The only puzzling piece of information that struck the reviewer is that relating to medal 917.5, the Junagadh Agricultural & Industrial Exhibition of 1917, where the Junagadh in question is identified a place in the far south of Bihar and Orissa Province. Surely this is the Junagadh in Gujarat, an important mint-place (Mustafabad) under the Sultans of Gujarat, a Mughal mint from the time of Shah Jahan I and the capital of the princely state of that name.

Some medals included in BIHM are not fully listed in the present volume. Their full listing will be in one of the future volumes in the series. This applies, for example, to military, temperance or shooting medals.

The medal listing is followed by a bibliography, after which comes an index of medallists, designers, engravers, die-cutters, artists, makers, publishers and mints. This in turn is followed by the main medal index. This is comprehensive, covering no less than 35 pages.

Production values are excellent. The book is well bound, with an attractive dust cover. Paper quality is very good and printing very clear. The publishers, Spink, are to be congratulated for the care and attention that has gone into the production. Most of all, the author is to be congratulated for producing an excellent piece of work, that will certainly be the standard reference for this series.

I look forward to the other three volumes in this series. These are projected to be:

Volume II: orders, decorations, military campaign, military award and prize medals; police medals; rifle association, shooting and military tournament; sporting medals etc.

Volume III: Princely State historical, commemorative and award medals, state exhibition, university, school medals etc.

Volume IV: passes, tickets, checks, tokens of the Raj etc.

E. Khurshudian and A. Zohrabian, *Sassanian coins of Armenia* (Almaty, 2002), pp. 173 including 48 plates, small A5 size, card covers. ISBN 9965 13 487 1.

Reviewed by Susan Tyler-Smith.

This is a catalogue (abbreviated to K+Z) of the Sasanian coins in the State Historical Museum of Armenia whose collection has been formed from hoards, archaeological finds, accidental finds, collections from other, now closed, museums, purchases and gifts. The authors have also included the Leninakan (Giumri) hoard, held in the State (Pushkin) Museum of Fine Arts, Moscow but found in Armenia. The following coins are described in the catalogue. Spellings of names and transliterations of Pahlevi words are those used in the catalogue unless otherwise stated.

	No. of coins	No. of coins illustrated
Ardashir I	17	16
Shapur I	29	28
Hormazd I	1	1
Varhran I	8	8
Varhran II	8	8
Narseh	10	10
Hormazd II	3	3
Shapur II	35	35
Ardashir II	1	1
Shapur III	1	1
Varhran IV	4	4
Yazdgard I	10	10
Varhran V	11	10
Yazdgard II	5	5
Firuz I	25	25
Valkash	4	4
Zamasp	3	3
Kavad I	77	64
Khusru I	149	67
Hormazd IV	125	30
Khusru II	374	95
Ardashir III	5	4
Yazdgard III	1	1
Total:	906	433

Students of Sasanian coins are fortunate in having another recent work on Sasanian coins found in Armenia, K. Mousheghian, A. Mousheghian, C. Bresc, G. Depuyrot and F. Gurnet, *History and Coin Finds in Armenia: Coins from Duin, capital of Armenia (4-13th c.); inventory of Byzantine and Sasanian coins in Armenia (6-7th c.)*, Collection Moneta 18, (Wetteren, 2000), pp. 216, 32 plates, A4 size (abbreviated to *HCFArmenia*). The authors of this work unfortunately did not have access to the coins themselves but worked from information gleaned from previous publications and from rubbings and photographs. Since some of the coins published in K+Z have already been published in *HCFArmenia* I have taken the opportunity to make some comparisons with the Sasanian element of the latter.

What overall view does one gain from K+Z of the Sasanian coins found in (modern) Armenia? K+Z state that only one coin of Ardashir I (no. 1) and no coins of Narseh have been found (pp. 11-12). Coins of other rulers (Hormizd I, Hormizd II, Ardashir II, Varhran IV, Yazdgard II and Valkash) appear not to have been found in Armenia either though one cannot be certain when the provenance is another museum or an institution rather than a find spot or hoard. It is therefore difficult to draw any general conclusions about the occurrence of Sasanian coins in the region apart from fairly obvious ones, such as there are a lot more coins after about 500 AD. No gold coins have been found and only one copper coin (Shapur II, no. 36). Nor have any of the coins apparently minted by members of the Sasanian royal family with the title 'great(est) king of Armenia/the Armenians', such as the

fractional silver piece of Shapur, son(?) of Yazdgard I (see B. Dorn, *Collection de monnaies Sassanides de feu le Lieutenant-Général J. de Bartholomaei*, (St. Petersburg, 1875), plate xi, 18).

The collection contains only one coin from the mint ARM (Armenia) (Khusru I, no. 59; the mint on Khusru II, no. 322 probably does not read ARM) which was found in Nagorno-Karabakh, re-enforcing the accepted view that Sasanian coins were very quickly mixed up in circulation. The most common mint abbreviation is MY with 127+ examples (p. 155), comprising 17%+ of the coins with readable abbreviations. This is a remarkably high number and if the same coins had not also been published in *HCFArmenia* one would be tempted to suggest that this mint might be located in Armenia, or at least the Caucasus region. *HCFArmenia*, however, identifies a large group of coins with this mint abbreviation, along with others, as local copies (pp. 35-8 and 119-23).

Contents of K+Z

Introduction (pp. 4-7) gives a little information about the collection and the preparation of the catalogue and lists the places where hoards and individual coins have been found but without any cross-references to the catalogue.

Chapter I (pp. 8-17) 'Commodity-monetary relations in Armenia in the Sassanian period' discusses coin minting and circulation in Armenia.

Chapter II (pp. 18-38) 'Mint-monograms of Armenia and neighbouring countries in the Sassanian period'. See 'Mint abbreviations' below for discussion.

Chapter III (pp.39-102) 'Description of the coins' i.e. the catalogue. The coins are arranged in chronological order by king, each reign being numbered from 1. As there is no heading at the top of the page, it is usually necessary to flick back to the beginning of the reign to check one is looking at the correct entry. The plates on the other hand are clearly titled. The different coin types (following the scheme of R. Göbl, *Sasanian Numismatics* (Brunswick, 1971) tables 1-13) represented in the collection are described at the beginning of each reign though some types of which the museum has specimens have been omitted, eg Khusru II first crown. This will be no problem for most users as they will have a copy of Göbl's book to hand. The fire altar is almost always called an *atašdan* and the top part of it a *capitellum*. Catalogue entries give: museum inventory number, Göbl type number, regnal year and mint abbreviation if relevant, denomination, weight, diameter, die axis, extra description of the design and/or physical damage, how/where coin was acquired. I could find no order to the arrangement of coins within each king. They are not arranged by type, date, mint or even inventory number. Groups of coins from one hoard or gift are sometimes listed together in order of their inventory number but as these seem originally to have been given arbitrarily within each king this does not produce a logical arrangement either. Often even coins from the same hoard are not listed together, thus the coins of Khusru II from the large Dvin (1955) hoard are listed at nos 71-93, 114, 122, 132-224, 226, 231-234. Other hoards have been treated in the same way.

The catalogue is followed by an 'Index' of mints (pp. 152-7); a 'List of abbreviations' (p. 158) and a 'Bibliography' (pp. 159-65). The bibliography lists 77 works, mostly on numismatics, though some are on related subjects such as R. Vardanyan's book on the weights and measures of Armenia and there are some historical works such as Sebeos' *History*. Western scholars will find the list useful as some of the works will probably be unfamiliar to them. Unfortunately some books referred to in the text by author only are not listed in the bibliography, for example on p. 9 there is a reference to 'A. Gordus and J. Bakarak (*sic*)', with no other information, but the work does not appear in the bibliography. There are also errors such as H.M. Malek being cited as A. Malek (p. 162); a reference in the text to a work by Dzhaparidze has the date 1989 but in the bibliography the date is cited as 1983 (p. 10 and p. 159) and a reference in the text to

'Göbl 1973, 28' is paginated 229-260 in the bibliography (p. 8 and p. 160). In chapter II the end-note numbers in the text lose their correspondence with those at the end of the chapter: there are 44 end notes, but the numbers in the text only go to 42.

The 'Appendices' consist of Pahlevi letter forms (p. 166); a list of kings, their regnal dates and a transcription and transliteration of their names (p. 167); the regnal years in Pahlevi with their transliterations (p. 168-9); a glossary of other words in Pahlevi with their transliterations and translations (p. 170); a map (p. 171), and finally (p. 172) some information about the authors. K+Z's transliteration of the Pahlevi word for 'twenty' in the numbers 20-29 is inconsistent. The transcription of the Pahlevi is always the same, *wyst'*, but it is transliterated: *wysty* (3 times), *wyst'* (6 times), and *wyst* (1 time). The transliteration of 'thirty', *syh*, is similarly inconsistent. In Pahlevi it is always written *syh* but is transliterated *sy* (5 times) and *syh* (5 times). There is no explanation for this. It would have been very helpful if the map was clearer and more detailed with the main towns and find spots marked. Unfortunately the maps in *HCFArmenia* are also inadequate, each district being shewn large but with little detail and there is no overall map of Armenia.

Plates

As noted above less than half the coins catalogued have been illustrated and there is no indication in the text whether a coin can be found on the plates or not. For example the coins of Hormizd IV (nos 54-112) from the Leninakan/Giumri hoard are not illustrated as are very few pieces from the Dvin (1955) hoard. The quality of the pictures is often reasonable though many mints and dates are not fully readable. The main problem is that they have all been printed at a uniform size of 24-25 mm regardless of the size of the original coin. Thus most coins of Ardashir I are approximately 1:1; some coins of Shapur I are 1:1 but some are reduced; some coins of Shapur II are enlarged eg nos 5, 7 and 16, but some are reduced eg nos 13 and 21 and by chance of course some are 1:1. Later coins are mostly reduced in size except when the piece has been clipped. In that case the coin may be enlarged, such as Khusru I no. 126 and Khusru II no. 60. The stated intention of the authors was to illustrate all coins actual size (p. 39) and one can only regret this was not possible.

Mint abbreviations

Mint abbreviations found on coins in the museum collection are listed on pp. 152-7 with their proposed transliterations and identifications, the number of coins in the collection using that abbreviation, though without indicating on which coins it occurs, and the mint's geographical location. The latter is indicated by a letter representing one of the four divisions of the empire: A (*Abāxtar* = northern), N (*Nēmroz* = southern), X and Xw (*Xwarwārn* = west, *Xwarāsān* = east). In the case of the last two abbreviations the authors do not, unfortunately, make it clear which is which, though one can work out from the fact that Merw (no. 36) is located in Xw that that abbreviation represents *Xwarāsān* (east), while X indicates *Xwarwārn* (west) as that is where Tēsōn (no. 15) is located. In addition there are two unexplained abbreviations: Âd/A (for AR, abbreviation no. 6) where presumably Âd means Âdurbadagān and Bd. (for ŠY, abbreviation no. 55) for which I can see no explanation.

Transliteration.

The Pahlevi letter L is often transliterated as R in mint abbreviations, eg APR for APL (no. 5), and ARM for ALM (no. 7), but not always, eg AYL (no. 13) and AYLAN (no. 140) are both correctly transliterated. Other transliterations are more confusing. Two abbreviations which should be transliterated AL and AW (the latter is sometimes also transliterated as AO) (both no. 6) are both transliterated as AR; but AW (AO) (no. 12) is also transliterated as AY along with other 'varieties' of the same abbreviation of which the accepted transliteration is usually AY. MY (no. 37) is correctly transliterated but the same Pahlevi letters also appear as varieties

of MR (ML) (no. 36). In fact they occur as both the main type and as seven of the varieties of the abbreviation MR, with MR itself merely occurring as two of the nine variants. A similar confusing situation surrounds the abbreviations GD (no. 26) and RD (LD) (no. 46). This effectively means that if a coin with the abbreviation MR or RD is not illustrated it cannot be correctly identified. Coin 39 of Khusru I, year 11, for instance, is identified as MR? when it is clearly MY. Much of this confusion has been caused because the authors have in many instances followed Göbl (table 16) in their suggested readings and copied his transcriptions. Would it benefit Sasanian numismatics if scholars compiled a standardised list of mint abbreviations in Pahlevi to which authors could refer when publishing coins? Suggested transliterations and identifications could be attached but they would not be important. Such a list would distinguish and group all known abbreviations, they would be numbered for ease of reference, new ones could be added when discovered and authors would be free to suggest their own transliterations and identifications without making coins unidentifiable to other people. Ideally, of course, this should not be necessary as all coins would be illustrated by excellent pictures, but even with modern technology this is not always possible, especially for the common coins of kings such as Khusru II.

Attributions.

Some of the attributions suggested by K+Z are very curious but unfortunately they do not always explain their reasons. In chapter 2 K+Z argue that while the abbreviation ARM (no. 7 and pp. 25-8) can certainly be attributed to Armenia and was used by the Sasanian *marzpan* in his capital at Dvin, the abbreviation AR (no. 6) which includes both AL and AW (AO), as explained above, may possibly be identified as Armenia also. As an alternative they suggest it may perhaps be attributed to Ardashir Xwarrah, the normal abbreviation of which is ART. DA (no. 21), normally attributed to Darabgird, has been expanded to *dhst'n* and attributed to Dahestān (in north eastern Iran)/Darabgird (in Fars) but DR (DL) (no. 22), expanded to *d'lpkrt'*, is also given to Darabgird. NY (no. 41) is distinguished from WR (no. 57) which is usually also transliterated as NY. The former is attributed to Nēmāwand/=Nēhāwand? while WR is identified as Wiramin. They do not accept that NAR (NAL) (no. 40) must be located in Kirmān but identify it still as Nahr Tīrag. Likewise they do not locate BN (no. 16) in Kirmān but suggest it may represent Banardan whose geographical position they do not know. They accept that BBA (no. 15) represents Dār and optimistically locate the mint in Tēsḥōn. They sensibly reject Pakhomov's reading of WYHĊ (no. 60 and pp. 19-21) as NAXĊ and attribution to Naxčavan and accept Gyselen's suggestion of Weh-az-Amid-Kawād.

Coin identification

Since less than half the coins are illustrated one has to rely entirely on K+Z's identifications for the unillustrated coins. One would like to feel confident that the identifications are correct but such confidence would be mis-placed. Some problems regarding the reading of mint abbreviations have already been pointed out but there are other errors too. There is unnecessary confusion, when reading dates, in distinguishing *y'č* from *syč* in the numbers 11 and 13, 21 and 23 etc. The catalogue descriptions of Kavad I (nos 64-77) are out of synchronisation with plates so that, for example, picture 64 = text 65. There are also a number of more serious errors and mis-readings some of which are listed below:

Shapur I

Coins no. 28-9 appear to be base drachms not copper coins.

Shapur II

8 is Shapur III.

Firuz

9 and 24 are AS not AYR.

23 is KA not DA.

Kavad I

10 is year 25 not 35.

32 is a near contemporary copy.

63 is year 35 not 38.

Khusru I

5 is PL year 29, not MR year 23.

14 is GD year 2x not DR year 22.

45 is ST year 23 not ST year 21. The year is very clearly written.

59 is year 43 not ?

79 is BYSh not AYR.

147 the reverse of no. 58 seems to have been reproduced here in error.

Khusru II

6 is BBA year 31/33 not BBA year 11.

27 is WYH, year 29 without APD in the obverse margin, not WYH, year 21 with APD.

48 is BYŠ year 9 not BYŠ year 2.

69 is KL 31 not RAM 31. The wrong obverse appears to have been used on the plates as it is in the early style, before year 11 and unclipped, while the reverse is not only post year 11 but also clipped to the circles.

75 must be dated year 2-11 by the obverse type and cannot be year 30. In *HCFArmenia* (p.119, no. 73) it is identified as year 11.

267 is SK year 23 not year 21.

269 is GD year 25 not year 35.

270 is WH, year 28 not WYH, year 38

283 is ART year 28 not year 38.

318 is BN year 33 not year 31.

375 is not described at all.

Ardashir III

4 is WYHC year 2 not WYH year 3.

Yazdgard III

1 is SK year 6 not AY? year 6.

The noting of the obverse marginal legend APD *'fid* on coins of Khusru II is erratic. In some instances coins are catalogued as having APD in the margin: nos 31, 42, 47, 59, 235, 254, 269, 281, 306, 312 and the illustrations confirm this is correct. On the other hand it is not noted on no. 38 but the illustration clearly shows the legend is present, neither is it noted on no. 367. In the latter case the coin is not illustrated by K+Z but is illustrated and correctly described in *HCFArmenia* (no. 106 on plate 31 and p. 189). On the other hand nos 1, 27 and 58 (a post-Sasanian copy) are said to have APD in the margin but the illustrations show they do not.

Unfortunately there is no concordance of the coins published by K+Z with those already published in *HCFArmenia*. According to the note in *ONSNL* 173 (Autumn 2002), p. 2 K+Z's work was finished in 1998 before *HCFArmenia* was published. It is a great pity there was not more co-operation between the authors of each work as some of the confusion one finds when trying to use both books together could have been avoided and the mistakes rectified. Two examples will demonstrate the problems.

Some are fairly straightforward mistakes on the part of one author. A coin of Varhran I, inventory no. 16362 (*HCFArmenia* p. 181, K+Z p. 46, no. 6) is said to weigh 3.90 g and 4.25 g respectively.

In other cases the museum inventory number has not been given to the same coin and one is left wondering which description is correct. The following drachms are all from the Dvin (1955) hoard. K+Z identify a coin of Khusru I, (p. 69, no. 14 = inventory no. 17364/3) as DR, year 22, but the coin illustrated is GD, year 23. This is presumably the wrong illustration and the coin described is the same as no. 9 on p. 115 in *HCFArmenia*, inventory no. 17364/1 and identified as DR, year 22. The coin listed in *HCFArmenia* (no. 8, p. 115 and plate 10) under inventory no. 17364/3 is identified correctly as AYRAN, year 21.

There are many other examples of this type of confusion.

All the coins published by K+Z are considered by them to be Sasanian. Sasanian coins were copied by their neighbours and there are a considerable number of copies included by K+Z in

their catalogue but not identified as such. One significant group is from the Dvin (1955) hoard. *HCFArmenia* (p. 119-23, nos 82-209) lists a tightly knit group of coins of Khusru II, 32 of which are from the same obverse die, which they convincingly argue are copies, presumably locally produced. The die-linked coins all have the mint abbreviation MY and are dated year 31. The illustrations, though mostly rubbings, are sufficiently good to confirm the identifications. In K+Z the same coins are correctly identified as coins of Khusru II from the mint MY but the dates have been read as: 20 (1 coin), 25 (1 coin), 31 (2 coins), 33 (26 coins), 37 (1 coin), uncertain (1 coin). The pieces which are badly mis-identified by K+Z (i.e. years 20, 25 and 37) seem to be the same coins as the ones published by *HCFArmenia* and read as year 31, so far as one can judge, since details of weight, diameter and die axis tally. There is also no reason for the date 31 *y'čsyh* to have been mis-read by K+Z as year 33 *syčsyh* since it is clearly written in nearly all instances. As well as mis-identifying most of this group K+Z do not comment on the fact that they are obverse die linked. It was time-consuming to check the identification of all 32 coins as neither catalogue put them in any order.

Another group of apparently local copies is not discussed by K+Z. Nikitin has distinguished certain coins of Hormizd IV, with an extra obverse legend behind the bust 'l^{mn}, which he thinks can be attributed to Armenia. Many, but not all, coins with this legend have the 'mint' ZWZN' (also occurring on coin without the extra obverse legend) which is the Pahlevi word for 'drachm'. K+Z reject both this translation of the word ZWZN' and Pakhomov's reading of the abbreviation (their no. 62 and pp. 22-4) as Dvin, instead favouring Mochiri's attribution to Zozan in Quhistan (Media) though they do not cite his work (M.I. Mochiri, *Etude de numismatique iranienne sous les Sassanides et Arabe-Sassanides*, vol. 2 (Teheran 1977, revised, Leiden, 1983), pp. 94-101). This is unfortunate as the publication of this museum catalogue would have been an ideal opportunity to discuss the problems associated with a relatively large and diverse group of coins found in the Caucasus region. K+Z do not even note the presence of the obverse legend 'l^{mn}. One would not know this type occurred, for instance, in the Giumri/Leninakan hoard (pp. 79ff), as K+Z do not illustrate any of the coins, were the hoard not also illustrated and identified in *HCFArmenia*.

Hoard

I had hoped that K+Z would fill in information from a few hoards published in *HCFArmenia* where the authors did not have all the details. A small hoard from Yerevan (*HCFArmenia*, pp. 198-9) contained, apart from one coin of Heraclius which does not concern us, two coins of Kavād I (listed as Kavād II) with weight, die axis and inventory number but without a mint or date identification; one coin of Jamasp, identified (AY, year 3) but with no weight, die axis or inventory number and one coin of Khusru I with weight and die axis but no other information. It proved impossible to reconstitute the details of the hoard from K+Z. Apart from the Khusru I coin which was obviously impossible to trace, only one of the coins of Kavād I could be located (inventory no. 17686 = K+Z p. 63, no. 7 identified as RA, year 18). One coin of Zamasp year 3, AY is listed by K+Z (p. 62, no. 1) but is said to have been found in Aghrija (Gegharkunik region) implying that is not from a hoard. One is left confused.

Studying this catalogue in some detail has made me ask: what should one expect from a catalogue of the Sasanian coins in a museum collection? There are some essentials without which a catalogue is almost useless.

Correct identification of the king or queen.

Accurate and full descriptions of the coin types.

Accurate reading of the dates and mints.

Accurate and full descriptions of the physical characteristics: weight, diameter, die axis.

Clear illustrations of as many of those coins as possible (preferably all) at 1:1, plus enlargements if useful.

Arrangement by king and then in a useful order (i.e. primarily by mint or by date) within each reign.

Other useful additions would be:

Concordance, if coins have been published elsewhere.

List of hoards and cross references with catalogue numbers.

Good maps showing where hoards and single finds were discovered.

History of the museum collection, how and when it was formed.

Information concerning previous curators and collectors who donated coins.

A good editor would have picked up many of the errors and inconsistencies contained in this catalogue. In view of the work the authors have obviously put in and the problems they must have had to overcome in order to get it published it is a pity that it falls so far short of this ideal.

Michel G. Klat, *Catalogue of the Post-Reform Dirhams: The Umayyad Dynasty*, 322 pages, Spink, London 2002

Reviewed by Stephen Lloyd

For the last fifty years, the starting point for any study of post-Reform Umayyad dirhams has been Walker's *Catalogue of the Arab-Byzantine and Post-Reform Umayyad Coins* (London, 1956). Since Walker wrote, many new mint-names and new dates for existing mints have come to light and a number of misreadings and errors have been corrected. In 1990, Shams-Eshragh produced a new catalogue (*A Study of the Earliest Coinage of the Islam Empire*, Isfahan, 1990), which forms a valuable supplement to Walker but, unfortunately, contains a number of errors and suffers from poor photographs. This new catalogue represents a major step forward in terms of the number of coins listed - Klat records 101 confirmed mints to Walker's 64 - and the detail in which they are studied.

After a brief introduction, the book begins with some short but informative geographical notes on the mint-names found on the coinage, a list of abbreviations and a comprehensive bibliography. Some of the mint notes require further clarification (for example, recent research has reattributed the mint of Dastawā to a district in Khurasan rather than in Jibal; the mint listed as Fil is not a certain reading and Qibal has been suggested as an alternative; al-Mubāraka is now thought to be an honorific epithet for the citadel of Balkh; and I no longer believe that Naysābūr can be the correct reading for the uncertain mint-name on catalogue no. 650). Given that the cataloguing of the coins themselves is so lavish it is surprising that the book does not have a more detailed introduction. It would have been helpful - and instructive - if the mints had been organized geographically by province as well as in the traditional alphabetical order, whilst a map showing their location would also have been useful. Unlike Walker, Klat does not examine the coins' historical and geographical background in detail. Walker was in a position to consider the reformed silver in the context of his studies of early Islamic coinage in general, and it would indeed have been impossible to address the geographical distribution of mints without referring to Arab-Sasanian coinage, or the coinage reform of 'Abd al-Malik without discussing a wide range of other gold, silver and copper issues. These subjects need detailed treatment, and a specialized catalogue of the post-reform Umayyad silver coinage is perhaps not the right place for this.

No such reservations apply to the catalogue of the coins themselves, which takes up more than 260 of the book's 322 pages and is remarkable for its thoroughness, accuracy and painstaking attention to detail. The coins are presented much as in a sylloge, although the illustrations are placed in the text rather than on the facing page. Klat follows Walker in organizing the dirhams alphabetically by mint, with a few minor variations (for example Klat classifies Shaqq al-Taymara under al-Taymara under T, while Walker lists it separately under S). A catalogue number is assigned to each combination of mint and date, which can be

subdivided to indicate varieties of style or spelling and arrangement of annulets or points. All dirhams listed in the main body of the catalogue are illustrated, generally with excellent photographs, and the weight and diameter of each illustrated piece are noted. Each catalogue entry also mentions any variations of legends, points or annulets, taking the mintless dirham of 79h as a standard, with all Arabic (including the mint and date) rendered in a clear, pointed Kufic font. Klat has also compiled an exhaustive set of references for each entry, and, while the rarity of a mint or date can still only be assessed in general terms, this can at least give some indication of a coin's availability. Other coins for which the author had not been able to obtain a photograph - including one dirham which he had examined himself - are considered unconfirmed and listed separately in an appendix. There are two indexes to the catalogue, the first listing the coins by year of issue and the second listing them by mint; this second index also includes a detailed table of epigraphic and other variations. Finally, there are five more tables listing the epigraphic variants of the numbers found on the coinage. A proper concordance of Klat and Walker references would have been helpful but is not a major omission.

One of the greatest strengths of the book is Klat's decision to illustrate every catalogue entry. This makes it easy to verify his descriptions or to examine a detail not described in the text. An excellent example of this is the untangling of coins struck in the 80s and 90s at the mints listed by Walker as al-Jisr, al-Janza, and al-Jazira. Walker's "mint" of al-Janza has been deleted as a misreading for Janza, while the remaining coins are now variously assigned among al-Jisr, Janza, al-Jazira and al-Hira. Because all the coins are illustrated it is easy for anyone wishing to check these reattributions to do so. Secondly, by only cataloguing illustrated pieces, the questionable or spurious coins which appeared in earlier publications have also been removed. Good illustrations also help to weed out the increasingly sophisticated forgeries which have started to appear on the market in recent years, and this catalogue is as important for the coins it omits as well as those it includes. Thirdly, Klat has been able to study features of the coinage which Walker's frequently inadequate (and sometimes also inaccurate) sources made impossible. For each coin, Klat records as standard its weight, diameter, annulet patterns, the position of *wa* in the reverse *kalima*, the presence or absence of *fi* before the mint-name and before *sanat*, the presence and location of any points, and the spelling of *mushrikun* at the end of the reverse margin. Establishing this level of detail for the study of the coinage should also stimulate others to re-examine dirhams in the collections they own or curate, resulting in more varieties being identified and, hopefully, published in due course. It is perhaps worth pointing out that this is not just another example of what non-numismatists sometimes dismiss as the study of ever diminishing details to ever decreasing benefit. Studying mint activity, annulet patterns, spelling variants and calligraphic style builds up a picture of how Umayyad minting and finance was organized and administered. These coins provide crucial evidence for a period which saw the geographical boundaries of the Caliphate broadly established, and when the Muslim victors first had to address the problems of governing and administering the lands they had conquered.

As a corpus of known examples of the post-reform Umayyad coinage, it is hard to fault this book. While Walker must remain indispensable until a new study appears which takes into account the new discoveries described here, Klat's comprehensive, detailed and well-produced catalogue now replaces it as the standard reference for the series. It is likely to remain so for many years to come.

Articles

The following two articles are derived from talks given at the recent ONS meeting in Leiden.

Some Reflections on Chaghatayid Coins with an S-Tamgha From Samarqand

By T.D. Yih and R.T.E Schüttenhelm

Introduction

In the 1970s, Chaghatayid coins were dealt with extensively in the works of the famous Russian numismatist, Davidovich. In her work on the numismatic reform by Mas'ud Beg in the 13th century (Davidovich 1972) Davidovich also describes the Chaghatayid coins from Samarkand with a vertical S-tamgha. She illustrates such a coin on plate 4 under no. 2. She distinguishes three variants and mentions as the date range, AH 682 to 696. Other drawings or illustrations can be found in the publications of Žukov (1959), Chen (1981) and Dong Qingxuan (1991). However, only the illustration from the last mentioned (an undated specimen) is of reasonable quality.

As the scheduled Sylloge publication on the Transoxanian mints by Prof. Fedorov (a sequel to Maier's book on the Northern and Central Asian mints) will not be available for some time yet, these will still be the only published illustrations for the time being.

At one of the recent Dutch ONS meetings the present authors learnt, to their mutual surprise, that a number of Samarqand specimens were in their respective collections. As the references mentioned above are not easily accessible, there follows below a preliminary typology of the available specimens based mainly on the paper of Davidovich with some amendments. It is hoped that this will lead to the discovery of more specimens in the collections of ONS members.

General Description

Dirhams of this general type are mostly crudely struck and the full legends and borders have to be reconstructed from several specimens. They are 20-21 mm in diameter and their weight is 1.9-2.1 grams. The obverse bears the Kalima in four lines; according to Davidovich, the reverse bears in two lines the words *al-imām al-a'zam* and below that the mint-name, Samarqand. They are notably different from contemporary Chaghatayid coins from other mints as they have on the reverse a large, vertically positioned S-tamgha dividing the word *al-imām*. The first *mīm* of *imām* is sometimes located on the right (fig. 7) or on the left (fig. 3) of the S-tamgha and sometimes it is very obscure (fig. 2). The S-tamgha is a mirror-image "S" with the upper curve starting on the left side. The crossbar tapers where it connects with the "S".

The specimens are known to occur dated and undated. The earliest date known is AH 680 and the latest, AH 703. The date in numerals is located generally on both sides of the S-tamgha. The first numeral of the date (٧) is generally located to the left below the curve of the S-tamgha (see fig. 7, below), whereas the two other numerals are located to the right of this tamgha. Sometimes, however, the first two numerals are located to the left of the S-tamgha (see fig. 8, below).

The following preliminary typology is based on data from literature, auctions and specimens from the authors' own collections.

The following abbreviations are used: CH = Yih; Chen = Chen(1981); DV = Davidovich(1972); PP = Pavel Petrov; TC = Schüttenhelm; TU = Tübingen; IW = Isi Waleed and XN = Xinjiang Numismatics; ŽU = Žukov(1959).

TYPOLOGY

Obverse

Type A

In the field a four-line Kalima surrounded by a border consisting of four concentric circle fragments with dots between them (fig. 1).



Two dots occur at either side of the first word *lillah* and the last word *allah*. Probably due to the limited number of legible obverses, no other obverse subtypes could be distinguished so far.

Reverse

Type a

In the field in three lines, *al-imām al-a'zam* and, in slightly smaller letters, the name of Samarqand surrounded by a circular legend between two solid circles (fig. 2 and 3).



Fig.2



Fig.3

There is a decoration in the shape of a knot figure to the left above *al-a'zam*.

Possibly there are two subtypes:

- a1 not dated; a bar-like figure to the right of the S-tamgha (CH43; IW01; XN151)
- a2 dated (TU963735 – fig.3a; Chen14)



Fig.3a

Type b

Again, in three lines, “*al-imām al-a'zam*” and the name of Samarqand, but now surrounded by an inner circle composed of seven interleaved line segments and a solid outer circle. There is no circular legend.

Three subtypes may be distinguished

- b1 a decoration in the shape of a lyre above *al-a'zam* (figs. 4, 5 and 5a) (CH64; DVI; PPI; TU962343)



Fig.4



Fig.5



Fig.5a

- b2 the word *ikhtiyār* above *al-a'zam* (figs. 6, 7, 8) (CH75; TC1-4; TU945353; ŽU1-18)



Fig.6



Fig.7



Fig.8

- b3 the date above *al-a'zam* (fig. 9) (ebay item no. 3301468845)



Fig.9

Until now only dated type b reverse types have been found.

Thus, combining the obverse and reverse subtypes, four main variants can be currently be distinguished.

Discussion

As mentioned above, this general type is characterised by the presence of a large vertical S-tamgha. On Chaghatayid coins with a vertical S-tamgha known from other mints, this tamgha is always small and it occurs together with one or two other tamghas, e.g. coins from Almalyk and Taraz. An exception is formed by some Golden Horde dirhams from the Khwarezm mint from the period AH 686-88. It is beyond the scope of this paper to go into detail on this, but on some coins from this period the Juyid tamgha is replaced by the S-tamgha or the common ϱ -Chaghatayid tamgha.

Although only a very limited number of illustrations are available in the literature, this general type has been found in considerable numbers in several hoards. Žukov (1959), Davidovich (1972) and Chen (1981) mention a total of 39, 341 and 77 specimens, respectively. It is not clear whether the specimen illustrated under no. 151 in Xinjiang Numismatics reported to be found also at Changji, belongs to the Chen hoard.

On the undated reverse type ‘a1’, instead of numerals a decoration in the shape of a straight or curved bar is present on either side of the vertical S-tamgha (figs. 2 and 3). It is not clear whether our reverse variant ‘a’ corresponds to Davidovich’s variant 1 as she does not mention the knot figure. The dated reverse type ‘a2’ is based on the single specimen (TU963735 – fig. 3a above) from the Tübingen collection and possibly also on the illustration of Chen14, which shows a λ -like character to the right of the vertical tamgha. Chen mentions for his coins only the date AH 682. Similarly, specimen XN151 is also mentioned to be dated AH 682. On the illustration, however, no trace of a date can be seen. Davidovich mentions for her variant 1 the dates AH 682-685.

Up till now, undated examples of reverses with a vague knot figure were known only from the illustrations of Chen and Dong Qingxuan and from a single specimen in the author’s collection (CH43). It is interesting to note that this specimen was apparently overstruck making the knot figure less well visible. Fortunately, an illustration from Waleed (2002) became available recently in

which the knot symbol and the absence of a date is more clearly visible (fig. 3).

With respect to the knot figure it is not clear whether it is simply a decoration or whether it has some significance. Broome (1993) discussed the purpose of such a decorative design for coins of the Seljuqs of Rum, where he referred to it as a "tee"-symbol. Chen (1981) listed the knot figure in a table together with real tamghas.

At present it is also not quite clear whether the lyre-like figure is only a decoration of the letter "za" of *a'zam* or a tamgha. There is other evidence of the occurrence of peculiarly shaped tamghas on Chaghatayid coins. A peculiarly shaped tamgha that has some resemblance to the lyre-shaped figure can be found on Chaghatayid coins from the mint of Andigan, where it occurs together with another tamgha (Maier, 1999, plate 6 no. 93). On specimen CH64 (fig. 4, above) there is a trace visible of a tiny figure or vignette in the middle further to the left. This has been confirmed by a similar specimen (PP1) from Petrov (2002), reported to originate from a 2001 Samarqand hoard. In the middle of the right side there is a dot (fig. 5, above). The Tübingen collection contains a specimen dated AH 687, that is very similar to CH64. It differs by the absence of the dot to the left of the lyre-shaped figure and the decoration at the far left.

The word *ikhtiyār* as present on reverse type b2 (figs. 6 and 7, above) means "chosen/selected". Its purpose is not clear. It might refer to the silver content (Nastich, 2002). According to Ilisch (2001), however, it might be an abbreviation of the laqab "*Ikhtiyār al-Dīn*" and might then be a title of honour.

The fact that various symbols or words are encountered in the same position, strongly suggests that these do not simply have a decorative function, but have some other significance e.g. might refer to mint masters or their controllers. Such specific places are also known on coins from the Almaligh mint (Yih, 2000).

From the data available at present it appears that the border with the circular legends is linked to the presence of the knot symbol as no other borders have been detected for type 'a' reverse specimens and, similarly, the segmented border seems to be linked to type 'b' reverse specimens.

With respect to the dates observed, the following information is available: according to Davidovich (1972) there is a strict separation between the various subtypes. According to her, the "*ikhtiyār*" type is apparently the latest one. She mentions, in table 17, dates ranging from AH 689 till 693. Elsewhere in her publication, however, she mentions the date AH 696. The latter is confirmed by our data. Žukov (1959), however, reports a date of AH 681.

For the "lyre" type Davidovich mentions dates covering the period from AH 685 till 688 and for her variant 1 a period from AH 682 till 685. (A variant 1a specimen with the date AH 681 in words is questionable). Year AH 685 is apparently an overlapping year. Unfortunately, it is not quite clear whether pieces with a knot figure are included in her variant 1. There are three coins that are crucial for the sequence of issue. Several suggestions have been proposed for the date on the b2 reverse subtype of coin TC1 (fig. 8, above). The symbol to the right of the S-tamgha has been considered to be the numeral "4" or a corruption of the word *sanat*. There would be an overlap between the "lyre" and "*ikhtiyār*" subtypes, if the date on piece TC-1 is indeed AH 684. The first date of issue of this subtype can be set even earlier if the well-dated specimen TC6 has the reverse subtype b2. In view of the border, it is indeed a 'b' subtype reverse. However, the crucial area to the left of *a'zam* is rather weak. Possibly, a weak "alef" of *ikhtiyār* can be seen, but the three diacritical dots are not visible. Another crucial date is the date AH 700 present on coins CH64 and PP01. The date can be read as AH 680 or AH 685. CH64 was bought with a date indication of AH 685. In view of the shape of the last digit it is most likely that the much clearer date on

specimen PP01 should be read as AH 680. This is supported by its owner, Pavel (Russia), and by S. Album (USA). This would mean that the earliest date for this subtype is not AH 685 as mentioned by Davidovich, but should be set at AH 680. Hence, there is also an overlap between the lyre-type and variant 1. Unfortunately, the area on the left side of this specimen is rather weak. Moreover, the date of AH 680 also precedes the earliest date of AH 682 mentioned by Davidovich for these Samarqand coins.

Apparently specimens with the b2 reverse subtype are the most abundant. Nearly 50% (18/39) of the specimens from the Dukent hoard reported by Žukov have the 'b2' reverse subtype and only three have the 'a' reverse subtype.

Very recently, an S-tamgha Samarqand coin was offered on E-bay. This piece was very exceptional as it was dated as late as AH 703. Moreover, the date was not located on either side of the S-tamgha, but below it, above *al-a'zam* and consequently no symbol is present. As the border was not visible, further attribution to a reverse type 'a' or 'b' cannot be done with certainty. For the moment this specimen has been included as reverse subtype b3. Although it is not yet possible to determine the subtype, this piece is very important as it lengthens the period of issue of this type of coins by no less than eight years. Besides that, it is the latest date known for the occurrence of the S-tamgha. This indicates that the S-tamgha that has been linked with the rise and fall of the Ögödei prince, Qaidu (Yih, to be published), was still used after Qaidu's death in 701, before Qaidu's son Chāpār was definitively eliminated by Duwa, the son of the former Chaghatayid khan, Baraq.

The authors would welcome additional data from museum and private collectors on this series of Samarqand coins.

Table 1. Overview: Available Illustrations

NO.	DATE	IKHTIYĀR	SYMBOL
CH43	ND	–	Knot
IW01	ND	–	Knot
CH64	680	–	Lyre
CH75	696	+	–
TU945353	X96	+	–
TU962343	687		Lyre
TC-1	684/ 68 sanat?	+	–
TC-2	692	+	–
TC-3	Xx3	+	–
TC-4	6xx	+	–
TC-6	682	+?	–
XN151	ND	–	Knot
DV-1	686	–	Lyre
DV-2	696	+	–
ŽU-1	681	+	–
PP-1	680	–	Lyre
CHEN1-14	682	–	?
CHEN 1-15	682	–	Knot
E-Bay	703	–	Date

CH=Yih; CHEN=Chen (1981); Dv=Davidovich (1972); Ebay 3301468845; PP=P. Petrov (2002); TC=Schuttenhelm; TU=Tübingen; XN=Xinjiang Numismatics (1991); IW=I. Waleed (2002); ŽU=Zukov (1959).

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References

- Broome, M.R. (1993) "Symbols on the coins of the Seljuks of Rum", *Proc. 11th Int. Num. Congress III*, 283-86.
- Chen Ge Zeng (1981) "The study on coins from the Mongol Khanates, found in Changji", *The Xinjiang Social Science*, vol. 1, p55-80.
- Davidovich, E.A. (1972) *Monetary economy of Central Asia after the Mongol conquest and the reform of Masud Beg (13th century)*, Moscow.
- Davidovich, E.A. (1979) "Klady drevnich I srednevekovich monet Tadjhikistan", *Hoard* 54, p. 241-258, Moscow.
- Dong Qingxuan (1991) *Xinjiang Numismatics*, Beijing and Hongkong.
- Ilisch, L. (1998) Personal communication.
- Maier, T. (1998) *Sylloge Numorum Arabicorum Tuebingen. Nord- und Ostzentralasien. XVb Mittelasien II.*, Plate 6, no. 93, Berlin.
- Nastich, V. (2002) Personal communication.
- Petrov, P. (2002) Personal communication.
- Waleed, I. (2002) Personal communication.
- Yih, T.D. (1997). "Newly discovered Chaghatayid coins from Almaligh", *ONS Newsletter* 154, 6, 1997 (abstract).
- Yih, T.D. to be published (Proceedings of the Saratov conference).
- Žukov, V.D. (1959) "Dukentskii Klad monet", *Istorija Material'noj Kul'tury Uzbekistana* 1, 176-207

The Coinage of Qumm

By Roland Dauwe and Stan Goron

The holy city of Qumm, located in the province of Jibal about 100 km south of Tehran, is a very old city and it is quite certain that several Sasanian rulers struck coins there and that a few very rare Arab-Sasanian coins were also struck there. Though the town had already been conquered by the Arabs in 22 AH, no pure Islamic coins were struck there before 245 AH, the starting point of a minting activity that would last for a millenium. With a few exceptions, all the coins struck at Qumm are very scarce to extremely rare, probably the reason why only a very limited number of coins have been published in the past and that only a small number of specimens are to be found in most public and private collections.

The first Abbasid issue at Qumm, entirely composed of silver dirhams, was very short, from 245 to 250 AH. Ca. 280 AH this was followed by a second and more important production, this time mainly gold dinars, though a few silver dirhams were struck as well. The last date known to me is a dinar dated 325 AH, struck in the name of al-Radi.

Officially, the Abbasids lost western Iran to the Samanids after the invasion of Nasr II b. Ahmad. Though Samanid rule over Qumm was a very short one, a few dinars are known to have been struck there ca. 329-332 by Nasr II and by his son, Nuh I.

Next came the Buwayhids, a Shi'ite dynasty of Iranian origin. Since a die survey of the Buwayhid coinage has recently been published by Treadwell, we have a rather good idea of the coins struck at Qumm by four consecutive rulers between 337 and 403 AH. In the beginning, the issues were quite regular and were mainly composed of gold dinars. Later on, the issue of silver dirhams became more important while almost no gold was minted any more. At the end of the Buwayhid rule minting became more irregular, sometimes showing gaps of nearly ten years.

The following brief periods of Kakwayhid and Ghaznavid rule seem to have left no trace of minting activities at Qumm, but with the next dynasty, that of the Great Seljuqs, the town was again, though sporadically, used as a mint. We know that the first ruler, Toghril Beg, struck gold dinars at Qumm as early as 434 AH, but then there seems to be a gap of nearly 50 years until the next issues of dinars of Barkiyaruq and Muhammad I, from ca. 485 to ca. 505 AH. Most Seljuq dinars of Qumm are badly struck, their weights showing a great fluctuation and generally far below the theoretical weight of the dinar. However, their coins are interesting in that they often bear the name of the local governor.



Gold dinar of the Great Seljuq ruler, Muhammad I, struck in AH 504, citing governor Atabeg 'Umar on reverse.

Shortly after the death of Muhammad I, a large part of the Jibal, including Qumm, fell to the Ildegizids, who very soon had to make place for the Khwarezmshah, but again, it seems that both dynasties left no trace of minting activities at Qumm. Next came the Ilkhans and, though the rulers of that dynasty struck a lot of coins at a great number of mints, no coins were minted at Qumm until the very end of that dynasty. It was indeed only between 753 and 758 AH that silver coins were minted there by Anushirvan and Ghazan II, both puppets of the Chupanids who were the real masters of the region. That means that no coins had been minted at Qumm for nearly 250 years!

The next ruler over Qumm was the Jalayrid Shaykh Uwais I, followed by the Muzaffarid Shah Shuja' and we know that both rulers had silver coins struck there.



Two 2-dinar silver coins of the Muzaffarid ruler, Shah Shuja'

Though the city suffered much from the invasion of Iran by Timur, it remained one of the minting places of Timur and his successors. Both pre- and post-reform coins, with the name of the Chaghatayid Mahmud, are known to have been struck by Timur, but it was under his son Shahruk that Qumm had the greatest minting production in its history.



Top: silver 2-dinar coin of Timur citing the Chaghatayid overlord, Mahmud. Other coins, Shah Rukh, three silver tankas

The tankas of that ruler are indeed the only coins of Qumm that are not scarce, specially those of his 5th issue that started in 827/8 AH. At the end of his reign the real master over Jibal was Jahanshah, the ruler of the Qara Quyunlu. Notwithstanding a reign of more than 20 years over Qumm, few coins are known to have been struck there in his name. In 872 AH he was slain and killed by Uzun Hasan, ruler of the Aq Quyunlu and the Timurid prince Abu Sa'id took advantage of that event to invade western Iran. Of him and of his successor, Ahmad, very rare tankas of Qumm are known. Abu Sa'id was killed in 873 AH, and very soon the Timurids again had to leave the country in favour of the Aq Quyunlu ruler, Uzun Hasan. That ruler, and his successors Ya'qub and Rustam, had tankas struck at Qumm.



Silver qiran of Fath Ali Shah, AH 1242.

Coppers were never struck as a state coinage but were a local affair. Several types of obverses are known for the fulus of Qumm, and the practice of countermarking was often used as well (both on fulus of other towns as on its own, older pieces). Most of them were struck during the 11th and 12th century AH, but the coppers were still minted in the first half of the 13th century AH.



Two copper coins of Qumm, one with counterstamp.

The following is a list of coins known to have been struck at Qumm. If members have any additional coins, the authors would be pleased to have details, preferably with a clear scan of the coin or coins.

Abbasid

Al-Mutawakkil (AH 232-247)
245 - dirham
247 - dirham

Al-Musta'in (AH 248-251)
248 - dirham
249 - dirham
250 - dirham

Al-Mu'tadid (AH 279-289)
281 - dinar
282 - dinar
285 - dinar
286 - dinar
287 - dinar
288 - dinar

al-Muktafi (AH 289-295)
291 - dinar
294 - dinar
295 - dinar

al-Muqtadir (AH 295-320)
301 - dinar
303 - dinar
304 - dinar
305 - dinar
308 - dinar
310 - dinar & dirham
311 - dinar
313 - dinar
314 - dinar
317 - dinar



Top: pre- and post-reform silver tankas of the Aq Quyunlu ruler, Yaq'ub. Bottom: countermarked tanka of Rustam, Tahmasp I shahis of AH 930 and 938.

The victory of Isma'il Safavi over the Aq Quyunlu in 907 AH was the beginning of a new era for Iran, leading to what effectively became the modern state of Iran. Initially the coin legends remained in Arabic but a feature of the later Safavid and subsequent coinage is the use of Persian couplets on the coins. New types of coins were struck on Iranian standards. The Safavid struck coins at Qumm during the reigns of the first four rulers, Isma'il I, Tahmasp I, Isma'il II and Muhammad Khudabandah, both in silver and in gold (no gold coins were struck between the reigns of the Seljuq ruler, Muhammad I, and Isma'il II!).

Then suddenly the minting at Qumm was interrupted for about 150 years, and the next Safavid to strike coins there was Tahmasp II, who issued gold ashrafi and silver abbasi between 1136 and 1144 AH. There is also a very rare issue by the puppet ruler, Abbas III.



Abbasis of Tahmasp II, AH 1136, and Abbas III, AH 1145.

The Afsharids and, later, the Zands never used Qumm as a mint, but the first Qajar, Muhammad Hasan Khan, seems to have coined there in 1171 AH. The final issue at Qumm occurred during the reign of the Qajar Fath 'Ali Shah, who struck silver qirans and gold tomans there between 1240 and 1248 AH.

318 - dinar
320 - dinar

al-Radi (AH 322-329)
325 - dinar

Samanid

Nasr II bin Ahmad (AH 301-331)
329 - dinar
330 - dinar

Nuh I bin Nasr (AH 331-343)
332 - dinar

Buwayhid

Rukn al-Dawla (AH 335-366)
337 - dinar
340 - dinar
343 - dinar
345 - dinar
346 - dinar
348 - dinar
349 - dinar
350 - dinar & dirham
351 - dinar
352 - dinar
353 - dinar
355 - dinar
356 - dinar & dirham
359 - dinar
360 - dirham
361 - dirham
362 - dirham

Mu'ayyid al-Dawla (AH 356-373)
366 - dinar & dirham
369 - dirham
373 - dinar & dirham

Fakhr al-Dawla (AH 373-387)
374 - dirham
375 - dirham
376 - dirham
377 - dirham
378 - dirham

Majd al-Dawla (AH 387-420)
387 - dirham
393 - dinar
395 - dirham
403 - dirham

Great Seljuq

Tughril Beg (AH 429-455)
434 - dinar

Barkiyaruq (AH 486-498)
486 - dinar
494 - dinar

Muhammad I (AH 492-511)
499 - dinar
503 - dinar
504 - dinar
5xx - dinar

Ilkhans

Anushiravan (AH 745-757)
753 - 2 dirhams

Ghazan II (757-758)
758 - 6 dirhams & 2 dirhams (2 var)
ND - 2 dirhams

Jalayrid

Shaykh Uwais I (AH 757-776)
768 - 2 dinars (AR)
ND - dinar (AR)

Husain (AH 776-784)
776 - dinar (AR)

Muzaffarid

Shah Shuja' (AH 759-786)
ND - 2 dinars (two types) (AR)
ND - dinar (2.76 g) (AR)

Shah Mansur (AH 790-795)
ND - 2 dinars (AR)

Injuyid

Abu Ishaq (AH 743-757)
749 - dinar (AR)

Timurid

Timur with Suyurghatmish (AH 771-790)
ND - 2 dinars (four types) (AR)

Timur with Mahmud (AH 790-800-807)
791 - 2 dinars (AR)
ND (791-796) - 2 dinars (two or three types) (AR)
ND (796-807) - tanka (3 types)
ND - fals

Iskandar (AH 812-817 in Fars)
ND (816-817) - tanka

Shahrugh (AH 807-850)
820 - tanka
821 - tanka
828 - tanka
829 - tanka
830 - tanka
831 - tanka
833 - tanka
834 - tanka
835 - tanka
836 - tanka
837 - tanka
838 - tanka
841 - tanka
844 - tanka
845 - tanka
851 - tanka (sic!)

Sultan Muhammad (AH 850-855)
851 - tanka

Abu Sa'id (AH 855-873)
873 - tanka

Ahmad
XXX – tanka

Qara Quyunlu

Jahanshah (AH 841-872)
ND - tanka

Pir Budaq II (rebel, c.866-870)
ND - tanka

Aq Quyunlu

Hasan (AH 857-882)
ND - tanka
ND - 1/3 tanka

Ya'qub (AH 883-896)
887 - tanka, dated 10 Ramadan
891 - tanka
ND - tanka

Rustam (AH 897-902)
898 - tanka
899 - tanka (2 var.)

Ahmad (AH 902-903)
ND - tanka

Safavid

Isma'il I (AH 907-930)
909 - 2 shahi & shahi (?)
921 - ashrafi
ND - mithqal

Tahmasp I (AH 930-984)
930 - shahi
938 - heavy ashrafi & 2 shahi
955 - 2 shahi
960 - pul
969 - ¼ mithqal
XXX (954-984) - ½ pul

Isma'il II (AH 984-985)
984 - 2 shahi

Muhammad Khudabandah (AH 985-995)
986 - 2 shahi

Abbas I (AH 995-1038)
"9" - abbasi (date meant for 999?)

Tahmasp II (AH 1135-1144)
1136 - abbasi
1144 - ashrafi & abbasi

'Abbas III (AH 1145-1148)
1145 - abbasi

Zand

Karim Khan (AH 1166-1193)
1171 - abbasi

Qajar

Muhammad Hasan Khan (AH 1163-1172)
1171 - rupi

Fath 'Ali Shah (AH 1212-1250)
1241 - toman, qiran & ½ qiran
1242 - qiran
1243 - qiran
1244 - qiran
1247 - keshvarsetan & qiran
1248 - qiran

Civic coppers

1131 - lion with gazelle
113(6?) - lion with sun
1143 - lion with gazelle
1246 - countermarked
ND or date missing - lion / salamander / ibex / lion with sun /
goose with falcon / ibex over plant / countermarked

King Demetrios of India and Eukratides of Bactria

By L.M. Wilson

The Bactrian kingdom emerged out of the Herculean conquests of Alexander the Great in the East. The land of ancient Bactria lay in the region of northern Afghanistan, to the south of the Oxus river (modern Amu Darya) and north of the Hindu Kush mountains. These mountains, called the 'Caucasus' by the Greeks, formed the frontier between the Seleucid satrapy of Bactria and the 'Indian' areas of Arachosia to the south and Gandhara to the east. Following the conquest by Alexander the Great, Greek satraps and kings ruled Bactria for about 200 years and Greek coins were issued and used in this far away land. Coins with Greek types and inscriptions were then issued by Greek kings in the 'Indian' areas further to the east for another 150 years, and even after the end of the period of Greek rule coins with Greek inscriptions continued to be used in the region.

Despite this long, Greek occupation, the history of this period and the kings of Bactria remain largely a mystery due to the severe lack of historical sources and shortage of archaeological evidence. It is unfortunate that there are only a very few inadequate, written references to Bactrian history in the ancient records. The main, solid evidence we have from this period is the coinage itself, but the coins can often speak to us on their own and much progress has been made in organising and cataloguing Bactrian coinage (for example refs.1, 2, 3, 4, 11). Together with other pieces of evidence, the coinage can be used to build a picture of the sequence of these semi-mythical kings, the rivalry between them, why they issued certain coins and how the coinage evolved over time. Several such reconstructions have been undertaken (1, 5, 6, 7, 8, 11, 17, 18, 20, 23, 24) and some important progress in Bactrian history has been made. In order to discuss the problem of Eukratides and Demetrios it is necessary to begin with the independence of Bactria. It appears that by some time in the 250's BC, Diodotos, the satrap of the province of Bactria, was becoming more and more independent of Seleucid control. He seems to have become totally independent in a practical sense, although he still technically acknowledged the sovereignty of the Seleucid king, since he was issuing his own coin type with 'thundering Zeus' reverse by 250/245 but continued to place the name of Antiochos on the coinage (6, 21). After a period of joint rule as satrap or as king, Diodotos II succeeded his father and was king until about 220 BC. There has been some recent, convincing evidence of this dating (6, 7), although some experts take earlier dates such as 256-230 BC for the Diodotids. With the Diodotids we have the creation of a new, independent, eastern Greek kingdom and coinage, in the region of Afghanistan. The new, Bactrian silver coinage consisted of Attic-weight tetradrachms and fractions with the portraits of Diodotos (I or II) on the obverse and the standing figure of 'Thundering Zeus' on the reverse. This figure of Zeus is not found on the Seleucid coinage and is a Bactrian innovation and emblem, which is found again on some later Bactrian coinage.

If one accepts this dating, by about 220 BC Diodotos II was overthrown by a usurper called Euthydemos, signalling the start of a new, Bactrian dynasty. The portraits on his relatively abundant coinage show a clear progression from a young man to an old man. The reverse of the coins, showing a seated Herakles, also shows an evolution in the design (1, 12, 16). Euthydemos must, therefore, have had a long reign, ageing from a man who looks just in his thirties to a man well into his sixties (or even his seventies). Euthydemos I, therefore, probably reigned from c. 220 to 185 BC, giving him a reign of about 35 years. Fortunately, he is mentioned in the ancient sources when the Seleucid monarch Antiochos III tried to eliminate Euthydemos and regain his lost provinces. Some events of this war are recorded and we know the dates it occurred (208-206 BC), so we do have some fixed chronological points here confirming that Euthydemos I and Demetrios I were in power at this time. Demetrios I, the son of Euthydemos I, was described as a youth in the sources (9), i.e. a teenager, at the time of his meeting with Antiochos III at the end of this war (206 BC). Demetrios I succeeded Euthydemos as king of Bactria, and at some later time there was a violent revolt by a usurper called Eukratides. Eukratides was finally succeeded by Eukratides II (possibly a son) and Heliokles I, probably the last Greek ruler of Bactria. One important Bactrian event involves this usurpation by Eukratides I and a king Demetrios, mentioned by the ancient historian Justin (9). There appear to have been three different kings named Demetrios that we know of from the coinage (1, 2, 3, 10, 18, 19), so the question is which one of these was the king fighting against Eukratides for the throne? There were also two kings called Eukratides that we know from the coinage, but it is generally accepted that it was the first of these (Eukratides I, the Great, the usurper) that fought against Demetrios. The main obstacle to solving this question has been the different, proposed chronologies of these kings and different interpretations of the coinage, which has led to two different, current proposals as to the identity of Demetrios. This question will be examined again here, together with some implications for Bactrian chronology.

Demetrios I, the son and successor of Euthydemos, has given experts some problems, as mentioned above. In particular, some doubt that he was the Demetrios who fought against Eukratides I, as mentioned in the ancient sources, or even that he was the conqueror and 'king of the Indians' mentioned in the ancient sources (9), despite being shown wearing an elephant scalp on his coins. While some favour Demetrios I (5, 6, 17, 18, 19, 20, 23), others propose Demetrios II as the king of India who battled with Eukratides for the throne (1, 2) or propose a third Demetrios (10). The proposal that it is the third Demetrios can be rejected, as the very rare coins of Demetrios III have been shown to be much later (1) than Eukratides I. The rejection of Demetrios I as the king who fought against Eukratides seems to be based largely on the (relative) numbers of coins in the great Qunduz hoard (10), apparently showing that Demetrios I is from 'an earlier generation than Eukratides I'. The actual numbers of coins of each of the relevant kings in the Qunduz hoard are; 12 Euthydemos I, 8 Demetrios I, 5 Euthydemos II, 3 Agathokles, 14 Antimachos I, 147 Eukratides I, 130 Eukratides II, 50 Demetrios II and 221 Heliokles I. Since there are only 8 coins of Demetrios I compared to 147 of Eukratides I, it could be argued that Demetrios I was much earlier. However, this does not take into account whether the coins of Eukratides I are the early or late types and also does not consider the coins of other, later, kings such as Euthydemos II (5 coins), Agathokles (only 3 coins) and Antimachos I (14 coins). These three kings are later than Demetrios I but are also only present in small numbers. Since there are only 12 coins of Euthydemos I, while these are normally much more common, it could show some bias in this hoard to the later Eukratides and post-Eukratides coins. It is still possible that Demetrios I was the king (or one of the kings) immediately preceding Eukratides I, whether or not Demetrios I was from 'an earlier generation'. Actually he could literally have been from the previous

generation, if Demetrios I was in his late 40's and Eukratides I in his late 20's or about 30, and this does not seem to rule him out. In fact there is one other curiosity of this hoard; the large number of coins of the normally rare Demetrios II supports the idea that he was contemporary with Eukratides II and Heliokles I, during the later or post-Eukratides I period, rather than with the start of Eukratides I. We, therefore, should not dismiss Demetrios I as a candidate and are thus faced with making a choice between Demetrios I and Demetrios II.

Another argument is based on an analysis of the coins themselves and on different interpretations of the existing literature, supposedly showing that the king in question was 'without doubt Demetrios II' (1). Specifically this seems to be based on the types of border found on the coins of Demetrios II, since they have both the dotted and bead/reel borders they must have been minted during the transition between the pre-Eukratides I period (dotted borders) and the Eukratides I period (bead/reel borders). However, many coins of Demetrios I also have the bead/reel border (see illustration, below) instead of the more usual dotted borders, so this argument can be applied to Demetrios I (some rare coins even have the bead/reel border on both sides, eg. coin 813 in the CNG sale 53, March 2000).



Tetradrachm of Demetrios I with bead/reel border on obverse (CNG 698)

Even some coins of Euthydemos I also have the bead/reel border, eg. coin 743 in CNG 47, Sept. 1998; coin 812 in CNG 55 Sept 2000; coin 711 in CNG 57, April 2001, so this transition is not clear-cut. This new bead/reel border could of course have been introduced into Bactria by Antiochos III, before Eukratides. An additional argument used to justify Demetrios II is the style of the diadem ends in conjunction with the type of border. It is argued (1) that the dotted border is earlier and always found with one style of diadem (right strand straight down and the left wavy), while the bead/reel border is always found with the other diadem style of Demetrios II (right strand down and left bent near the top and then down). The argument goes that this again shows a transition of diadem styles from pre-Eukratides I to that of Eukratides I. This is not totally convincing because the diadems on the coins of Eukratides II and Heliokles I both show a close similarity to these two diadem styles of Demetrios II, as shown below. Also the first of these styles (right strand straight and left wavy) is not similar to the pre-Eukratides I diadem style. Moreover the dotted border is not always found with the first style of diadem, for example coin no. 849 in the CNG sale 53 (March 2000) and coin no. 1112 in the CNG sale 60 (March 2002) both show the second diadem style with a dotted border (both illustrated).





Two tetradrachms of Demetrios II with dotted border obverses and second diadem (CNG 849, 1112)

Therefore, only the dotted type of border, linking Demetrios II to the pre-Eukratides I period, remains to be explained and this was in fact still being used on some silver drachms and smaller fractions of Eukratides I and on the drachms of Eukratides II. Since the dotted border was still known and used on the silver coinage, it is possible that a mint could still use it on some tetradrachm coins as well as the drachms and does not seem to exclude the possibility that Demetrios II was actually later. These points will be examined in more detail below. The remaining argument based on the ancient literature, claiming Demetrios I as the 'king of the Indians' and also claiming Demetrios II as 'king of the Indians' appears open to various interpretations or speculation and will not be considered further here.

An examination of the coins can offer further clues. The silver tetradrachm coinage of Eukratides I can be divided into two types issued in two periods, the first type have the diademed portrait and the simple two line ΒΑΣΙΛΕΩΣ ΕΥΚΡΑΤΙΔΟΥ inscription and are earlier than the second type with the helmeted bust and the ΒΑΣΙΛΕΩΣ ΜΕΓΑΛΟΥ ΕΥΚΡΑΤΙΔΟΥ inscription (1). All of the tetradrachms of Eukratides I have the bead/reel border. As mentioned above, some of the silver tetradrachm coins of Demetrios I also have the new style bead/reel border, like all the tetradrachms of Eukratides, suggesting that this new border was being introduced by Demetrios I (and then copied by Eukratides or copied from Eukratides by Demetrios). These early examples of the bead/reel border on the Bactrian coinage suggest a connection between the coinage of Demetrios I and Eukratides I, but can not be conclusive without further evidence. Such differences in style may simply be explained as variations between mints or different die-engravers. As well as the style, the fabric of the flans of the coins (usually being broader and thinner) and the monograms of Demetrios I fit with the early coins of Eukratides I much better than they do with the coins of Demetrios II. The silver tetradrachms of Demetrios II have the standing Athena reverse type and show a diademed portrait of the king. The style of the obverse and the reverse is quite different from the coins of Demetrios I and the facial features of the portrait are different (and never show the king wearing the elephant scalp). For Demetrios II, the engraving style is also quite different compared to the earlier coins of Eukratides I, generally being inferior with cruder portraits having cruder hair, facial features, drapery and wider diadems. The way the drapery is held (pinned) at the shoulder is also generally different from the style of (early) Eukratides I. Also the sweep of the drapery from the shoulder to under the chin on Demetrios II is in the large continuous 'S' shape characteristic of Eukratides II and Heliokles I. The reverse type standing Athena is also generally cruder, often compressed or shortened, reminiscent of the style of the Apollo on Eukratides II and the Zeus on Heliokles I. Thus the appearance of the coins of Demetrios II fits better into the progression of Bactrian coins after Eukratides I and suggests a later date (late Eukratides I or after Eukratides I, possibly c. 145 BC).

More evidence from the coinage of Demetrios II can be found. Many (but not all) of his tetradrachm coins have the bead/reel border, as found on the coins of Eukratides I and II and Heliokles, while the fractions have dotted borders, as do the coins of Eukratides II (and some of Eukratides I). In fact the same mint (with the same monogram) issued tetradrachm coins of Demetrios II with the dotted and also the bead/reel border as well as both of the diadem style types. While this can be used to strengthen the case, it can not be conclusive evidence on its own. The style and fabric belong to the period of Heliokles or the end of Eukratides I, not the beginning, and the portraits show more similarities with those of Heliokles I and even the arrangement of the ends of the diadem found on Demetrios II are very similar to Eukratides II and Heliokles I, but different from Eukratides I or his predecessors. The style of the ends of the diadem on the king's portrait on the silver tetradrachms has sometimes been used as a reference point to order the coin series (1, 12, 18). The main styles are shown below;

Table 1 DIADEMS

Diodotos I/II	
Euthydemos I	and (rare)
Demetrios I	and (rare)
Euthydemos II	
Agathokles/Pantaleon	
Antimachos I	and
Eukratides I (early)	and
Eukratides I (late)	and (rare)
Eukratides II	and
Demetrios II	and
Heliokles I	and and and and

Comparing the diadem styles does seem to give ordered groups of kings, and the ends of the diadem show a progression from Euthydemos I and Demetrios I (both having very similar styles and similar to those of Diodotos I and II) with one straight down and the second wavy end coming out to the left. There is also another, rare, style of Demetrios I with both ends wavy, rather like Antimachos I and Agathokles. Then Euthydemos II, Pantaleon and Agathokles form a group with similar style, both diadem ends being wavy, and indeed their coinage shows a great, general similarity. Then Antimachos I (and the very rare tetradrachms of Apollodotos I) has similar styles, with both ends wavy, and a common type with the right-hand strip going straight down while the left strip is twisted but straight down alongside the other. Eukratides I (early) continues to have the right strip straight down, while the left has a very slight bend or twist near the top, or another rare style has the left strip folded up to the left near the

bottom. The style common on the later coins has both of the strips simply going straight down without the twist, while a rare, later style has the left strip wavy. The diadem on the coins with 'heroic bust seen from behind' is not comparable and not included here. Eukratides II also has the right strip straight down and the left bent near the top, like Eukratides I, although the bend or twist is more pronounced and the diadem usually wider, and another style with the left strip wavy. Like Eukratides II, Demetrios II has these same two styles and the diadems look similar to Eukratides II with the more pronounced bend/twist in the left strip.

and also another style with both strips quite wavy. Again, an examination of the diadem styles suggests that Demetrios II fits better into the sequence around the time of Eukratides II, rather than at the start of the reign of Eukratides I, but as mentioned above, this is also not conclusive without further evidence.



Tetradrachm of Demetrios II showing common diadem style – see text (CNG 958)



Two tetradrachms of Eukratides II showing common diadem styles; cf Demetrios II and see text (CNG 875, 877)



Tetradrachm of Heliokles I showing common diadem style (CNG 994)

There is evidence from the 'mint marks' or monograms on the coins of Demetrios II. The monograms often follow a clear sequence which can be used to elucidate the sequence of kings, as has been done for Eukratides I and Menander (1, 17) and for the later Indo-Greek kings (11, 1). For example, the R monogram, introduced by Euthydemos I, is passed from Euthydemos I to Demetrios I, then to Eukratides I (and also Agathokles, Euthydemos II and Antimachos I). Demetrios I introduced the A monogram, which passed to the coins of Eukratides I (and Agathokles and Euthydemos II). The monograms are discussed in more detail below, but basically the earlier (pre- MEΓAΛOY) coins of Eukratides share or inherit none of the monograms of Demetrios II, while there is at least one common monogram from the later coins of Eukratides I. Thus it is not easy to fit the monograms of Demetrios II into the period at the beginning of Eukratides I. There are also at least two other examples of similar monograms of Demetrios II that are found on coins of Heliokles I and Eukratides II, but not on Eukratides I. A description of the relevant monograms on the silver tetradrachms is given below

Finally, Heliokles I has similar styles with the right strip straight down and the left either bent or wavy to a greater or lesser degree

Table 2

MONOGRAMS

Demetrios I	R R A	A	W	W	W	W	W
Euthydemos II	R	A	W	W	W	W	W
Eukratides I(early)	R	A	W	W	W	W	W
Eukratides I(late)	R R A	A	W	W	W	W	W
Eukratides II			W	W	W	W	W
Demetrios II			W	W	W	W	W
Heliokles I		A	W	W	W	W	W

An examination of these monograms again suggests a closer connection in time between the coins of Demetrios II and the period of the later coinage of Eukratides I or the period after Eukratides I, during the reign of Heliokles I and Eukratides II. In fact Demetrios II seems to fit best in the period of Eukratides II and Heliokles I, despite having one monogram (Ϟ) in common with Demetrios I. This monogram is not used on the early coins of Eukratides I, and as it appears on coins of Euthydemos II it is not easy to explain why it should appear on such different coins as those of Demetrios II at around the same time or just after, as postulated by some. This monogram may be an example of a 'throwback', the re-use of an older monogram, as occurs with the re-use of another monogram (Ϲ) of Demetrios I by Heliokles I. However, the Ϟ and Ϟ monograms differ only in the slant of the cross-bar of the A. Thus the Ϟ monogram which appears on the Demetrios I coinage could be a variant of the Ϟ appearing on the later Eukratides I coins, since Ϟ also appeared on the coinage of Euthydemos I. This could thus have been passed on to Demetrios I and then to Eukratides I and later to Demetrios II and Heliokles I. The full sequence could then be Euthydemos I (Ϟ), Demetrios I (Ϟ), Euthydemos II (Ϟ), Eukratides I (late) (Ϟ), Demetrios II (Ϟ and Ϟ) and Heliokles I (Ϟ and Ϟ). Note that the (variant) monogram with the slanted cross-bar appears on both Demetrios II and Heliokles I. There are also two other relevant monograms. The (ϡ) monogram is shared by Eukratides II and Demetrios II. This could of course be a variant of the ϡ monogram of Eukratides I, but only appears in this form (ϡ) without the A cross-bar on the coins of Eukratides II and Demetrios II. The other monogram is ϡ, which could be a variant of ϡ, again simply missing the cross-bar, and appears on the coins of Demetrios II (ϡ and ϡ) and Heliokles I (ϡ), sometimes with the top of the A touching the top of the Π and sometimes not. Since all the monograms of Demetrios II are similar to some extent, being an A with or without the cross-bar inside a Π or H, they may all be variants of one or two basic monograms and may have been produced at only one mint. This suggests that the 'kingdom' of Demetrios II was quite restricted and was unlikely to have included 'Indian' areas in the south as well as Bactrian, but was likely to have been purely Bactrian, as was the realm of Heliokles I.

The known overstrikes, so far, do not help us in placing Demetrios II relative to Eukratides I since none involve Demetrios II. The known overstrikes have been reviewed (22, 24) and involve Eukratides (posthumous) on Apollodotos and Heliokles I on the Seleucid Demetrios II and thus do not shed light on the succession of Eukratides in Bactria. The die-axis of the coins (1) does not help us in placing Demetrios II, since, after Euthydemos I, all the silver coins tend to have the same die axis orientation, ↑↑.

Finally the coin weights could be considered in order to get some indication of where Demetrios II should be placed in the Bactrian coin series. However, only two series of coins are known for Demetrios II, the silver tetradrachms and the drachms, so this is of limited use since these are all based on the Attic weight standard and the exact weight of the silver coinage could depend on several different factors. There does, however, seem to be a decreasing trend in the weights of the Bactrian silver tetradrachms after Euthydemos I, particularly after Eukratides I, similar to the decline in the weights of the Seleucid coins, from c.200 to 130 BC. Some weights have been measured of examples of the least worn coins in EF or near EF condition, to avoid loss of weight due to wear, for the kings from Euthydemos I to Heliokles I, and coins in GVF or EF condition for Demetrios II. The weights of coins of Euthydemos I, Demetrios I and Euthydemos II are usually about 16.95 to 16.8 g and those of Agathokles are about 16.8 g. Those of Antimachos I are about 16.9 to 16.7 g and Eukratides I (early coins) are 16.9 to 16.8 g while the later (helmeted bust) Eukratides I coins are about 16.8 to 16.6 g. Coins of Eukratides II are about 16.7 g and Demetrios II are about 16.6 to 16.5 g.

Finally, those of Heliokles I are about 16.7 to 16.4 g. Thus the earlier coins do seem to be closer to 17 g than the later. These are average weights, mainly taken from sales catalogues. The most that can be said about the average weight of the tetradrachms of Demetrios II is that it is consistent with the period at the end of or after Eukratides I, being well below the Attic standard of about 17 g, although this 'debasement' could depend on other factors such as the availability of silver and alloying with other metals. An accurate analysis of the metal of the coins could be more helpful.

The points considered above, particularly the monograms, suggest that Demetrios II was contemporary with the successors of Eukratides I. It is supported by the absence of any coins of Demetrios II (or Eukratides II or Heliokles I) in the hoards or stray finds from the city of Ai Khanoum (13, 14, 15). Since Eukratides I (late type) is the last king represented by the coins from the excavations, Demetrios II and the others do appear to be later. Furthermore, Demetrios II issued only Attic-weight silver tetradrachms and drachms, just as Eukratides II and Heliokles, and since his coins are quite scarce he must have had only a short reign. Thus the rather mysterious Demetrios II does not appear to be the same Demetrios who fought against Eukratides I at the beginning of his reign. He has no known 'Indian' type coinage and so was not the 'king of the Indians' described in the sources and all the monograms (mint marks) of Demetrios II appear to be Bactrian since his coins are found in Bactria and are similar to the purely Bactrian monograms of Eukratides II and Heliokles I discussed above. Rather than being a king of the 'Indian areas', Demetrios II seems to have been a rather minor Bactrian ruler.

The possible identity of Demetrios II may be relevant. If Demetrios II was an earlier king, and was fighting Eukratides I at the beginning of his reign (175/170 BC) then who was he? Euthydemos II seems too young to have had a son and Demetrios II seems to be too old at that time to be his son in any case. Demetrios II would then have to be another (non-direct) descendant, not a 'grandson of Demetrios I' (18, 20) or he could possibly be a younger son of Demetrios I (if he was related at all; simply having the rather common name Demetrios does not mean he was a Euthydemid). However, if he was a younger son (brother of Euthydemos II), then it seems odd that there is no coinage for Demetrios II similar to (and contemporary with) Agathokles. The coins of Demetrios II are completely different in style and type from those of Euthydemos II and share no monograms with Agathokles. If, on the other hand, he was later, as proposed, it may be easier to answer the question of who Demetrios II was – a son of Eukratides I or a son of Heliokles I. Or perhaps even a (non-direct?) descendant of the Euthydemids. Perhaps a son of Apollodotos I, as both have Athena as their silver reverse types, as has been noted in ref. 11 (which also makes him a later king), being a seated Athena on the silver tetradrachms of Apollodotos I and standing Athena on Demetrios II. However, the use of reverse types to connect members of dynasties is sometimes inconclusive without more evidence, for example the Athena of Demetrios II may have nothing to do with Apollodotos I, since a similar reverse occurs on the Seleucid tetradrachm coinage in the period around 150 to 140 BC. Curiously, the standing Apollo reverse type of Eukratides II as well as the rarer, seated Zeus type of Heliokles are also similar to the Seleucid silver coinage of this period (150 to 140 BC). These reverses may have been copied from the Seleucid coinage by the last Bactrian kings (perhaps in an attempt to rally support or to pay Greek mercenaries with familiar types). While there may be clues in the silver coin types as to the origins of the coinage and even family relationships, like those of father and son, these seem tenuous. Menander and his successors used a slightly different standing Athena reverse harking back to the older Macedonian coinage (like the tetradrachms of Antigonos Gonatas). More work, such as die studies and metal analyses of the silver coins, may throw some light on these relationships and on the mints issuing the coins.

Here Demetrios II is rejected, and Demetrios I is accepted as the same king who conquered Indian territory (to the south and east of Bactria) and fought against the usurpation of Eukratides I as mentioned in Justin. Demetrios II is taken to be a later king. On this basis it is necessary to make Eukratides I converge with Demetrios I, at some time around 175 or 170 BC. It is possible to justify this chronology in terms of the time spans involved, if the low dates for Diodotos I and II are taken (down to c. 220 BC), then Demetrios I would have been still in his forties when Eukratides rebelled. If we start from the reference to Demetrios being a teenager around 208/6 BC, then he would have been in his late 30's in 185 BC (death of Euthydemus I) and late 40's in c.175 BC (usurpation of Eukratides). Moreover, he would have been in his twenties or about 30 years old in the 190s BC when he could have been conquering the new Indian territories, because the old Mauryan Empire was collapsing at this time. Demetrios I would still have been a joint ruler with his ageing father in the 190's and could have completed these conquests by 185 BC or before his father died. One possible alternative would be that the ancient sources were not referring to Demetrios I and Eukratides I, if Demetrios I was in fact earlier than Eukratides I, but were actually referring to a conflict between the later Bactrian kings Eukratides II and Demetrios II. It is of course possible that there was a conflict between these later kings, as they do seem to be contemporary, but if the sources were meant to refer to these later kings it would imply a considerable degree of confusion in the ancient texts. We will proceed on the basis that the texts do refer to Eukratides I and therefore also Demetrios I. The (sole) reign of Demetrios I could then have been from c.185 to c.175 (or 171).

The later coinage of Euthydemus I, the coinage of Demetrios I, the earlier coinage of Agathokles and Antimachos I and the coins of Euthydemus II rank as some of the best masterpieces of Greek coinage art. The best coins do seem to be very realistic, so it does really seem possible to tell the age of the kings from the portraits. For example, the later coins of Euthydemus I show an old man, which is surely realistic and not an idealisation, just as all the coins of Euthydemus II show a young boy. The later coins in Bactria show some decline in their portraiture and general quality, such as the coins of Heliokles I, Demetrios II and the later coins of Eukratides I. The portraits on the coinage of Demetrios I show the king ageing a little, but not as much as Euthydemus I, and he is usually shown as mature, nearing middle-age, perhaps in his late thirties or forties. There are also tetradrachm coins with the same types showing a significantly younger (and recognisably slightly smaller) portrait, having the first monogram shown above. These could have been the first coins minted by Demetrios after his conquests in the south, probably minted during his joint rule with Euthydemus I. The coins are consistent with a (sole) reign of around 10 years, which could also be guessed from the numbers of his coins, being far less than those of his father. With Demetrios back in Bactria from about 185 BC, he was issuing silver coins that throughout his reign always show him wearing the elephant scalp on his head, symbolising his conquest of Indian territory, although they are issued in Bactria (with Bactrian mint marks). This is consistent with his having conquered the territory before ascending the throne and before issuing his own coinage. It is useful to divide the new 'greater Bactrian' kingdom into 4 or 5 separate geographic areas, which is dictated on the ground by the mountain ranges and rivers of the region. To the north of the Oxus river there is Sogdiana, held by the earlier Bactrian kings but most likely lost by the time of Eukratides I. Then there are the 'Indian' lands; to the south there is Arachosia and below the Hindu Kush mountains the Paropamisadae (Kabul valley). To the east there is Gandhara and then over the Indus river there is the Punjab. Demetrios I may have annexed the areas to the south and the east, as far as Taxila in the Punjab. His coins support this by showing two new mint marks, perhaps associated with two new mints. The main one (Ϡ) is possibly in the south (it may be Demetrias, founded by Demetrios I in Arachosia) and the second (Ϟ) could

be either a variant of Ϟ in Bactria (or a new mint mark, perhaps in Gandhara). Both of these mint marks are passed to his successors and while the first ends with Eukratides, the second mint mark continues on to later kings ruling in the east.

If the chronological connection between Demetrios I and Eukratides I is correct then we still have to fit several other Bactrian kings into the period of the end of Demetrios I and the early reign of Eukratides I. These five kings are Euthydemus II, Pantaleon, Agathokles, Antimachos I and Apollodotos I, although the chronological sequence of the reigns is an intricate puzzle and there is no general agreement about the dates. The chronology of the kings is also intimately connected to the geographical areas they ruled, so it is possible to have different kings ruling in different areas at the same time, for example in the 'Indian' areas to the south and east and in Bactria proper. All of these kings could therefore be accommodated in a fairly short time span. If the chronology is roughly correct so far, then we can see if these kings can be fitted into this period using their corresponding and rather approximate time spans. We have only some very rough dates or clues given by the ancient historians and some hints from other ancient sources. For example we are told that Eukratides started his reign at 'about the same time as the Parthian king Mithradates I' (9), normally taken as 171 BC. This is the best 'fixed date' we have in the sources for his reign, and it is not precise. What actual date is 'nearly' or 'about' 171? Clearly it does not mean exactly the same date as Mithradates (171 BC) and could be nearer 175 or 165. Here we will take the date as approximately 175 for the start of Eukratides' rebellion, hopefully accurate to the nearest five years or so. Another clue is that Eukratides' reign was most probably at least 24 years long, based on an inscription found at the excavation of the Greek city of Ai Khanoum in northern Afghanistan (14). This mentions the 24th year of some (unnamed) king and is generally taken to refer to Eukratides I and the city is also generally taken to have been destroyed towards the end of his reign. So we could take his reign to be between about 175 and 145 BC (give or take 5 to 10 years with all of these dates).

It would have taken Eukratides I several years to conquer Bactria, given the difficult terrain and fortified cities. Antiochos III (the 'Great') had spent two years unsuccessfully besieging the capital, Bactra. The Greeks had built many more fortified cities in Bactria since their arrival, so many difficult sieges could have been needed. Eukratides first eliminated Demetrios I, but then Agathokles stepped into Bactria (presumably from the Punjab, Taxila area, where Pantaleon had also reigned), probably fighting against Eukratides and supporting Euthydemus II, the son of Demetrios I. Although Euthydemus II, or a son of Demetrios I, is not mentioned in the sources, Demetrios I could have had a son (16, 18) and his name could have been Euthydemus like his grandfather, Euthydemus I. Euthydemus II had only a very short reign (perhaps just a few years after about 175 BC), because his coins are scarce, as well as always showing him at the same very young age. Since the coin portraits all show Euthydemus II as a very young boy, he is hardly old enough to be a king with real power of his own. So Agathokles could have been acting as regent for the boy for a few years after about 175/4 BC (perhaps c. 174 to 170). This could explain why he legitimately minted coinage that was very similar to the coinage of Euthydemus II, sharing the same mints (mint marks) and types, and why his own coinage was issued from the same Bactrian mints. The coins of Agathokles are about as scarce as those of Euthydemus II, so it is likely that his reign was also fairly short, perhaps down to c. 170 BC. Another possible clue comes from the later Bactrian silver coinage of Agathokles, which shows the addition of the title ΔΙΚΑΙΟΥ (the 'Just') to his name on the reverse, a title that would be appropriate if he was fighting the *usurper* Eukratides. Alternatively it could have been in response to the appearance of another king, Antimachos I, at about the same time.

Antimachos I (c. 174 to 168 BC) probably ruled in the south (Paropamisadae and Arachosia) and over parts of Bactria as well,

because he has at least one southern mint mark (ϕ) and issued square 'Indian' coin types in bronze. While the early coins of Eukratides I share or 'inherit' most of the mint marks of Agathokles/Euthydemos II, presumably as their successor in Bactria, the picture is not so clear for Antimachos I. It thus appears that the mints of Agathokles and Euthydemos were taken over by Eukratides I fairly early in his reign, presumably with their defeat in Bactria. Antimachos shares only one major mint mark (Ϟ) with Agathokles and the early Eukratides I on the silver tetradrachms, so he may have ruled over different areas of Bactria at the same time as Agathokles/Euthydemos II and also Eukratides I. There is good reason to think that the reigns of Antimachos I and Agathokles overlapped because they both issued the famous 'commemorative' coins. Perhaps they were allies against Eukratides I rather than rivals. Antimachos I may also have reigned for longer than Agathokles, perhaps being the last rival to Eukratides I in Bactria, as his coins are more common than those of Agathokles and Euthydemos II. The dates for Antimachos I could therefore have been c.174 to 168 BC, after Demetrios I and during the first few years of Eukratides I and are close to the dates proposed in ref. (8). Antimachos I was then either killed or pushed south into his 'Indian' territories where he was probably succeeded by his son, Antimachos II (c. 168 to 165 BC), who could well be the Antimachos (son of Antimachos I) mentioned in the tax receipt parchment from Bactria (8). The final king during this period is Apollodotos I (perhaps c. 174 or 175 to 166 BC). Except for the very rare Attic tetradrachm mentioned previously, he issued 'Indian' type coinage, and seems to have ruled in the eastern 'Indian' areas of Gandhara and the Punjab.

The very rare tetradrachms have the same mint mark (ϕ), possibly in the Kabul area) as one of the main mint marks of Antimachos I mentioned above, and even shows Apollodotos I wearing the kausia (like Antimachos I) but has the bead/reel border (like Eukratides I). It may therefore have been minted just after the reign of Antimachos I, while Apollodotos, taking advantage of the death or defeat of Antimachos I, briefly held the area and the mint. Antimachos II then seems to have prevailed over Apollodotos I and took over his territory in the east, as their coins are often found together in hoards. All five kings (Euthydemos II, Pantaleon, Agathokles, Antimachos I and Apollodotos I) have now been accounted for, in the span of only a few years into the reign of Eukratides I in Bactria. Finally Eukratides I, perhaps after 5 years or more, conquered the whole of Bactria, probably by c.168 BC if the previous dating has been correct. But not satisfied with this, he soon turned his attention south to the 'Indian' territories, now controlled by the successor of Antimachos II, king Menander. Eukratides I minted Attic-weight coins in the Hellenised areas south of the Hindu Kush (tetradrachms and the famous 20-stater gold piece), as had Antimachos I and also Apollodotos I and Menander with their rare tetradrachms.

The ancient historians tell us that Eukratides I was killed while 'returning from campaign' in the Indian areas, by his son, presumably in about 145 BC or slightly earlier, remembering that even these dates for Eukratides I are approximate. Eukratides I probably had at least two sons, Heliokles I, Eukratides II (and maybe also Plato and possibly even Demetrios II). Either could have murdered him, as unfortunately the name of the patricide is not given in the sources (9). As we have seen, the coins of Heliokles I, Eukratides II, Plato and even Demetrios II, all appear to be contemporary and share several mint marks with each other or with the later coins of Eukratides I. Moreover the coin portraits of Eukratides I and II and Plato bear striking similarities, as do many of Eukratides II and Heliokles and even some of Eukratides II and Demetrios II. They probably all ruled in Bactria as the successors of Eukratides I, from about 145 BC. The coins of Plato and Demetrios II are the scarcest and they probably had the shortest reigns, while Eukratides II had an appreciable reign but the longest was Heliokles I. They could of course have been

fighting each other for the succession, but there was now another common enemy in Bactria, the Scythians (and possibly Yueh-Chi), nomadic tribes that had begun to invade from Sogdiana in the north. The sons and successors of Eukratides I in Bactria must have been involved in trying to fight them off and in defending their kingdom, but it was overrun by c. 130/129 BC, which marks the end of Heliokles, the last Greek king in Bactria.

Table 3
Kings in Bactria with approximate dates

	bc
Diodotos I and II	c.250 – 221
Euthydemos I	c.220 – 185
Demetrios I	c.185 – 175
Euthydemos II	c.175
Agathokles/Antimachos	c.175 – 170
Eukratides I	175 – 145
Eukratides II	145 – 140
Demetrios II	c.145/140
Heliokles I	145 – 130

Table 4
Kings in the *Indian areas* with approximate dates

	bc
Demetrios I	c.190 – 185
Pantaleon	c.185/180
Agathokles	c.180 – 175
Apollodotos I	c.174 – 166
Antimachos I	174 – 168
Antimachos II	c.168 – 165
Eukratides I	c.163 – 150
Menander	c.165 – c.135

References

- 1] Bopparachchi, Osmund, *Monnaies Greco-Bactriennes et Indogrecques*, (in French) Bibliotheque National Paris, 1991
- 2] Bopparachchi, Osmund, *Indo-Greek, Indo-Scythian and Indo-Parthian coins in the Smithsonian Institution*, Smithsonian Inst. Publications Washington DC, 1993
- 3] Mitchiner, M. *Oriental Coins and their Values; the Ancient and Classical World 600BC - AD 650*, London, 1978
- 4] Lahiri, A.N. *Corpus of Indo-Greek coins*, Calcutta, 1965
- 5] Narain, A.K. *The Indo-Greeks*, Oxford, 1957
- 6] Holt, Frank, *Thundering Zeus*, University of California Press, 1999
- 7] Lerner, Jeffrey, "The Impact of Seleucid decline on the Eastern Iranian Plateau", *Historia*, Stuttgart, 1999
- 8] Rea, J.R.; Senior, R.C.; Hollis, A.S., "A Tax Receipt from Hellenistic Bactria", *Zeitschrift für Papyrologie und Epigraphik*, (in English) Vol. 4, 1994
- 9] Justin, M. *Iuniani Iustini. Epitoma Historiarum Philippiarum Pompei Trogi. Accedunt Prologi in Pompeium Trogum*, ed. O. Seel, Stuttgart, 1985
- 10] Kraay, C. M. "Demetrius in Bactria and India", *Numismatic Digest*, vol. 9, 1985
- 11] Senior, R. C., Macdonald, D. *The Decline of the Indo-Greeks*, Hellenic Numismatic Soc. Athens, 1998
- 12] Dobbins, K.W. "The Sequence of Bactrian Coins", *Numismatic Digest*, vol. 9, 1978
- 13] Petitot-Biehler, C.Y. "Trésor de Monnaies Grecques et Gréco-Bactriennes Trouvé à Ai Khanoum", *Revue Numismatique*, 1975 p 23-57
- 14] Bernard, P. "Note sur la Signification Historique du Trésor d'Ai Khanoum", *Revue Numismatique*, 1975
- 15] Holt, Frank L. "The Euthydemid coinage of Bactria; Further Hoard Evidence from Ai Khanoum", *Revue Numismatique*, 1982
- 16] Holt, Frank L. "Did King Euthydemus II Really Exist?" *The Numismatic Chronicle*, Vol. 160, 2000

- 17] Bivar, A.D.H. "The Sequence of Menander's Drachmae", *Journal of the Royal Asiatic Society*, 1970, pp.123-136
- 18] Macdonald, G., in Rapson, E. (Ed.), *The Cambridge History of India*, Cambridge, 1922, pp.448-451
- 19] Dodwell, H.H. (Ed.), *The Cambridge Shorter History of India*, Cambridge, 1934
- 20] Tarn, W.W., *The Greeks in Bactria and India*, Ed. By F.L. Holt, Chicago, 1985
- 21] Boppearachchi, Osmund, "Thundering Zeus Revisited", *ONS Newsletter*, 169, 2001
- 22] Boppearachchi, Osmund, "Monnaies Indo-Grecques Surfrappées", *Revue Numismatique*, 1989 pp51-55
- 23] Cunningham, A., *Coins of Alexander's Successors in the East*, London 1884, reprint Chicago 1969
- 24] Boppearachchi, O., Rahman, A. ur, *Pre-Kushana Coins in Pakistan*, IRM associates, Karachi, 1995

Dating King Menander Relative to Eukratides I

By L.M. Wilson

Many authors have recognised that the long-standing chronological problem of the dating of the reign of King Menander I (Soter) depends on how it can be linked to the reign of King Eukratides I. Some older authors (8, 9, 10, 12) favoured the earlier dates (from c.165/160 or earlier) but some more recent authors (1, 2, 3) have favoured later dates (from c.155 BC or later). A breakthrough was made with the recognition of the link between the change in legend arrangement on the coins of Eukratides I and Menander (7, 1, 2). This will be examined again in the light of the connection to coins of the Seleucid usurper, Timarchos, and the implications for the chronology discussed. Then a favoured date for the reign of Menander 'the King of the Indians' will be established relative to the reign of Eukratides I.

A great deal of information can be found in the coins of this period. The later coins of Eukratides I with the title ΜΕΓΑΛΟΥ show many new monograms, some from the southern 'Indian' areas controlled by Menander. The coins of Eukratides I and Menander both show a change in the legend and its arrangement (7, 1, 2). Also the types, particularly of Eukratides, change to depict the helmeted bust of the king. Using the types and monograms, it has been shown convincingly (7, 1, 2) that this change occurred after the conquest of the southern 'Indian' territory of Menander by Eukratides, who then gave himself the title ΜΕΓΑΛΟΥ (the Great), rather than being due to his victory in Bactria. The first coinage after this change appears to be in the south (from 'Alexandria in the Caucasus', Begram, because of the monogram) and includes the great 20-stater gold coin of Eukratides which shows evidence of the change of title. Interestingly in 162 BC the Seleucid usurper, Timarchos, gave himself the same title and even showed himself wearing a helmet and copied the same reverse type (galloping horsemen) of Eukratides. This connection with Timarchos has been used by several authors to date the change in coin types of Eukratides to some (short) time before 162 BC (8, 10). Timarchos most likely copied from Eukratides rather than the other way around, because his types are so similar to Eukratides' and Eukratides did not use the ΜΕΓΑΛΟΥ and helmet bust until later in his reign but did use the horsemen earlier. The great preponderance of Eukratides I coinage after the change compared to before it, means that the legend change occurred earlier in the reign of Eukratides I, rather than later, and it was actually before 162 BC. The relative scarcity of the pre-ΜΕΓΑΛΟΥ coinage is hard to explain in any other way. For example, it is unlikely that it was all withdrawn from circulation, which sometimes happened to the coins of other kings or rivals (it happened to Timarchos in the Seleucid empire). Then there is the great abundance of the ΜΕΓΑΛΟΥ coinage itself, often the most abundant coinage of all the Bactrian kings, which it seems could not have been struck in just a few years. So we are left with a short period of pre-ΜΕΓΑΛΟΥ issues and a longer period of ΜΕΓΑΛΟΥ issues in what was a fairly long reign. And of course this change must have been before 162 BC, if Timarchos

did the copying and not the other way round. Curiously, the Seleucid usurper, Tryphon, also chose the same reverse type for coinage minted in the name of Antiochos VI (145-142 BC), perhaps copied at the end of Eukratides' reign. Another possible piece of evidence from the coinage is that Menander's earlier issues (before the legend change) have the 'spearthruster' type on the silver drachms, which then seems to have been copied by Eukratides after his coinage change, appearing on his Attic tetradrachms. This coin type may support the idea that Eukratides adopted the ΜΕΓΑΛΟΥ title on his conquest of Menander's territory and symbolically announces this new 'spear-won territory'.

This change in the coinage of Eukratides I has serious consequences for the dating of Menander relative to Eukratides I (and therefore also for other kings of this period such as Antimachos II). As has been shown by many authors (see for example 1), the reign of Eukratides I began (5) around 175/170 and ended (6) around 145 BC. The relative numbers of his early and late coins are consistent with Eukratides I making a change to his coin types fairly early in his reign and before 162 BC, as discussed above, so it is likely to have been between c.170 and 162. For Menander, there are very few early issues before his legend layout changes, so the reign of Menander must have begun only a short time before the change. The meagre Indian sources only suggest that this was sometime before about 150 BC (3, 10, 11), by making some passing references to the Greek 'Yavana' invasion of India (by Menander) and also depending on the approximate dating of Pusyamitra. It must have been before 162 BC (when Timarchos copied Eukratides), assuming Menander changed the way his inscriptions were written on his coins because of the change made by Eukratides I. Therefore the start of Menander's reign could be put just a few years before 162, say from c.165 BC (or perhaps even earlier, since it had to start some time before 162 and after about 170). 165 BC is quite consistent with these dates and those recently given for Antimachos I (4). It is also roughly consistent with the usual dates of Apollodotos I, but not of Antimachos II; if Antimachos II ruled the southern and eastern 'Indian' areas (Arachosia etc.) for a few years he could have been succeeded by Menander in about 165.



Drachm of Antimachos II showing the arrangement of the inscription before the change made by Eukratides I (CNG 988)

From the coin evidence, Menander could only be later if the Timarchos connection is invalid or if Menander changed his coin types significantly later than Eukratides. This seems unlikely because the whole reason for Eukratides' change of the coinage was because he had just conquered Menander's territory.



Tetradrachm of Eukratides I showing the new inscription and helmeted bust (CNG 718)

Let us consider the situation if Menander had begun his reign later, according to his more commonly accepted dates, beginning in c.155 BC; then it would have been Antimachos I or II's territory. Furthermore the southern 'Indian' conquest by Eukratides would then have been (1, 2) in c.150 BC (accepting the connection of the coin types of Menander and Eukratides) leaving only about 5 years for the production of all the ΜΕΓΑΛΟΥ coinage, which is hard to explain. Alternatively it means that the legend change by Eukratides was before 162 BC (let us say possibly due to the final conquest of Bactria and accepting the Timarchos connection to the legend) but that Menander did not then change his coinage until c.150. This is again hard to explain – what happened for 15 years in between, why did the types not change in the south and why should Menander change his coin types later? A possible explanation would be that Eukratides waited for 15 years before invading the south in c.150, but this also ignores the evidence of the 20-stater gold coin of Eukratides which links the coinage change to the invasion of the south (1, 2). The most satisfactory explanation is that Menander did begin his reign in c.165, given the two important connections of Eukratides I to Timarchos and Menander to Eukratides. If these are correct then the dates for Menander could be put as early as from c.165 (and then presumably reigning until c.140/135 BC) and the reign of Antimachos II, the predecessor of Menander, also has to be put a few years earlier, to c.168/170 reigning until 165 BC (instead of c.160 until 155).

Menander issued almost exclusively 'Indian' weight-standard coinage; the silver drachms (like those of Antimachos II) are 2.45g and he also introduced a new tetradrachm denomination of 9.8g.



Indian tetradrachm of Menander showing the new inscription arrangement; cf. Eukratides, above. (CNG 885)

The change in Menander's inscriptions occurred on the drachms and also appeared on these new tetradrachms, with the legend running along the top and the bottom from left to right and he also introduced the helmeted bust on his own coins, imitating Eukratides. Menander's capital was probably Alexandria in the 'Caucasus', modern Begram near Kabul, which had also probably been the capital of Antimachos II. Eukratides I struck south and east, to conquer most of the territory of Menander, pushing him further to the east into the Punjab, to the region around Sacala (modern Sialkot), his new capital. Eukratides I then ruled the Indian areas of Arachosia, Paropamisadae including Begram, Gandhara and possibly some of the western Punjab. Eukratides I took Menander's monograms and territory (including the former territory of Apollodotos I in the east). But we do not know how long he controlled these new areas, particularly the eastern areas, and since his 'Indian' bilingual series of coins are quite scarce, it may not have been very long and his territory may have been shrinking (it is also possible that Menander withdrew or overstruck his rival's coinage). Menander had been busy invading India, all the way to modern Patna, when he lost most of his old territories (1, 2, 3, 10, 11), but presumably Menander would not have remained idle on his return and made efforts to regain his lost kingdom. Perhaps this is when he regained some of his territory and minted his coinage with the newly modified inscriptions and types. The war with Menander was probably only one of many conducted by Eukratides I (such as with the Parthians in the west, the nomads from the north and his own usurpation at the beginning of his reign), and may help to explain

the great numbers of his coins, particularly the later ΜΕΓΑΛΟΥ coinage. Menander died 'in military camp' after a fairly long reign and his successors continued to rule in the east for about 150 years. But Bactria itself did not have such a long future and Eukratides I was killed, 'while returning from campaign in the Indian areas' by his son (5).

Table 1.

Kings in the *Indian areas* (South and S-East of Bactria) with approximate dates

	BC
Apollodotos I	c.174 – 166
Antimachos I	174 – 168
Antimachos II	c.168 – 165
Eukratides I	c.163 – c.150
Menander	c.165 – c.135

References

- 1] Bopearachchi, Osmund, *Monnaies Gréco-Bactriennes et Indo-grecques*, (in French) Bibliothèque National Paris, 1991
- 2] Bopearachchi, Osmund, *Indo-Greek, Indo-Scythian and Indo-Parthian coins in the Smithsonian Institution*, Smithsonian Inst. Publications Washington DC, 1993
- 3] Narain, A.K. *The Indo-Greeks*, Oxford, 1957
- 4] Rea, J.R.; Senior, R.C.; Hollis, A.S., "A Tax Receipt from Hellenistic Bactria", *Zeitschrift für Papyrologie und Epigraphik*, (in English) Vol. 4, 1994
- 5] Justin, M. *Iuniani Iustini. Epitoma Historiarum Philipparum Pompei Trogi. Accedunt Prologi in Pompeium Trogum*, ed. O. Seel, Stuttgart, 1985
- 6] Bernard, P. "Note sur la Signification Historique du Trésor d'Al Khanoum", *Revue Numismatique*, 1975
- 7] Bivar, A.D.H. "The Sequence of Menander's Drachmae", *Journal of the Royal Asiatic Society*, 1970, pp.123-136
- 8] Macdonald, G., in Rapson, E. (Ed.), *The Cambridge History of India*, Cambridge, 1922, pp.448-451
- 9] Dodwell, H.H. (Ed.), *The Cambridge Shorter History of India*, Cambridge, 1934
- 10] Tarn, W.W., *The Greeks in Bactria and India*, Ed. By F.L. Holt, Chicago, 1985
- 11] Mehendale, M.A., *The age of Imperial Unity*, Bombay, 1951
- 12] Cunningham, A., *Coins of Alexander's Successors in the East*, London 1884, reprint Chicago 1969

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Some More New Ancient Indian Coins

By Robert Senior

One has noticed lately that several tiny unpublished fractions of the Indo-Scythian series have appeared on the markets in the West. In other, European, series one saw a similar influx of smaller denomination coins with the advent of the metal detector. These instruments will identify such tiny individual specimens that would otherwise be missed by both the excavator and chance finder. Here are a few more additional coins to those I listed in ONS 173.

61) **AZILISES** Æ square 2.18 gm Obverse: King mounted with whip to right; reverse: Elephant right with Kharosthi *Si* (left) and monogram (right) over. This coin corresponds to Issue 60 (**ISCH**) of which units and 1/4 units are already known. This issue is on a lighter standard than the usual copper series of Azilises with the unit weighing around 6.5 g. This coin weighs more than the 1/4 unit and is also struck from larger dies but is obviously not a unit and is struck from smaller dies than that coin. This unique specimen shows a worn degraded surface and I assume that it was

intended as a half unit. It would therefore be catalogued as 60.1a. The size is 14 x 15 mm



62) **AZES** Æ square 1.96 g. Obverse: Elephant right with Kharosthi *Si* over; Reverse: Lion right with monogram above. The combination of *Si* with this monogram appears on the common 'City Deity' Issue 82.300 (et al) with its Æ denominations 83 and 84.1-5 and then on the King Mounted with Whip series with 'Pallas right' or 'Zeus right' reverses. The Æ denominations for the latter issues are 102.140 and 102.300 of the Bull/Lion series, the latter bearing the same '*Rajaraja*' legend as on this coin. There are no known Elephant/Bull coins. This coin is quite unexpected and corresponds to an 1/8 unit. It is very similar to Issue 110.10 and coin 51 published in ONS 173. It measures just 11 x 11 mm.



63) **AZES** Æ square 1.13 gm. Obverse: Elephant right but no letter above. Reverse: Bull right with Greek Alpha (with curved top) and Kharosthi *A* above. Similar to 109.10 but with longer legend. The types and letters appear on Issue 100.24 but this is a 1/8 denomination. The coin measures 12 x 12 mm.



64) **ABDAGASES II** Æ 7.29 gm. Until now Issue 235.1T was known from just one unique specimen in the British Museum. This second specimen is virtually identical though from different dies. It weighs less than the BM specimen though largely unworn and the reason may be that the coin is overstruck on another. The traces of the undertype are too weak to identify. There seems to be a control letter, *Ga* on the BM coin but on this specimen the letter more closely resembles *Mi* but, at the same time, it is possible that there is no letter at all but what we are seeing is flowing drapery. The diameter of the coin averages 22 mm and it is a beautiful specimen.



65) **ZOILOS I** AR drachm 2.17 gm. This drachm corresponds to issue BN series 4 showing a tiny Nike on Heracles' left shoulder. The portrait shows a young king and his name on both sides is separated from the rest of the legend. The monogram is new and so far unique not only for this king but for the Indo-Greek series.



Coins of the Indian Sultanates

Some more additions to the listings in the book of the above title by your editor and JP Goenka.

Sultāns of Dehli

Nāṣir al-Dīn Maḥmūd (AH 644-64)

D135, gold tanka: add dates 654, 655

Quṭb al-Dīn Mubārak (AD 716-20)

New type **D268** Silver Tanka Qila' Quṭbābād



Legends as on **D261, 262**

Date: 718 **Weight:** 11 g

This coin now fills the gap in the series of square gold and silver tankas, which were struck at three mints. The fortress of Quṭbābād was Daulatābād in the Deccan. (Information and illustration by courtesy of Barry Tabor, UK)

Muhammad bin Tughluq

New type, **D338** Gold Dīnār Deogīr



Al-Wāthiq type with legends as on **D331-3**. The full mint-name in the marginal legend is *qubba al-islām 'anī ḥadrat deogīr* (the vault of Islam, that is to say, the capital, Deogīr). The same full mint-name can be found on type **D335**. **Date:** 727 **Weight:** 12.61 g. (Information and illustration by courtesy of Jean Poirier, Paris)

Fath Khān

D511 was not illustrated in the book. Barry Tabor has kindly provided an illustration of a coin in his collection.



Sultāns of Bengal

Sikandar bin Ilyās (AH 758-92)

New type **B189** Silver Tanka 'Arṣah Satgāon 11g



This type is similar to type **B188**, but the reverse legend is within a hexalobe, rather than in a six-pointed star. The date is not visible. (Illustration courtesy of Barry Tabor.)

'Alā' al-Dīn Husain (AH 899-925)

Type **B709**, silver tanka, Khazāna: add date 908

Type **B762b**, silver tanka, Dār al-Darb: add date 907

Sultāns of Gujarāt

Nāsir al-Dīn Mahmūd I (AH 862/3-917)

New type, **G146A** Billon Tanka 9 g



As type **G146** but without the expression *abū'l fath*.

Date: 863. (Illustration courtesy of Barry Tabor)

Type **G166**, 1½ falūs, Muṣṭafābād: add date 883 (BT)

"Bombay Billys": Some Corrections and Further Observations Following Newsletter Supplement 172

By Drs. Paul Stevens & Shailendra Bhandare

In our paper re-appraising the coinage of the English East India Company in the Malabar Coast of India, we added a postscript describing a coin depicting the numeral 8 on the obverse in place of the usual 5 found on the Bombay Billys. Following the publication of that paper, another specimen showing the numeral 8 has come to light, and we would like to take this opportunity to publish that coin, and to correct a small mistake that we made in our previous paper. Firstly, the new coin:



Weight: 2.25g

Diameter: 12.5-13.2mm

The previous example that we published had a weight of 1.42g, which would be equivalent to 1/8th of a rupee, and we speculated that the 8 therefore represented the fractional part of a rupee, thereby endorsing our assertion that the numeral 5 found on the 1/5th rupees represented the fractional value, and was not simply a corruption of an earlier Persian character. This latest coin, however, weighs the same as a 1/5th rupee and leaves our earlier argument in something of a dilemma. We can only

speculate on the reasons for the presence of the numeral 8. Perhaps the coin was struck as an experiment using a smaller amount of silver (1/8th rupee value) in a coin with same weight as the popular Bombay Billys. In other words, the actual silver content of the coin would be equal to an eighth rupee even when its weight corresponded to a fifth. The impetus for such an experiment would be to counteract the frequent discounting of Billys by local shroffs to the value of 1/8th rupee. However, this observation needs to be verified by means of a metallic assay.

Another possibility is that the coin was struck as a trial just to see what the numeral 8 would look like, and the weight was irrelevant since this was not the purpose of the trial.

Another peculiar observation to be noted concerns the reverse die, where the cluster of dots is clearly transposed over the downward stroke of the letter Sin thereby indicating a possible re-engraving of the die. Perhaps these are 1/5th rupee dies that have been re-engraved?

Whatever the reason for its production, this second specimen only serves to add to the enigma of these coins.

Correction to Newsletter Supplement 172

In Table 1, on page 9, we have described Reverse 2 as having three subtypes (2a, 2b, 2c). These subtypes should refer to the obverse, not the reverse, and should be numbered B1, B2 and B3.

Acknowledgement

We would like to thank Keith Wilford for drawing our attention to the 1/8th rupee, which originated from the collection formed by the late Ken Wiggins.

Two Small Gold Items from the Sub-Continent

By Jan Lingen

¼ tola of Ahmad & Company



Metal : gold Dia.: 16.5 mm. Weight: 2.98 g

Edge : plain

Obv.: (English legend, partly within wreath)

AHMAD
& COMPANY
1/4

FINE 9950

TOLA
PURE GOLD

Rev.: (Persian legend, partly within wreath)

Khales Sona
Ahmad ain Kompany
Karachi
Latin A below wreath

On the reverse of this tola weight the name of the issuing company is written in Tughra-style, with "Karachi" in small Persian lettering below. It is unusual to find tola weights from this area, nor do they appear often with a Persian inscription. The period of issue can only be guessed, but it is probably pre-independence. A calculated guess would be that these tola weights were manufactured some time during the period 1920-1940, when the nearby Princely State of Bahawalpur also issued coins with a tughra design. Research for a firm with the name Ahmad &

Company has so far not been successful and suggestions are welcome.

Swadesi Nishka



Metal : gold Dia.: 17 mm. Weight: 1.58 g.
Edge: milled

Obv.:

SWADESI NISHKA
(within wreath)
SRI
TAT.SAT
INDIA

Rev.: legend within wreath

½
GOURI
CALIYUCATHI
5006

This is a gold token minted during the 'Swadeshi' movement of the early 1900's in Madras.

The movement is one of the first 'protest movements' stimulated by what was called the 'Radical' faction of the Indian Congress led by Bal Gangadhar Tilak in Pune. It exhorted people to buy indigenous goods and 'boycott' English and foreign ones. 'Swadeshi, Swaraj (self-rule), Boycott and National Education' were the sacred words preached by Tilak. The splitting of Bengal in 1905 sparked off another revolutionary movement in Bengal. The very act of division revolutionised the province of Bengal in particular and the whole of India in general. The Swadeshi movement's call for a boycott of foreign goods was mainly targeted at Lancashire cloth, but it gradually grew to apply to various other things as well. Self-rule was declared as the right of every one. National schools were set up, the intention being to counteract the British influence in the field of education. Many revolutionary parties and bands were born at this time. As part of the Swadeshi movement the Indian Bank was established on the 15th August 1907.

The issue of the Swadeshi gold tokens was yet another method by which the Swadeshi movement was popularised.

In *Studies in South Indian Coins*, vol. VI (1996) p.129-133, Dr. N. Rajendran published an article, based on judicial and intelligence reports, about "Swadeshi gold coins of Madras". According to Dr. N. Rajendran, they were struck and sold to the people. A gold sovereign was passed through a rolling machine until it was reduced to the required thickness. Five such tokens were made from a sovereign and the plant was capable of turning out 400 such tokens a day when worked with one man on the machine. The Madras Government was curious to know who were the people behind the manufacture of such gold tokens. The Government of Madras as well as the Government of India were both not only curious to know the origin and the nature of Swadeshi gold tokens, but showed at the same time also considerable concern and referred the matter to the Central Investigation Department.

According to Rajendran the Government was able to collect three types of Swadeshi gold tokens which were then in circulation, viz.:

- Token with the word 'Sudesi' and the letters P.N. encircled in wreath, the whole was surrounded by the words 'Chastity our Household Divinity'. On the reverse the words '6 1/3 MJDS 1907' in a wreath surrounded by the words 'Faith, Hope & Success'.
- A second type appeared with the words 'South Indian' encircled by an ornamental wreath, while on the reverse was found the figure of the goddess Lakshmi. This token had a milled edge.
- The third type has the words 'Indian Gold' encircled within a wreath and surrounded by the words 'God Bless Fine Neck Jewel 1907'. On the reverse the goddess Lakshmi standing on lotus with flowers in two of her hands. The words 'Lakshmi In Lotus' encircled the figure.

Unfortunately none of the above types were illustrated. Nevertheless the token under discussion differs considerably from the three tokens described above and forms a fourth type.

The word 'Nishka' is just a classical allusion to a gold coin. 'Tat Sat' is Sanskrit for 'That's Truth' so has religious and temporal significance. Similarly ½ 'gouri' refers indirectly to the 'Gouri' jewelry tokens of South India which have a goddess similar to that seen on other Swadeshi gold tokens and the coins of Puddakotai. The weight of 1.58 g. corresponds roughly to a ½ pagoda, so it fits in with the weight of the traditional 'gouri' tokens.

The token is dated 'caliyucathy' 5006 which refers to the Kali-yug era, calculated from March 3102 BC. Kali-yug 5006 coincides with AD 1904.

The tokens form an interesting relic of the history of the freedom movement in India and, to my knowledge, this is the first time that such a token has been illustrated.

I am grateful to Shailendra Bhandare for referring me to *Studies in South Indian Coins* and for providing additional information.

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(continued from Newsletter 173)

Summarised by Helen Wang

NEW PUBLICATIONS

(p.38) **Shijie yinbi** [World coins], ed. by SHEN Tong, Jilin Renmin chubanshe, 2001. Eighty short chapters, 200 pages, 4 pages of colour illustrations. Contact details given.

(p.50) CAI Yunzhang's review of **Luoyang quanzhi**, (publishing details not given). By Fan Zhen'an, one of China's top collectors (allegedly spends his salary on coins) and Huo Hongwei, specialist in archaeology and cultural relics. Excellent book about Luoyang (capital city 13 times), and its coins, mints and moulds.

(p.77) **Luoyang quanzhi** [Coins of Luoyang], by FAN Zhen'an and HUO Hongwei (of Luoyang Numismatic Society), publishing details not given. 12 chapters: (1) cowries, (2) spade money, (3) round coins and weighed-out-money, (4) the banliang system, (5) the wuzhu system, (6) the Kaiyuan tongbao system, (7) gold and silver coins, paper money, (8) Silk Road coins, (9) coin production, (10) coin culture, (11) key numismatists, (12) management and research, and academic activities. 320 pages, over 1,100 illustrations. Contact details given.

(p.77) **Yanfu yinhang shi** [History of the Yanfu Bank], ed. by YAN Faming and XIONG Handong, published by Jiangsu renmin chubanshe, 2001?. Joint project between the People's Bank of China, Yanfu, and Yanfu Numismatic Society.

NEWS

(p.54) **China Numismatic Society national meeting: Shenzhen, 9 April 2001.** Chaired by XIA Liping (Deputy Director, CNS). Attended by YU Xuejun (Deputy Manager, Peoples Bank of China, Shenzhen Central Branch), YAO Shuomin (Deputy Secretary, CNS), DAI Zhiqiang (Secretary, CNS). The year 2002 will mark the 20th anniversary of the CNS, the 10th anniversary of the China Numismatic Museum, and the ICOMON meeting in Beijing.

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ARTICLES

WANG Yuquan, **A discussion on private casting and prices in the mid and late Ming dynasty.** (pp.3-7).

WEN Tinghai, **The Chinese government's policy towards foreign currency in the mid-Qing dynasty.** (pp.8-11). In 3 parts. Part 1: the types of foreign coins entering China, and how they arrived: (a) Japanese and Vietnamese bronze coins, (b) European and South American silver coins. Part 2: why foreign coins came to China, how they circulated and the threats they posed: (a) draining away Chinese silver; (b) distorting the Chinese economy; (c) upsetting the Qing currency system. Part 3: the Qing policies on foreign money: (a) collect it in and prohibit its use; (b) prohibit export of Chinese silver by putting into place a barter system.

SUN Min, **General Da Gui's letter on Yongheng official notes and the reasons for their decline.** (pp.12-13). The author has acquired a letter from General Da Gui, of Jilin, to the Yongheng Official Note Bureau, dated 1906. The letter tells of businessmen smuggling silver out of China, the effect of this on China's silver ingots and struck coins, and how it upset the balance between notes and silver.

ZHU Jianguo, **Research on the Jinqian yi ji coins.** (pp.14-17). These coins were issued by the Gold Coin Society in the mid-19th century. Author considers (1) historical background; (2) production; (3) date and place of issue, and range of circulation; (4) how to read the inscription; (5) varieties.

DENG Zhaohui, **Large and decorative issues of the Taiping Heavenly Kingdom in the collection of the Hunan Provincial Museum.** (pp.18-21). The Hunan Provincial Museum sorted through its coin collection, and found several thousand Taiping Tianguo coins. The author looks at the large and decorative issues only: (1) large coins; (2) decorative coins; (3) comments: (a) the large coins were not 'Protect the mint' (zhenkuqian) types, (b) the large and decorative coins were not made in Zhuzhou and Hengyang, (c) the large and decorative coins were associated with the Hunan-Xiang troops attack on the Taiping rebels.

BIAN Ren, **'2001 Anti-forgery week' takes place throughout China.** (p.22).

DA Jin, **The Conference on pre-Qin currency: a summary.** (pp.23-24). This important conference, organised by China Numismatic Museum, People's Bank of China- Taiyuan Central Branch, and the Shanxi Numismatic Society, took place in Taiyuan, 20-22 June 2001. Over 70 people attended, including DAI Zhiqiang, YANG Shiyuan, LI Gaolou, WANG Zhongshan, REN Zilu, Liu Jun, and experts WU Rongzeng, LIN Yun, HAO Benxing, SHI Yongshi, ZHU Hua, TAO Zhenggang, HE Linyi, ZHAO Dexin, XU Ji, HUANG Xiquan, ZHANG Chi. HUANG Xiquan presented his two new books (see New Publications, below).

• Discussed new finds including (1) mould for flat-shouldered, arched-foot hollow-handle-spade, found at Zhenghan; (2) early period pointed knives of Yan state found at Yixian; (3) new type of flat-shouldered, flat-foot hollow-handle spade at found at

Luoyang; (4) Warring States money found at Licheng (Shanxi); (5) gold coins of Chu state found at Nanjing; (6) mould for ming knives of Yan state found at Lintao (Shandong). Research areas to focus on: (a) money found in tombs, as these may indicate dates; (b) contexts of finds; (c) authenticity.

• On origins of coinage: need to distinguish between objects (cowries, weighed bronze) used as money, and man-made money.

• On cowries: need to distinguish between decorative and money function. Cowries found at Erlitou site and tombs were money; the bronze cowries from Baode, found with bronze horse and chariot decorations, were decorative. Inscription on recently discovered Western Zhou bronze vessels indicates cowries served as money in Western Zhou times.

• On spade money: the recently discovered group of arched-foot spades from Dali county (Shaanxi) were probably cast in the Hancheng region (Shaanxi). The inscription on hollow-handle-spades once read as yun should be read as sai; these were made in Pingyang (Shanxi) or Shangqiu (Henan). The 'characters' on some spades may be divinatory symbols. Getting the name right: in pre-Qin times 'bu' referred to textile-money, not to spade-money (which was known in pre-Han times as 'qian'). Wang Mang first used the term 'bu' on coins, and afterwards 'bu' came to mean 'spade'.

• On knife money: the pointed-tip knives from the Baimiao tomb at Zhangjiakou may be knives of the Di people. The pointed-tip knives found in the Jundushan cemetery, Beijing, developed from bronze scrapers, which first appeared in late Spring and Autumn period, and are probably associated with the Yan state. The 'Ming knives of Qi' may have to be re-assessed after the discovery of specimens in the Qi tomb at Qianfoshan, of the mid-Warring States period; the theory that they were made when Yan invaded Qi (late Warring States period) is no longer valid. New research (typology, date, area of circulation) on pointed-tip knives presented. New research on chronology of Qi knives and spades presented.

• On round coins: new chronology and typology of banliang based on banliang moulds of different dates and locations. New research on cake-banliang, considering the provenance, characteristics and distribution. The association of the 'liang zao' coin with the Qin banliang, perhaps made when Qin occupied Yuan.

• Other: Not enough evidence yet to confirm that the Wu state issued its own metal coins. The Yue state may have used textiles, pearls, jade, small gold-cakes, and weighed-bronze as money, with dagger-money issued later. Ba and Shu probably had a barter system, and no common item of value; bridge-shaped copper at Yixing. (pp.26-29). Author reviews previous classifications of this type as: (1) charm, (2) coin issued by ZHANG Tianxi of the Former Liang dynasty; (3) coin of the Liang dynasty; (4) temple-coin issued under Emperor Taiwudi of the Northern Wei dynasty. A hoard found near the pieces were not money of Ba and Shu, but decorative pieces. The stacking method of casting coins started with Western Han banliang, not in the Warring States period as previously thought.

HUANG Zhiming, **The use of the term 'wen' rather than 'fen' on the Daqingguo coinage.** (pp.24-25). In 1910 the coin denominations were determined as yuan, jiao, fen, li, but in 1911 the Board of Revenue and Finance issued a series of coins was issued using the term 'wen'. Author concludes that these coins were issued to replace the poorer quality 'fen' coins. Apart from 5 yuan coins, all Xuantong silver coins were trials, and did not enter circulation, which means the unfamiliar copper fen coinage would have failed.

LIU Jianping, **On the hoard of Tai-Qing-feng-le coins unearthed** Fude Bridge in Yixing in September 2000 contained 40,000 coins, of which 10% were Taiqing fengle, 70% were clipped wuzhu, 19% 'female' wuzhu, and 1% were other types of wuzhu, huoguan, daquan wushi. The Taiqing fengle coins all have same 'sichu' reverse, with points at corners of hole. Author concludes that Taiqing feng le coins were cast during the Taiqing

reign period of Emperor Wudi of the Liang dynasty, and that this reverse-type was made at or near Yixing (plain reverse types made elsewhere).

WU Weiqiang, **Thoughts on the Yixing hoard of Tai Qing fengle coins**, (pp.30-31). Author disagrees with the attribution of these coins to Emperor Wudi of the Liang dynasty, because (1) from AD 523 Liang issued iron coins, not bronze coins; (2) the Taiqing reign period was a time of war, not a time to issue new types. Author concludes Taiqing fengle coins were issued by the Chen dynasty between 557-562, after Liang had started issuing bronze coins again, and before the issue of Chen wuzhu.

ZHANG Yigang and TAN Bo, **On the discovery of a group of Xianfeng notes issued in Jiangnan**, (pp.32-36, 58). In 1996 thousands of notes were found in a cellar in Yuyao (Zhejiang), many already mouldy, but all Xianfeng chaopiao hubu guanpiao and Tai Qing baoshao, in various denominations. Authors examine (1) the paper, (2) the varieties, and serial number characters, (3) the stamped marks, (4) the circulation, use and date of deposit. They observe differences in the notes issued by the Hubei (Board of Revenue) in different regions.

CHENG Yongjian, **Bronze Xianfeng yuanbao, worth-100 cash, issued by the Hebei Mint, unearthed in Luoyang**, (pp.37, 29). Author examines 18 brass Xianfeng yuanbao worth-100 coins, from the Henan mint, found in the old city of Luoyang in the early 1990s.

ZHAO Yongping, **Printing plate for Qing dynasty note discovered in Shuozhou, Shanxi**, (p.38). Illustrated. Made of pear wood (171 x 103mm). Place name on printing plate: Yanmen, Guangwu zhen.

SUN Zhifang, **Remains of a mint discovered in Anqing**, (p.39). In 1999, author saw 200 x 10-wen and 1 x 20-wen copper coins, all with plain reverse, found together with copper ingot, 1.5m below surface at building site in Anqing (Anhui). Inscription on ingot: 'An sheng ri xin chang zao MAKER.BONG'. Author gives key dates of Anqing mint, notes the Anqing rixin chuansheng gongsi was established in 1898, and concludes these were half-finished coins.

DONG Sicong, **Proof of wrong-doing in the Japanese invasion of China - military notes of the Lunxian region, Dianxi [Yunnan]**, (p.40). Japanese occupation notes (illustrated in colour). After the Japanese occupation of Tengchong in 1942, the Japanese set up the Dadongya dili yinhang (Great East Asia low-interest bank) and issued notes. The Bank burnt down in 1944.

WANG Xuenong, **On the British silver notes issued by the Beiyang Railway Dept and the foreign silver notes issued by the Shanhaiguan Railway Dept**, (pp.41-43). Issued in the late 19th century, these were the first two types of notes issued by Chinese official railway organisations. They were printed in London, and differed only in name and date. They mark a watershed in Chinese note design: eg horizontal rather than vertical, first use of real landscape in design.

MA Chuande and XU Yuan, **On the military notes issued at the birthplace of the Xinhai Revolution, 1914**, (pp.44-48). Article written to commemorate 90th anniversary of the Xinhai Revolution. During compilation of the book *Xinhai geming shiqi huobi*, the authors determined that the Zhonghuaguo shangmin yinpiao notes should not be associated with the Hubei military government. They discuss: (1) why that association is incorrect; (2) the Zhongguo zhonghua yinhang notes printed before the Wuchang uprising; (3) the small military notes issued by the Zhonghua minguo zhongyang jun zhengfu (central military government of the Chinese Republic).

JIN Cheng and HE Ping, **A new type of note issued locally in Yuxi: the Mengjin xian circulating certificate**, (pp.49-50). A 2-yuan note, 1948, with the signature of GONG Wenbin, head of

Mengjin county (north of Luoyang). Issue value: 150,000 yuan. Described as a 'sister note' to the Luoyang circulating certificate, published in *Zhongguo Qianbi* 1997(2). Other Yuxi area notes were issued in Zhengzhou, Xiangcheng, Baofeng, Yuxian, Lushan, Fangcheng, Jiexian, Luoyang.

WU Zhenqiang, **Collecting renminbi (2)**, (pp.51-58). Looking at the notes issued between China's planned-economy and market-economy. Renminbi series 2 and 3 were issued during the period of the socialist planned economy 1953-78: few denominations, low denominations, small quantity issued, long period in circulation. Series 4 and 5 (and commemoratives) were issued during the period of socialist market economy from 1979: many denominations, high denominations, large quantity issued, shorter time in circulation. In 6 parts: (1-4) series 2, 3, 4, 5; (5) commemorative notes (50th anniversary of PRC, 1999; Millenium note, 2000); (6) serial numbers.

LI Tiesheng, **Collecting world coins (2)**, (pp.59-61). Parts (4) reading dates; and (5) appearance and dimensions.

LU Guocai, **Mint marks on Russian coins**, (pp.62-64).

A Jian, **China's contemporary large bronze medals**, (pp.64-65). Chronological survey with details of designers/engravers, including the first medal (Hong Kong South-east Asia Textiles Limited Co. 30th anniversary, 1979); the first for overseas buyers (Marx medal), new developments (China Numismatic Society 10th anniversary, 1992); many issues of the Shanghai Mint, rise of collectors (to 10s of 1,000s in early 1990s); new developments (Picasso medal, 1997); the Shanghai Salon for collecting and appreciating medals - for Shanghai collectors. Other collecting centres: Beijing, Liaoning, Jiangsu, Zhejiang, Guangdong.

HANG Gudong, **A group of Kangxi period weights, and what they tell us about the Qing system of weights**, (pp.66-68). Bronze 10-liang weight (32.8 x 26.1 x 55mm) of the Kangxi period. Official weight from Suzhou area, corresponding with Suzhou region Caoping standard (where 1 liang = 36.57g). Part of a group of weights comprising 14 weights, 2 boxes, 2 lids (though probably originally comprised 20 parts) - all fitting together.

GUAN Hanheng (Hong Kong), **Fresh winds from Taiwan bring new trends in coin collecting - essays on collecting coins (1)**, (p.69).

CHEN Xu, **The beautiful David's deer silver coin**, (pp.70-71). The story behind the rare species named after Pere David of France.

DAI Zhiqiang, **A preface to Chinese Treasures Overseas**, (pp.72-74). Guan Hanheng has spent years collecting information about Chinese treasures overseas (see new publications, below). DAI recalls his visit in 1997 to the Bibliotheque Nationale (Paris) when he noticed that coins in the Napoleon III collection were pieces that had been published in the book 'Guqiansou' [by YANG Shoujing, 12 vols, 1904]. The Napoleon III collection was put together by FENG Daye [French name?], the French consul in Tianjin 1869-74, who bought pieces from LI Baotai before 1867. There is probably a lot more to discover in national museums around the world.

LI Mengwen, **The international grading of coins**, (pp.76-77). Reprinted from *Zhongguo Jinbi*, no.2.

LIU Zhiliang, **Collectors' packs - culture and collecting**, p.78. China's first commemorative coin since 1949 was issued to commemorate the 35th anniversary of PRC, 1984. In 1996, the China Numismatic Society, the China Note and Coin Production Co; and Coingot (Kang-yin-ge) Ltd Co., teamed up to make the Zhu De commemorative packs. Since 1999 Coingot has brought in significant measures to improve quality, etc.

NEW PUBLICATIONS

(p.48) **Liang Song tie qian** [Iron coins of the Northern and Southern Song dynasties], ed. by YAN Fushan et al, Zhonghua shuju, Xi'an 2001. In 3 parts: (1) Northern Song iron coins; (2) Southern Song iron coins, (3) discussion, chronologies, mints, maps. 1861 rubbings. Consultants: YE Yingnan and ZONG Xinfu (Manager & Deputy Manager, People's Bank of China: Xi'an branch), DAI Zhiqiang (Secretary, China Numismatic Society). Contact details given.

(p.71) **Xian-Qin huobi tonglun** [On pre-Qin coinage], by HUANG Xiquan, Zijincheng chubanshe, 2001. Focuses on discoveries and research of the last 50 years: China's earliest money, weighed metal as money, cast metal money, knife money, round coins, money of the Chu state, money of the Wu, Yue Ba and Shu states. In-depth discussions.

(p.71) **Xian-Qin huobi yanjiu** [Research on pre-Qin coinage], by HUANG Xiquan, Zhonghua shuju, 2001. Focuses on the author's work in recent years, particularly on new finds and difficult problems: pointed foot hollow-handle spades, sharp-pointed foot spades, round-foot spades with three holes, square-foot spades, money of the Chu state, pointed-tip knives, money of the Yan and Qi states.

These two books by HUANG Xiquan are both ground-breaking publications, the standard reference works to follow ZHENG Jiaxiang's *Zhongguo gudai huobi fazhan shi*, WANG Yuquan's *Woguo gudai huobi de qiyuan he fazhan*, and ZHU Huo's *Guqian xin tan*. Contact details given.

(p.74) **Zhongguo Qianbi dacidian: Geming genjudi bian** [Encyclopaedia of Chinese Numismatics: Revolutionary Base Areas], by WU Chouzhong and JIN Cheng (eds-in-chief), Zhonghua shuju, 2001?, 1000+ pp. Published on the eve of the 80th anniversary of the founding of the Chinese Communist Party, the book covers the period 1926-49, and contains over 600 text entries and over 1700 illustrations, with the notes illustrated in colour. It is now the most comprehensive book on the subject. This is the 3rd volume published in the Zhongguo Qianbi Dacidian series. Contact details given.

(p.74) **Zhonghua zhenquan zhuzong lu** [Tracking down China's numismatic treasures], ed. by GUAN Henghan, Shanghai shudian chubanshe, Shanghai, 2001, 308pp. On 110 of China's best coins. Some entries reprinted from the periodicals *Zhongguo Qianbi*, *Yazhou Qianbi* and *Zhoushan Qianbi*. Contact details given.

(p.75) Review by YU Jun, of **Zhongguo huobi jinrong shi lunzhu suoyin 1900-1993** [History of money and finance in China: a bibliography 1900-1993], ed. by YU Zhaopeng, Xinhua chubanshe, Nanchang?, 2001?, 500pp. A Jiangxi Numismatic Society project, with sections on currency systems, history of money, coins, gold and silver, paper money, history of finance, purchasing power, financial institutions, mints, manufacturing technology, money of peasant rebellions, money of revolutions, foreign coins in China, monetary theory, and numismatics. Index by title and by author. Includes publications from mainland China, Hong Kong and Taiwan, and selected foreign titles. Contact details given.

(p.78) **Gu Xila Luoma bi jianshang** [Appreciating Greek and Roman coins], by LI Tiesheng, Beijing chubanshe, Beijing, 2001?, 320 pp. In the 'Inner Mongolia ancient coins series'. An introductory book aimed at Chinese readers. Contact details given.

NEWS

(p.7) **China Numismatic Society holds conference on the 5th series of renminbi**. Following the issue of the new notes and coins (100 yuan note issued Oct 1999; 20 yuan note, 1 yuan coin and 1 jiao coin issued Oct 2000), this conference was organised by the China Numismatic Society and the Tianjin Numismatic Society, and took place in Tianjin, 15-17 May 2001.

(p.7) **The Luoyang 2001 numismatic forum**, took place in Luoyang, 22-24 April 2001. Chaired by YAO Shuomin (Deputy Secretary of China Numismatic Society), QU Anmin (Honorary President of Luoyang Numismatic Society, Deputy Mayor of Luoyang), and WANG Gefeng (Deputy Manager of People's Bank of China - Luoyang City Centre branch). 37 papers presented on all aspects of numismatics.

(p.17) **Beijing Numismatic Society's Board of Directors meeting**, took place in Beijing on 4 July 2001, with 35 representatives from the People's Bank of China, the Cultural Relics Bureau, the BNS Board of Directors, and BNS personnel. Chaired by JIAO Chunlian (Secretary of BNS). ??? Fenghai (President of BNS) reported on the work of the BNS in 2000; LI Zhidong conveyed China Numismatic Society's aims for 2001, and discussed BNS work for 2001. SHAN Jiansheng elected President of BNS.

(p.50) **Commemorative 5 yuan coin marking the '50th anniversary of the Peaceful Liberation of Tibet'** was issued by the People's Bank of China, on 23 March 2001. Ten million coins issued, brass alloy, diameter 30mm. Obverse design: China's national emblem and 5 peonies. Reverse: the Potala Palace and two dancers celebrating the 50th anniversary. Inscriptions in Chinese and Tibetan. For circulation. (illustrated on back cover).

(p.68) **DAI Zhiqiang's team chaired the ICOM conference and 8th annual ICOMON meeting**, in Barcelona, 1-6 July 2001. The 9th ICOMON conference 'Money and banking: the varieties of the monetary experience' to be held in Beijing in 2002; thereafter Madrid (2003) and Seoul (2004).

(p.77) **Obituary: LIU Xuchuan**, Deputy Head of Foreign Coins Committee of China Numismatic Society, Former Deputy Head of Printing Research Centre of People's Bank of China, died 19 June 2001, aged 64.

ZHONGGUO QIANBI / CHINA NUMISMATICS (75) 2001/4 ARTICLES

KANG Liushuo, **A survey of the Byzantine gold coins unearthed in China**, (pp.3-9). Over 1,500 Byzantine gold coins have been found in China (see table of finds from 1914-98). The author considers (1) the finds, mostly along the Silk Road; (2) the dates of deposit, from AD 550 - Tang dynasty; (3) the historical background; (4) how to identify genuine coins and copies; (5) how these coins were used: as decorative pieces, burial objects, and money.

TI Aili (= Francois Thierry), MO Lisen (= Cecile Morrisson), YU Jun (trans.), **A summary of the Byzantine gold coins and imitations found in China**, (pp.10-13). Considers 36 Byzantine gold coins found in China, arranged by region. [Translation of 'Sur les monnaies byzantines trouvees en Chine', *Revue Numismatique*, 1994, 6th series, 36, 109-45].

DANG Shunmin, **A coin of the Roman East found in Xi'an**, (p.14). Coin of Justin II (565-78), 19mm, 4g, found in 2000. Identical to coin found in a Sui dynasty tomb at Xianyang, 1953.

Anon, **New commemorative coin celebrating the 90th anniversary of the Xinhai Revolution**, (p.14). Issued by the People's Bank of China on 27 September 2001. Denomination 5 yuan, diam. 30 mm, brass. Obv: national emblem and ribbons, People's Republic of China 2001. Rev: scene from the Wuchang Uprising on the People's Heroes Monument (hidden 1911-2001), Xinhai Geming.

YU Lizi, **Research on the gold coin of the Roman East discovered in Dingbian county**, (pp.15-18). This coin-pendant was previously published by LI Shengcheng (*ZGQB* 2000/2).

DU Weishan (= Roger Wai-san DOO), **Coin-types of the Sasanian king Piruz I**, (pp.19-24).

HUO Hongwei and BEI Zhai, **On the silver coins of the Sasanian king Khusru II unearthed in Luoyang - and a survey of the Khusru II coins found in China**, (pp.25-29). In July 1990 archaeologists working in the eastern suburbs of Luoyang found a group of tombs. Tomb no.133 (mid-7th to mid-8th c.) yielded a coin of Khusru II (590-628), 2 bronze Kaiyuan tongbao, over 20 painted clay figurines, 1 sancai glazed pot, and 1 seven-stars bowl. Authors discuss the 'apud' inscription on the coin, the number of Khusru II coins found in China (only 4 with 'apud'), and their distribution.

WANG Zhongshu and WANG Shimin, **XIA Nai's contribution to Silk Road numismatics**, (p.29). Xia Nai was one of China's leading archaeologists. Authors outline his work on Byzantine, Sasanian and Islamic coins. [reprinted from *Kaogu*, 2000/3]

China Numismatic Society - Origins of Coinage Committee, **Report on the Origins of Coinage conference**, (pp.30-36). The conference was held in Emei, 20-23 July 2001. The aim was to determine a new framework for the origins of coinage. YE Shichang (Fudan University, Shanghai), YAO Shuomin (*ZGQB*) and DAI Jianbing (Hebei Economics and Business University) discussed the various theories for the origin of coinage. LIU Sen (Henan Numismatic Society), YE Shichang, YAO Shuomin, DAI Jianbing and YUAN Mingxiang discussed questions relating to money economy and commodity economy. WU Rongzeng (Peking University), YAO Shuomin, LIU Sen, JIANG Yuxiang, CHEN Xiandan, YUAN Mingxiang and YE Shichang discussed the question of cowries as money.

Anon, **New 50 and 10 yuan notes (Renminbi series 5) issued by the People's Bank of China**, (p.36). Issued on 1 Sept 2001. The 50 yuan note features Chairman Mao in green on the front, and the Potala Palace on the back. The 10 yuan note features Mao in blue-black on the front, and the Three Gorges on the back.

SHENG Guanxi, **Kushan copper coins collected in China**, (pp.37-39). From a batch of over 1,000 Kushan coins, allegedly from northern Afghanistan, and brought by a Pakistani coin dealer for sale in China. Author examines Kushan coins now in the hands of private collectors in China. Details and rubbings of some coins given.

YAN Lin, **Gold coin of the Roman East unearthed in Wulan county, Qinghai**, (p.40). Coin of Justin I (diameter 12 mm) found in 2000, at a sacrificial site, together with grey potsherds and ox and sheep bones. Now in Qinghai Institute of Archaeology.

LI Lin, **Six foreign gold coins unearthed in Jinshi, Hunan**, (p.41). In the early 1960s a small clay pot containing 6 Islamic gold coins was found during ploughing near Jinshi. They were transferred to Jinshi Cultural Relics Office in 1985.

ZOU Zhiliang, **Doubts about the new 'Xianfeng' note**, (pp.42-43). Author refers to a note published in *ZGQB* 2001/3, questions its provenance, paper, printing and serial numbers, the official stamps, added marks, and concludes it is not genuine.

HUANG Hengjun, **Notes issued by the Zhejiang Military Government during the Xinhai Revolution** (pp.44-46). 2001 is the 90th anniversary of the Xinhai Revolution. There was a severe shortage of coins, so the Zhejiang Military Government (1) set up a local bank, issued military and other notes to the value of 2 million yuan; (2) issued Zhejiang Patriotic small denomination bonds to the value of 5 million yuan; (3) prohibited the movement of silver out of the province; (4) set up a Salt Office to collect salt tax; (5) set up other taxes; (6) actively encouraged donations to the cause.

Francois THIERRY, ZHU Ruji (trans.), **Bronze coins of Armenia found in Xinjiang**, (p.49). Identifies coins of Hetoum (1226-70)

first published in *Xinjiang Qianbi* (Xinjiang Numismatics) 1998/3. [Reprinted from *Xinjiang Qianbi* 2000/1).

FU Weiqun, **Looking back on the momentous Xinhai Revolution**, (pp.47-49). A photograph of a silver 100 yuan note (*Zhonghuaguo shangmin yinpiao*) was displayed in the Shanghai Museum in early 2001. Author describes how these Chinese Revolutionary Government notes were ordered by Sun Yat-sen, but concludes that they were probably never issued. Instead, the Hubei Military Government put its stamp on a small quantity of these notes and issued them as propaganda.

LI Yinping, **Small bronze horse and camel coin found in Minfeng, Xinjiang**, (p.49). This coin (15mm, 2.4g) was found at an ancient site by Endere River, in Minfeng county. [reprinted from *Xinjiang Qianbi* 1999/4].

XU Shuxin, **Recalling the glorious history of the money of the revolutionary base areas**, (p.53). Xu discusses (1) the historical background; (2) the collision of two currency systems – the revolutionary base area system and the semi-feudal semi-colonial system; (3) the tortuous road of history, until People's Bank of China established in Dec 1948; (4) characteristics of the new money: (a) the strong political messages, (b) backward printing techniques, (c) the currency policies focus on stability, (d) the devotion and hard work of the people towards the new money.

WU Zhenqiang, **Collecting renminbi (3)**, (pp.54-58, 53). On collecting coins. Until 1979 most coins were fen denominations; from 1980 most coins were yuan and jiao denominations. Lots of details about the coins, including alloy content. Between 1957-80 coins were made at the Shenyang, Shanghai and Xi'an mints. Between 1980-92 coins were made at the Shenyang and Shanghai mints. Between 1992-2000 coins were made at the Shenyang, Shanghai and Nanjing mints. From 2000 coins have been made at the Shenyang, Shanghai and Nanjing mints. Also information on collectors' sets. Up to June 2001, 36 different sets had been issued.

LI Tiesheng, **Collecting world coins (5)**, (pp.59-62). Author continues the series with (6) the designs on coins, and (7) inscriptions on coins.

LIANG Yiwu, **My involvement with the Olympics**, (pp.63-66). Author started collecting coins in the late 1970s. In the late 80s a friend gave him a coin of the Seoul Olympics; he now has over 500 coins.

DAI Jianbing, **Silver dollars of Western colonies and their influence on Chinese money**, (p.66). [Reprinted from *Yazhou Qianbi* 2000/2].

GUAN Hanheng, **Keep them or lose them - essays on collecting coins (2)** (p.67). Author comments on the disposal of old Chinese coins until the 1984 government order to look after old coins. He notes there are now three main sources of old Chinese coins: (1) old collections, (2) coin hoards, (3) tombs.

YE Changqing, **Two new types of high-security 1,000 yuan notes issued in Hong Kong**, (p.68). Following the issue of the HSBC 1,000 yuan note in Hong Kong, the Bank of China (HK branch) and the Chada Bank have both issued high-security 1,000 yuan notes to replace their old issues. The new notes appear almost identical to the old ones. The Bank of China has issued 25 million notes; the Chada Bank 6 million notes. Author discusses the new security features.

NEW PUBLICATIONS

(pp.69-70) Review by NAI Weng of **Zhongguo qianbi dacidian - geming genjudi bian** [China Numismatic Encyclopaedia - Revolutionary Base Areas], edited by WU Chouzhong and JIN Cheng, Beijing: Zhonghua shuju, 2001? NAI's comments: (1) the book is rich in material: 1,588 pieces of paper money, 26 cloth notes, 37 silver coins, 65 bronze coins, 25 iron coins, making it the most complete reference to date. 1,741 illustrations, over 150

items published here for the first time. About 75% of the notes illustrated in colour. (2) the structure of the book: 80% of the entries refer directly to the illustrations. (3) the link between money and history: the theory and practice of revolutionary base area money is seen in three stages: (a) from the birth of Farmers' Society money in 1926 to 1935 (exchange certificates in silver dollars and copper dollars); (b) 1935-41 (paper money, with links to legal currency); (c) post-1941 (independent currency in the bases, because no longer safe to have links with legal currency).

NEWS

(p.40) **Obituary - LIU Jucheng** died on 7 October 2001, aged 71. He was Vice Chairman of the China Cultural Relics Authentic Committee; Director of China Numismatic Society; and Director of Beijing Numismatic Society.

(p.41) **Gansu Numismatic Society 4th Members' Representatives' Meeting**, held in Lanzhou, 19-20 Sept 2001. Attended by 130 representatives. Speeches/lectures by JIN Deping (CNS), YAN Tao, LU Guomei, ZHANG Shulin, WANG Fude. Elected 15 executive directors: YANG Mingji (Head), ZHANG Zhifeng and ZHENG Binglin (Deputy Heads), MIAO Puchang (Secretary), LEI Tie and KANG Liushuo (Vice Secretaries).

(p.43) **New standards for grading antiquities**. On 9 April 2001, the Ministry of Culture issued its 19th order. Henceforth, antiquities are to be graded as special or ordinary. Special grade

antiquities to be further graded into 3 ranks. These standards are to be applied in museums and other organisations collecting antiquities. These standards include coins.

(p.43) **Subscription details**.

(p.66) **Hangzhou World Coin Museum** opened on 18 Sept 2001. Not a state run museum, but opened with approval of Hangzhou City People's Government, with ZHU Jianguo as Director. Offers an information and identification service.

(p.68) **Shaanxi Numismatic Society** held a meeting on the coins of China's five north-western provinces, in Xi'an, 30 Sept -8 Oct 2001. Display of renminbi notes and Shaanxi local paper money. Chaired by GAO Fengying (Secretary, Shaanxi Numismatic Society), LI Shi (Head of Shaanxi Numismatic Society/Head of Xi'an branch of People's Bank of China).

(p.70) **Obituary - ZHANG Shiquan** died on 3 July 2001. He was a member of the CNS Academic Committee, and Deputy Head of the Guangxi Numismatic Society. He was well-known for his work on money of ethnic minorities and China's neighbouring countries.

An Indo-Parthian Hoard of Coins from Haripur

By RC Senior

This hoard was discovered in Haripur, a site where, famously, another hoard of considerable importance (the Serai Saleh hoard¹) had been discovered. There were reported to be some 150 Indo-Parthian billon tetradrachms in the hoard and all the better coins had been selected by a dealer. I tried to acquire this group, which came to the West, but a few escaped leaving me with 104 specimens. It would seem that the hoard was deposited at the same time as the Malakand Hoard², since the latest and best-preserved coins in both are those of Abdagases, nephew of Gondophares I, and there are **none** of his successor, Gondophares-Sases. This latter fact in itself is important in confirming the succession sequence of these monarchs. The two hoards can be usefully compared since, though only 120 km separates their deposit sites as the crow flies, they are in two isolated valleys - those of the 'hanging valley' of the Swat river, and that of the upper Taxila valley. In *Indo-Scythian Coins and History (ISCH)*³ I catalogued all the known varieties of Indo-Parthian coinage but this hoard adds several new varieties and some important legends not previously deciphered.

There follows a catalogue of the selected and reported (-) coins with ISCH references, numbers in **bold** are illustrated;

Posthumous Azes coins

- 1) 105.864T 9.48 g. Zeus Nikephoros type. *Jham* on obverse above the horse's head. This crude coin has the letter *Kho* before the horse. A letter not previously noted on this series. One example.
- 2) 175.207vT 9.42 g. **Apracaraja** 'Pallas' type. One. Dot or 'heart' appears in legend lower left.
- 3) 175.250T 9.84 g. As last but no 'heart' and dot over *Va* on obverse. One
- 4) 175.240vT 9.61 g. As last but with *Am* before horse, King helmeted. One
- 5) 175.273T 9.91 g. Similar to last but cruder, different nandipada and Pallas has double drapery at waist. One
- 6) 175.271T 9.66 g. Similar to the last. King appears to have high collar (extends to the streamer). One

The above six coins are all struck on the heavier weight standard introduced by Gondophares I (for his 'Zeus facing right' series - Issue 220, and adopted by his successors).

Gondophares I



Figure showing the possible positions in which extra letters or symbols have been found on issues 216 and 217. Other letters can occur apart from those shown though only Dhra appears on the reverse of issue 217

- 7) Issue 216.15T Mounted king left with right arm raised holding cup, Nike flying behind crowning him with wreath as issue 216.13T. On the reverse is Siva holding wreath and trident between 6 in the left field and *Gu* in the right. *Maharajasa*.. legend with *Lu* below 6 (and nandipada?), Greek B below right of *Gu*. 9.33 g. Unlisted.
- 8) 216.16T as last with obverse as 216.13T but reverse as 216.12T. 9.23 g. Unlisted.

- 9) 216.22T Obverse as 216.20T with **no** additional letters. The reverse is as 216.21T. 9.20 g Unlisted.
- 10) 216.32T Obverse as 216.30T and similar reverse but with additional tiny *Jhu* right of *Gu*. 9.32 g. Unlisted.
- 11) 216.62T. As 216.60T but tiny *Bu* below horse, monogram *Rvu?* between back legs. The reverse legend reads *Maharayasa Rayarayasa.* in place of the usual *Maharajasa Rajarajasa.* Greek B between Siva's legs and tiny *Bu* right of *Gu*. 9.35 g. Unlisted.
- 12) Issue 217.10T Mounted king right with right arm raised. Reverse, Siva facing with trident in his left hand. Monogram in left field and Monogram in right. Unusual form of Gondopharid monogram on obverse. 9.42 g
- 13) 217.11T As last but normal Gondopharid symbol on obverse but with *Ma* below it. Possible letter between back legs? Bowcase shown which only occurs otherwise on Issue 217.10T. 9.01 g. Unlisted. .
This might be the initial issue of the Issue 217 series.
- 14) 217.32T As last but no letter under Gondopharid symbol, *Jham* between horse's back legs. 9.29 g.
- 15) 217.32vT As last but *Jham* retrograde. 9.31 g. Unlisted.
- 16) 217.33T As last but monogram between back legs. 9.54 g.
- 17) 217.40T As last but *Sam* between back legs and Greek Alpha in exergue. 9.49 g.
- 18) 217.42T As number 16 but with additional Greek Alpha in exergue. 9.35 g.
- 19) 217.84T As last but *Gu* below monogram between horses back legs on obverse). '*A*' in exergue uncertain? On the reverse *Dhra* above Siva's diadem tie (top left) and three dots above his head. Large dot above left of main monogram. 9.40 g. Unlisted.
- 20) Issue 217.91T As issue 217.90T but with *Pra* over *Gu* between back legs. The same Kharosthi monogram in the right reverse field occurs in obverse exergue. The reverse has *no* triplet of dots or *Dhra* above Siva's arm and the issue may be related to 217.25T though the exergual character differs. 9.57 g. Unlisted.

Gondophares I seems to have been quite innovative with his first Gandharan billon coinage. Issue 216 seems to have been issued by two officinae, one using the Greek letter Beta and the other not. The same goes for issue 217, except that the Greek letter used is Alpha. With issue 216 the earliest coins seem to have had *Ya* in the legend at both officinae in place of *Ja*. The significance of the 'control' letters used and their placement may become apparent when more varieties such as these are recorded.

- 21) Issue 218.8T King mounted left/ Pallas right. Obverse from same die as 218.1T in **ISCH** but on reverse the Kharosthi *Bu* appears under the right field monogram. This is not known from any other coin. There are signs that the *Bu* were first engraved below Pallas' spear and then erased from the die. 9.46 g. Unlisted
- 22) Issue 219.1T King mounted right/ Pallas right. Dot below right monogram on reverse. 9.17 g.
This coin shows that the complete obverse legend in this rare issue is meant to read ΒΑΣΙΛΕΩΣ ΜΓΑΛΟΥ ΘΕΟΥ ΥΝΔΟΦΕΡΟ. This title appears as *Devavrata* (God protected) on the reverse but only on one other issue, the very rare obol, Issue 209. Does it appear in the Greek.
- 23) Issue 219.3T As last but this coin has Kharosthi *Ma* below the Gondopharid monogram on the obverse (see coin 13 above). Reverse as issue 218.5T. The obverse Greek legend has ΒΑΣΙΛΕΩΣ and not ΒΑΣΙΛΕΣ as on all these common later coins. This suggests a very early issue. 9.24 g. Unlisted.
- 24) 219.5T As last but without the *Ma* on the obverse. The regular type but of later dumpier style. 9.00 g.
-) 219.5T As last. Four examples, two of which were the dumpier type.

The 'Pallas' issues are on the same weight standard as the Siva issues. Their principal areas of circulation are uncertain

- 25) 220.10T King mounted right/ Zeus right with sceptre in left hand (resting on shoulder), torque in outstretched right hand. Monogram in left field and *Vhre* over *Bu* in right field. 9.76 g.
- 26), 27) and 28) 220.11T As last but with dot left of Gondopharid symbol on obverse. 9.89, 9.56, 9.72 g.
- 29) and 30) 220.13vT Zeus right type. Additional nandipada between horse's back legs. Greek B in reverse field. 9.53, 9.66 g.
- 31) 220.20T As last but *Ra* over *Vhre* in right field. No dots or nandipadas. 9.53 g. Complete Greek legend.
- 32) 220.31T As last but only *Vhre* in right field. Nandipada on reverse. 9.61 g. Shortened legend.
- 33) 220.36T As last but Greek 'C' below left reverse monogram. No nandupada. 9.59 g.
- 34) 220.42T as last but *Ji* on reverse below the monogram in left field. 9.40 g.

Issue 220 sees the introduction of a new weight standard about half a gram heavier than the 'Siva' and 'Pallas' (218/219) issues. Those coins with *Bu* below Kharosthi *Vhre* in the right field can sometimes bear either the Greek Alpha or Beta in the upper left reverse field. Those without the *Bu* (or *Ra*) in the right reverse field have a more varied system of Greek or Kharosthi control letters which appear in the left reverse field under the monogram.

Abdagases I

- 35) 227.13T King mounted right/Zeus right, with vertical sceptre. Obverse legend specifies that Abdagases is Gondophares' nephew. Reverse has monogram left and Kharosthi *Jham* below Greek A over M. 9.75 g.
- 36) 227.14T As last but letter *Ma*. 9.76 g.
- 37) 227.16T As last but letter *No*. 9.67 g.
- 38) 227.16vT As last but due to some double-, or overstriking, the reverse monogram has acquired two extra strokes in the monogram, and the letter *No* in the right reverse field resembles a Greek Alpha. 9.89 g.
- 39) 227.17T As last but *Pra* in right field. 9.80 gm.
- 40) 227.55T As last but additional *Dhramiasa* in the reverse legend. *Chi* in right field. Greek name ΑΣΑΔΑΓΑΣΕ. 9.80 g.
- 41) 227.58T As last but *Pu* in field and name ΑΟΑΔΑΓ. 9.42 g.
- 42) 227.61T As last but obverse legend is ΒΑΣΙΛΕΥΟΝΤΟΣ ΒΑΣΙΛΕΩΝ ΑΒΔΑΓΑΣΟΥ as on the next issue 228. Reverse legend includes the extra title *Dhramiasa*. *Bu* in right field. 9.31 g.
This is a totally new and unreported type that links the early coins as Gondophares' nephew to the subsequent issues as 'King of Kings', with the rare '*Dhramia*' issues being the latest of the early series.

- 43) 227.66T As last but *No* in right field. 9.70 g.
 44), 45) 227.67T As last with additional legend but *Pra* in field. 9.77 g.
 46) 228.10T Zeus right issue with monogram in left reverse field, *vhresa* in right. 9.80 g.
 47 - 50), 228.10vT As last but some with tiny squares above left and below right monograms on the reverse. 9.91, 9.85, 9.83, 9.63 g.
 51) 228.11T As last but *Bu* between horse's front legs. 9.80 g.
 52) 228.18T As last but *Gu* between front legs. 9.80 gm. Unlisted.
 53) 228.19T As last but *Bu* between both front and back legs. 9.63 g. Unlisted.
 54) 228.17T As last but with a letter *Pa* between the horses back legs? 9.51 g. Unlisted.
 55) 228.51T As last but *Sam* in right field with *Bu* below. 9.68 g.
 56), 57) 228.52T As last but *Kha* below *Sam* in right reverse field. 9.82, 9.80 g.
 58) 228.53T As last but *Ma* below *Sam*. 9.59 g.
 59), 60) 228.54T As last but *No* below *Sam*. 9.75, 10.05 g.
 61), 62) 228.55T As last but *Pra*. 9.59, 9.88 g.
 63), 64), 65) 228.56T As last put *Pu*. 9.70, 9.65, 9.67 g.
 66) 228.58T As last but *Te*. 9.81 g.
 67) 228.62T. As 54 but the letter *Kha* is above the monogram in the left field. 9.60 gm. Unlisted

Issues 228.10-20T seem to follow on from Gondophares' issue 220 but those with *Sam* (issues 228.40 - 70) follow issue 227. Coin 65 is something entirely new in that the control letter has moved from the usual place in the right field to a less obvious place in the left. More coins may surface with the same 'set' of control letters being found in this position.

- 68) 229.13T King mounted left, *Kha* below Gondopharid symbol. Reverse: Zeus right. 9.93 g.
 69) 229.16T As last but uncertain monogram, sim. to an 'anchor' below Gondopharid symbol. Tiny letters on obverse and reverse. 9.78 g. Unlisted.
 70) 229.17T As last using same obv. die but reverse has three prominent dots top left. 9.67 g. Unlisted.
 71) 229.30T As last but different monogram in left reverse field. *Si* on obverse. 9.71 gm.
 72) 229.30aT As last but *Shi* between Zeus' legs on reverse. 9.73 g.
 73) 229.30bT As last but *Sa* between Zeus' legs on reverse. 9.63 g. Unlisted.
 74) 229.31aT As last but *Sra* on obverse and *Shi* between Zeus' legs on reverse. 9.87 g. Unlisted.
 75) 229.33T As last but *A* on obverse, nothing between Zeus' legs. 9.66 g.
 76) 229.34aT As last but *Go* on obverse and *Pra* between Zeus' legs. 9.66 g. Unlisted.
 77) 229.34bT As last but *Shi* between Zeus' legs. Small square in left reverse field. 9.74 g. Unlisted.
 78) 229.34bvT As last but without the small square. 9.62 gm. Unlisted.
 79) 229.35T As last but crude *Bu* on obverse. Letter between Zeus' legs? (off flan). 9.92 g.
 Tiny letters formed from dots on obverse, as on several of these coins.
 80) 229.36bT As last but monogram on obverse, *Sa* between legs on reverse. 9.94 g. Unlisted.
 81) 229.37bT As last but *Sa* on obverse - no reverse letters between Zeus' legs. 9.77 g. Unlisted.
 82) 229.37cT As last but *Pra* between Zeus' legs. 10.05 g. Unlisted.
 83) 229.37dT As last. 9.55 g.
 84) 229.40T As last but *Sra* and Greek B on obverse. Greek B on reverse. 9.83 g.
 85) 229.47T As 229.36T but with **B** in dots in reverse left field. 10.01 g. Unlisted.
 86) 229.66T On the obverse is letter *No* below the Gondopharid symbol and an uncertain letter formed from dots to its right. On the reverse a small letter **A** can be found above the nandipada and, as on several finely preserved coins of this series, a few extra letters formed from dots both in the left field, between Zeus' legs and top right. The letters intended are difficult to identify on this specimen. 9.65 g. Unlisted.
 87) 229.67T As last but *Pra* on obv. Large rosette over nandipada in left reverse field. *Kha* betw. legs. 9.79 gm.

This group of Issue 229 coins shows that there are many more varieties to be expected that exhibit tiny letters and monograms in both the obverse and reverse fields. In addition there are less obvious tiny letters formed from dots that may identify particular dies or engravers.

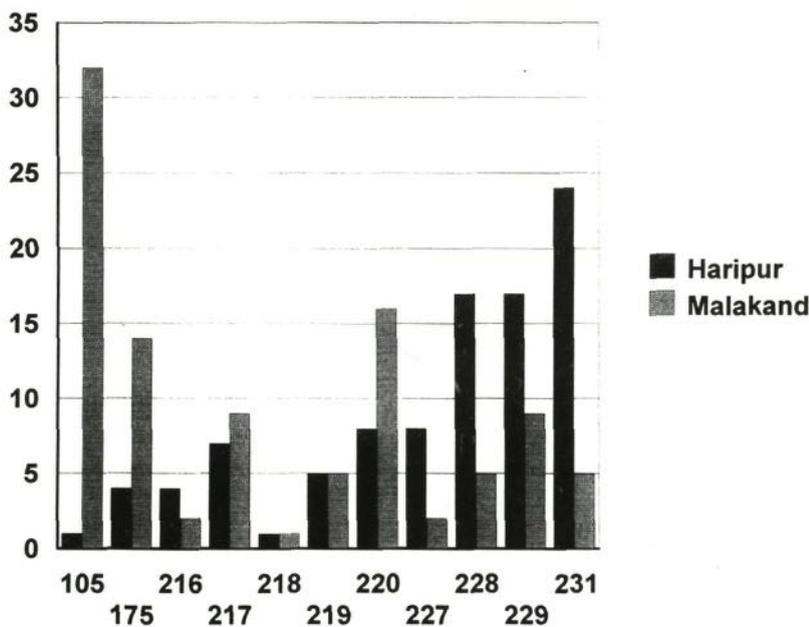
The next group of coins is generally scarce or rare for Abdagases and were struck at the end of his reign in Taxila. The fact that there were some 32 examples seen in the hoard, making it the commonest single type, suggests that the hoard was probably found in the Taxila region.

- 88) 231.10T A very fine example of this rare issue. 9.83 g. The die axes on most Abdagases coins are either parallel or erratic but on this issue are 'opposite'.
 89) 231.10T As last. 9.59 g.
 90) 231.10T As last. 9.78 g.
 91) 231.10T As last. 9.62 g.
 92) 231.11T As last but *Si* between the horses back legs. 9.76 g. Unlisted.
 93) 231.11T As last. 9.75 g. Traces of ΒΑΣΙΛΕΥΟΝΤΟΣ in this variety.
 94) 231.21T A very different style to the last and with *Va* on the reverse in place of *Bu*. The field letter is *Ji* and the axis turned 90° to the right. 9.96 g.
 95) 231.22T As last but with *ma* control letter. 9.76 g. Parallel die axes.
 96) 231.24T As last but uncertain letter on obverse 9.83 g.
 97) 231.26T As last, the obv. control monogram more separated than usual and resembling *Ti* over *I*. 9.83 g.
 98 - 101) 231.26T As last but variations in the form of the obverse letter. 10.11, 9.80, 9.56, 9.89 g
 102) 231.28T As last but cruder style and letter *Ya* on the obverse. 9.76 g. Unlisted.
 103) 231.29T As last but new, uncertain letter on obverse. 9.52 g.
 104) 231.30T As last but *Li* on obverse? 9.75 g.
 -) 231.20 - 27T another 15 examples.

Issue 231 of Taxila is generally quite scarce for Abdagases and immediately followed by an identical issue, with dies cut by the same engraver, in the name of Gondophares-Sases. The absence of any of the latter coins suggests that the hoard was deposited right at the end of Abdagases' reign, before the succession of Gondophares-Sases, and possibly connected with the transition of power from one dynastic house to the next. These Abdagases coins are the best preserved of the hoard. The very rare, early variety with *Bu* in the right reverse field (231.10/11T) is a direct continuation of the Posthumous Azes issues (105.850 - 990T) of Taxila and associated regions. Total catalogued from the original hoard, or reported 123. Not seen or lost, around 27.

At the end of Azes' lifetime his coinage fell into three types. His 'Pallas' type was centred round Pushkalavati and the areas north and west of it. His 'Zeus Nikephoros' type was centred round Taxila and the areas to the north while the 'Zeus right' type seems to have been a more general coinage for Gandhara. In *ISCH* I have suggested that Gondophares maintained his authority over Gandhara (the Western Punjab) by allowing the indigenous rulers of Pushkalavati and Swat (the Apracarajas) to continue striking 'Pallas' coinage in the name of the previously deceased Azes. This explains the rarity of Pallas coins in the name of Gondophares. Local dynasts also were allowed to strike Zeus-Nikephoros coinage in the name of the late Azes while Gondophares struck *none at all* of that type in his own name. In the reign of his successor, Abdagases, the Apracarajas continued with this arrangement but, at some time, the king took over Taxila and issued his own Zeus Nikephoros coins, firstly in the style of the previous coins, but then amended (with *Va* replacing *Bu* on the reverse). The two hoards bear out this analysis with the commonest type found in the Malakand hoard (Apracaraja territory) being the Apracaraja 'Pallas' type, while, in the Haripur hoard, found north of Taxila, it is the Zeus Nikephoros type of Abdagases. In *ISCH* (Vol. 1, p. 84) I noted that the posthumous Azes coinage of Zeus Nikephoros type with *Jham* above the horse (the third commonest coin type in the Malakand hoard by percentage) circulated between Taxila and Malakand rather than around Taxila itself. It is a little surprising that more posthumous Azes coins were not in the Haripur hoard but I am told that they were among the 20 or so coins not reported since they were baser, worn and less sought after coins. It may also be that such coins were withdrawn from circulation to some extent on the introduction of the similar type introduced by Abdagases (Issue 231). The numbers of Siva types of Gondophares were similar in both hoards as were the Gondophares 'Pallas' types. Issue 227 of Abdagases seems to have been issued while Gondophares was still regnant (apart from the newly discovered variant - coins 42 - 6) and the larger number found in the Haripur hoard of these scarce coins may suggest that they were minted closer to Taxila than Pushkalavati. The regular 'Zeus right' issue of Gondophares (Issue 220) conversely seems commoner in the Malakand hoard and may have circulated closer to the latter city. Issues 228 and 229 of Abdagases seem to have been issued to replace Issue 220 of Gondophares and his own initial issue 227.

All the major Gandharan issues of Abdagases are present in both hoards but none of his successor, Gondophares-Sases. In the Malakand hoard just four specimens of the Apracaraja type coinage bearing the actual ruler's name (Aspavarma) were present, and they were of his very first issue in his own name. It would appear that these two hoards were both deposited at the very moment when the ruling dynasty in Gandhara changed hands. The succeeding (very common) coinages were those of Aspavarma in Pushkalavati/Swat, and Gondophares-Sases in Taxila and the rest of Gandhara.



This new hoard adds many new minor varieties and some important ones to the known corpus of issues and confirms the story of the Indo-Parthian succession and coin circulation as I outlined it in *ISCH*. I would like to thank Shafqat Mirza, our Pakistan Secretary, who made notes of some of the other coins that were in the original hoard.

Figure 1 Percentage of each Issue found in the Malakand and Haripur hoards

¹ Boppearachchi and Rahman 'Pre-Kushana Coins in Pakistan' p. 13, Karachi, 1995.

² Boppearachchi, O. 'Indo-Greek, Indo-Scythian and Indo-Parthian coins in the Smithsonian Institution', Washington, 1993.

³ Senior, R. C. 'Indo-Scythian Coins and History', three volumes, London, 2000 (published by Classical Numismatic Group).



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As long ago as 1923 Hodivala concluded that the regnal years on the coins of Jahāngīr were calculated on a solar year and those of Shāh Jahān on the lunar *hijrī* calendar. To my knowledge no-one since has challenged this assessment. We are particularly lucky that the officials at the Tatta mint chose to include the names of the *llāhī* months as well as the *hijrī* and regnal years on the dies intended to be employed during that specific month for nearly all of the reigns of Jahāngīr and Shāh Jahān. My study began as a simple inventory of the date combinations known to exist as far as I could gather. An attempt was made to list the issues in chronological order based on the premise that the issues of Jahāngīr were calculated on a solar calendar based on the Persian model with the regnal years being counted from either his official accession date on 1 Ābān 1014 H or the first day of each solar year on 1 Farwardīn. At Tatta the names of the solar months did not begin to appear on the coins until the middle of Jahāngīr's sixth regnal year, but even with a large number of gaps and two problem dates it is obvious that the regnal years turned over at the beginning of the first solar month, Farwardīn, of each year from that point until the end of his reign as can be seen in the accompanying charts. The sole, possibly explicable exception for this reign occurred at the very end, although attested by only a single specimen, when the regnal year changed in Ābān 1037 H presumably on his accession anniversary.

I had also expected that the regnal years on the coins of Shāh Jahān followed official policy in that they were to be lunar *hijrī* and counted from the official accession date on 1 Jumādā II 1037 H, but as more and more data accumulated that would not fit chronologically on that basis, a new analysis became necessary. The only way that the vast majority of issues could be made to fit any logical sequence required the realisation that the starting points for the regnal years were not the same for all years. One can surmise that there was a struggle between official policy and local preferences.

Regnal year 1 for Shāh Jahān at this mint was not the lunar year that started on his accession, but was instead the remainder of his father's last solar year, a policy reminiscent of Sasanian practice. His year 2 began soon after, on 1 Farwardīn but still in 1037 H. If this second year had been calculated according to the *hijrī* calendar it could not have begun in 1037 H. Reference to charts "1037 H (part)" and "1037-1038 H Transition" will reveal how it is possible to have the years 1037 and 2 legitimately on the same coin if the regnal year is solar. When 1037 ended, the next issue is dated 1038 but now year 1, and deliberately omitting the name of the solar month and so showing that the regnal year reckoning had been shifted to the lunar calendar. This concession to the official policy was short-lived as the solar regnal years and months were restored to the dies no later than the month of Khūrdād and regnal year 2 but still 1038 H.

It seems clear that each of the regnal years 3-7 began on 1 Farwardīn but that, sometime during year 7, orders were received that the regnal years were to be calculated on the *hijrī* calendar. The local officials complied by changing the regnal year to 8 in 1045 H during the solar month of Khūrdād as 1 Muḥarram occurred during that month. The problem date 1044-8 Khūrdād may have been a result of confusion over this new policy with the regnal year being mistakenly changed before that of the *hijrī*. Those same officials may have misunderstood their orders, possibly deliberately, by changing the calculation to the first of the *hijrī* year instead of on the anniversary of the *hijrī* accession. This determination to commence a regnal year on the first day of a calendar year resulted in years 10-11 being renewed on 1 Farwardīn. At least some of the mint officials were reluctant to abandon old customs. Near the end of year 11 orders must have been laid down again that the regnal years should be counted on

the *hijrī* calendar and from the *hijrī* accession date, too. The Tatta officials then began year 12 on the anniversary of the accession, but obstinately, did so on the solar anniversary in the month of Bahman. This may have been the "last straw" in the minds of the imperial authorities who finally must have acted forcibly in some way as the final regnal years, 13-33, were all or nearly all changed on the accession anniversary in Jumādā II. There was an odd transition between regnal years 30 and 31 that may have been a result of the close correspondence of the starts of the lunar and solar years at this point and the conflicting policies. It may be that the insistence on obeying official dicta also could have come from a local faction in Tatta and, if so, possibly from within the mint itself.

The back and forth changes in the counting of the regnal years produced some oddities in the chronology of the coin issues that had to be recognised or the sequence of issues would never have been discoverable. One example of these oddities first occurs in regnal year 12 when the coins dated Farwardīn 1048 were minted after Bahman 1048 instead of ten months before!

As for my disagreement with Hodivala's assessment, so far this applies only to the Tatta mint, although disparities occurred at other mints as well. Aḥmadābād provides another interesting study although not as complicated as at Tatta.

As not all problems have been solved, there is still value in obtaining further date combinations. Anyone having coins that are missing from my charts or finding errors of fact are invited to send the particulars to me by email and addressed to: a.deshazo@worldnet.att.net.

The coins in the plates give some good examples of the Tatta mint output for the two reigns under discussion. Unfortunately not all types are represented.

I owe thanks to the following contributors of information of unpublished coins: Jan Lingen, Praful Thakkar, Shailendra Bhandare, the South Asia Coin Group website, Dilip Rajgor, Michael L. Bates, Hakim Hamidi, John B. Jensen's website, Stephen Album and his assistant, Joseph Lang. I regret that I was unable to visit or obtain information from major collections such as the British Museum.

Particular thanks are due to Jan Lingen for many helpful comments on various drafts of this article.

Keys

ASD	Alan S. DeShazo collection
Ash	Ashmolean Museum
BA	Baldwin's Auctions
BMC	British Museum Catalogue 1892
C	Indian Museum Catalogue, Calcutta
CS	Indian Museum, Calcutta Supplement
DR	Dilip Rajgor database
JB	John B. Jensen Collection
JL	Jan Lingen collection
LMC	Lucknow Museum Catalogue
LMCS	Lucknow Museum Catalogue, Supplement 1965
PG	Persic Gallery Price List
PKT	Praful Thakkar collection
PMC	Punjab Museum Catalogue
RCS	R.C. Senior Price List
SA	Stephen Album Price List
SACG	South Asia Coin Group website
UM I	Ulrike Müller, Silber-Münzen Der Moghul Kaiser Von Indien, Teil I
UM II	Ulrike Müller, Teil II
*	Gold
[]	square brackets enclose regnal year starting point
()	round brackets enclose points of interest or concern

Additional Reference

Hodivala, S.H., *Historical Studies in Mughal Numismatics*, The Numismatic Society of India, 1923, Bombay reprint, 1976 pp 199-218.

Problem Dates

Jahāngīr

1024 9 Khūrdād LuS 329
The unit's digit could be a misread 3.
1023 9 Khūrdād would be expected.

1036 22 Dī LuS 499
The expected date is 1036 21 Dī.

Shāh Jahān

1040 3 Ardībihisht RCS 5 147
The 3 could be a misread 4.
1040 4 Ardībihisht is expected.

1043 6 Ardībihisht N. 904
The 3 could be a misread 2 or the 6 could be a misread 7.
The expected date would be either 1042/6 or 1043/7
Ardībihisht.

1044 8 Khūrdād ANS 1974.26.2613, Lu 2072

The date should be 1044 7 or 1045 8 Khūrdād. Could be a hybrid but see text.

1046 9 Farwardīn UM II 1001
This date may be normal. If so, the regnal year calculation was changed from the starting point of 1 Muḥarram to 1 Farwardīn. Judging from regnal year 11 this is the more likely explanation as opposed to designating the coin a hybrid.

1050 14 Tīr Lu 2087
The 4 of 14 may be a misread 3. 1050 13 Tīr is expected.

1051 15 Amardād SA 53 828
This is probably a hybrid.

1067 30 Farwardīn N 934
1067 30 Ardībihisht Lu 2104
1067 30 Khūrdād N 936
It seems somewhat unlikely that all three of these are discrepant date combinations. If the combination 1067/31 Isfandārmuz is incorrect then the three can be fitted in. In that case, however, the starting point for this regnal year would be inexplicable unless, when the solar year turned over in Farwardīn, it was decided that it should still be year 30 according to a short-lived re-adjustment.

1067 31 Isfandārmuz N 938
This issue does not logically fit anywhere.

JAHĀNGĪR

Non-Ilāhī

H	r.y.	Month	
1015	2	--	LMC 1439, C 794, PMC 1002, N 482
1016	2	--	BA 26 1281, RCS 5 83
1016	3	--	LMC 1440, C 795, PMC 1003
1017	3	--	LMC 1441
1017	4	--	PMC 1004
1018	4	--	LMC 1442, C 796
1018	5	--	C 797, PMC 1005
1019	5	--	LMC 1443, C 798, PMC 1006, PG 24 581
1019	6	--	
1020	6	--	LMC 1444

Ilāhī

1020	6	Mīhr	ASD, LMC 1445
1020	6	Ābān	ASD, PG 39 275, LMC 1445a
1020	6	Āzar	
1020	6	Dī	
1020	6	Bahman	LMCS 326
1020	6	Isfandārmuz	
1021	6	Isfandārmuz	

[Farwardīn]

1021	7	Farwardīn	
1021	7	Ardībihisht	
1021	7	Khūrdād	LMC 1446, C 799, N 483
1021	7	Tīr	ASD, LMCS 328
1021	7	Amardād	
1021	7	Shahrewar	
1021	x	Mīhr	LMCS 327
1021	7	Ābān	PG stock
1021	7	Āzar	LMC 1447
1021	7	Dī	
1021	7	Bahman	
1021	7	Isfandārmuz	
1022	7	Isfandārmuz	
		[Farwardīn]	

[Farwardīn]

1022	8	Farwardīn	
1022	8	Ardībihisht	
1022	8	Khūrdād	LMC 1448, PG 34 283
1022	8	Tīr	LMC 1449
1022	8	Amardād	RCS 5, 84
1022	8	Shahrewar	
1022	8	Mīhr	SA 124, 520
1022	8	Ābān	
1022	8	Āzar	
1022	8	Dī	LMC 1450-1
1022	8	Bahman	
1023	8	Bahman	
1023	8	Isfandārmuz	
		[Farwardīn]	

1023 9 Farwardīn
 1023 9 Ardībihisht
 1023 9 Khūrdād LMC 1452
 1023 9 Tīr LMC 1452a
 1023 9 Amardād
 1023 9 Shahrewar
 1023 9 Mihr
 1023 9 Ābān
 1023 9 Āzar PG 41 229
 1023 9 Dī
 1023 9 Bahman LMC 1452b
 1024 9 Bahman
 1024 9 Isfandārmuz

1024 10 Farwardīn LMC 1453
 1024 10 Ardībihisht
 1024 10 Khūrdād
 1024 10 Tīr
 1024 10 Amardād
 1024 10 Shahrewar DR DM2-0461-62
 1024 10 Mihr
 1024 10 Ābān
 1024 10 Āzar SA 39,1212
 1024 10 Dī LMCS 330
 1024 10 Bahman
 1025 10 Bahman
 1025 10 Isfandārmuz ASD

[Farwardīn]

1025 xx Farwardīn LMC 1454
 1025 11 Ardībihisht LMC 1454a
 1025 11 Khūrdād LMC 1454b
 1025 11 Tīr
 1025 11 Amardād LMC 1454c
 1025 11 Shahrewar
 1025 11 Mihr UM I 574
 1025 11 Ābān LMC 1455-6, UM I 575
 1025 11 Āzar LMC 1456a, PMC 1007
 1025 11 Dī
 1026 11 Dī
 1026 11 Bahman
 1026 11 Isfandārmuz

[Farwardīn]

1027 13 Farwardīn ASD, LMC 1461a
 1027 13 Ardībihisht Ash
 1027 13 Khūrdād LMC 1461b
 1027 13 Tīr ASD, LMC 1461c
 1027 13 Amardād
 1027 13 Shahrewar C 802
 1027 13 Mihr PMC 1010
 xx27 13 Ābān LMCS 333
 1027 13 Āzar
 1028 13 Āzar
 1028 13 Dī
 1028 13 Bahman PKT
 1028 13 Isfandārmuz LMC 1462

[Farwardīn]

15 Farwardīn
 15 Ardībihisht LMC 1464
 15 Khūrdād LMC 1464a, PMC 1011, Ash
 15 Tīr LMCS 334, N 486
 15 Amardād C 804
 15 Shahrewar
 15 Mihr LMC 1464b, N487
 15 Ābān LMC 1465, N 488
 15 Āzar
 15 Dī PKT
 15 Bahman
 15 Isfandārmuz LMC 1465a

[Farwardīn]

17 Farwardīn
 17 Ardībihisht
 17 Khūrdād
 17 Tīr
 17 Amardād PKT
 17 Shahrewar

[Farwardīn]

1026 12 Farwardīn LMC 332
 1026 12 Ardībihisht
 1026 12 Khūrdād LMC 1457, C800, BMC 468
 1026 12 Tīr LMC 1458
 1026 12 Amardād
 1026 12 Shahrewar
 1026 12 Mihr
 1026 12 Ābān
 1026 12 Āzar LMC 1459, C 801
 1026 12 Dī
 1027 12 Dī LMC 1460-1, PMC 1008
 1027 12 Bahman
 1027 12 Isfandārmuz

[Farwardīn]

1028 14 Farwardīn
 1028 14 Ardībihisht
 1028 14 Khūrdād
 1028 14 Tīr LMC 1463
 1028 14 Amardād C 803
 1028 14 Shahrewar
 1028 14 Mihr LMC 1463a
 1028 14 Āban
 1028 14 Āzar
 1029 14 Āzar
 1029 14 Dī
 1029 14 Bahman
 1029 14 Isfandārmuz

[Farwardīn]

16 Farwardīn
 16 Ardībihisht
 16 Khūrdād LMC 1466, C 805, UM I 578
 16 Tīr
 16 Amardād
 16 Shahrewar
 16 Mihr
 16 Ābān
 16 Āzar LMC 1467
 16 Dī LMC 1467a
 16 Bahman
 16 Isfandārmuz LMC 1467b

[Farwardīn]

18 Farwardīn LMC 1468b
 18 Ardībihisht
 18 Khūrdād LMC 1469, PMC 1013, N 491
 18 Tīr LMC 1470
 18 Amardād
 18 Shahrewar

17 Mihr SACG (Prudhomme)
 17 Ābān
 1031 17 Āzar SACG (Goron)*
 17 Dī LMC 1468a
 17 Bahman
 17 Isfandārmuz LMCS 335, PMC 1012, N 490

[Farwardīn]

19 Farwardīn LMC 1472
 19 Ardībihisht LMC 1472a
 19 Khūrdād LMC 1473, N 492
 19 Tīr UMI 580
 1033 19 Amardād PMC 910*, LMC 1473a, ASD
 19 Shahrewar LMC 1473b
 19 Mihr LMC 1473c, C 806
 19 Ābān LMC 1474, UMI 581
 19 Āzar
 19 Dī LMC 1474a
 19 Bahman LMCS 336, UMI 582
 19 Isfandārmuz ASD

[Farwardīn]

1035 21 Farwardīn
 1035 21 Ardībihisht
 1035 21 Khūrdād LMC 1477b
 1035 21 Tīr
 1035 21 Amardād RCS 5 84
 1035 21 Shahrewar
 1036 21 Shahrewar
 1036 21 Mihr
 1036 21 Ābān
 1036 21 Āzar
 1036 21 Dī
 1036 21 Bahman N 495, SA 91 558
 1036 21 Isfandārmuz LMC 1477c

1032 18 Mihr SACG (Goron)*
 18 Ābān
 18 Āzar PKT
 18 Dī LMC 1471
 18 Bahman
 18 Isfandārmuz LMC 1471a

[Farwardīn]

20 Farwardīn LMC 1475, C 807
 20 Ardībihisht PMC 1014, N 493
 20 Khūrdād LMC 1475a, N 494
 20 Tīr LMC 1475b
 20 Amardād
 20 Shahrewar
 20 Mihr LMC 1476-7
 20 Ābān ASD, LMCS 338
 20 Āzar LMC 1477a
 20 Dī LMCS 337
 20 Bahman
 20 Isfandārmuz RCS 5 84

[Farwardīn]

1036 22 Farwardīn
 1036 22 Ardībihisht LMCS 339
 1036 22 Khūrdād LMCS 341
 1036 22 Tīr N 496-7
 1036 22 Amardād SACG (Goron)*, N 498
 1036 22 Shahrewar
 1037 22 Shahrewar
 1037 22 Mihr
 1037 22 Ābān LMCS 343, C 808, N 500

[10 Ābān]

1037 23 Ābān PMC 1015

1037 H (part)

Jumādā II	Rajab	Sha'bān	Ramadhān
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7 = 25 Bahman	7	7	7
8 regnal years	8	8	8
9 1 solar	9	9	9
10 &	10	10	10
11 1 lunar	11 = 30 Isfandārmuz	11	11
12 = 1 Isfandārmuz	12 = 1 Farwardīn	12 = 31 Farwardīn	12
13	13 regnal years	13 = 1 Ardībihisht	13
14	14 2 solar	14	14 = 31 Ardībihisht
15	15 &	15	15 = 1 Khūrdād
16	16 1 lunar	16	16
17	17	17	17
18	18	18	18
19	19	19	19
20	20	20	20
21	21	21	21
22	22	22	22
23	23	23	23
24	24	24	24
25	25	25	25
26	26	26	26
27	27	27	27
28	28	28	28
29	29	29	29
30 (speculative)	30		30

1037-1038 H Transition

Shawwāl	Dhū-l-qa'da	Dhū-l- <u>h</u> ijja	1038 H
1	1	1	regnal years still
2	2	2	2 solar
3	3	3	&
4	4	4	1 lunar
5	5	5	
6	6	6	Lunar regnal year 2
7	7	7	begins
8	8	8	1 Jumādā II 1038 H
9	9	9	
10	10	10	
11	11	11	
12	12	12	
13	13	13	
14	14	14	
15	15	15	
16 = 32 Khūrdād	16	16	
17 = 1 Tīr	17	17	
18	18 = 31 Tīr	18	
19	19 = 1 Amardād	19 = 31 Amardād	
20	20	20 = 1 Shahrewar	
21	21	21	
22	22	22	
23	23	23	
24	24	24	
25	25	25	
26	26	26	
27	27	27	
28	28	28	
29	29	29 = 11 Shahrewar	
	30		

Shāh Jahān

Ilāhī

[1 Farwardīn]

1037 1 Bahman	(theoretically possible)
1037 1 Isfandārmuz	ANS 1920.146.141
1037 2 Farwardīn	Private collection (central India), Lu 2054 (no <i>hijrī</i> year)
1037 2 Ardībihisht	
1037 2 Khūrdād	JL
1037 2 Tīr	Private collection (India)
1037 2 Amardād	
1037 2 Shahrewar	(theoretically possible)

Non-Ilāhī

[1 Jumādā II 1037]

1038 1	K-M 222.14
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Ilāhī

[1 Farwardīn]

1038 2 Farwardīn
 1038 2 Ardībihisht
 1038 2 Khūrdād N 895, PMC1304
 xxxx 2 Tīr PMC 1305
 1038 2 Amardād
 1039 2 Amardād
 1039 2 Shahrewar SA 41, 1189
 1039 2 Mihr
 1039 2 Ābān
 1039 2 Āzar
 1039 2 Dī CS 647
 1039 2 Bahman LMC 2055
 1039 2 Isfandārmuz

[1 Farwardīn]

1039 3 Farwardīn
 xxxx 3 Ardībihisht N 896
 1039 3 Khūrdād
 1039 3 Tīr LMC 2056
 1039 3 Amardād
 1040 3 Amardād
 1040 3 Shahrewar
 1040 3 Mihr LMC 2057
 1040 3 Ābān JL
 1040 3 Āzar
 1040 3 Dī LMC 2058
 1040 3 Bahman LMC 2059, CS 648
 1040 3 Isfandārmuz ASD

[1 Farwardīn]

1040 4 Farwardīn RCS 5 14
 1040 4 Ardībihisht N 897, CS 651, ANS 1974.26.2609
 1040 4 Khūrdād
 1040 4 Tīr N 898, Ash
 Amardād SA 15, 1065
 1041 4 Amardād SA 15, 1067
 1041 4 Shahrewar RCS 5, 147
 1041 4 Mihr
 1041 4 Ābān LMC 2060-1
 1041 4 Āzar UM II 995
 1041 4 Dī
 1041 4 Bahman LMC 2062
 1041 4 Isfandārmuz N 900

[1 Farwardīn]

1041 5 Farwardīn SA 15, 1068
 1041 5 Ardībihisht N 901
 1041 5 Khūrdād LMC 2063, N 902
 1042 5 Khūrdād SA 10, 605
 1042 5 Tīr
 1042 5 Amardād
 1042 5 Shahrewar N 903
 1042 5 Mihr
 1042 5 Ābān
 1042 5 Āzar
 1042 5 Dī LMC 2064.
 1042 5 Bahman
 1042 5 Isfandārmuz LMC 2065-6

1040 4

[1 Farwardīn]

1042 6 Farwardīn LMC 2067, CS 653
 1042 6 Ardībihisht JL, LMC 2068-9, PMC 1306
 1042 6 Khūrdād
 1042 6 Tīr
 1043 6 Tīr LMC 2070
 1043 6 Amardād
 1043 6 Shahrewar N 905
 1043 6 Mihr
 1043 6 Ābān C 1070
 1043 6 Āzar UM II, 998
 1043 6 Dī Ash
 1043 6 Bahman
 1043 6 Isfandārmuz

[1 Farwardīn]

1043 7 Farwardīn
 1043 7 Ardībihisht
 1043 7 Khūrdād ZENO #15106
 1043 7 Tīr N 906
 1044 7 Tīr C 1071
 1044 7 Amardād
 1044 7 Shahrewar RCS 7 367
 1044 7 Mihr ASD
 1044 7 Ābān
 1044 7 Āzar LMCS 458
 1044 7 Dī
 1044 7 Bahman N 907
 1044 7 Isfandārmuz LMC 2071 (?)
 1044 x Farwardīn N 908
 1044 7 Ardībihisht UM II 999

(1 Muḥarram) ~ 25 Khūrdād

1044 8 Khūrdād LMC 2072, ANS
 1045 8 Tīr
 1045 8 Amardād JBJ
 1045 8 Shahrewar N 909
 1045 8 Mihr CS 655
 1045 8 Ābān
 1045 8 Āzar
 1045 8 Dī PMC 1307
 1045 8 Bahman LMCS 459, CS 654
 1045 8 Isfandārmuz ASD, ANS 1974.26.2614
 1045 8 Farwardīn UM II 1000
 1045 8 Ardībihisht
 1045 8 Khūrdād

[1 Muḥarram]

1046 9 Khūrdād UM II 1002
 1046 9 Tīr LMC 2073, CS 656
 1046 9 Amardād
 1046 9 Shahrewar CS 657
 1046 9 Mihr LMC 2074
 1046 9 Ābān
 1046 9 Āzar LMC 2075
 1046 9 Dī
 1046 9 Bahman LMC 2076
 1046 9 Isfandārmuz
 1046 9 Farwardīn UM II, 1001

(1 Farwardīn)

1046 10	Farwardīn	LMC 2077, N 910
1046 10	Ardībihisht	
1046 10	Khūrdād	Ash
1047 10	Khūrdād	BMC 643, SA stock
1047 10	Tīr	BMC 644
1047 10	Amardād	
1047 10	Shahrewar	
1047 10	Mihr	SA 78, 426
1047 10	Ābān	
1047 10	Āzar	LMC 2078, N 911, UM II 1006
1047 10	Dī	RCS 5, 147
1047 10	Bahman	LMC 2079, UM II 1007
1047 10	Isfandārmuz	N 912, SA 40 144*

[18 Bahman]

1048 12	Bahman	LMC 2083, N 915
1048 12	Isfandārmuz	
1048 12	Farwardīn	CS 659
1048 12	Ardībihisht	N 914
1049 12	Ardībihisht	LMC 2084, PMC 1308, C 1072
1049 12	Khurdād	UM II 1009
1049 12	Tīr	
1049 12	Amardād	JBj
1049 12	Shahrewar	
1049 12	Mihr	

[1 Jumādā II]

1050 14	Shahrewar	LMC 2089
1050 14	Mihr	
1050 14	Ābān	
1050 14	Āzar	CS 664
1050 14	Dī	
1050 14	Bahman	LMCS 464, UM II 1011
1050 14	Isfandārmuz	
1050 14	Farwardīn	ANS 1974.26.2618
1051 14	Farwardīn	
1051 14	Ardībihisht	
1051 14	Khūrdād	
1051 14	Tīr	
1051 14	Amardād	
1051 14	Shahrewar	

[1 Jumādā II]

1052 16	Shahrewar	
1052 16	Mihr	
1052 16	Ābān	
1052 16	Āzar	
1052 16	Dī	
1052 16	Bahman	LMC 2094-5
1052 16	Isfandārmuz	ANS 1920.153.695
1053 16		
1053 16	Farwardīn	
1053 16	Ardībihisht	
1053 16	Khūrdād	ANS 1974.26.2621
1053 16	Tīr	
1053 16	Amardād	RCS 5, 147

[1 Farwardīn]

1047 11	Farwardīn	LMC 2080
1047 11	Ardībihisht	
1048 11	Ardībihisht	
1048 11	Khūrdād	LMC 2081
1048 11	Tīr	
1048 11	Amardād	
1048 11	Shahrewar	
1048 11	Mihr	
1048 11	Ābān	N 913
1048 11	Āzar	CS 658
1048 11	Dī	LMC 2082
1048 11	Bahman	

[1 Jumādā II]

1049 13	Mihr	ASD, LMC 2086
1049 13	Ābān	
1049 13	Āzar	LMCS 461, CS 660
1049 13	Dī	
1049 13	Bahman	SA 175, 583
1049 13	Isfandārmuz	LMCS 460
1049 13	Farwardīn	LMC 2085
1049 13	Ardībihisht	
1050 13	Ardībihisht	LMCS 462
1050 13	Khūrdād	
1050 13	Tīr	N 916
1050 13	Amardād	PMC 1309
1050 13	Shahrewar	LMCS 463.

[1 Jumādā II]

1051 15	Shahrewar	
1051 15	Mihr	LMCS 465
1051 15	Ābān	
1051 15	Āzar	
1051 15	Dī	
1051 15	Bahman	LMC 2091-2
1051 15	Isfandārmuz	SA 101, 514
1051 15	Farwardīn	LMC 2090
1052 15	Farwardīn	ASD
1052 15	Ardībihisht	
1052 15	Khūrdād	N 919, MWI 3230
1052 15	Tīr	LMC 2093
1052 15	Amardād	
1052 15	Shahrewar	

[1 Jumādā II]

1053 17	Amardād	
1053 17	Shahrewar	
1053 17	Mihr	
1053 17	Ābān	
1053 17	Āzar	ASD
1053 17	Dī	
1053 17	Bahman	LMCS 466
1053 17	Isfandārmuz	
1054 17	Isfandārmuz	
1054 17	Farwardīn	
1054 17	Ardībihisht	LMC 2097
1054 17	Khūrdād	LMC 2097a
1054 17	Tīr	
1054 17	Amardād	

[1 Jumādā II]

1054 18 Amardād
 1054 18 Shahrewar
 1054 18 Mihr
 1054 18 Ābān
 1054 18 Āzar
 1054 18 Dī
 1054 18 Bahman
 1054 18 Isfandārmuz
 1055 18 Isfandārmuz
 1055 18 Farwardīn
 1055 18 Ardībihisht
 105x 18 Khūrdād LMC 2098
 1055 18 Tīr
 1055 18 Amardād

[1 Jumādā II]

1056 20 Tīr
 1056 20 Amardād
 1056 20 Shahrewar ANS 1974.26.2624
 1056 20 Mihr
 1056 20 Ābān
 1056 20 Āzar
 1056 20 Dī
 1056 20 Bahman
 1057 20 Bahman LMCS 467
 1057 20 Isfandārmuz
 1057 20 Farwardīn
 1057 20 Ardībihisht
 1057 20 Khūrdād
 1057 20 Tīr
 1057 20 Amardād LMC 2099

[1 Jumādā II]

1058 22 Tīr
 1058 22 Amardād
 1058 22 Shahrewar BMC 663
 1058 22 Mihr
 1058 22 Ābān
 1058 22 Āzar
 1058 22 Dī
 1058 22 Bahman N 923
 1059 22 Bahman
 1059 22 Isfandārmuz
 1059 22 Farwardīn
 1059 22 Ardībihisht LMCS 468, Ash
 1059 22 Khūrdād N 924

[1 Jumādā II]

1060 24 Khūrdād
 1060 24 Tīr
 1060 24 Amardād RCS 5, 147
 1060 24 Shahrewar
 1060 24 Mihr N 927
 1060 24 Ābān
 1060 24 Āzar
 1060 24 Dī
 1061 24 Dī
 1061 24 Bahman
 1061 24 Isfandārmuz SA 11, 970
 1061 24 Farwardīn
 1061 24 Ardībihisht
 1061 24 Khūrdād

[1 Jumādā II]

1055 19 Amardād
 1055 19 Shahrewar
 1055 19 Mihr
 1055 19 Ābān
 1055 19 Āzar
 1055 19 Dī
 1055 19 Bahman
 1056 19 Bahman
 1056 19 Isfandārmuz MWI 3231
 1056 19 Farwardīn
 1056 19 Ardībihisht
 1056 19 Khūrdād C 1074
 1056 19 Tīr

[1 Jumādā II]

1057 21 Amardād
 1057 21 Shahrewar
 1057 21 Mihr
 1057 21 Ābān LMC 2100
 1057 21 Āzar
 1057 21 Dī
 1057 21 Bahman
 1058 21 Bahman
 1058 21 Isfandārmuz
 1058 21 Farwardīn
 1058 21 Ardībihisht
 1058 21 Khūrdād UM II 1021
 1058 21 Tīr

[1 Jumādā II]

1059 23 Khūrdād
 1059 23 Tīr
 1059 23 Amardād N 925
 1059 23 Shahrewar SA 40, 1087
 1059 23 Mihr
 1059 23 Ābān
 1059 23 Āzar
 1059 23 Dī
 1060 23 Dī
 1060 23 Bahman
 1060 23 Isfandārmuz
 1060 23 Farwardīn N 926
 1060 23 Ardībihisht
 1060 23 Khūrdād

[1 Jumādā II]

1061 25 Khūrdād
 1061 25 Tīr
 1061 25 Amardād
 1061 25 Shahrewar
 1061 25 Mihr
 1061 25 Ābān
 1061 25 Āzar
 1062 25 Āzar
 1062 25 Dī
 1062 25 Bahman
 1062 25 Isfandārmuz
 1062 25 Farwardīn
 1062 25 Ardībihisht

[1 Jumādā II]		[1 Jumādā II]	
1062 26	Ardībihisht	ANS 1920.153.696	
1062 26	Khūrdād		
1062 26	Tīr		
1062 26	Amardād		
1062 26	Shahrewar		
1062 26	Mihr		
1062 26	Ābān		
1062 26	Āzar		
1063 26	Āzar		
1063 26	Dī		
1063 26	Bahman		
1063 26	Isfandārmuz		
1063 26	Farwardīn	PMC 1310, UM II 1024	
1063 26	Ardībihisht		
1063 27	Ardībihisht		
1063 27	Khūrdād		N 928
1063 27	Tīr		
1063 27	Amardād		
1063 27	Shahrewar		
1063 27	Mihr		
1063 27	Ābān		
1064 27	Ābān or Āzar		
1064 27	Āzar		
1064 27	Dī		LMC 2101
1064 27	Bahman		N 929
1064 27	Isfandārmuz		
1064 27	Farwardīn		
1064 27	Ardībihisht		

[1 Jumādā II]		[1 Jumādā II]	
1064 28	Ardībihisht		
1064 28	Khūrdād	LMCS 471	
1064 28	Tīr		
1064 28	Amardād		
1064 28	Shahrewar		
1064 28	Mihr		
1064 28	Ābān		
1065 28	Ābān		
1065 28	Āzar		
1065 28	Dī		
1065 28	Bahman	N 931, LMC 2102	
1065 28	Isfandārmuz		
1065 28	Farwardīn		
1065 29	Farwardīn		Ash
1065 29	Ardībihisht		N 932
1065 29	Khūrdād		
1065 29	Tīr		
1065 29	Amardād		PMC 1311
1065 29	Shahrewar		
1065 29	Mihr		
1065 29	Ābān		
1066 29	Ābān		C 1080
1066 29	Āzar		
1066 29	Dī		
1066 29	Bahman		
1066 29	Isfandārmuz		LMCS 472

[1 Jumādā II]		(1 Muḥarram)	
1066 30	Farwardīn		
1066 30	Ardībihisht	N 933	
1066 30	Khūrdād		
1066 30	Tīr		
1066 30	Amardād		
1066 30	Shahrewar		
1066 30	Mihr		
1067 30	Mihr		
1067 30	Ābān		
1067 30	Āzar		
1067 30	Dī	LMC 2105, Ash	
1067 30	Bahman	N 935	
1067 30	Isfandārmuz	ANS 1974.26.2628	
1067 30	Farwardīn		N 934
1067 30	Ardībihisht		LMC 2104
1067 30	Khūrdād		N 936
1067 30	Tīr		
1067 31	Amardād		N 937
1067 31	Shahrewar		
1067 31	Mihr		
1068 31	Mihr		
1068 31	Ābān		
1068 31	Āzar		PMC 1312
1068 31	Dī		
1068 31	Bahman		
1068 31	Isfandārmuz		

[1 Jumādā II]		[1 Jumādā II]	
1068 32	Isfandārmuz		
1068 32	Farwardīn		
1068 32	Ardībihisht		
1068 32	Khūrdād		
1068 32	Tīr		
1068 32	Amardād		
1068 3x	Shahrewar	Private collection (India)	
1068 32	Mihr		
1069 32	Mihr	PKT	
1069 32	Ābān		
1069 32	Āzar		
1069 32	Dī		
1069 32	Bahman		
1069 32	Isfandārmuz		
1069 33	Isfandārmuz		
1069 33	Farwardīn		N 940
1069 33	Ardībihisht		
1069 33	Khūrdād		N 941
1069 33	Tīr		
1069 33	Amardād		N 942, PKT

Tatta

Jahāngīr



1020 6 Mīhr



1020 6 Ābān



1021 7 Tīr



1025 10 Isfandārmuz



1027 13 Farwardīn



1027 13 Tīr



19 Amardād



19 Isfandārmuz



20 Ābān

Shah Jahan



1040 3 Isfandārmuz



1044 7 Mīhr



1045 8 Isfandārmuz



1050 13 Mīhr



1052 15 Farwardīn



1053 17 Āzar