



Mazdoano, the gracious one, Kushan god on a gold dinara of Kanishka I (Coin 386).

Kushan, Kushano-Sasanian, and Kidarite Coins

A Catalogue of Coins
From the American Numismatic Society

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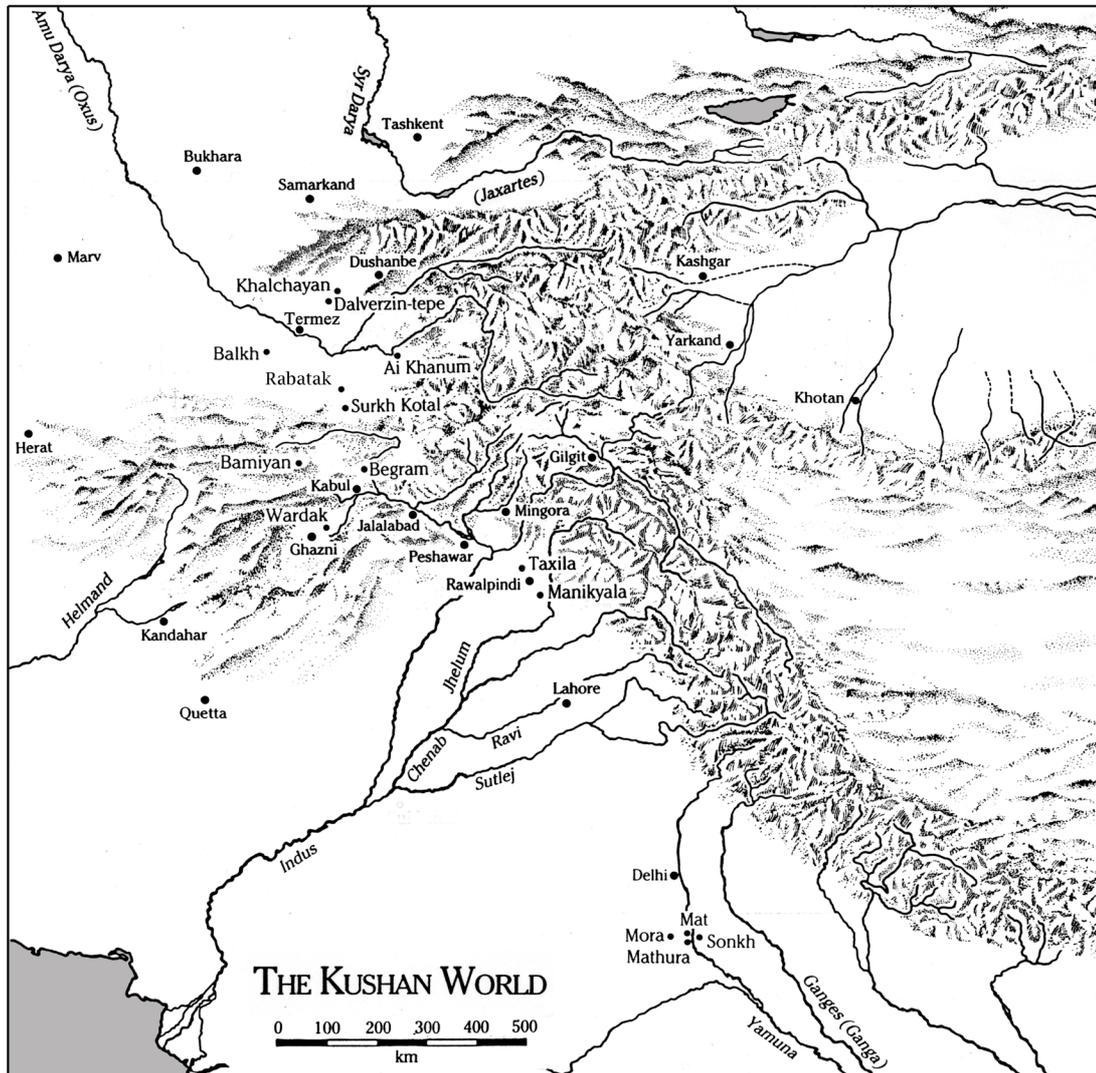
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Introduction

Nearly all the 2,638 coins documented in this catalogue of the ANS collection of Kushan coins were donated to the Society:

Table 1. Principal Sources (five or more coins) of Kushan coins in the American Numismatic Society

ANS Accession	Collection	No. of coins
1911.105	I. J. Greenwood	69
1921.54	Valentine collection, gift of Mr. E.T. Newell	15
1924.69	Columbia University	8
1927.38	Ms. R. T. Barrington	10
1927.165	K. Minassian	8
1944.100	Mr. E. T. Newell	464
1949.66	Sir John Marshall, purchased from Metropolitan Museum of Art	7
1952.112	Purchased from A. F. McKenzie	5
1967.154	Mrs. A. M. Newell	12
1973.56	Metropolitan Museum of Art	37
1974.78	F. Jacobs	8
1977.274	G.C. Miles collection, gift of Mrs. J.R. McCredie	11
1979.45	William Spengler	10
1986.149	Marjorie D. Schwartz	35
1987.46	William Spengler	120
1987.47	Martha Carter	29
1988.22	William Spengler	62
1989.15	William Spengler	5
1991.3	H. W. Herz	7
1995.51	Harry Fowler	23
1996.62	C. K. Panish	8
1997.66	Mrs. Olivia Garvey Lincoln	1510
2012.13	Purchased from P. R. Donovan	12



Map 1. The Kushan World. Courtesy of Elizabeth Errington.

A few coins have been purchased since the outset of the present catalogue project which began in 2006. Kushan coin donations to the ANS commenced with the I. J. Greenwood bequest in 1911. Subsequent donations include the collections of E. T. Newell in 1944, a jointly donated collection from William Spengler and Dr. Martha Carter in 1986, and a large collection of Kushan coppers from the Lincoln bequest in 1997. Dr. Larry Adams, an ANS Trustee, has kindly permitted the authors to include fifty-four gold coins from his private collection, an intended gift to the Society. In the catalogue, the coins of Dr. Adams are designated with numbers preceded by the letters LAK.

The whole of the ANS collection of Kushan coins can be accessed online at www.numismatics.org.¹

1. Individual coins may be found by appending the ANS accession number to the address: www.numismatics.org/collection. The first coin in this catalogue may thus be found at numismatics.org/collection/1944.100.66762.

THE KUSHAN EMPIRE AND ITS COINAGE

During the first centuries AD, a vast inland empire stretched across Central and South Asia. The Kushan Empire was a super power of its time alongside those of China, Persia and Rome. Just how and when the Kushan dynasty was formed continues to be debated, and precise dates, especially for the late Kushan kings, are still elusive, but the coinage alone reveals the Kushan dynasty as a major force in the cultural and political history of the ancient Silk Road.

Evidence for the reigns of a handful of Kushan kings has been gleaned from cryptic references in Chinese and Kashmiri annals, supported by evidence from contemporary inscriptions on stone and metal and from the Kushans' extensive coinage. Some Kushan kings are only known because their names appear on coins. Determining chronologies of kings in Central Asia has depended on numismatics and epigraphy to a greater extent than on archaeology. Coin finds have provided crucial evidence in most Kushan-era archaeological sites. This is especially true for the sites at Begram in Afghanistan and Taxila in Pakistan, together with smaller sites in Pakistan, northern Afghanistan, southern Uzbekistan, Tajikistan and India. In all these sites the dating of antiquities has largely relied on the coins found in the same or related archaeological contexts (Errington and Curtis 2007: 63–72). The 1993 discovery in northern Afghanistan of the Rabatak inscription (Sims-Williams and Cribb 1995/1996; Sims-Williams 1998, 2008) added another piece of firm evidence for understanding the history of the Kushan Empire. The inscription records the purpose of a cult at a religious sanctuary built on the orders of the fourth Kushan king Kanishka I. It lists the gods whose images were to be presented in the sanctuary, and the achievements of Kanishka I in subjugating the cities of northern India. It also provides the names of his dynastic predecessors: his great-grandfather Kujula Kadphises, his grandfather Wima Takto and his father Wima Kadphises, confirming the evidence of royal succession provided by the coins.

Kanishka I has generated the widest attention across the spectrum of cultural, political and religious history, as well as in numismatics. In Rosenfield's study of Kushan dynastic arts, the reign of Kanishka is given more attention than all the other Kushan kings combined. Rosenfield describes Kanishka as a figure of primary importance in Asian history, "exceptional in his ability to consolidate a great empire while also encouraging the release of his peoples' creative energies" (Rosenfield 1967: 27–58). Kanishka's reign is rightly considered a pivotal era in the history of the area and saw major contributions in architecture, sculpture, and Buddhist texts and art.

Kanishka's importance in written records is largely because of the part he played as a patron of Buddhism. His issue of coins with Buddhist images supports the historicity of this legendary role. He has also become crucial to modern historical research because of the use of an era, apparently established in his first year, as a dating system for the next century and a half in Kushan territory. Many contemporary inscriptions and sculptures carry dates in this era, so the Kanishka era has also become of immense importance to epigraphists and historians of religion and art. Because this era appears then to have disappeared, there has been a long running controversy over its start date. This has largely been resolved by a growing consensus that places the Kanishka era in the early second century AD, based in part on Falk's analysis of a reference to the second century AD as the "Kushan era" in an early Sanskrit text (Falk 2001). It is now widely agreed by scholars that this era began in c. AD 127.

For the purposes of this catalogue, the list of Kushan and related rulers, together with their approximate dates, is constructed around Falk's date of AD 127 for the beginning of the Kanishka era (see Table 2, below). Research on these issues is an ongoing process and constantly under review.

Table 2. Rulers and Dynasties

Kushan Kings	Dates AD	Dates documented in inscriptions*
Kujula Kadphises	c. 50–90	AZ 122 and 136
Wima Takto	c. 90–113	GR 279
Wima Kadphises	c. 113–127	GR 287
Kanishka I	c. 127–151	KA 1–23
Huvishka	c. 151–190	KE 28–60
Vasudeva I	c. 190–230	KE 64–98
Kanishka II	c. 230–247	KE [1]11–[1]18
Vasishka	c. 247–267	KE [1]20–[1]30
Kanishka III	c. 267–270	KE [1]41
Vasudeva II	c. 267–300	
Mahi	c. 300–305	
Shaka	c. 305–335	
Kipunadha	c. 335–350	
<i>Kushanshahs</i>		
Unidentified king	c. 230	
Ardashir	c. 230–245	
Peroz I	c. 245–270	
Hormizd I	c. 270–300	
Hormizd II	c. 300–303	
Peroz II	c. 303–330	
Varahran (Kidarite puppet)	c. 330–365	
Shapur II	c. 309–379	
<i>Kidarites</i>		
Yosada	c. 335	
Kirada	c. 335–345	
Peroz	c. 345–350	
Kidara	c. 350–390	

*The dating eras employed in the inscriptions are abbreviated as follows: AZ—the Azes Era (counting from 46 BC), GR—the Greek Era (counting from 174 BC), and KA—the Kanishka Era (counting from AD 127).

KUSHAN COINAGE TRADITION

Coinage in the territory which was to become the Kushan Empire first appeared during its addition to the empire of the Achaemenid Persian kings. The Persian administration oversaw the production of two locally made coinages, die stamped coins in the Greek style and punch-marked bent-bar coins (Cribb 2005: 70–72). A hoard found at Chaman-i Hazouri in the Kabul region contained coins imported from Mediterranean cities and kingdoms together with both kinds of the locally made coins (Curiel and Schlumberger 1953; Cribb 2005). This hoard provides evidence

that India's coinage tradition dates back to at least the late fifth century BC. The rule of the same region by Greek and Indian kings in the period after the defeat of the Persian empire by Alexander the Great meant that both Greek and Indian coinage circulated in the area after Alexander's conquest (Cribb 2005). Two forms of Indian coinage circulated in this area, silver punch-marked coins, derived from the bent-bar coins made from cut sheets of silver and stamped with sun, moon, tree and other symbols, and also square copper cast coins with similar symbolic designs. After Greek and Indian rule the territory came under the control of Indo-Scythian (c. 75 BC–AD 50) and Indo Parthian kings (c. AD 32–110) who issued coins in the Greek tradition (Cribb 2007a: 333–375).

When the Kushans began issuing coins in about AD 50, they adapted for their own purposes coin designs already in use. Kushan coin minting techniques and coin design were an extension of the traditions of Greek style coinage already current in the area over more than three centuries. Many aspects of Greek coin design had been adapted locally first by the Indo-Greek kings of the second century BC, who introduced bilingual inscriptions in Greek and Prakrit, written in Brahmi or Kharoshthi script (Salomon 1998: 42–56, 77–79; 1999: 3–4, 110–112), then by the Indo-Scythians of the first century BC who retained the general form of Bactrian and Indo-Greek coinage, but replaced Greek royal portrait busts with full-figure royal images in nomad dress or armor. In turn, the Indo-Scythians were overthrown by an Indo-Parthian dynasty in the early first century AD who retained many of the Indo-Scythian designs, but also reintroduced portrait busts, now in an Iranian style. Throughout the Indo-Greek to Indo-Parthian period, the coin inscriptions gave the name and titles of the issuing ruler, except in a few cases where the coins are inscribed with a former ruler's name and titles as a continuing posthumous issue.

Apart from these cultural shifts, coin designs in this region remained structurally as they had under the Indo-Greeks, with royal designs surrounded by Greek inscriptions on the obverse, and religious images on the reverse surrounded by inscriptions in Prakrit (in Kharoshthi script). The Kushans initially continued most aspects of these traditions, preferring to mimic designs of their predecessors, and issued coins with Indo-Greek, Indo-Parthian and Indo-Scythian designs. Some coin designs of the first Kushan king, Kujula Kadphises, are either direct copies or adaptations of Indo-Greek, Indo-Scythian and Indo-Parthian issues, mostly modified by replacing the earlier kings' names with his own. Two of Kujula Kadphises's coinages continue the practice of making posthumous issues in the name of a long dead king, following the practice of the peoples they conquered. In one of his issues from the mint in Taxila, Kujula Kadphises chose an imported Roman coin design as his prototype.

Until the discovery of his name in the Rabatak inscription, the coinage after the issues in the name of Kujula Kadphises was poorly understood. Those with the name of Kujula Kadphises' son, Wima Takto, were thought to relate to the next king, his son Wima Kadphises (Cribb 1981b). The rest of the coinage was anonymous, inscribed in Greek with the titles ΒΑΣΙΛΕΥΣ ΒΑΣΙΛΕΥΩΝ [sic] ΣΩΤΗΡ ΜΕΓΑΣ, king of kings great savior. A variety of attributions have been proposed, associating them with Kujula Kadphises, Wima Kadphises, an unidentified Kushan king or a usurper (MacDowall 1968; Mukherjee 1995; Fussman 1998; Bopearachchi 2006, 2007 and 2008). The use of the name of Wima Takto on two coin types linked by their designs and tamgas with the anonymous coins shows that at least part of this enigmatic coinage was issued in his reign (Sims-Williams and Cribb 1995/1996). It seems likely that the issue of the anonymous coins may have commenced in the reign of Kujula Kadphises in an attempt to establish a stable standard for his monetary system.

Wima Takto's son, Wima Kadphises, introduced a novel design for his copper coinage based in Kushan culture with a highly original image of the standing king in nomad dress making an offering at a small altar. Alongside these he used a variety of royal images on gold coins, with the king seated on or emerging from a mountain top, riding an elephant, seated on a throne or riding in a chariot, all reflecting aspects of Kushan culture.

Wima Kadphises' image of a devotional king sacrificing at an altar was his most influential innovation and it was retained throughout Kushan coinage (Cribb 1998: 86–87), as well as influencing the coin design of several successor states (Cribb 2005 and 2007). It was this design which became the primary image used by his son Kanishka I. Kanishka I also made the final break with key aspects of the earlier tradition by changing the language on his coins from Greek to Bactrian, an Iranian language written using Greek letters (Sims-Williams 1989a: 344–349; 1989b: 230–235), and dropping the use of Kharoshthi along with Greek. He also introduced the labeling of divine images on the reverse, perhaps following Roman practice (Errington and Cribb 1992: 48–49). Kanishka's successor Huvishka reused the portrait types of Wima Kadphises, particularly the king emerging from mountain top on his gold coins and the elephant rider, king seated on mountain and king seated on throne on his copper (see Appendix B for Huvishka's portrait designs).

All the kings after Huvishka retained the sacrificing king design introduced by Wima Kadphises and adapted by Kanishka I. Apart from a gradual shift in style, the only other innovation to take place in Kushan coin design was the gradual phasing out of Bactrian inscriptions, which were replaced by Brahmi inscriptions in the form of monograms written in the field of the coin. The introduction of Brahmi monograms began in the reign of Vasudeva I, but became the dominant form of inscription in the reign of Vasudeva II, who put the initial part of his name *Vasu* as a vertical Brahmi monogram in the obverse right field of his coins. All his successors appear to have followed this practice of identifying themselves through such a monogram (Errington and Cribb 1992: 73; Burns 1984:54–66).

Kanishka's adoption of Bactrian language inscriptions has been explained in a variety of ways (Cribb 1998: 86). The discovery of the Rabatak inscription (Sims-Williams and Cribb 1995/1996: 110–111), which explicitly refers to the transition from Greek to Bactrian, points to a deliberate political act of the Kushans to establish a more distinctly Iranian identity and a resolutely anti-Greek attitude (as suggested by Fussman 1976: 313–22). The abandonment of Kharoshthi inscriptions on the reverses of Kushan coins, however, does not appear to have had a political meaning, but simply reflects the consequence of the coinage becoming imperial and therefore circulating throughout the Kushan Empire, rather than being essentially local to the Gandhara and Punjab regions, the only parts of the Kushan state where Kharoshthi had traditionally been used on coins. During Kanishka's reign and that of his successor Huvishka, Kharoshthi still appeared on some copper coins produced in Kashmir, Gandhara or the Punjab in the form of control marks (usually as single letters, but as a name Yodhavade on some rare issues not in the ANS collection).

The introduction of Brahmi monograms was clearly of a different order to the decision to use Bactrian. The first uses of Brahmi seem to have been related to the administration of coin production, as tiny Brahmi control marks began to be used at only one of Vasudeva I's gold mints in the last part of his reign. Under Kanishka II, in the only mint in routine production, the use of Brahmi monograms became a standard procedure which spread to the copper mint and to newly located mints when they opened. The reign of Kanishka II also saw the loss of parts of Bactria from

the Kushan Empire, so the gradual reduction in the use of Bactrian as an official language began at the same period. By the reign of Vasudeva II, Bactrian inscriptions on the coins were becoming increasingly illegible. The Brahmi monograms became an easier means of identification for the user and replaced Bactrian. On a few gold issues of Vasudeva II Kharoshthi monograms appeared in place of the usual Brahmi ones. Illegible traces of Bactrian continued to appear on most gold coins, but disappeared completely from the copper.

Brahmi monograms were also used on the coins issued by successor states, including Kidarite Hun coins in Gandhara and Gupta coins in India. However, Bactrian survived in use on Kushano-Sasanian coinage in Afghanistan, and was continued on the coins issued by their successors in the same region, the Kidarite and the Alchon Huns.

KUSHAN MONETARY SYSTEM AND MINTS

Although the Kushans adapted many aspects of the coin design practice of their forerunners in the region, their monetary system only followed earlier practices during the period of its establishment under Kujula Kadphises. The introduction of the anonymous *Soter Megas* coinage at the end of the reign of Kujula Kadphises marked a departure from earlier monetary practice. This new coinage attempted to unify the currency throughout Kushan territory, leaving only Kashmir with a separate system until the following reign. New areas of conquest in Gandhara and India briefly used modified versions of the unified currency, while the denominational system in Kashmir was changed to comply with the imperial coinage. The new coinage was based on copper denominations weighing two drachms (c. 8.5 g) and a half drachm (2.1 g) on a “reduced Attic” standard. In size it also approximated to the Indo-Scythian and Indo-Parthian base-silver four drachm (c. 9.5 gram) on the Indo-Greek standard. The general issue *Soter Megas* coinage was exclusively copper, replacing the chaos created by the debasement of silver coinages previously in use in both Bactria and south of the Hindu Kush. The new coinage featured a radiate bust of the Kushan sun god Mioro on its obverse, and a horseman on the reverse. In newly conquered Gandhara, however, Wima Takto issued an Indo-Greek standard *Soter Megas* coinage that took account of the previous system (Indo-Parthian) by retaining about 3% silver content and copying the Indo-Parthian horseman/Zeus design type.

In the next reign the unification process was taken a step forward in establishing a completely unified coinage for the entire empire, including Kashmir and newly conquered territories. New copper denominations were added and higher denominations in gold were also introduced. Wima Kadphises’ coinage now consisted of copper coins weighing four, two and one drachms (16, 8, and 4 gram), and gold of four, two, one (rare) and half drachms (16, 8, 4 and 2 gram). The tetradrachm and didrachm coppers and the dinara and half dinara gold were clearly intended as the standard units, as in the next reigns of Kanishka and Huvishka these were the dominant issues. Only in Kashmir were one drachm coppers routinely issued.

By the reign of Vasudeva I the copper coinage consisted only of the four drachm and the gold of two and half drachm denominations. The two drachm gold coin was very close in weight to the imported Roman *denarius aureus*, the standard Roman gold denomination, so that at some point before the reign of Kanishka II it came to be known as the *dinara*. The name of the copper denomination is not known. In this catalogue the large copper denomination will be referred to as tetradrachm from late in Huvishka’s copper issues when reduced weight denominations are referred to as “units.”

The unification and standardization achieved during the reigns of Wima Takto and Wima Kadphises lasted until the end of the Kushan Empire. To some extent the standard was continued by the successor Kushano-Sasanian and Kidarite Hun states and also borrowed by the Gupta empire in India. However, the system was not as robust as its continuity suggests. The causes are not entirely clear, but under Huvishka the weight of the standard copper four drachm unit began to drop, so that its origins in the Attic standard became obscured. The initial cause seems to have been a loss of control of the issue system, as the same designs appear on coins weighing from the standard 16 grams down to about 1 gram. When control was restored a new standard was set at about 12 grams. The process of decline continued and by the end of the reign the coins were being issued at about 10 grams. Under Vasudeva I they dropped down to about 8 grams. Each of the following reigns saw a progressive reduction of the standard until the end of the empire, when copper coins weighing less than 2 grams were being issued. The Kushano-Sasanian coinage also followed a similar downward trajectory. When the Kidarites took over from both the Kushans and the Kushano-Sasanians, the copper coinage standard dropped to about 1 gram (Khan, Errington, Cribb 2008: 50).

The gold coinage maintained a high standard until the period of Kanishka II, when the gold content of the coins began to fall significantly, although not the weight. The initial gold issues of Wima Kadphises were made with almost pure gold, and through the next century a drop in fineness of less than 5% has been observed (Bracey 2011; Oddy and Cribb 1998). From the accession of Kanishka II the gold coins began to be debased progressively. The gold content had fallen to about 85% by the end of Vasishka's reign. Kanishka III and Vasudeva II's reigns suggest an attempt to restore a higher fineness of about 92%, but without success as the gold content continued to drop. During Shaka's reign, the fineness dropped from about 77% down to about 50%. The decline continued during Kipunadha's reign until some of his issues contained less than 15% gold and lost their gold appearance. Kushano-Sasanian and Kidarite gold coins show gold quality close to the contemporary issues of the Kushans. It is likely that the cost of conflict between the Kushans and the Kushano-Sasanians was in part the cause of this decline. The decrease in value of the gold coinage followed the track of the descending weight standard of the copper coinage. Although it is likely that the monetary system was based on an official correlation between the gold and copper coinages, no evidence survives to confirm this or to indicate the nature of the correlation.

The production of gold and copper coinage seems normally to have been separate. Unfortunately there are no indicators such as mint marks or mint names that reveal the number of mints or their locations. The identification of mints and conjectures about their location are based on distinctions in design, style and production techniques and on the distribution of finds.

Die studies suggest that initially there was only one gold mint, with a second mint added towards the end of Kanishka I's reign. The original mint remained the main one through the reigns of Huvishka and Vasudeva I, with the added mint working as a subsidiary. The number of dies attributed to each mint suggests that production at the main gold mint was double that of the subsidiary mint. Die studies also suggest that production at the Kushan mints appears to involve just two individuals at anvils striking coins at the main mint and one at the subsidiary mint. There were probably other workers involved in refining and alloying the metal, making blanks and checking production, but it is clear that only a small team was involved, so mint locations could be readily transferable.

At the end of the reign of Vasudeva I, the main gold mint stopped production, but copies of its designs continued in a series of posthumous imitations. The imitations gradually evolved in

design, providing the prototype for the first Kushano-Sasanian gold issues minted by the second Kushanshah, Peroz I. It seems plausible to suggest that the main mint was closed or taken over as a result of the Sasanian invasion of Bactria. As later gold coins from the same mint are sometimes marked with the Bactrian name *Bachlo* (i.e. Bactra = Balkh), it also seems plausible to suggest that the main Kushan gold mint was located in the same city. The subsidiary Kushan gold mint continued until the reign of Vasishka, when it also ceased production and new mints were opened further east. This is also the time when the Sasanians seem to have taken possession of Peshawar, so it is likely that this was the location of the subsidiary mint. The loss of the main and subsidiary gold mints forced the Kushans to open mints in at least two other locations. The distribution of finds suggests that one was located in Mathura and the other in the Punjab, probably at Taxila. After Vasudeva II, the mint at Mathura seems to have been moved back into Gandhara.

Under the first Kushan king, Kujula Kadphises, production of copper and silver coinage was localised, reflecting the various regional monetary systems in the territory he conquered. The largest production centres relate to the two centres of Kushan rule in its conquered territories at Begram and Taxila. Local finds help to distinguish the production of similar coinage at local mints in these territories. With reforms of the copper coinage of Wima Takto and Wima Kadphises, the copper coinage appears to be produced centrally, probably also at Begram, with some local production at subsidiary mints in Kashmir and in newly conquered territory under Wima Takto and perhaps continuing in Kashmir under Wima Kadphises.

Kanishka's main production of copper coinage also seems to have been at Begram. Kanishka also had a large subsidiary mint in Kashmir that produced mostly copper drachms. Kashmir was an important source of copper and the coins produced there from Kujula Kadphises into the reign of Huvishka are often recognizable due to their magnetic response (Tanner et al. 1979). Another small subsidiary mint producing only four drachm issues opened in the last years of Kanishka I's reign, probably in Gandhara, perhaps to complement the subsidiary gold mint at Peshawar. Under Huvishka, copper coinage production continued at the three mints working under Kanishka, but towards the end of his reign he also opened a small copper mint in Mathura.

The production of copper coinage from the period of Vasudeva I onwards is more difficult to locate. Some production can be matched with gold issues due to the shared use of Brahmi control marks, but there is insufficient evidence to be precise about the location and number of mints. The picture is obscured by the massive production of imitation coins. Some of these can be linked with the Kushano-Sasanians through the use of mint control marks that appear on the posthumous Vasudeva gold coinage attributable to them. Kushano-Sasanian copper coin production from the reign of Peroz I suggest two minting centres, one linked with the gold mint in Bactria and the other somewhere south of the Hindu Kush, either at Begram or Peshawar. The Kidarites seem to have continued the use of two minting centres, in Bactria and in Gandhara.

For most of the Kushan period the depiction of divine images on the coins reflected pre-Kushan practice, with a small number, sometimes just one, deity being selected for use on one ruler's coins. This was the case for the coins of Wima Kadphises, all of which depict the Kushan god Oesho (see Appendix C), and also for the coinage of Vasudeva I, who also used Oesho designs. His successor, Kanishka II, retained Oesho for some issues, but mostly used the goddess Ardochsho. Oesho and Ardochsho continued to be used as the divine images on all coins of the late Kushans.

The coinage of Kanishka I and Huvishka reveal a major departure from this practice, as many deities appear on their coins. Many reasons have been proposed for this. Some researchers suggest that the gods depicted on the coins represent the diverse religious beliefs of their subjects,

while others argue that their designs represent the gods of the nations with whom the Kushan Empire traded. Such explanations do not fit the surviving evidence (Cribb 1998: 89–90). The Rabatak inscription (Sims-Williams and Cribb 1995/1996) with its list of gods who were seen as responsible for Kanishka I's accession to the throne creates a different view of the Kushan pantheon. The inscription shows the Kushan king seeking authority from a wide range of gods, and divine representations on the coins of Kanishka I and Huvishka show them seeking that authority from an even wider range of gods (see Appendix C). Although some of the gods initially appear with Greek names and some have Indian names, the Rabatak inscription has made it clear that the Greek names are simply translations of the names of Iranian gods, and the Indian names are convenient labels for these same Iranian gods (Cribb 2008). The gods represent the religious practice and beliefs of the Kushan kings, not of their subjects or their trading partners.

The place of the gods on the coins also appears to have had a practical purpose alongside their use as an expression of Kushan royal authority (Cribb 2009: 513–514). Although Göbl (1984) and MacDowall (1978) were correct to show that the divine images related to the mint administration, an analysis of their use shows that they were used to mark batches of production, rather than the administrative subdivisions, at the Kushan mint (Cribb 2008: 96).

PREVIOUS STUDIES OF KUSHAN COINS

There are four useful listings of Kushan coins available at present. John Rosenfield's *The Dynastic Arts of the Kushans* (Berkeley 1968), Michael Mitchiner's *Oriental Coins and their Values—Ancient and Classical World*, (London 1978), Robert Göbl's *System und Chronologie der Münzprägung des Kušānreiches* (Vienna 1984) and his *Donum Burns—die Kušānmünzen im Münzkabinett Bern und die Chronologie* (Vienna 1993). In preparing this volume we have made use of all four, and acknowledge the value they bring to the subject.

The first of these (Rosenfield) is not a coin catalogue, but an outline of the designs on Kushan coins as an aid to understanding their place within official art in the Kushan Empire. Its analysis of the identity of royal and divine imagery represented an outstanding contribution to the subject, particularly at a time when there was no systematic listing available of the coins themselves. The absence of such a guide to the coinage is the only serious deficiency of this study, as there was no measure by which Rosenfield could distinguish the normal from the abnormal and the personal idiosyncrasies of the die engraver from the officially sanctioned representation of king or god. The subsequent discovery of the Rabatak inscription has also clarified the function of divine images within the Kushan state in a way about which Rosenfield could only speculate.

Mitchiner's work presents itself implicitly as a corpus-style presentation of the Kushan coinage as part of a larger account of ancient coinage in Asia. Its weaknesses lie in the limited number of coins it presents, as it is by no means an exhaustive treatment of the material. Nevertheless, when it appeared in 1978, Mitchiner's listing was without doubt the best presentation made of this complex series. It remains an immensely useful resource, particularly because it is based on many specimens from private collections, and because of Mitchiner's insights into the organization of the coinage. In the ANS catalogue, Mitchiner's numbers are used for coinages of the first two Kushan kings, Kujula Kadphises and Wima Takto.

Göbl's massive 1984 volume easily superseded Mitchiner's account of the Kushan coinage. It represents a highly detailed attempt to describe the Kushan monetary system by means of a structured presentation of a corpus of the whole of the Kushan, Kushano-Sasanian and Kidarite

Hun coinages. Göbl's work was based on an extensive collection of material from public and private collections, auction sales and dealers' lists. It remains the largest body of data on Kushan coins in print and underpins any study of the monetary systems. It will maintain its position as an essential tool in the study of the subject for a long time to come. Unfortunately, Göbl omitted the coins of the first two rulers.

The main weakness of Göbl's approach is his treatment of the structure of the mint system in the Kushan state. Göbl's understanding of mint organizations was developed through his study of Roman coinage and he applied his understanding of the production of Roman coinage too rigidly to the Kushan system. According to Göbl's approach the Kushan mint was normally composed of four workshops distinguished by reverse types. This idea was borrowed from late Roman coinage, where an added letter or a number in the reverse design indicated the existence of independent workshops (*officinae*) within each mint producing their own series of coins. These additional letters or numbers began in the third century AD and continued into the fourth. But Göbl, as well as other scholars of Roman coinage, sought to detect workshops on earlier Roman coins according to reverse types (MacDowell 1979). It was Göbl's belief in the workshop system that influenced his understanding of Kushan history and prompted him to directly link Kushan and Roman minting practice. Göbl's analysis of Roman minting practice, however, is not entirely free of controversy: "The usual assumption that the different reverse types were produced by different *officinae* within the mint is still far from proven and in many cases seems to me to hinder rather than to advance our understanding of the coinage... What do we gain, then, by speaking of 'officinae'...?" (Clay 1979: 23).

The problems arising from Göbl's insistence on a workshop based structure for coin production can readily be understood when the use of dies is reviewed. Kushan coin die analysis conducted at the British Museum shows that normally only two work stations (and sometimes just one) produced coins at Kushan gold mints (Cribb 1998: 83–98; Bracey 2009). They worked in the same space and could swap reverse dies between them. There was no practical reason for the mint to be divided into workshops. Göbl's analysis based on workshops confused the arrangement of the production of Kushan gold coins, and often induced him to group coins that do not belong together, and separate coins that belong together.

Göbl began his organization with the idea of four workshops distinguishable by four reverse types. He used Kanishka's first gold issue with Helios (Miuro), Salene (Mao), Nanaia (Nana) and Hephaistos (Athsho) reverses to establish his approach. But then Göbl came across an issue with five reverses, so he had to find a way to take into account the deity, Oesho. Instead of adjusting his scheme, Göbl felt obliged to find a way to group the fifth reverse into one of his four workshops. He did this by transferring Athsho into the workshop represented by Miuro, reallocated the Athsho workshop to Oesho, thus complicating his approach.

Göbl's mistaken linkage between Kushan and Roman mint practice became one of the underlying reasons for the chronology he developed placing the beginning of the Kanishka I era in the third century (AD 278), which is about 150 years later than the AD 127 date generally accepted by scholars now (Göbl 1984: 28). This chronology created weaknesses in Göbl's analysis of other aspects of the Kushan coinage, particularly in relation to the Kushano-Sasanian series, for which he suggested a commencement date of about AD 350 in the reign of Shapur II (AD 307–379), whereas the evidence now available shows that it ended during this reign and began in the time of Ardashir I (AD 224–241) (Göbl 1984: 79).

Equally detrimental is a practical problem arising from Göbl's approach: the accumulative process by which coins were entered into his scheme. His adding of extra examples to the end of a list of coins of a particular type creates a lack of clarity, and therefore, confusion. For example, Göbl divided Kanishka I's gold coins with Bactrian inscriptions into two 'emissions', first according to two crown types, and secondly according to deities on the reverse. He lists twelve coins under Miuro with the first crown, but the die links and style shows that the order of issue was entirely different to the order that emerges in his listing. When a thorough study of dies and style is attempted, it is possible to determine the order in which the obverse and reverse dies were produced (Cribb and Bracey forthcoming).

In 1993, Göbl refined his presentation in a collection catalogue based on the holdings of the Bern Museum, Switzerland, particularly its donation from Dr. Craig Burns who specialized in collecting late Kushan coins. Göbl remedied some of his misunderstandings relating to the structure of the coinage from Vasudeva I onwards, removing, for example, his assignation of some coins of Vasudeva I to a second king Vasudeva who he identified as a contemporary of Kanishka II.

KUSHAN, KUSHANO-SASANIAN, AND KIDARITE COINS IN THE COLLECTION OF THE AMERICAN NUMISMATIC SOCIETY

In this catalogue of the ANS collection, the production system of Kushan coinage is presented differently from that of either Mitchiner or Göbl. Die analysis allows us to recognize that reverse types were used to distinguish batches of production at the same mint. There are two possible explanations for the batching. The mint may have used a change of deity to indicate a new period of production, or to distinguish consignments of bullion. There is not enough evidence to know how the batching system was structured, but it has nothing to do with workshops. Analysis also reveals that obverse dies seemed to be kept in production for about a year. There are roughly enough dies to suggest that approximately one obverse die was made for each work station each year of the reign of Kanishka I and Huvishka, for example. Every time a die wore down, it was recut, in some cases many times. On the other hand, reverse dies were rarely recut, but if a die wore out or broke before the production period or batch was complete, another reverse die with the same design was made to replace the unusable die (Cribb 1998: 95–96).

This catalogue follows a sylloge approach in its listing of a single collection, but follows a collection catalogue approach in its presentation of analytical material and commentary, with the addition of detailed coin descriptions. It is our intention that the ANS collection of Kushan coins provide a tool for people to use in a variety of ways for the identification and placement of the coins. We have chosen to present the ANS coins chronologically based on the die analysis and research being developed during the preparation of the forthcoming corpus-style catalogue of the Kushan coins in the British Museum.

The ANS coins are classified by ruler, mint, phase of production, metal, denomination, type and variety. The section listings are prefaced by introductory essays to establish the historical context of the kings and the coins. All of the ANS gold coins are illustrated. A selection of copper coins is illustrated, including those of sufficient quality or condition to illustrate specific types.

A large number of heavily worn coins in the ANS collection are of considerable interest in spite of their condition. We provide each of these coins with a catalogue number, while illustrating only a few. The remainder can be found on the ANS online collection database where they are all illustrated (numismatics.org/search). Poor condition coinage is of immense significance in understanding its post-production use, as it offers insight into issues that remained in circulation

for long periods. This is particularly true of the copper coins of Kanishka I, Huvishka and Kanishka II. The 16 gram standard copper coins of Kanishka and Huvishka appear to have been exported in large quantities into northern India, once the official Kushan standard had been reduced to 12 grams. The heavily worn examples of these coins are often found in India where they appear to have continued in circulation, perhaps until the fourth century AD. The worn coins of Kanishka II appear to relate to a different phenomenon. They were the last official Kushan copper coinage to be issued for use north of the Hindu Kush, so their continued circulation perhaps reflects the failure of supply to regions no longer under Kushan control following the Sasanian conquests. Alongside the Kanishka II coins, a series of imitations were circulated based on Kanishka II's obverse designs and Vasudeva I's reverses. Control marks on these imitations suggest that the coins were issued by the early Kushano-Sasanians. Like the Kanishka II coppers, the condition of the imitation coins reflects both poor quality production as well as longevity in circulation.

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The American Numismatic Society publishes books, journals, and monographs on coins, medals, and related objects of all periods and cultures.

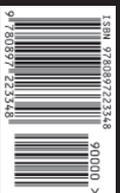
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FRONT JACKET PHOTO: Sculptural group depicting the Buddhist deities Parvataka and Hariti (Pharos) and Ardokchiso of the Kushans from Takht-i-Bashi, 5th/11th Museum.

BACK JACKET PHOTO: Royal portrait on a gold dinar of Wima Kadphises.

Photographed by Alan Reche.

JACKET DESIGN: Oliver D. Howell



KUSHAN, KUSHANO-SASANIAN, AND KIDARITE COINS JONGEWARD AND CRABB



KUSHAN, KUSHANO-SASANIAN, AND KIDARITE COINS

A CATALOGUE OF COINS FROM THE AMERICAN NUMISMATIC SOCIETY



DAVID JONGEWARD and JOE CRABB
WITH PETER DONOVAN

THE AMERICAN NUMISMATIC SOCIETY

Kushan, Kushano-Sasanian, and Kidarite Coins

The Kushan Empire was a vast inland empire that stretched in Central Asia from the 1st century AD to the 7th century AD. The extent of Kushan dominion continues to be debated, and precise dates, especially for the late Kushan Empire, remain elusive, but the coinage reveals the Kushan dynasty as a major force in the cultural and political history of the ancient Silk Road.

Kushan coinage began c. AD 90 with issues of the first Kushan king, Kujula Kadphises (c. AD 91-117) and grandson Wima Kadphises (c. AD 118-127) the coinage system was gradually centralized to serve the entire Kushan Empire stretching from Uzbekistan and Tajikistan to northern India, China and copper of Yunnan, the empire's rich resources during the reign of Yima the Uplifter, which were harnessed through the empire of Iran, were harnessed through the Kushan empire in the mid-fourth century AD.

Under Kujula Kadphises' son Wima Tarko (c. AD 91-117) and grandson Wima Kadphises (c. AD 118-127) the coinage system was gradually centralized to serve the entire Kushan Empire stretching from Uzbekistan and Tajikistan to northern India, China and copper of Yunnan, the empire's rich resources during the reign of Yima the Uplifter, which were harnessed through the empire of Iran, were harnessed through the Kushan empire in the mid-fourth century AD.

This catalogue presents all the Kushan coins in the American Numismatic Society, with selected illustrations, detailed descriptions and commentary. The production system of Kushan coinage is presented with major systems or chronology, and the organization compared with other ancient empires. The book includes a checklist of Kushan coins from the last eight years of research, including the analysis and site find analysis. The coins are classified by ruler, metal, mint, production phase, denomination, type and variety. Introductory essays present the historical and cultural contexts of the kings and their coins. All the ANS gold coins and a selection of copper coins are illustrated. This catalogue also features two series of coins issued by the Kushano-Sasanian and the Kidarite Hun rulers of former Kushan territory because they followed and adapted the Kushan coinage system.

The authors intend this catalogue to be a tool for scholars and collectors alike for understanding, identifying, and attributing these fascinating coins that represent four centuries of Central and South Asian ancient history.