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Gilles Bransbourg

Editor

Peter van Alfen

Advertising Editor

Joanne D. Isaac

Art Director

Lynn Cole

Design

Rocco Piscatello
Piscatello Design Centre

Photographer

Alan Roche

Contributing Staff

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The *American Numismatic Society Magazine* is published four times a year by the American Numismatic Society. Annual subscription rate is \$72. Copies are mailed to all members of the ANS. Single copy is \$18. Overseas airmail is an additional cost. A membership in the ANS includes a subscription to the magazine. To inquire about a subscription please contact: ANS Magazine Subscription Dept. (212) 571-4470 ext 117, orders@numismatics.org. All rights reserved. No part of this magazine or its cover may be reproduced without written consent of the copyright proprietor. Opinions expressed by contributors are not necessarily those of the ANS. Printed in Canada.

The American Numismatic Society, organized in 1858 and incorporated in 1865 in New York State, operates as a research museum under Section 501(c)(3) of the Code and is recognized as a publicly supported organization under section 170(b)(1)(A)(vi) as confirmed on November 1, 1970. The original objectives of the ANS, “the collection and preservation of coins and medals, the investigation of matters connected therewith, and the popularization of the science of Numismatics,” have evolved into the mission ratified by the Society’s Board in 2003, and amended in 2007.

American Numismatic Society
75 Varick Street Floor 11
New York, NY 10013

Telephone
212 571 4470

Telefax
212 571 4479

Internet
www.numismatics.org

From the Executive Director

Ute Wartenberg Kagan

Dear Members and Friends,

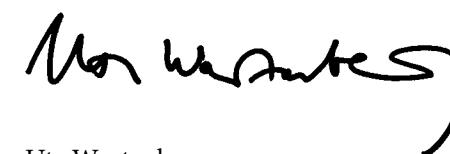
In this issue of the *ANS Magazine*, our Editor, Peter van Alfen, and the contributors present an array of articles that show the extraordinary diversity of our Society. We are very happy to see after many years of extensive research the new catalogue of over 2,500 Kushan coins of the Society, which was undertaken by two leading specialists in the field, David Jongeward and Joe Cribb, the 2008 Huntington Medalist. Peter Donovan, our long-time Curatorial Associate, joined the project after it became clear that the previously estimated 800 Kushan coins in the collection, which we had catalogued online, was greatly off the mark; in the end, Peter catalogued an additional 1,700 Kushan coins that had either been unaccessioned, uncatalogued, or placed in another part of the collection, all of which required painstaking work on his part. It goes without saying that volume would not have been possible without his enormous efforts. The book is the first such catalogue in the English language, and we hope that its publication by the ANS will make a notable contribution towards the study of ancient Southern and Central Asia. The history of the Kushan dynasty represents an area, in which numismatics reveals a great deal that is not known from other sources, as the article by Jongeward and Cribb in this issue demonstrates.

I am sure that the article by David Yoon on Medieval minting techniques will pique the interest of many members, especially as it focuses on the extraordinary collections of Visigothic and early Medieval coins at the Society, which generally do not receive a great deal of attention. That, we hope, will soon change thanks to the initiative and generosity of Dr. Howard Minners, who has provided the Society with seed money for a curatorial endowment, which we hope to grow. For now, it allows us to have take care of our fine collections and engage staff in some curatorial research about Medieval and early modern coinage. Also in this issue, ANS Fellow Joel Orosz offers a critical review of Mark Ferguson’s recent book on the 1804 US dollar, a subject that remains as controversial as ever, and one that demonstrates how in the field of numismatics there is always something more to say. The coins covered in Gilles

Bransbourg’s article are undoubtedly much more mundane and of insignificant monetary value, but show how much can be gleaned from common coins about societies and traditional practices, not only here in New York City, but from around the world. David Hill, our Librarian, explains in his fascinating article the importance of scrapbooks for serious numismatic research. Before I came to the United States, I was totally unaware of scrapbooks, which even now are probably something that most European coin cabinets or libraries do not retain. David’s work is greatly aided by our volunteer Arnie Tescher, who is helping to catalogue the tens of thousands of items that the ANS Archives contain. By making them available on ARCHER, our archival database, researchers and the public can finally become aware of various types of information, much of which has lain dormant for sometime on back shelves.

In closing I would like to let ANS members know that Dr. Lawrence A. Adams, a Trustee and faithful donor to our institution, died unexpectedly in March of this year. He and his wife Meredith were frequent visitors to New York, where they enjoyed restaurants with their many friends in the numismatic community. Larry was well-known as a collector of gold coins and medals of all periods and countries. He frequently donated to the collection, and in the last decade, the Society’s cabinets were greatly enriched by some rare US medals and ancient coins. Larry, who was 79 years old, was still a full-time dermatologist specializing in micrographic surgery. In his spare time he worked as a consultant at Classical Numismatic Group and in this capacity, he was often seen at coin shows all over the country. He will be greatly missed by the Trustees, staff, and members of the Society.

Yours truly,



Ute Wartenberg



Facing Page: Sculptural group depicting the Buddhist deities Panchika and Hariti (Pharro and Ardochsho of the Kushans) from Takht-I Bahi. ©The Trustees of the British Museum, London.

COINAGE OF THE KUSHANS

David Jongeward and Joe Cribb

A long-awaited volume, *Kushan, Kushano-Sasanian, and Kidarite Coins, a Catalogue of Coins in the American Numismatics Society*, is now available, authored by David Jongeward and Joe Cribb, with ANS curatorial assistance from Peter Donovan. All 2,638 coins in the ANS collection have catalogue listings. A few Kushan coins were purchased during the research stages of the catalogue, but most of the coins were donated to the Society beginning in 1911 and have continued sporadically ever since. The late Dr. Larry Adams, an ANS Trustee, permitted the authors to include 54 gold coins from his private collection. The 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, as well as detailed coin descriptions.

It is our intention that the ANS collection of Kushan coins provide a tool for collectors and scholars alike to use in a variety of ways for identification and placement of the coins. The coins are presented chronologically, 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 their coins. All of the ANS gold coins are illustrated in color. A large selection of copper coins are illustrated, primarily including those of sufficient quality or condition to reveal specific types, along with a number of contemporary and post-Kushan imitations.

Who were the Kushan?

During the first century AD, a vast inland empire stretched across Central and South Asia (fig. 1). The Kushan Empire was a superpower of its time along-

side 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 Central Asia, India, and the ancient Silk Road. At its height in the second century AD, the Kushan controlled territory equivalent in size to modern day India.

Kushan coinage is of great interest not only to numismatists. Historians find that clarification of Central Asian and Indian political history is largely due to what is known of the Kushan chronology of kings and especially a dating system that commenced with the Kushan's fourth king, Kanishka I (AD 127–151). Art historians and iconographers have explored in depth a coinage with highly complex imagery that synthesizes Iranian, Central Asian, Indian as well as local tribal elements. Historians of religion find a wealth of material to ponder, with some 25 deities represented on the coins, many with names and iconography exclusive to the coinage.

Epigraphers have also benefited enormously from Kushan coinage. Many coins are bilingual, and Kushan coin inscriptions moved through a series of dramatic changes over the three-and-a-half century span of the coinage. Greek, Iranian, and Indian languages are all found, using modified Greek, Kharoshthi, and Brahmi scripts. The Kharoshthi script used on the coins of the first three Kushan kings descended from Aramaic, appearing in what is now Northern Pakistan and Eastern Afghanistan beginning in about the third century BC and continuing for about 700 years. Most of the



Fig. 5: The Rabatak inscription.

Kushans initially continued most aspects of these traditions, preferring to mimic designs of their predecessors. Some coin designs of the first Kushan king, Kujula Kadphises (fig. 9), are either direct copies or adaptations of Bactrian Greek, Indo-Greek, Indo-Scythian and Indo-Parthian issues, mostly modified by replacing the earlier kings' names with his own (figs. 10–17).

The third Kushan king, Wima Kadphises, introduced a novel design for a bilingual copper coinage with a highly original image of a standing king in nomad dress making an offering at a small fire altar (fig. 18). Along with the copper coinage, he introduced a spectacular gold coinage featuring a variety of royal images, including the king emerging from a mountain top, riding an elephant, seated on a throne, or riding in a chariot (figs. 19–21).

Wima Kadphises' influential image of a devotional king making an offering at a fire altar was retained throughout Kushan coinage as well as influencing coin design in several successor states. This design became the primary image used by his son Kanishka I, who made the final break with key aspects of earlier tradition by changing his coin language from Greek to an Iranian language, Bactrian, while retaining the use of Greek letters. Kanishka also dropped his predecessors' use of the Kharoshthi script (fig. 22).

Kanishka's successor Huvishka returned to the portrait types of Wima Kadphises, particularly the image of the king emerging from a mountain top. Die analysis of Huvishka's gold coinage reveals the use of at least 170 obverse dies used during his 40-year reign. Unlike his Kushan predecessors or successors, Huvishka did not use a standardized portrait. His coin portraits reveal a range of Kushan royal costume that includes several different garments and crowns. The coinage reveals a wide disparity in quality control, ranging from well executed to extremely crude coin designs. The Huvishka portraits are featured in the book's Appendix B, with gold coins organized into four groups, comprised of early and late phase production in two mints (figs. 23–25). On Huvishka's copper coinage, the king appears in three primary poses, as an elephant rider, seated leisurely on a bench, or seated cross-legged (figs. 26–29).

All the kings after Huvishka re-established the image of the king making an offering at a small fire altar, the design introduced by Wima Kadphises and adapted by Kanishka I. Another innovation is found in the coinage of the later Kushan kings, commencing with Vasudeva I and becoming dominant in the reign of Vasudeva II. In this late period of Kushan coinage, Bactrian inscriptions were phased out in favor of Brahmi inscriptions in the form of monograms written in the field of the coin.

Kushan Monetary System and Mints

During the period of its establishment under Kujula Kadphises, the Kushans adapted many aspects of coin design practiced by their forerunners in the region. Their monetary system also followed earlier practices. The introduction of an anonymous Soter Megas coinage at the end of the reign of Kujula Kadphises marked a significant departure. The new coinage attempted to unify the currency throughout Kushan territory, leaving only Kashmir with a separate system. With new areas of conquest in Gandhara and India briefly, modified versions of the unified currency appeared briefly, 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 g) on the Indo-Greek standard.

The general issue Soter Megas coinage of Kujula Kadphises and his successor Wima Takto 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, presumably the king, on the reverse (see fig. 17). In newly conquered Gandhara, however, Wima Takto issued an Indo-Greek standard Soter Megas coinage that followed 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 consisted of copper coins weighing four, two and one drachms (16, 8, and 4 g), and gold coins of four-, two-, one- (rare) and half-drachms (16, 8, 4 and 2 g). The copper four-drachm coin and the gold two-drachm coin, later called *dinara*, were clearly intended as the standard units, and continued as the dominant denominations in the reigns of the following kings, Kanishka and Huvishka. Only in Kashmir were one-drachm coppers routinely issued. By the time of the reign of Huvishka's successor, Vasudeva I, the copper coinage consisted only of the four-drachm unit, and the gold with the *dinara* and its quarter denominations. The name of the two-drachm gold unit was derived from its close similarity in weight to the imported *denarius aureus*, the standard Roman gold denomination.

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 that followed the Kushan era. However, the system was not as robust as this continuity suggests. The causes are not entirely clear, but under Huvishka the weight of the standard copper four-drachm or 16 g 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. When control was restored a new standard was set at about 12 g, but the process of decline continued and by the end of Huvishka's reign the coins were being issued at about 10 g. Under Vasudeva I they dropped further to about 8 g. 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 g were being issued. The Kushano-Sasanian copper 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 g.⁷

The gold coinage maintained a high standard until the period of Kanishka II when gold content began to fall significantly. The initial gold issues of Wima Kadphises were made with almost pure gold, with a drop in fineness of less than 5% through the next century.⁸ From the accession of Kanishka II the gold coins began to be debased progressively. Kushano-Sasanian and Kidarite gold coins show gold quality close to the contemporary issues of the late Kushans. It is likely that the cost of conflict between the Kushans and the Kushano-Sasanians was in part the cause of this decline.

Mint 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. Identification of mints and conjectures about their location are based on distinctions in design, style and production techniques, as well as the distribution of finds.

Die studies suggest that there was initially 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

7. Khan, Errington, Cribb 2008.

8. Bracey 2011; Oddy and Cribb 1998.



Fig. 6: Statue of Kanishka.
© The Trustees of the British Museum, London.



Fig. 7: India, Taxila and Gandhara, silver bent bar, c. 4th century BC. (ANS 1980.154.3) 36 x 11 mm (images enlarged).



Fig. 8: India, Pushkalavati, bronze karshapana, c. 2nd century BC (ANS 1973.56.312, gift of Metropolitan Museum of Art) 22.5 x 18 mm (images enlarged).

Fig. 9: Drawing of clay sculpture of a royal Kushan, probably the first Kushan king Kujula Kadphises (drawing courtesy of Elizabeth Errington).



Fig. 10: Bactria, Heliocles I, silver tetradrachm, c. 135–110 BC. ANS SNG 642 (ANS 1995.51.166, gift of Harry W. Fowler) 31 mm.



Fig. 11: Da Yuezhi, silver tetradrachm, c. AD 0–40. KKS.22 (ANS 1993.29.37, gift of Harry W. Fowler) 33 mm. This coin imitates fig. 10.



Fig. 12: Indo-Greek, Hermaeus, silver tetradrachm, c. 90–70 BC. ANS SNG 1329 (ANS 1944.100.73131, E. T. Newell bequest) 31 mm.



Fig. 13: Kushan, Kujula Kadphises, bronze tetradrachm, AD 40–90. KKS.47 (ANS 1944.100.28128, E. T. Newell bequest) 22 mm. This coin imitates fig. 12.



Fig. 14: Indo-Scythian, Zeionises, bronze unit, AD 23 (ANS 1944.100.59979, E. T. Newell bequest) 27 mm.



Fig. 15: Kushan, Kujula Kadphises, bronze tetradrachm, AD 40–90. KKS.114 (ANS 1944.100.29687, E. T. Newell bequest) 23 mm. This coin imitates fig. 14.



Fig. 16: Indo-Parthian, Abdagases, bronze tetradrachm, AD 55–65 (ANS 1944.100.63500, E. T. Newell bequest) 25 mm.



Fig. 17: Kushan, Wima Takto, bronze tetradrachm, AD 90–113. KKS.157 (ANS 1973.56.326, gift of Metropolitan Museum of Art) 21 mm.



Fig. 18: Kushan, Wima Kadphises, copper tetradrachm, AD 113–127. KKS.275 (ANS 1944.100.30171, E. T. Newell bequest) 27 mm.



Fig. 19: Kushan, Wima Kadphises, gold dinara, AD 113–127. KKS.260 (LAK 2) 25 mm.



Fig. 20: Kushan, Wima Kadphises, gold dinara, AD 113–127. KKS.261 (LAK 3) 24 mm.



Fig. 21: Kushan, Wima Kadphises, gold dinara, AD 113–127. KKS.265 (ANS 2009.2.1, gift of Lawrence A. Adams) 19 mm.



Fig. 22: Kushan, Kanishka I, gold dinara, AD 127–150. KKS.386 (ANS 1944.100.15491, E. T. Newell bequest) 19 mm.



Fig. 23: Kushan, Huvishka, gold dinara, AD 151–190. KKS.709 (ANS 1944.100.63657, E. T. Newell bequest). 19 mm. Main mint early phase.



Fig. 24: Kushan, Huvishka, gold dinara, AD 151–190. KKS.744 (ANS 1944.100.15497, E. T. Newell bequest). 21 mm. Main mint late phase.



Fig. 25: Kushan, Huvishka, gold dinara, AD 151–190. KKS.754 (ANS 1944.100.63654, E. T. Newell bequest). 20 mm. Subsidiary mint early phase.



Fig. 26: Kushan, Huvishka, gold dinara, AD 151–190. KKS.775 (LAK 13). 21 mm. Subsidiary mint late phase.

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, but only one coiner 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, and mint locations were readily transferable.

By 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.

Under the first Kushan king, Kujula Kadphises, production of copper and silver coinage was localized, reflecting the various regional monetary systems in conquered territory. The largest production centers relate to the

two centers of Kushan rule 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 under Wima Takto and Wima Kadphises, the copper coinage appears to have been produced centrally, probably at Begram (in current day Afghanistan), with some local production at subsidiary mints in Kashmir and in newly conquered territory.

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.⁹ Another small subsidiary mint producing only four drachm issues

9. Thanks to Peter Donovan's interest in this question, all magnetic coins in the collection are noted in the catalogue.

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.

Production of copper coinage from the period of Vasudeva I to the end of the Kushans is difficult to locate. There is insufficient evidence to be precise about the location and number of mints and the picture is obscured by the massive production of imitation coins. Kushano-Sasanian copper coin production from the reign of Peroz I suggest two minting centers, one linked with the gold mint in Bactria, the other located somewhere south of the Hindu Kush either at Begram or Peshawar. The Kidarites seem to have continued the use of two minting centers, in Bactria and in Gandhara.

Kushano-Sasanian and Kidarite coins

Territory of the Kushan Empire captured by Ardashir I, the first Sasanian emperor of Iran (AD 224–241), was placed under the control of Sasanian princes who were given the title Kushanshah, i.e., Kushan King or King of Kushan. The name of the first of these princes has not yet been deciphered on his coins. His successor was called Ardashir, who minted coins with mixed Sasanian and Kushan designs for circulation in the former Kushan territories in northern Afghanistan. Their successors maintained the title Kushanshah and continued to issue coins under Sasanian control during the next century, with territory extending into the Kabul and Begram area. Gandhara (modern day Peshawar valley in northwestern Pakistan) remained a contested area between the Sasanians and the Kushans for much of the third century.

This group of Sasanian princes is referred to in modern scholarship as the Kushano-Sasanians. Their rule lasted just over one hundred years (AD 230–340), until the Kidarite Huns took control of Gandhara and the northern territories in Bactria and north of the Oxus. Kushano-Sasanian coinage consisted of two separate series, one produced north, the other south of the Hindu Kush. The gold coinage was produced only in the north but circulated in both areas, often alongside Kushan coinage (fig. 30).

The discovery of three seals, as well as large quantities of copper coins found in archaeological sites near Kashmir Smast in Peshawar Valley, Pakistan, has provided many unexpected insights into the Kidarite Huns who ruled in the area at the close of the Kushan period.¹⁰ Kidarite coins betray little about their Hun origins as the designs were copied from the coins issued by the Kushan and Kushano-Sasanian kings whom they succeeded. The distribution of Kidarite coins is largely

restricted to their area of production in Bactria and Gandhara (fig. 31).

Kushan Deities

One of the features of the book is the special attention given to deities that appear on Kushan coins. The diverse assemblage of deities reflects the dynasty's broad cultural connections in Central Asia. This diversity is most notably found in the coinage of Kanishka and Huvishka, but the pantheon in its entirety expresses a uniquely Kushan response to the multicultural nature of the vast region occupied at the height of empire. Iconography derived from Rome, the Hellenized Orient, Zoroastrian Iran, Hindu, and Buddhist India all appears on Kushan coin imagery. Furthermore, by drawing from multi-cultural sources, Kushan coinage established an iconography for many Central Asian deities for whom there are no known pre-Kushan visual representations.

The enigmatic Kushan sky and mountain god Oesho combines iconography derived from Greek Heracles and Indian Shiva imagery. Oesho's multiple representations on the coins includes portrayal with one head or three, two arms or four, standing alone or with a bull, among other variants. For most of the Kushan period, depiction of divine images on the coins reflects pre-Kushan practice, with just one deity (Oesho) appearing in the coins of Wima Kadphises and Vasudeva I (fig. 32). Vasudeva's successor, Kanishka II, retained Oesho for some issues, but mostly used the goddess Ardochsho. Either Oesho or Ardochsho continued to be used as a divine image for all coins of the late Kushans (fig. 33). In modified form as "the exalted god," Oesho also appears on the coins of the Kushano-Sasanians and Kidarites.

As shown in the book's Appendix C, the coinage of Kanishka I and Huvishka reveal a major departure from the practice of portraying a single deity, with a surprising variety of many deities represented on their coins. Several reasons have been proposed for this complex pantheon. Some researchers suggest that the gods represent the diverse religious beliefs of their subjects, while others argue that the designs represent the gods of the nations with whom the Kushan Empire traded. But these explanations do not fit the surviving evidence. The coins of Kanishka and Huvishka suggest the kings are seeking authority from a wide range of gods, but the majority are derived from religious tradition rooted in Iranian Bactria where the Kushan came to power.¹¹

10. Ur Rahman, Grenet and Sims-Williams 2006, Lerner and Sims-Williams 2011: 72–4. Also Khan, Cribb and Errington 2008; Cribb 2010; Errington 2010.

11. Cribb 1992, 2008.



Fig. 27: Kushan, Huvishka, bronze tetradrachm, AD 151–190. KKSK.848 (ANS 1944.100.66642, E. T. Newell bequest) 25 mm. Elephant rider.



Fig. 28: Kushan, Huvishka, bronze tetradrachm, AD 151–190. KKSK.883 (ANS 1944.100.66735, E. T. Newell bequest) 26 mm. King on couch.



Fig. 29: Kushan, Huvishka, bronze unit, AD 151–190. KKSK.1008 (ANS 1944.100.66668, E. T. Newell bequest) 26 mm. Cross-legged king.



Fig. 30: Kushano-Sasanians, gold dinara, AD 245–270. KKSK.2156 (LAK 30) 29 mm.



Fig. 31: Kidarite Huns, gold dinara, AD 340–345. KKSK.2411 (LAK 54) 33 mm.



Fig. 32: Kushan, Kanishka I, gold dinara, AD 127–150. KKSK.371 (ANS 1986.149.4, gift of Marjorie D. Schwartz) 19 mm. Kushan mountain and sky god Oesho.



Fig. 33: Kushan, Kanishka II, gold unit, AD 230–247. KKSK.1201 (ANS 1967.154.11, Adra M. Newell estate) 23 mm. Ardochsho.



Fig. 34: Kushan, Huvishka, gold dinara, AD 151–190. KKSK.713 (ANS 1944.100.63651, E. T. Newell bequest) 21 mm. Iranian deity Miiro.



Fig. 35: Kushan, Kanishka I, gold dinara, AD 127–150. KKSK.389 (LAK 7) 20 mm. Iranian deity Mao.

Iranian gods on Kushan coins include the sun god Mioro, moon god Mao, a moon and fertility goddess Nana, a fire god Athsho, and a goddess of royal good fortune Ardochsho (figs. 34–38). Other deities of unusual interest include the god of good mind, Manaobago, and god of victory and beneficence, Mazdooano, both derived from Zoroastrian sources (fig. 39). Deities from Indian Hindu sources include a war god Maaseno and a war god pairing of Skanda-Komaro and Bizago. Images of the Buddha appear on coins of Kanishka. They are extremely rare in gold, but relatively common in the copper coinage.¹² The iconography and inscriptions relate both to the Buddha of the present time, Sakyamuni, and the Buddha of the future Maitreya (figs. 40–42).

Previous Studies

The ANS book is the first English language presentation of a major public collection of Kushan, Kushano-Sasanian and Kidarite coinage. There are four previously published useful listings of Kushan coins. John Rosenfield's *The Dynastic Arts of the Kushans*¹³ is not a coin catalogue, but rather an excellent outline of Kushan coin design in the context of official art and architecture in the Kushan Empire. Michael Mitchiner's *Oriental Coins and their Values—Ancient and Classical World*¹⁴ presents itself implicitly as a corpus-style presentation of Kushan coinage as part of his larger account of ancient coinage in Asia, but its weaknesses lie in the limited number of coins it presents.

Robert Göbl's *System und Chronologie der Münzprägung des Kušanreiches*¹⁵ (1984) supersedes Mitchiner's account of the Kushan coinage as a corpus-style approach. Göbl's massive volume 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 coinage. Göbl's later Kushan volume (1993) *Donum Burns—die Kušanmünzen im Münzkabinett Bern und die Chronologie*¹⁶ catalogues a major private collection and adds some refinements to his earlier volume. Göbl's work remains the largest body of data on Kushan coins in print and will maintain its position as an essential tool in the study of the subject for a long time to come.

Unfortunately, in his 1984 opus, Göbl omitted the coins of the first two rulers. Furthermore, Göbl's understanding of Kushan mint organization followed from his previous study of Roman coinage. The main weakness

in Göbl's approach is that his analysis of the Roman coinage system is too rigidly applied to the Kushan system of production. Göbl's mistaken linkage between the two mint systems became one of the underlying reasons for a chronology he developed that places the beginning of the Kanishka I era in the third century (AD 278),¹⁷ about 150 years later than the AD 127 date generally accepted by scholars now. Göbl's chronology created numerous problems in his organization of Kushan coinage, with a particularly misleading treatment of the late Kushan kings as well as the Kushano-Sasanian series.

The ANS catalogue

In the catalogue of the ANS collection, the production system of Kushan coinage is presented very differently from that of either Mitchiner or Göbl. Using the latest coin-based research and analysis, a chronological arrangement is presented with numismatic evidence supported by archaeological, inscriptional, and historical evidence from other sources. Virtually nothing in Kushan numismatics can be stated as definitive, and this catalogue no doubt contains mistakes that stand to be corrected, but the catalogue represents as completely as possible what is presently known at the time of publication (2015) about this fascinating series of ancient coins.

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Fig. 36: Kushan, Kanishka I, gold dinara, AD 127–150. KKSK.380 (ANS 1977.158.1355, bequest of Robert F. Kelley) 20 mm. Iranian deity Nana (Nanashao).



Fig. 38: Kushan, Huvishka gold dinara, AD 151–190. KKSK.749 (LAK. 011) 22 mm. Iranian deity Ardochsho



Fig. 40: Kushan, Huvishka, gold dinara, AD 151–190. KKSK.709 (ANS 1944.100.63657, E. T. Newell bequest) 19 mm. Indian deity Maaseno.



Fig. 42: Kushan, Kanishka I, bronze tetradrachm, AD 127–151. KKSK.616 (ANS 2012.31.1) 26 mm. Indian deity Buddha.

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Fig. 37: Kushan, Huvishka, gold dinara, AD 151–190. KKSK.736 (ANS 1944.100.63663, E. T. Newell bequest) 22 mm. Iranian deity Athsho.



Fig. 39: Kushan, Kanishka I, gold dinara, AD 127–150. KKSK.385 (ANS 1944.100.30712, E. T. Newell bequest) 20 mm. Iranian Zoroastrian Mazdooano.



Fig. 41: Kushan, Huvishka, gold dinara, AD 151–190. KKSK.723 (ANS 1944.100.48103, E. T. Newell bequest) 20 mm. Indian deity Skanda-Komaro, Bizago.

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Facing page: Woodcut from Der Weiss Kunig, a collection of drawings celebrating the career of the Holy Roman Emperor Maximilian I, attributed mostly to Hans Burgkmair. In this drawing the operations of an idealized medieval mint are being shown to the young Maximilian. In the background are a furnace with crucibles and a balance on the table. The worker at left is cutting planchets; the worker in the center is hammering out sheet metal; and the worker at right is striking coins.

ART, CRAFT, INNOVATION, AND EFFICIENCY: Early Medieval Minting Technology

David Yoon

When Theodore Roosevelt wrote to Augustus Saint-Gaudens about his plans for the redesign of United States coinage at the beginning of the twentieth century, he referred repeatedly to ancient Greek coins as his ideal of numismatic art (Saint-Gaudens 1920). Both Roosevelt and Saint-Gaudens considered the high relief and bold, carefully modeled sculptural style of ancient Greek coinage to be far superior artistically to the United States coins of the late nineteenth century, which were well engraved but had stiff, cluttered, flat designs that followed conventional types rather than naturalistic scenes.

Part of the issue was based in the aesthetics of class differentiation. By the end of the nineteenth century, a social distinction had been established between artists and mere craftsmen. The engravers who had served an apprenticeship in the preparation of coin or medal dies were master craftsmen, but they were not regarded as artists, whereas Saint-Gaudens, although of humble background, was a sculptor trained at the *École des Beaux-Arts* in France and consequently was respected by the social *élite* as an artist.

In the conventional artistic values of that era, classical Greece was considered the apogee of artistic achievement. By contrast, the coins of the early Middle Ages would seem to be everything that Roosevelt and Saint-Gaudens despised. Thin and flat, with simple, relatively abstract designs, created by workmen with no knowledge of the artistic style of classical Greece, they are very far from the aesthetic preferences of the Gilded Age.

For an example of the sort of coins that Roosevelt idealized, we might take a look at a Macedonian tetradrachm from the Hellenistic period (fig. 1). The head

of Poseidon on the obverse and the simple but visually effective composition on the reverse of Apollo sitting on the prow of a ship are aesthetically very far from the flat, cluttered, and static-looking designs of nineteenth-century American coins. The side view shows just how high the relief is on the obverse. In fact, the reverse is palpably concave; evidently the moneyers concluded that in order to push enough silver into the obverse die to bring up the full relief, the reverse die would need to be slightly convex. Inevitably, the relief on the reverse is much lower, but still enough to give a sense of three-dimensionality to the composition.

In this coin we can see many of the basic characteristics of minting technology that persisted throughout the preindustrial era. A silver flan has been placed between two dies; the upper die was then struck with a hammer, so that the flan was squeezed between the two dies. The blow forced the silver away from the highest parts of the die and into its recesses, creating raised bas-relief designs on the surface of the coin.

To judge from the limited and probably biased surviving evidence, early ancient coin dies were most often made from a bronze alloy with a high tin content, over 15%, which after work-hardening would have been harder than wrought iron (Vermeule 1954; Malkmus 1989–93). The designs were engraved in the face of the die with drill, wheel, and burin, using techniques derived from the much more ancient art of seal-cutting (fig. 2). Carving out a high-relief portrait must have required great skill and considerable time. In ancient coins, a die with such a type was usually used as the lower die, the one that receives the force of the hammer indirectly through the upper die and the flan, so it would be expected to have a longer working life than the upper die. Also, in



order to achieve such high relief, it helped to start with a thick, slightly convex flan, essentially a circular, cast ingot of silver of the desired weight.

Now consider a fairly typical medieval coin, a gros tournois of Louis IX of France (fig. 3). The diameter of this coin is only a few millimeters less than that of the Macedonian tetradrachm, but the medieval coin is very much lighter, weighing only 4.11 grams instead of the 17.11 grams of the tetradrachm. In the edge photograph, it is immediately apparent that the medieval coin is much thinner and also that the relief on it is much lower. Just as notable is how different the designs are from those of the ancient coin. Instead of naturalistic sculptural compositions, the stress is on a dense, rhythmic pattern of heavy lettering and abstract, symbolic motifs.

As different as the aesthetic preferences were, changes in the techniques of production were even more significant. The planchet for the gros tournois was made not by casting a round ingot but by cutting a round from a thin piece of hammered sheet metal. The dies for medieval coins seem always to have been of iron (figs. 4 and 5), typically with either a steel end welded on or at least a carburized working surface (Pirie 1986, 37). And the designs for medieval coins were primarily embossed into the face of the die with punches, rather than engraved. The die-sinker for the gros tournois in fig. 2 built up the entire design for both dies by combining a number of punches with simple geometric forms such as rectangles, wedges, dots, and arcs.

In order to make them obvious, the contrasts between ancient and medieval coins have been presented here in an extreme form. In both periods many coins deviated from the stereotypical characteristics described here, in one way or another. Such variations are, of course, essential for understanding the processes of change.

A third coin, from the later Roman empire, shows a different mix of characteristics from either of the previous two (fig. 6). This gold solidus of Honorius (393–423 CE) is technically similar to the Macedonian tetradrachm in many ways, with naturalistic relief images engraved directly into the die. However, some of the changes in Roman minting foreshadowed the subsequent medieval developments. Although early imperial Roman dies continued to use bronze as well as iron, late Roman dies came to be made of iron—a softer metal to engrave, but one that could be made as hard as or even harder than bronze after the engraving was finished. The designs engraved into the dies are also quite different, with denser compositions in lower relief and with more emphasis on text and less on sculpture.

Roman imperial coins were made in vast quantities compared to most series of ancient Greek coins, so it is not surprising that changes were made to improve the efficiency of production. Moreover, the sophisticated imperial propaganda messages demanded a much more complex amalgam of text and symbolic imagery than the simple emblems of early Greek coinage. However, neither of these factors would necessarily be expected, a priori, to apply to early medieval coinage. Thus, one faces the question of when, how, and why the technical changes apparent in later medieval coinage were introduced.

Visigothic Spain

Many of the characteristics of medieval coinage first came together as an ensemble in the coins of the Spanish kingdom of the Goths, known today as the Visigoths. The gradual introduction of these features during the course of the sixth century can be seen in a sequence of coins that were originally inspired by late Roman and early Byzantine types. The first example, from the early sixth century (fig. 7), is technically similar to the earlier coin of Honorius in fig. 6. An iron die engraved with drill and burin was used to strike a small, moderately thick flan with figurative designs derived from the classical artistic tradition.

However, a contemporary Byzantine coin from Constantinople shows some use, although limited, of the idea of punches (fig. 8). On the reverse die, the ends of the letters have been defined with a triangular punch, supplemented with engraving, and the edges of Victory's wings have also been made with a small triangular punch. This idea was soon adopted in the West and its use was enthusiastically expanded in the Visigothic kingdom.

In the next example, a Visigothic coin struck a generation later, around the 530s or 540s, several changes can be seen (fig. 9). At first glance, the most obvious feature is that the images have become stylized, losing any sense of naturalism, and in the case of the reverse image, becoming almost unrecognizable as a figure of winged Victory. Similar changes can be seen in other media of the period, with sculpture showing a tendency toward more geometric, abstract patterns as well (fig. 10). However, looking more closely at the details of the coin, an important technical change can be seen as well. On the Roman solidus of Honorius in fig. 5, the lines defining the letters have been engraved with angular serifs terminating the ends; this gave the engraver a sloped entrance point for the burin into the main groove of the letter stroke. On the reverse of the coin in fig. 9, the letters have been made in an entirely different way. The serifs have become the dominant feature, and they are



Fig. 1: This silver tetradrachm of Macedon, attributed to Antigonos Dason (229–221 BCE) or perhaps Antigonos Gonatas (277–239 BCE), expresses the medallic qualities often found in ancient Greek coins (17.11 g, 33 mm; ANS 1964.76.6; gift of Horace W. Havemeyer and Horace W. Havemeyer Jr.).



Fig. 2: Copper-alloy reverse die for an Iron Age Gallo-Belgic stater. For use as an upper die, it would have been set into a replaceable iron socket, which would have absorbed the most direct damage from the hammer blows (© Trustees of the British Museum; BM 2014,4014.1).



Fig. 3: The design of this silver gros tournois of Louis IX of France (1226–1270) is skillfully executed but pursues very different aesthetic intentions from the Macedonian tetradrachm in fig. 1, using different technical methods (4.11 g, 26 mm; ANS 1967.182.72; bequest of Douglas P. Dickie).



Fig. 4: Iron upper die for a silver penny of William I of England (1066–1087). The upper end of the die has mushroomed out from the hammer blows. Note also that the face of the die is considerably larger than the coins that it was used to strike (© Trustees of the British Museum; BM 1989,1033.1).



Fig. 5: Iron lower die for a heller of the Archbishopric of Cologne, late fourteenth or early fifteenth century. Since the designs for both sides of most medieval coins were similar in depth of relief and difficulty of manufacture, there was no longer any functional distinction between lower dies with “obverse” portrait busts and upper dies with less time-consuming “reverse” designs. Instead, the same designs could be used interchangeably on either the lower or the upper die (Pirie 1986, 37, 44), and the terms “obverse” and “reverse” are numismatic conventions for the types, whichever die they occurred on (ANS 1988.108.1, purchase).



Fig. 6: Whereas ancient Greek coins were mostly produced in small quantities for local or regional use, the Roman state produced coins in large quantities for circulation throughout the empire. This gold solidus of the emperor Honorius (395–423) from the mint of Ravenna shows how the ancient tradition of coin design could be adapted for more efficient production (4.39 g, 21 mm; ANS 1980.109.215; bequest of Arthur J. Fecht).



Fig. 7: Although this gold tremissis bears the name of the Byzantine emperor Anastasius I (491–518), it was probably issued by the Visigothic kingdom in southern France or Spain. A number of changes in design and execution show that it is not an official product of a Byzantine mint, but the style is not extremely different, nor are the methods of manufacture. Figs. 7–9 and 10–14 are shown enlarged to twice actual size so that the technical details can be seen more clearly (2×, 1.50 g, 13 mm; ANS 2014.44.51, anonymous donation from the former Archer Huntington collection).



Fig. 8: At first glance this gold tremissis of Anastasius I from the Constantinople mint looks similar in style and technique to the coin of Honorius in figure 5. An enlargement of the wings, though, shows that the feathery edge has been outlined not by traditional engraving but by many marks of a small triangular punch (2×, 1.35 g, 1.4 mm; ANS 1944.100.1887, bequest of Edward T. Newell).



Fig. 9: This gold tremissis, although it bears the name of the Byzantine emperor Justinian I (527–565), was produced in the Visigothic kingdom, probably around the 530s or 540s. Not only are the design and execution very different artistically from Byzantine coins, the technique of the reverse die shows a much more thorough adoption of the use of punches to form the design (2×, 1.44 g, 16 mm; ANS 2014.45.10, anonymous donation from the former Archer Huntington collection).



Fig. 10: Capital and abacus of an engaged column in the reconstructed seventh-century church of San Pedro de la Nave, an example of architectural sculpture of the Visigothic kingdom. The tendencies toward more abstract and geometric design seen in the coinage can also be seen in here in church ornamentation (© José Antonio Gil Martínez; <https://www.flickr.com/photos/freecat/2677051793>, license CC BY 2.0).

no longer engraved. Like on the Byzantine coin in fig. 8, a triangular wedge has been punched into the face of the die many times to define the ends of the letter strokes, sometimes more or less deeply, sometimes held at a slightly different angle. However, unlike on the Byzantine coin, another punch, this one a hollow circle, has been punched into the die for the letter “O” in three places. A crescent-shaped punch has been used as well, for the letters “C” and “G”. Most of the letters consist entirely of punch marks; only on the letters “N”, “V”, and “S” has the die-sinker found it necessary to do any engraving at all. Either the same or a smaller triangular punch has also been used at a few points on the figure of Victory, and the same circular punch for the wreath that Victory holds.

It may also be noted that this coin is somewhat thinner than the one in fig. 8; although the weight is actually slightly less, the diameter is slightly greater. The combination of increased diameter and decreased thickness becomes much more apparent in a coin from a generation or more later, around the 570s (fig. 11). The planchet for this coin was no longer a thick cast ingot of gold alloy. Unlike ancient coins that were expected to spread out between the dies, resulting in irregular, blobby edges, this coin was struck on a piece of sheet metal cut carefully to shape.

The technical developments that appeared in Visigothic coinage during the sixth century assumed a settled form by the seventh. A typical example from the reign of Suinthila (621–631) shows the same combination of abundant use of small, simple punches plus limited engraving using wheel, drill, and burin to form very abstract designs that prioritize text rather than image but at the same time almost treat the text itself as an abstract design element (fig. 12). The thinness of the sheet-metal planchet can be seen in a characteristic artifact of the process of striking: on the obverse one can see “shadows” where a hollow marks the underside of a raised area on the opposite side. Although the techniques used are not exactly the same as those used by the makers of the gros tournois in fig. 3, the essential changes from the Greco-Roman tradition were already well established.

The Early Medieval West

The early development of medieval techniques at the Visigothic mints is interesting for many reasons, not least of which is that Visigothic coinage was culturally a dead end. After the Arabs took control of Spain in the early eighth century, the traditions of Visigothic mints came to an abrupt end. The Islamic coinage of Spain followed the precedents of North Africa and the Near East, while the Christian kingdoms that emerged in

the northern mountains of Spain minted no coins for centuries; when they did begin, Visigothic coinage was long forgotten.

The traditions of Roman coinage had undergone their own evolution in the kingdom of the Franks, a vast and inchoate realm that came, under Charlemagne (768–814), to cover most of modern France and Germany, half of Italy, and all of the smaller countries between. While Visigothic coins became thinner and wider, made from dies prepared using punches, Frankish coins of the sixth and seventh centuries became smaller and thicker, struck with dies prepared mainly by direct engraving (fig. 13).

Even in the seventh century there are occasional indications of the use of punches on Frankish coins (Vanhoudt 1986), but a reform of the coinage early in Charlemagne’s reign saw the adoption throughout his realm of a standard obverse type consisting of seven letters and nothing else: the king’s name. With this standardization of design came widespread adoption of the use of punches to prepare the dies. An early denier of Charlemagne from the mint of Dorestad shows how several punches could be used to build up the entire obverse and reverse types of the coin (fig. 14). Because such simple punches can produce different-looking shapes depending on how deeply they are punched into the die, or the angle at which they are held while being punched, it is difficult to make an exact count, but it looks like the two sides of the coin would have required at most nine punches in all.

This simple coin, whose obverse and reverse types consist of only fourteen letters (two of them ligatured) plus a stylized battle axe, was perhaps ideal for the propagation of the use of punches to prepare coin dies. However, as coin types became more complex again during the Carolingian period, die-sinkers reverted to the earlier practice of engraving only where simple punches would not suffice, as for example on the portrait coins of the Carolingians (fig. 15). For the most part, they preferred to extend the newer method of combining multiple punches to build up their designs. An Italian denaro of Berengar I (fig. 16) provides a good example of the type of abstract but distinctive designs that resulted from this method, leading directly toward later medieval coins such as the gros tournois in fig. 3.

Innovation and Efficiency

The invention of a technique is often not as interesting as the question of whether and how it is adopted by others (Sørensen 1989). As is well known in modern history, multiple individuals working within the same technological traditions can come up with much the

same idea around the same time; most of these ideas, however, never achieve widespread use. That similar techniques were adopted on multiple occasions by moneyers in Visigothic Spain, the Byzantine empire, and Frankish Gaul and soon became the most important technique for making coin dies suggests that some practical reason made these techniques particularly advantageous in the early medieval Europe.

All of the techniques mentioned were within the technical capabilities and potential knowledge of ancient moneyers, but they were rarely used in antiquity. To understand the process of adoption, then, it seems useful to consider what might have changed in the early Middle Ages to make different production processes more attractive. The obvious place to look is at the demands of labor for the processes involved in making coins, and highly skilled labor in particular.

Forging iron for a blank die, hammering out sheet metal, cutting rounds with shears, striking the planchets between dies—these processes undoubtedly consumed a great deal of labor, but they did not require unusual skills. Casting blanks to a prescribed weight was perhaps more difficult, but not remarkably so. The engraving of classical-style coin dies, however, was a time-consuming, difficult process requiring skills that must have taken many years of apprenticeship to achieve.

When the Goths initially established their kingdom in southern France in the fifth century, it did not include any working Roman mint, nor did they acquire any Roman mint when they expanded their realm to include Spain and Portugal. The art of die-engraving was derived from the much more ancient art of seal-cutting, and there were undoubtedly provincial seal-cutters available, but from the beginning it must be supposed that Visigothic mints had a very limited supply of potential engravers, whose skills were only partially adapted to the production of durable iron dies for striking coins.

The general economic situation of the early medieval West is also an essential part of the context. While the Byzantine East flourished in the sixth century, it is likely that population in Spain and Gaul was declining substantially, and this will have had a further effect on the availability of workers with highly specialized skills. In studies of the more extreme depopulation suffered by Native Americans with the arrival of Europeans and their pathogens in the modern era, one of the cultural effects that has been noted is a loss of traditions and knowledge, especially that possessed by relatively few individuals within society (Dobyns 1983).

Thus, factors that might be worth considering as reasons for these changes would be the amount of skilled labor used in the production of dies and perhaps also the longevity of the dies, since this affects the number of dies needed. When they became aware of the limited use of punches on contemporary Byzantine coins, it is likely that the workers in the Visigothic mints realized that extensive use of punches could significantly reduce the labor needed to produce dies. For a rough order-of-magnitude comparison of the time that might be required, Michael Crawford has suggested for Roman coins that an expert engraver might have produced 200 obverse dies in half a year (Crawford 1974, 578), or a bit more than one die per day. By contrast, David Sellwood (1962, 58), imitating Anglo-Saxon coins with what he described as “next to no practice,” was able to produce a simple punched die in 15 minutes and a die combining punching and engraving in 25 minutes.

Also, because the relief was much less in medieval dies, the amount of metal being displaced was also much less. This is likely to have contributed to the longevity of dies, since striking a coin would require less force from the hammer and would probably also be less likely to require multiple blows of the hammer. Whether the thinner planchets cut from sheet metal also contributed to efficiency in die use or had some other advantage, such as facilitating standardization without requiring as much skill as the thicker ancient flans, is an interesting question (fig. 17). So far there has been much more research on coin dies than there has on the many choices involved in the making of the planchets (for a useful exception, see Brand 1993).

Beyond the basic point that the use of punches demanded much less skilled labor for producing a given number of coin dies, there may also be something of interest in where and when these techniques were adopted. As noted above, Visigothic Spain had to develop its coinage system without the benefit of an existing mint and mint workers, and at least through the sixth century it apparently retained a more monetized fiscal system than other parts of western Europe (Wickham 2005, 97). Perhaps this encouraged innovation, as Visigothic mints attempted to provide a significant monetary supply despite a shortage of skilled engravers. One might also note that widespread Frankish adoption of these techniques happened not while the Merovingian fiscal and monetary systems were decentralizing and deteriorating in the sixth and seventh centuries, but rather at the time when the growth of Charlemagne’s kingdom was undoubtedly accompanied by rapidly expanding production and use of coinage.



Fig. 11: By the time this gold tremissis was struck at an unknown mint in Visigothic Spain, around the 560s or 570s, a full transition had occurred to the use of punched dies and sheet-metal planchets. Incidentally, the obverse shows one of the drawbacks of the earlier transition to iron dies: the surface of the die had evidently been damaged by rust, leaving a rough, pitted surface that was transferred to the struck coin (2×, 1.29 g, 19 mm; ANS 2014.45.55, anonymous donation from the former Archer Huntington collection).



Fig. 12: Once the Visigothic mints devised the solution of using multiple simple punches plus a limited amount of engraving to make their dies, this practice remained stable until the end of the kingdom in the early 700s. This gold tremissis of Suinthila (621–631) from the mint of Eliberri (modern Granada in Spain) shows essentially the same techniques adopted a couple of generations before (2×, 1.39 g, 20 mm; ANS 2013.40.8, anonymous donation from the former Archer Huntington collection).



Fig. 13: Although contemporary with later Visigothic coins, this Merovingian denier of the palace mint (possibly in Paris), produced around the end of the seventh or beginning of the eighth century, shows a different technical evolution, with the obverse die mostly or entirely engraved and the coin struck on a small, thick flan (2×, 1.22 g, 12 mm; ANS 1973.30.1, purchase).



Fig. 14: Compared to the Merovingian denier in figure 11, this Carolingian denier from the mint of Dorestad, struck under Charlemagne between 771 and 793/4, is much more medieval in its design and technology. The accompanying line drawing shows the punches that would have been needed to make the obverse and reverse dies (2×, 1.24 g, 18 mm; ANS 1956.168.40, purchase).



Fig. 15: Once mint workers in the Carolingian kingdoms had fully adopted the use of punches in making their dies, they preferred to develop further stylistic explorations on the basis of that technology. The die-sinker used engraving for the human head on this silver denier, probably issued under Pepin I of Aquitaine (817–838), but otherwise relied on simple geometric punches. This combination of techniques resembles that used on Visigothic coins (1.68 g, 19 mm; ANS 1969.119.1, purchase).



Fig. 16: More typically, mid-medieval die-sinkers created relatively abstract designs that could be formed more effectively using the simple geometric punches. This denario of Berengar I of Italy (887–924) features a cross on one side and a stylized church façade on the other, but the emphasis is on the text (1.44 g, 23 mm; ANS 0000.999.8922). This design is structurally very similar to the later French gros tournois in fig. 3.



Fig. 17: Fresco from the church of St. Barbara in Kutná Hora, Czech Republic, showing mint workers preparing coin planchets
 © Chris Waits; <https://www.flickr.com/photos/chriswaits/14954263042>, license CC BY 2.0).

In the later Middle Ages and into the modern era, the techniques developed in the early Middle Ages remained fundamental to coin production. As designs became more complex, combinations of simple geometric punches gave way to more complex punches bearing a human head or figure, whole letters, etc. (Karras 1985). These allowed greater standardization as well as efficiency, as the volume of minting expanded in the late Middle Ages (Stahl 2000, 314). The hubs used in modern mints are a further development of the idea of punches (fig. 18), and the machines for rolling and punching the metal are simply a mechanized form of hammering and cutting planchets.

Despite the general aesthetic fondness for the art of classical Greece during the imperialist era, the technical innovations of the early Middle Ages remained an essential part of modern minting technology. Modern steel

has replaced carburized wrought iron for dies, but there has been no return to the ancient use of bronze dies. The sheet metal from which planchets are cut is now made by rolling rather than hammering, but cast flans have not come back into use. Punches, far more elaborate but conceptually not very different from those of the Middle Ages, did the majority of the work in die-sinking up through the nineteenth century, and only the use of reducing pantographs and more recently computer-guided machining has reduced or eliminated the need for them in preparing dies. Although many of the design constraints that prevented Augustus Saint-Gaudens from following classical precedents as closely as he wished were either legal requirements or practical issues of modern use, the technical frustrations that forced modifications to his coin designs, much to Theodore Roosevelt's annoyance, were mostly related to the problem of keeping relief low enough and evenly enough distributed



Fig. 18: This nineteenth-century date punch exemplifies how the technology of die-sinking continued in the modern era with more complicated elements but still the same basic idea as developed in the early Middle Ages (ANS 1990.4.2, gift of Anthony Terranova).

for one strike to bring up the full relief on a flat planchet of fixed thickness. In that respect at least, the continuing legacy of early medieval coinage won out on practical grounds over ancient Greek artistic inspiration.

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Facing page: Obverse of the ANS's 1804 dollar (ANS 1980.66.1, gift of Chase Manhattan Bank of North America). The Rosenthal specimen. Image by Alan Roche.



TRADITION'S 1001st TONGUE: A Critical Review of Mark Ferguson's *The Dollar of 1804: The U.S. Mint's Hidden Secret...As Revealed by the "Dexter Dollar," The King of American Coins*

Joel J. Orosz

There is no authentic history of the 1804 dollar. Tradition, however is "thousand-tongued" in its regard.

So reads the opening two sentences of "Traditions of the 1804 Dollar," a preface to *Dye's Coin Encyclopedia*, written by John S. Dye in 1883 (fig. 1). The first sentence held true until 1962, when Eric P. Newman and Kenneth E. Bressett wrote *The Fantastic 1804 Dollar* (fig. 2), which quieted, at least for a time, those thousand tongues by providing an authentic history of the 1804 dollar. Now, Mark Ferguson bids fair to revive Dye's second sentence with his book *The Dollar of 1804: The U.S. Mint's Hidden Secret...As Revealed by the "Dexter Dollar," the King of American Coins* (fig. 3).

Any title requiring 24 words, a pair of quotation marks, an ellipsis, and a comma certainly promises to be an exhaustive addition to the "authentic history" of 1804 dollars. *The Dollar of 1804* does indeed add some new and useful stones to the historical mosaic of that celebrated coin. In his attempt to refute certain portions of *The Fantastic 1804 Dollar*, however, Ferguson undermines his own credibility by repeatedly making claims that his evidence cannot support and by embracing a long-discredited myth about 1804 dollars as "proof" of his revisionism.

The preceding paragraph will surprise those who have noticed early reactions to *The Dollar of 1804*. David Hill wrote a respectful notice about Ferguson's book, entitled "Truth Comes to Light," in *ANS Magazine*, Issue 2 of 2014. The Numismatic Literary Guild bestowed an "Award of Extraordinary Merit" upon the book at its Bash during the 2014 ANA Convention. Observant readers might well wonder why the author of this review is now critical, since he clearly was not when he wrote the Foreword for *The Dollar of 1804* in March

of 2014. The answer is that all of us were distracted by the solid portions of Ferguson's text, and failed to read its subtler points with sufficient discernment. A closer second reading, necessitated by Ferguson's failure to keep an agreement with the present author (which will be described later), reveals significant flaws that should have been caught on the first reading.

The 1804 dollar boasts the most convoluted history of any United States coin. Its very existence was unknown until 1842, when Jacob R. Eckfeldt and William E. Dubois published *A Manual of Gold and Silver Coins of All Nations, Struck Within the Past Century*. Collectors were surprised to see both obverse and reverse of an 1804 dollar on the book's plate 2 (fig. 4), but readily accepted the coin's genuineness, since Eckfeldt was the Assayer, and Dubois the Assistant Assayer, of the United States Mint.

The revelation caused a tempest in the teapot of 1842 American numismatics. The following year, Salem numismatist Matthew Stickney (fig. 5) made a special trip to Philadelphia secure an 1804 dollar from the Mint in exchange for his unique gold Immune Columbia piece. Philadelphia collector Joseph J. Mickley (fig. 6) avidly sought the 1804 dollar for five years before buying one, at face value, from a Philadelphia bank. Few collectors needed to make room in their cabinets, however, for it seemed that only a handful had been minted. The scarcity of reliable facts about 1804 dollars matched that of the coins themselves; when in 1859 Dr. Montroville Wilson Dickeson (fig. 7) wrote the first comprehensive guidebook to American coinage, the *American Numismatological Manual*, he noted only that "The number coined was 19,570. The emission was small, and they are extremely rare."

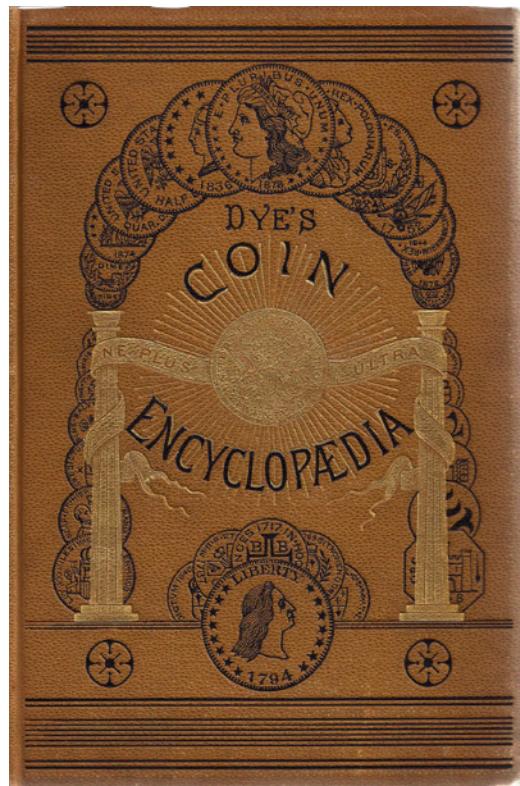


Fig. 1: Dye's Coin Encyclopedia (1883). More than 40 years after the first 1804 dollar came to light, this reference observed that "There is no authentic history of the 1804 dollar."

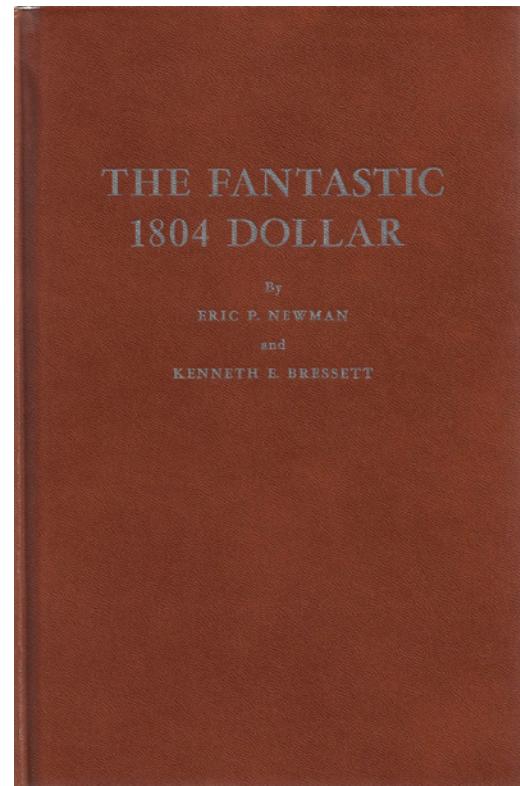


Fig. 2: The Fantastic 1804 Dollar (1962). Eric P. Newman and Kenneth E. Bressett reveal that "the King of American Coins" is an impostor, a mere novodel.

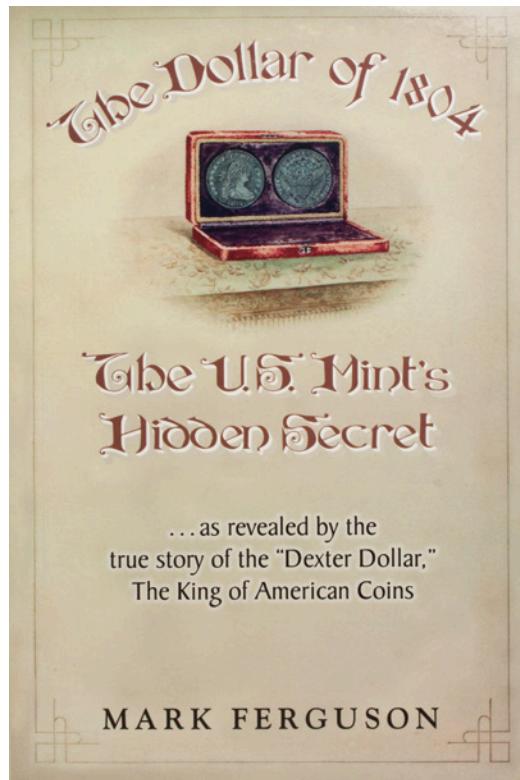


Fig. 3: The Dollar of 1804: The U.S. Mint's Hidden Secret (2014). Author Mark Ferguson's attempt to revise portions of The Fantastic 1804 Dollar.



Fig. 4: A Manual of Gold and Silver Coins and Bullion (1842). U.S. Mint Assayers Jacob R. Eckfeldt and William E. Du Bois introduce the 1804 dollar to the world on plate II of their "Mint Manual of Coins."

This strange dichotomy between the 19,570 dollars the Mint records noted as coined in 1804 and the reality that in 1859 fewer than five could be traced, gave rise to Dye's "thousand tongues of tradition." Writers possessing varying levels of numismatic knowledge concocted stories that explained the absence of nearly all the dollars supposedly struck in 1804. The more knowledgeable knew that the dollar's bullion value in 1804 had exceeded its face value, so the coins could have been exported, over a period of many years, to Europe and to Asia. Writers less learned about coinage tended to blame Poseidon or Hephaestus. Nearly all the dollar mintage of 1804 had gone down with a ship en route to France to help pay for the Louisiana Purchase, or foundered on a slow boat to China in tender for shipments of tea, or was dispatched to Tripoli as ransom to the Barbary pirates in exchange for 300 American hostages, and thereafter melted down.

Coin dealer W. Elliot Woodward refused to indulge in such mythmaking, and in the June 1867 issue of the *American Journal of Numismatics*, he revealed that "sometime during the administration of President Jackson" (1829–1837), a diplomatic gift had been received from the Sultan of Muscat, and the U.S. government sought to send the Sultan a set of U.S. coinage in return. It was discovered, however that the only dollar dies in existence were those of 1804, and a set was struck from these dies (fig. 8). In the competition between Woodward's prosaic diplomatic gift story and the swashbuckling tales of shipwrecks and pirates, romance carried the day. Woodward's account was swiftly forgotten.

1804 dollars suddenly became more plentiful in the early 1860s, after dealer Edward Cogan charged that profit-seeking Mint staff had restruck and sold them to collectors and dealers. Cogan, in a May 1868 *American Journal of Numismatics* story, claimed that an outcry among numismatists had forced the Mint to recall as many restrikes as they were able find.

The scholarly numismatist John A. Nexsen, writing in the *American Journal of Numismatics* for April of 1887, enumerated three "original" and seven "restrrike" 1804 dollars in the hands of collectors and institutions. He noted that the United States Mint did not have an 1804 dollar in its possession as of 1838, and stated "after that date a number of pieces were made from the dies ["originals"], and also that additional pieces [restrikes] were struck prior to the destruction of the dies in 1869." Eventually, in an article in the same journal for April of 1905, Nexsen listed 13 specimens (although one, the Spiers piece, proved subsequently to be counterfeit). Nexsen here repudiated all he had said in earlier articles about "originals" and "restrikes," for



Fig. 5: Matthew A. Stickney, numismatist from Salem, Massachusetts, who in 1843 traded his unique gold Immune Columbia to the Mint in exchange for an 1804 dollar.

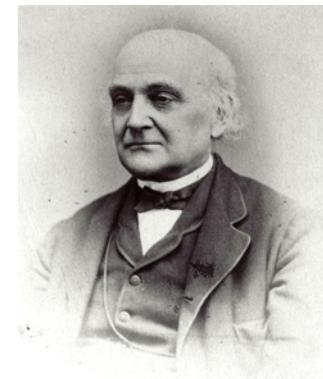


Fig. 6: Joseph J. Mickley, Philadelphia numismatist who bought his 1804 dollar at face value from a Philadelphia bank.



Fig. 7: Dr. Montroville Wilson Dickeson, numismatist and Indian mound excavator, whose *American Numismatical Manual* (1859) called the 1804 dollar "extremely rare."



Fig. 8: Said bin Sultan al-Said, Sultan of Muscat and Oman from 1807 to 1856.

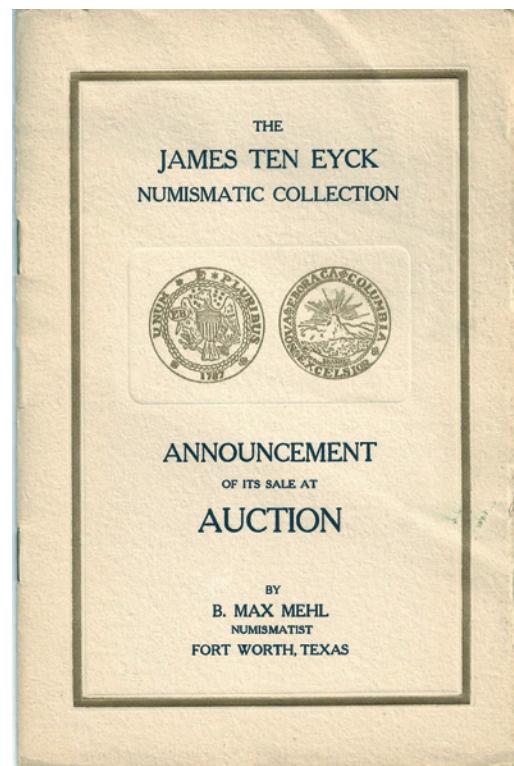


Fig. 9: Prospectus for the sale of the James Ten Eyck collection (1922). Dealer B. Max Mehl first coined the term “The King of American Coins” in this publication.

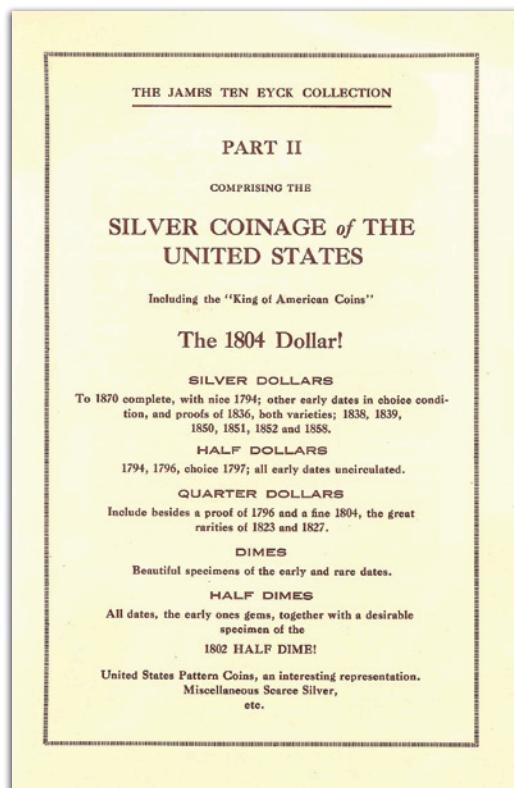


Fig. 10: Ten Eyck Prospectus (1922), showing first use of B. Max Mehl's 1804 silver dollar moniker: “The King of American Coins”

he concluded that none of the 1804 dollars had actually been struck in 1804.

Nexsen's work aside, the first half of the 20th century proved to be an arid time for 1804 dollar scholarship. When examples came up for sale, catalogers repeated one or another of the shipwreck narratives, or sensationalized these coins: it was during this period that Texas dealer B. Max Mehl's marketing genius inspired the 1804 dollar's enduring moniker: “The King of American Coins” (figs. 9–10).

Into this vast knowledge wasteland, Eric P. Newman's and Kenneth E. Bressett's *The Fantastic 1804 Dollar*, 1962, fell like a welcome rain. In a tour-de-force of scholarship, Newman and Bressett immersed themselves in original sources, unearthed evidence that had been long overlooked, and thoroughly examined the coins themselves. They applied rigorous logical analysis to their findings, and provided Dye's authentic history of this coin.

Newman and Bressett demonstrated that all 1804 dollars have characteristics (raised flat border, collar-struck) unknown on U.S. coins minted before 1828. The 1804 dollar dies, therefore, were created long after 1804, and all pieces were struck after 1804. What, then, of the 19,570 dollars the Mint records say were struck in 1804? The authors detail many examples of the unreliability of Mint records, which, for instance, say that no cents were struck in 1823 nor quarters in 1824, although both coins exist in quantity. Newman and Bressett advance the theory that all 19,570 dollars supposedly coined in 1804 were in fact dated 1803, which comports with the Mint's well-established practice of using serviceable dies until they failed, even if that meant breaking the coinage law by striking coins dated one year into the next calendar year.

The authors could not find evidence to support Woodward's story about the diplomatic gift until just before publication, when British dealer David Spink dramatically revealed, at the 1962 American Numismatic Association convention, the existence of a diplomatic gift set that had been given to the King of Siam (Thailand) (figs. 11–12). A last-minute rewrite told the story of the Siam set, as well as the set given, as Woodward had stated, to the Sultan of Muscat, and demonstrated that the 1804 dollars contained therein were struck, in 1834 or 1835, at the request of President Jackson and his Secretary of the Treasury, John Forsyth. The scandal of 1858, in which Mint officials restruck 1804 dollars with a different reverse, and sold them for personal gain to collectors and dealers, also came in for close examination.

Newman and Bressett cataloged the fifteen 1804 dollars remaining as Class I (8 examples, with Reverse X, struck for diplomatic gift purposes in 1834–1835) (fig. 13); Class II (1 example, with Reverse Y, struck around 1858 over a Swiss five franc shooting thaler, impounded in the Smithsonian Institution) (fig. 14); and Class III (six examples with Reverse Y, all struck illicitly for personal gain by Mint officials in 1858 or thereafter) (fig. 15).

Newman and Bressett also investigated the interesting case of the Class I Dexter specimen, which mysteriously surfaced at auction in—of all places—Berlin, as lot 159 in the October 13, 1884, auction sale of Adolf Weyl, complete with a photograph of the coin glued to the cover of the catalog. Dealer Edouard Frossard smelled a rat, stating in the November 1884 issue of his house organ *Numisma* that the photograph was that of an electrotype reproduction, and questioning the genuineness of the coin from which the electrotype had been created. The Weyl catalog is very rare, so the authors could not locate a copy with its associated photo to examine; therefore they relied upon Frossard's identification of the photo as an electrotype.

They theorized that the Brothers Samuel Hudson and Henry Chapman (figs. 16–17), who bought the dollar from the Weyl sale, had actually purchased it previously from John Haseltine, a Philadelphia coin dealer who often acted as the Mint's “fence” for illegally struck material, and then consigned the coin to Weyl so that its irregular origins could be covered by the attachment of a seemingly legitimate European provenance. The Chapmans, according to Newman and Bressett, “bought” the coin back from Weyl, and with the German pedigree now attached, sold it the year following to James Vila Dexter (fig. 18) of Denver, Colorado, for the record-breaking sum of \$1,000.

Newman and Bressett conclude that the “*Fantastic*” 1804 dollar is just that: a fantasy. It is a novodel, illegally carrying the date of 1804, but actually minted on two separate occasions, both decades after 1804. As such, it is hardly the “King of American Coins,” but rather a pretender to the throne, a non-genuine, extra-legal *fraud*.

The Fantastic 1804 Dollar is justly celebrated as a model of research-based scholarship, a book that swept away decades of speculation to reveal the truth about the shady antecedents and the questionable career of the 1804 dollars. Its towering success has rendered it immune to replacement in the way that that Dr. William Sheldon's *Penny Whimsy* was superseded by the Breen/Borckhardt *Encyclopedia of Early American Cents, 1793–1814*. Generations of authors have contented themselves with adding to the story (the most distinguished



Fig. 11: Statue of Phra Bat Somdet Phra Nangklao Chao Yu Hua, or Rama III, King of Siam, 1787–1851.

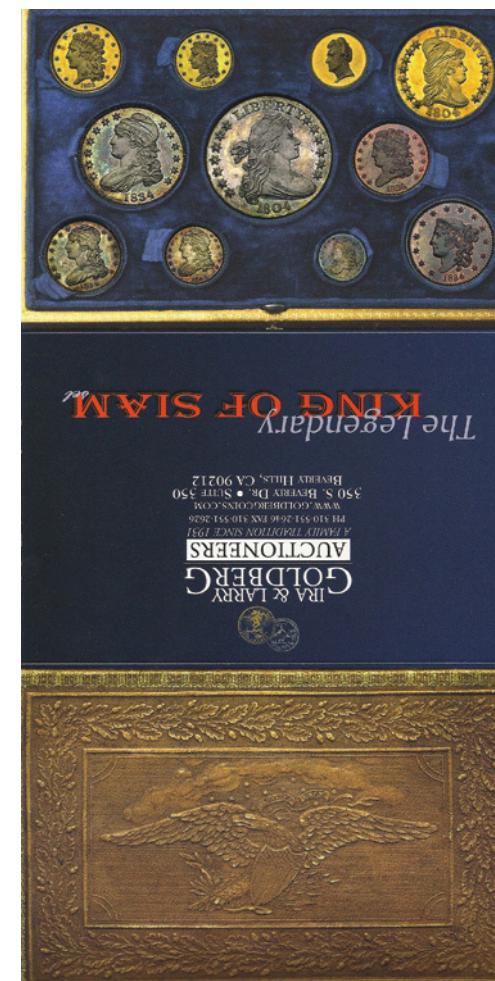


Fig. 12: King of Siam Proof Set. David Spink's dramatic announcement of the existence of this set at the 1962 American Numismatic Association annual convention forced Newman and Bressett to reconsider their conclusions about the diplomatic gift explanation for the creation of the 1804 dollars.



Fig. 13: 1804 dollar, class I (Smithsonian Institution, National Museum of American History, National Numismatic Collection, 1986.0836.0061). U.S. Mint specimen.



Fig. 14: 1804 dollar, class II (Smithsonian Institution, National Museum of American History, National Numismatic Collection, 1986.0836.0062). U.S. Mint specimen.



Fig. 15: 1804 dollar, class III (ANS 1980.66.1, gift of Chase Manhattan Bank of North America). The Rosenthal specimen.

example of this genre being Q. David Bowers' *The Rare Silver Dollars Dated 1804 and the Exciting Adventure of Edmund Roberts* (fig. 19), or with attempting to revise specific portions of *Fantastic* (this unprofitable pursuit, by men such as James C. Risk and Robert P. Hilt II, resulted in criticisms subsequently refuted by replies from Newman and Bressett).

Mark Ferguson's *The Dollar of 1804* makes no pretension of "replacing" *The Fantastic 1804 Dollar*. Whether by design or by chance, however, the book straddles both the "adding" and the "revising" camps. Ferguson is at his best when he confines himself to adding to the story. Had he stopped there, his book would have comprised a useful addition to the 1804 dollar literature. When he crosses into revising territory, however, the wheels quickly depart from his wagon.

The core of Ferguson's book is about James Vila Dexter, the purchaser from the Chapmans, via Weyl, of the 1804 dollar that even today bears his name. Surprisingly little about Dexter was previously known, and Ferguson devotes chapters to his colorful biography. Considerable explication is expended on the lawsuit Dexter brought against the Chapmans for fraud, and the settlement that averted a trial, in which Dexter accepted certificates of authenticity for his 1804 dollar from officials of the U.S. Mint. Ferguson also discusses other notable coins in Dexter's collection, and traces his dollar's peregrinations as it passed through subsequent hands.

Another welcome Ferguson addition is found on pp. 234–237, a reprint of a newspaper clipping from the *Philadelphia Press* of September 7, 1885, which presents the full story of the discovery of Joseph Mickley's 1804 dollar. Written by H. C. Young, who in late September of 1847 was a teller for the Bank of Pennsylvania, it recounts how he discovered the dollar while weighing deposits from other banks, purchased it for two half dollars, and presented it to Mickley. Young's description of Mickley's

reaction provides a fascinating insight into the personality of this genial pioneering collector.

Would that Ferguson had stopped there. Alas, he was determined to revise *Fantastic*, targeting particularly two of Newman's and Bressett's "errors." First, he seeks exoneration for Samuel Hudson and Henry Chapman from Newman's and Bressett's charge that the Chapmans "laundered" their 1804 dollar through Adolf Weyl. Second, he seeks to refute Newman's and Bressett's theory that the 19,570 dollars Mint records list as struck during 1804 were in actuality dated 1803; according to Ferguson, these dollars were business strikes dated 1804, later exported to North Africa, never to be seen again. Challenging such august numismatists as Eric P. Newman and Kenneth Bressett, particularly on their "home turf" of 1804 dollars, is audacious, so give Ferguson credit for courage. When his arguments are closely considered, however, it quickly becomes clear that Ferguson's inflated claims have written checks that his depleted evidence cannot cash.

Chapter 3 of *The Dollar of 1804* is entitled "The Real Truth Uncovered." The header immediately beneath reads "Really the Real Truth." The first sentence under the header specifically impugns Newman and Bressett: "The rumors and tales about whether S.H. and H. Chapman legitimately purchased the 1804 Dollar from Adolf Weyl in Berlin Germany in 1884 seem quite humorous when the real truth [bolded in original] is finally known." The sentence immediately following that one reads: "A half century after the publication of *The Fantastic 1804 Dollar*, I discovered irrefutable evidence of what actually took place." These are audacious claims, laced with a hint of mockery. Can Ferguson make them stick?

Ferguson was among the first to read the press books kept by the Chapman Brothers as a record of their outgoing correspondence (fig. 20). Why had Newman and



Fig. 16: Samuel Hudson Chapman. The senior Chapman brother, a scholar and a superb coin photographer.

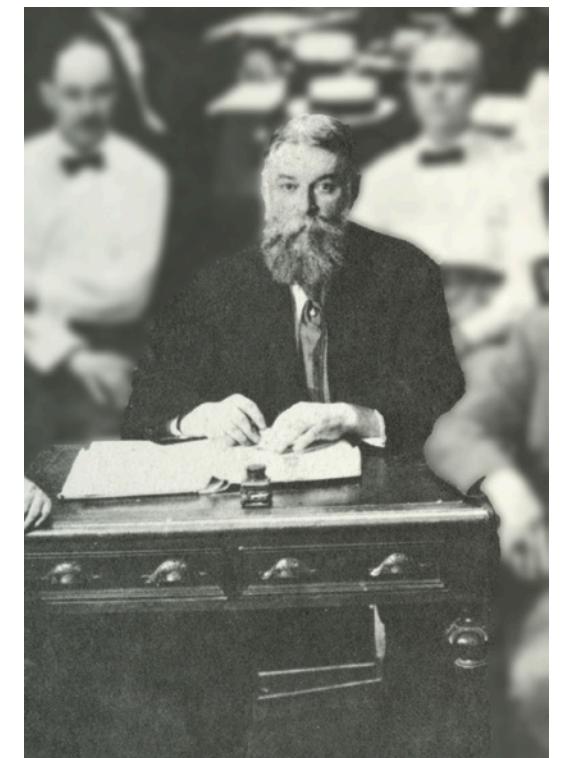


Fig. 17: Henry Chapman. The younger of the Chapman brothers, and the one with the better sense of the business side of numismatics.



Fig. 18: James Vila Dexter. Colorado mining investor, financier, and numismatist, who purchased his 1804 dollar from a Chapman Brothers auction.

Bressett not found them? The estate of Henry Chapman's daughter, Henrietta Chapman Judson, donated them to the American Numismatic Society in 2002, 40 years after the publication of *The Fantastic 1804 Dollar*.

Ferguson discovered within this archive copies of the letters ostensibly from the Chapmans to Weyl about their purchases from Weyl's October 13, 1884, sale. To summarize the pertinent correspondence, the Chapmans feared that the 1804 dollar was a restrike; they told Weyl of their suspicions, but they bid \$325 in case it proved to be genuine. They were pleased to win lot 159 for a mere \$216, and utterly delighted to discover, upon receipt, that it was a genuine "original" (Class I) specimen. They were rewarded for their risk-taking the following year when they sold the coin to Dexter for more than four times their cost.

This is the "irrefutable evidence of what actually took place" to which Ferguson so confidently refers, and which he believes conclusively exonerates the Chapmans. This evidence, however, is anything but irrefutable. The Chapman press books do not contain actual letters, sent through the mail, and received by Adolf Weyl; they contain copies of originals presumably sent through the mail. If the Chapmans were using Weyl to launder their coin, we can hardly expect them to have made and preserved accurate letterpress copies documenting their nefarious activity; the creation of fictitious, unobjectionable copies of "originals" never actually sent would cover their tracks without leaving suspicious gaps in their records. The question of whether the press books contain copies of originals actually sent to Weyl, or bogus copies of "originals" that were discarded as soon as copied, might be illuminated if the press books included Weyl's side of the correspondence, but they do not. Ferguson cannot exonerate an accused duo by producing copies of supposed correspondence, created entirely by them, in their own office, for their own purposes. The copies in the Chapman press books are interesting and suggestive, but without independent corroboration, they do not and cannot comprise "irrefutable evidence" of the Chapmans' innocence.

This is not Ferguson's only misleading claim about the Chapmans and Adolf Weyl. On pp. 18–19 of *The Dollar of 1804*, he states: "Furthermore, it's apparent to me that neither Eric Newman nor Ken Bressett ever saw a copy of the 1884 Adolf Weyl auction catalog before making their remarks [in *The Fantastic 1804 Dollar*], especially as it pertains to the 1804 dollar, stating that it was 'the picture of the electrotype.'" Ferguson clearly implies that Newman and Bressett claimed to have seen a copy of the Weyl catalog prior to writing their book. Ferguson then describes how he purchased a copy of

that extremely rare Weyl catalog, and implies that he was the first to notice that the photograph on its cover depicts not an electrotype, but rather a plaster cast of the Dexter 1804 dollar.

In none of their voluminous writings have either Eric Newman or Ken Bressett ever claimed that they saw a copy of the Weyl catalog before the publication of *The Fantastic 1804 Dollar*—rather, the authors relied upon the contemporary judgment of Eduard Frossard that the cover photo depicted an electrotype. Ferguson's first implication is thus misleading and unfair, but his implication that he discovered that the cover photo depicts a plaster cast is dead wrong. From 1964 to 2009, Newman and Bressett wrote a total of eight articles (some individually, some in partnership), in response to the controversies about their book and the 1804 dollar. These articles, which are essential reading on the subject, not only replied to critics, but also shared important new information they had discovered since *Fantastic's* publication in 1962. One such article in particular would have profited Ferguson to read: Newman's "Keeping Up with the 1804 Dollar History" in *The Numismatist* for March of 1970 (fig. 21). In this article, Newman reports finding a copy of the Weyl catalog in Austria after a five-year search, and reveals that the picture on the cover was that of a plaster cast—not an electrotype—of the Dexter coin. Ferguson takes credit for a discovery that had been made 44 years previously by Newman.

Nor is this the only time that Ferguson gets the facts wrong. If Weyl had, as Ferguson insists, the original Dexter dollar in his possession before selling it to the Chapmans, why would he have illustrated the cover of his catalog with a photograph of a dull, flat, and lifeless plaster cast instead of the brilliantly lustrous actual dollar? Ferguson guesses that Weyl photographed the plaster cast because "The use of photographic illustrations was in its infancy in coin catalogs at that time." (p. 17). In fact, the first use of photographs of original coins to illustrate auction catalogs occurred in 1860 in England, and in 1869 in the United States. By 1884, this practice was about to celebrate its silver anniversary in the western world. It is simply wrong to say that Weyl did not photograph the actual Dexter dollar because coin photography was in its infancy. A far likelier explanation is that Weyl used the photograph of the plaster cast because he never had the actual Dexter dollar in his possession. Perhaps, as Newman and Bressett theorized, it never left the possession of the Chapman brothers in Philadelphia.

It is bad enough that Ferguson overstates the reliability of his evidence, makes a misleading implication about Newman and Bressett, erroneously implies credit for

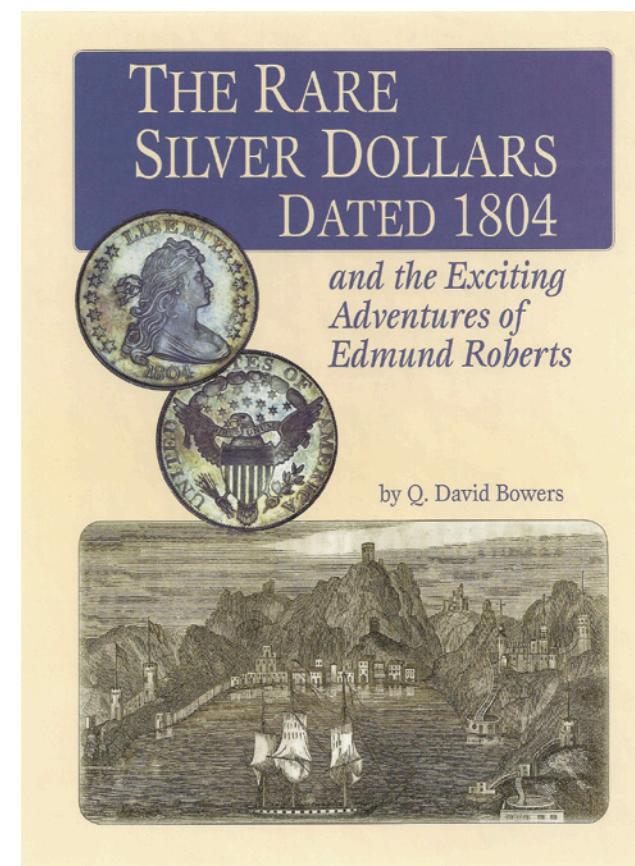


Fig. 19: *The Rare Silver Dollars Dated 1804* (1999). *The finest of the books that have added to the legacy created by Newman and Bressett in The Fantastic 1804 Dollar.*

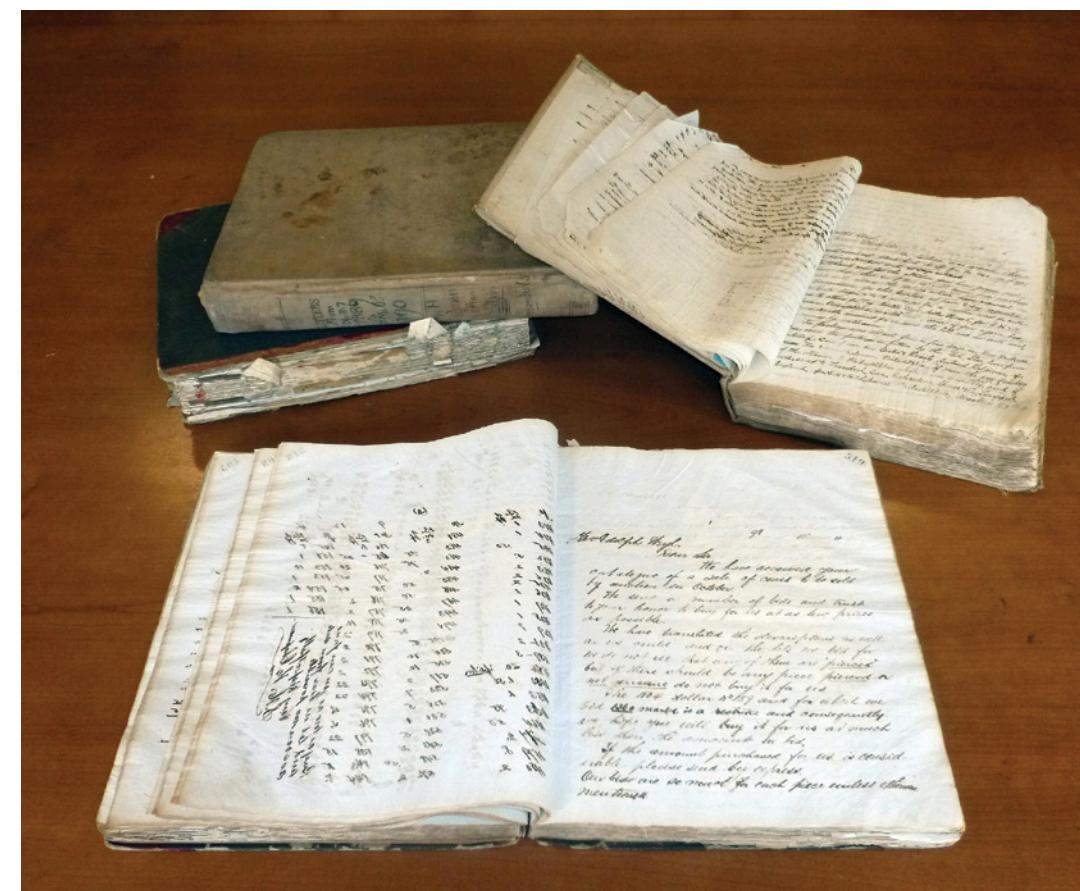


Fig. 20 (below): *The press books of the coin dealer firm S. H. and H. Chapman. Press copying, adopted early by the Chapman brothers, was the first method for producing exact copies of documents to be widely embraced by American businesses.*

another's accomplishments, and gets the history of numismatic photography wrong, but none of these constitute the biggest transgression of his book. That flaw lies in Ferguson's determination to embrace errors that were exposed 52 years previously by Newman and Bressett, and 57 years before them by John A. Nexsen. Ferguson is determined to believe that the Mint records were absolutely correct in stating that 19,570 1804-dated business strikes were made and that the old legend is correct that all were exported to Tripoli, as part of the \$60,000 ransom paid to the Barbary pirates in 1805 to free 300 American hostages. Ferguson adds that business-strike 1804 dollars are nonexistent today because the Bashaw of Tripoli melted every last one in order to profitably incorporate their silver into his own debased coinage.

The 300 hostages, and the \$60,000 ransom paid for them in 1805, are unquestioned historical facts, but the exported-to-Tripoli-and-melted-by-the-Bashaw yarn is as ludicrous as it is venerable. Ferguson treats this old chestnut as a new discovery: "And now, facts have come to light supporting the Barbary Coast disappearance theory published in *The Current Gold and Silver Coins of All Nations* by Ivan C. Michels..." (p. 278) (figs. 22–23). This book was last published in 1885, so it is difficult to understand how its "facts" could be coming to light only now.

Ferguson's sources suffer from a fatal case of unreliability. Has anyone ever found a genuine example of the 321 dollars the Mint Report says were coined in 1805 (fig. 24), or one of the 15,017 eagles the Mint records claim were coined in 1802? Nor has anyone found a genuine 1804 dollar business strike, nor records that any were exported to Tripoli, nor proof that any were melted by the Bashaw. If the Mint really did create 19,570 dollars dated 1804 in 1804, their exportation must have left a paper trail, but in fact neither Ferguson nor any other writer has ever offered a shred of credible evidence to support such a claim.

And what of the veracity of Dr. Michels? The dean of American numismatic bibliopoles, George Frederick Kolbe, offered a copy of *The Current Gold and Silver Coins of All Nations* as lot 375 in his *Mail Bid Sale 83* on March 10, 2001, with this assessment: "...crammed with American numismatic legend and lore...Historical fact and unsubstantiated rumor are interwoven indiscriminately into entertaining if not always accurate accounts."

Kolbe was charitable. Consider the fifth edition of Michels' book, published in 1885, in which he crams four tall tales into three pages (8–10). First, Michels tells us that Matthew Lyon was a member of Congress from "the South" who participated in the 1794

Congressional debate over emblems and devices for coinage. (The debate took place in March of 1792, Lyons wasn't elected to Congress until 1797, and he represented that "southern" state of Vermont!) Second, Michels says that 1799 cents are rare because a New England merchant exported most of them to Africa. (Every scarce coin, it seems, can be explained by an exportation fable). Third, Michels claims that 1801 half eagles are rare because most of them were exported to pay Captain Bainbridge's crew in the fight against the Barbary Pirates (pity the crew, since no 1801 half eagles were struck). Fourth is the twice-told tale about "business strike" 1804 dollars being exported to ransom the American hostages.

Citing Ivan Michels as an authority on American coinage is akin to citing Mason Locke Weems as an authority on the biography of George Washington. In resurrecting Michels' tale, Ferguson's own words come back to haunt, or perhaps taunt, him. In the space of two pages (17–18), he criticizes Newman and Bressett for accusing the Chapmans of duplicity without hard evidence: "Myth became 'fact'....Pure fiction, obviously based on rumors...Numismatists...have come to believe that this fictional account was what really happened." This is precisely what Ferguson has done by promoting the 1804-dollars-for-hostages fantasy without hard—or even soft—evidence.

For the record, the present author initially refused Ferguson's request to write the Foreword for *The Dollar of 1804* because it contained this legend vouched for by serial fabulist Ivan Michels. Ferguson promised to excise the story; based on his assurances, the Foreword was written. For whatever reason, he retained the Michels myth in the published book as the centerpiece of the final chapter. This surprising turn of events prompted a much closer reading of Ferguson's book, resulting in this review article.

What is the outcome of Mark Ferguson's promise to give us "Really the Real Truth?" His "irrefutable evidence" clearing the Chapmans turned out to be anything but; his claim that Newman and Bressett never saw the Weyl catalog and his implication that he had discovered that the photo on its cover depicts a plaster cast both collapsed; he resorted to a false claim about coin photography to explain away evidence that contradicted his thesis; and he did exactly what he accused others of doing: advancing an explanation for the disappearance of 1804 dollar "business strikes" citing only "pure fiction obviously based on rumors." This is not "really the real truth" about the 1804 dollar. It is, in terms bequeathed to us by John S. Dye, "Tradition's 1001st tongue in its regard."

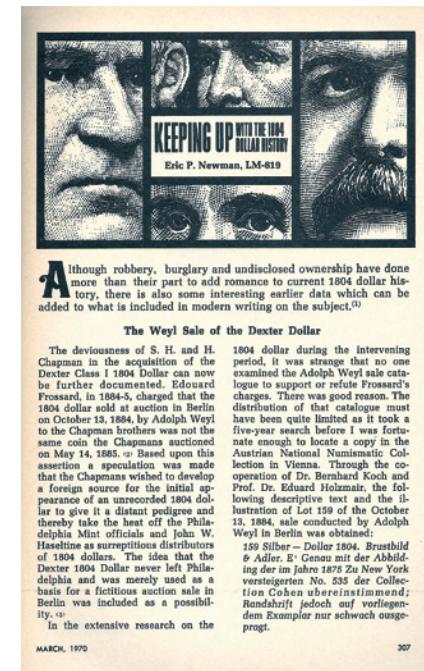


Fig. 21: "Keeping up with the 1804 Dollar History." From the March 1970 issue of *The Numismatist*, in which Eric P. Newman announces that Frossard was wrong; the photograph of the Dexter dollar on the cover of the October 13, 1884 *Adolf Weyl* did not depict an electrotype copy, but rather a plaster cast of the original coin.

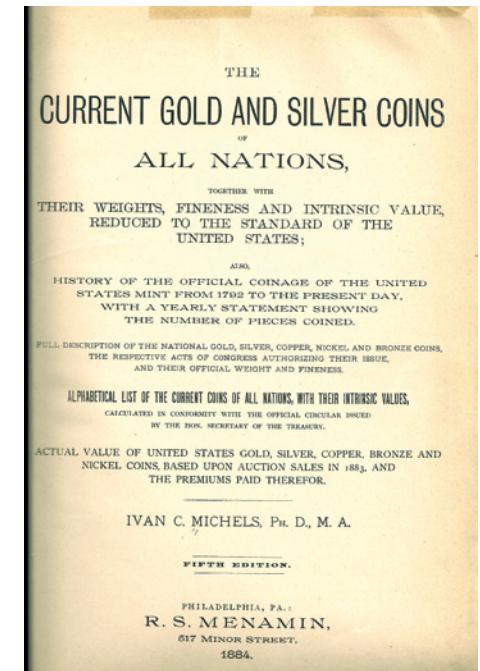


Fig. 22: *The Current Gold and Silver Coins of All Nations* (5th edition, 1884). Ivan C. Michels' confection "crammed with American numismatic legend and lore" (George F. Kolbe).

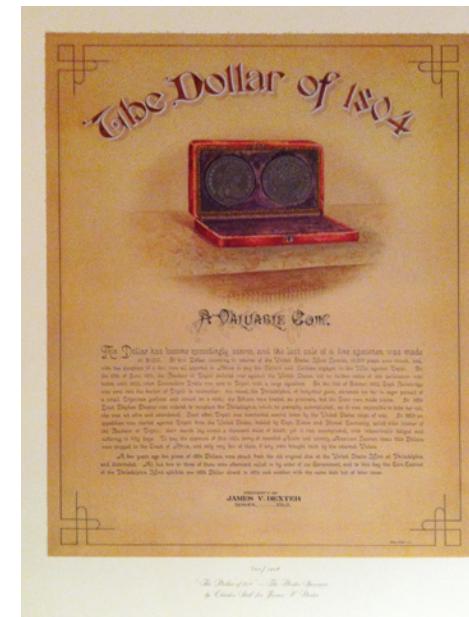


Fig. 23: "The Dollar of 1804" (Original 1887; Reprint by Mark Ferguson, 1989) A poster-sized artwork created by Charles Stoll for James V. Dexter. The text reprints the unsubstantiated legend appearing in Ivan C. Michels' *The Current Gold and Silver Coins of All Nations* (5th edition, 1884), which ascribes the disappearance of 1804-dated "business strike" silver dollars to their use in ransoming a small band of American sailors and Arab mercenaries sent to North Africa to overthrow the Bashaw of Tripoli.



Fig. 24: "1805" dollar, with altered date. (Ira and Larry Goldberg, Auction 16, 23–24 September 2002, lot 541).



Facing page: The Josephine Shaw Lowell Memorial Fountain at Bryant Park in New York City. Designed by Charles Pratt, the fountain was installed in 1913. Photograph by Alan Roche.

FOUNTAINS OF FORTUNE and the Bryant Park “Hoard”

Gilles Bransbourg

Introduction

New York City’s Bryant Park, a 9.5-acre refuge from the chaos of Times Square a block away, serves many functions for tourists and residents alike, but mainly for quiet contemplation.¹ In the midst of the park is an elegant granite fountain, designed by Charles A. Platt (1861–1933), that like any such fountain anywhere is a magnet for people seeking some luck, hoping for a wish to come true, or simply having fun (figs. 1–2). In the spirit of the ancient Celts flinging, throwing or sinking coins into lakes, rivers, and wells,² or ancient Greeks paying their tribute to the resident nymph of fountain-shrines—thousands toss coins into Platt’s fountain every year, mostly US coins, but also hundreds of foreign ones. This is a study of the foreign coins collected over the course of a year, a “hoard” that tells us a great deal about the visitors to the Big Apple.

What happens to the coins thrown into a fountain?

Visitors and residents alike throw coins in many fountains and rivers all around the world. Legend has it that whoever throws a coin into the Trevi Fountain (fig. 3) in Rome will be granted a return trip to the Eternal City. Coins are to be thrown using the right hand over one’s left shoulder. In Lucerne, Switzerland, it is a tradition to toss a coin over one’s shoulder into the pond fronting the cliff hosting the Lion of Lucerne (fig. 4)—a monumental tribute to the 760 Swiss soldiers who gave their lives to the King of France Louis XVI, as he had given orders not to fire on the crowd that stormed the Royal Palace of the Tuileries on a fateful night in August 1792. The sums tossed into such ponds and fountains are not inconsiderable: about \$4,000 is retrieved daily from the Trevi Fountain, collected by a charitable organization, while homeless persons may also benefit from this custom in many different locations. The Bryant Park foun-

tain cannot compete with the Trevi, but still around \$3,000 is collected annually, mostly US coins. They are used to help the Bryant Park Corporation, a not-for-profit dedicated to the support, restoration, and operation of the park. Foreign coins tossed into the fountain are generally of such small value that it is not worth the effort to attempt to exchange them; their value instead lies in statistical analysis.

Le Tour du Monde en Quatre-Vingts Jours?

From the Bryant Park Corporation, I received 732 foreign coins, 19 tokens, and the few US cents that had not been brought to the bank or removed by some of the park’s visitors, collected between the summers of 2012 and 2013 (fig. 5). As they were all mixed-up and sometimes worn and hard to decipher, I sought the help of my children Jeanne (11) and Felix (9) Bransbourg, whose younger eyes were better suited for the task (fig. 6). Through snow days and days-off at school, they managed enthusiastically to sort out this big load of coins within a period of about two months, traveling around the world in less than the 80 days of Jules Verne! Then they created an Excel spreadsheet and entered each coin alongside its country, its date, and denomination, resulting in a double-entry database. Excellent dumplings from neighboring Chinatown rewarded the hard-working team.

How long did these coins circulate before ending in a pool of water—and finally in the ANS vault?

The oldest coin in our sample belongs to the small

1. I wish to thank Jérôme Barthes, former Vice President for the Bryant Park Corporation, for his willingness to share this “hoard” for study.

2. Justin, 32; Strabo, 4.1.13.

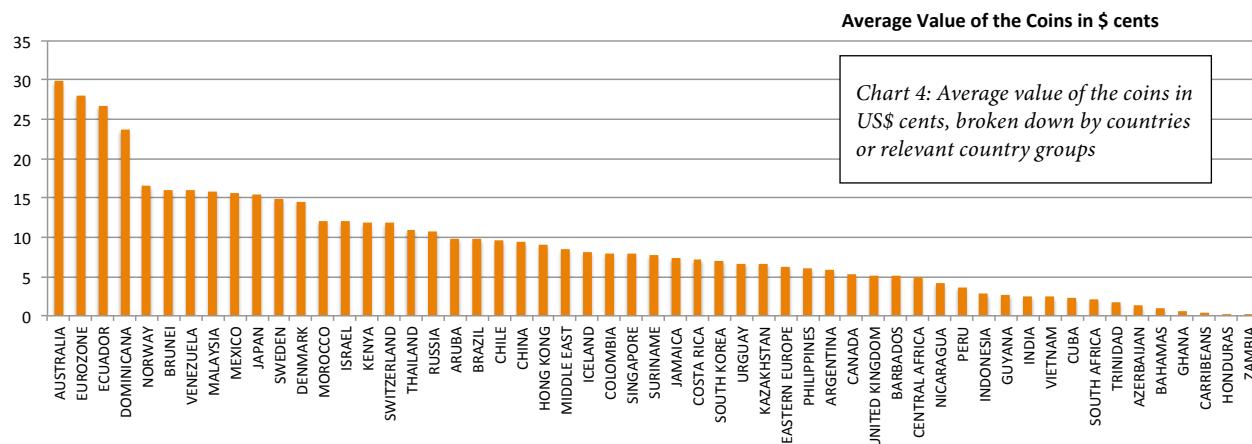
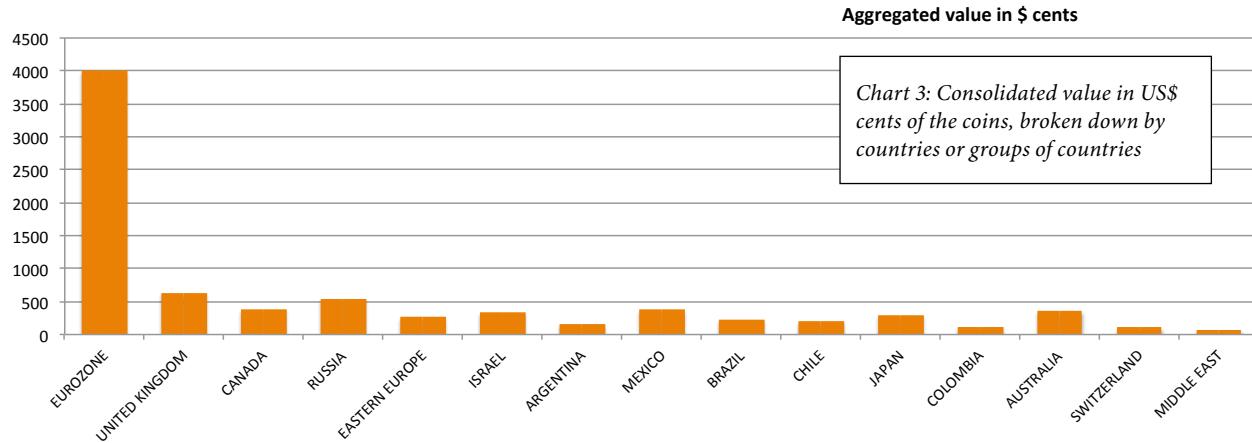
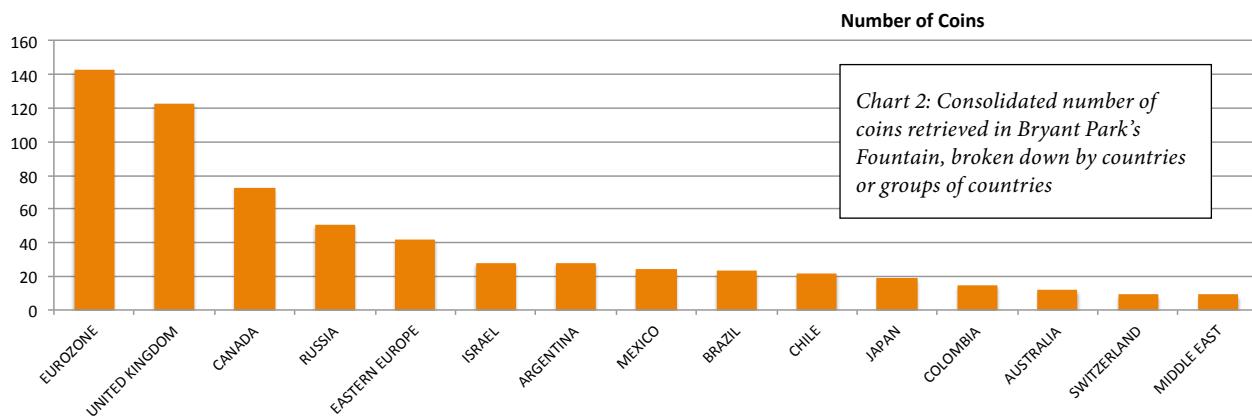
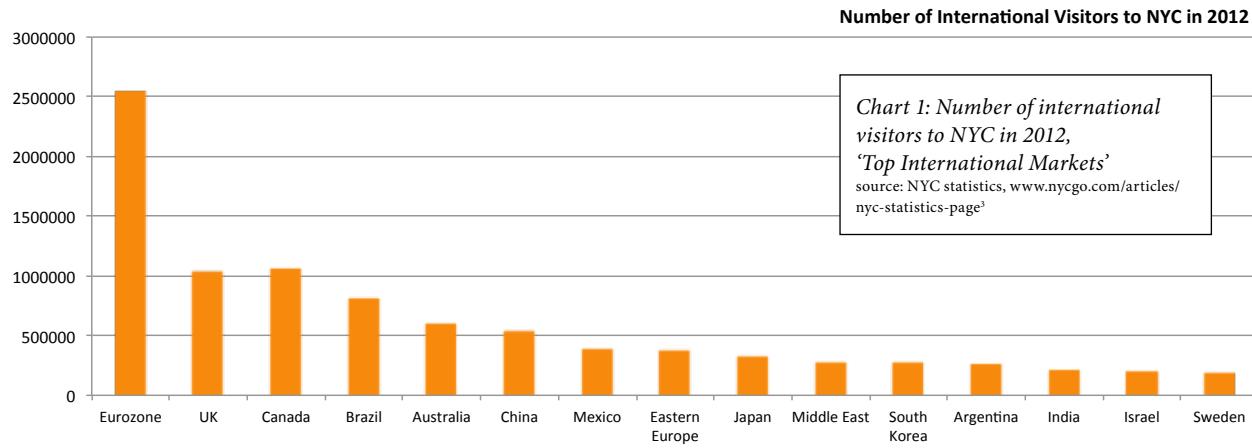


Fig. 1: The price of good fortune.



Fig. 2: The toss.

group of US cents that was not sent to the bank by the Bryant Park Corporation: a 1936 cent, with the wheat ears reverse used between 1909 and 1958. Another old cent from 1957 shares the same design. We encountered as well a British 1955 five-shilling coin, while a 1936 50-centimes silver coin from French Indochina had been previously removed by the Bryant Park staff, one of their most interesting finds to date. Generally, however, apart from few really old coins, most found in the fountain were issued within the last 15 or so years.

Numerical Analysis of the Coin Sample

The 732 foreign coins originate from no less than 76 different monetary issuers—or 86 countries by counting each Eurozone member state as a single entity—representing more than a third of the 196 countries recognized in the world to date. Their aggregated value was \$91.34 at early 2014 exchange rates at the time of our study, i.e., about 3% of the total amount collected annually in the fountain. The vast majority of the coins tossed in the water are US coins, mostly cents, some of them probably thrown by foreign visitors, but something we are unable to account for. Among the foreign coins, there is little surprise that some countries are well represented—for example, the United Kingdom (123), Canada (73), France (36) or Mexico (24)—but others, such as Russia with 51 coins, Argentine and Israel with 28 each, Chile with 22, or Japan with 19 were not expected to be so well represented. Coins from more distant, or smaller, less accessible, or less connected countries found their way to the waters of Bryant Park as well. There are, for example, unique samples from Albania, Azerbaijan, Barbados, Bolivia, Brunei, the Caribbean Islands, Croatia, Cuba, Ghana, Iceland, Kazakhstan, Kenya, Morocco, Nicaragua, Norway, Peru, Suriname, Vietnam, and Zambia.

The country ranking, whether by number of coins or dollar-equivalent value, is more or less in tune with the

country ranking of annual visitors from abroad to New York City (10.9 million out of a total of 52.7 million international and domestic visitors), as shown by comparing charts 1–3.

Are some nationalities throwing more valuable coins?

The striking difference between chart 2 (number of coins) and chart 3 (monetary value) lies with how the Eurozone stands out. Does it mean rich countries give away higher value coins? The answer is not that simple, and, in many respects, should rather be a “no.” Here we need to look at the average value of the coins, grouped by countries or relevant country groups (chart 4).

This country ranking looks very different from the previous charts. If we put aside the case of Bolivia, which is not statistically significant since here there was a unique coin of high denomination, there is no striking difference between rich and poorer nations.

If some poor countries do tend to appear at the very end of the chart, the correlation with the GDP per capita is rather weak, as exemplified by the fact Canada or the United Kingdom stand far below Ecuador, the Dominican Republic, Venezuela, or Kenya. What seems to matter more is the denominational structure of each country's coinage. The case of Honduras is illustrative: the available denominations are ten-, twenty- and fifty-centavos coins. As one US dollar purchases 19.21 Honduran lempira, the result is a denominational range

3. The 18 Eurozone countries have been consolidated into a single country, since a coin minted in France does not necessarily mean a French resident tossed it—Euros are legal tender throughout the zone and circulate extensively outside of their minting country. The statistics provided by New York City do not offer any breakdown over the Middle East (beside Israel) and Eastern Europe and, as such, we aggregated the coins individual countries in those cases.



Fig. 3: The Trevi Fountain in Rome.

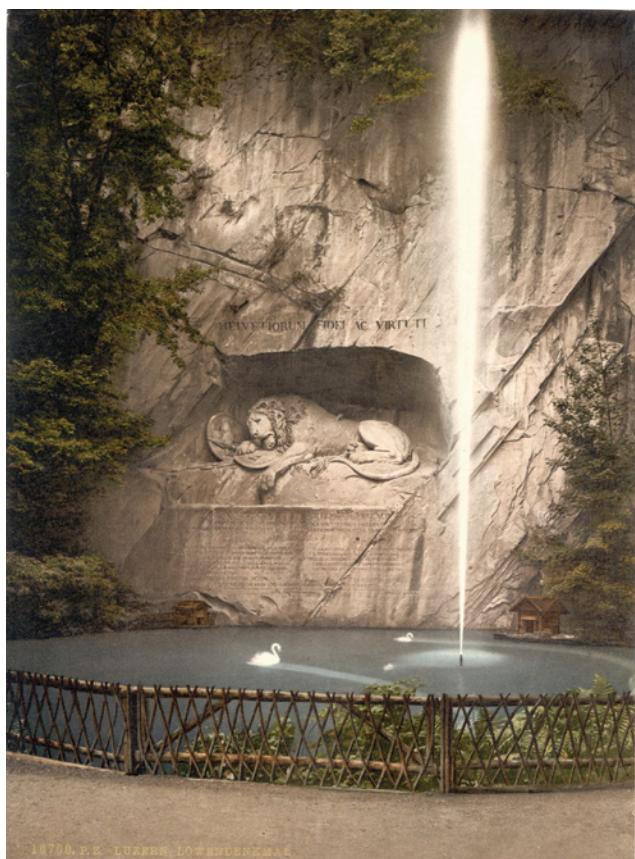


Fig. 4: The Lion of Lucerne.

between 0.5 and 2.6 US cents. The one-lempira denomination (= 5 US cents) is represented by a banknote. Honduras may not be a rich country, but its current \$2,323 GDP per capita places it ahead of countries such as India, and Kenya, or on par with Indonesia, Philippines, and Ukraine. Nevertheless, all these countries rank ahead of Honduras in our sample, for the simple reason that higher coined denominations are available. In India, the five-rupee coin is worth 8 US cents while, most strikingly, the 40-shilling coin is worth almost 50 US cents in Kenya. If we had received the US sample from Bryant Park for study, for instance, there is little doubt that the fact that none of the most current coins circulating in the US exceeds a 25-cent denomination would have skewed the average US value towards a very low number compared to the Eurozone, where €2 (= \$2.70) coins are in high supply. This is not to say that some poorer countries don't tend to develop a denominational system where coins of lower values are represented, sometimes for the simple reason that their national currency has experienced significant devaluations, but that the respective average wealth does not stand out as the single most significant factor. Moreover, it could be argued that the wealth of international travelers tends to remain above the average wealth in the originating country. Traveling is still a luxury good in many parts of the world, something rich nations tend to forget.

Irrespective of where tourists come from, an average value ranging from 5 to 15 US cents range incorporates most of the countries displayed by our sample. This then must represent the international cost index of purchasing good luck.

The Price of Good Fortune

The next visible factor affecting the value of the coins thrown into the water seems to relate to cultural traits, which are more difficult to explain but are very visible as far as the results are concerned. The comparative case of the Eurozone and Australia on one hand, and of the United Kingdom and Canada on the other, is illustrative. Europeans and Australians throw higher denominations than Brits and Canadians, but a relatively lower number of coins when the numbers of visitors are taken into account—see charts 1, 2 and 3: Europeans left 143 coins vs. 123 for the Brits, although there are almost three times many visitors from the Eurozone than from the UK. Similarly, there are about twice as many Canadian than Australian visitors, with 73 vs. 12 coins respectively. Two solutions are plausible: individual Brits and Canadians throw more coins, but of smaller aggregate denominations than their European or Australian counterparts; or a higher proportion of European and Australian visitors don't throw any

coins at all, while those who decide to do so are more serious about how much they donate to make their wish come true! Among the € coins, there are six coins of €2 and seven of €1, while one British coin only reaches 50 pence and another one 20 pence, the 121 others being under or equal to 10 pence.

The coins themselves deliver a lot of information about the cultures issuing them. US coins (and banknotes) pay tribute to former presidents—Lincoln, Jefferson, FDR, Washington on pennies, nickels, dimes, and quarters respectively. This was not always the case: before Lincoln, US pennies depicted an Indian head until 1909; an Indian head and a buffalo illustrated the nickels until 1938, a Liberty head on the dimes until 1945, and a standing Liberty on quarters up to 1930. European coins display a very different pattern on their obverses—the side that retains national characteristics as reverses are common to all member-states. European monarchies tend to depict ruling or former kings as well as coats of arms, while Republics tend to select symbols including the French Marianne, the German eagle, the Irish Celtic harp, or the Athenian owl. They often display emblematic national monuments: the Brandenburg Gate in Germany, the Colosseum in Italy, Santiago of Compostela's Cathedral in Spain, Saint Stephens in Austria. The conspicuous absence of former rulers in the European republics' coinage may represent the most striking difference with US coins. Instead, cultural figures are prominent: Dante by Raphael, the Vitruvian Man by Leonardo da Vinci, the Birth of Venus by Botticelli (Italy), Miguel de Cervantes (Spain), Mozart (Austria).

Finally, the sometimes complex cultural or political history of some of these states is visible on their coins. If several countries mint bilingual coins, such as India, Israel strikes trilingual coins, with words of Hebrew, Arabic, and English while Switzerland, officially quadrilingual, settles the matter with the use of...the Latin form, Helvetia. Coins from East Asia normally display numerals that follow the most common international standard, while the higher illiteracy rate in India leads to coins showing the corresponding number of fingers of one hand pointing to the correct denomination.

Offering Coins to the Gods: an Ancient Tradition

Perhaps unknowingly, New Yorkers and visitors throwing coins into the Bryant Park fountain relate themselves to very ancient traditions. As early societies created transcendent entities ruling the world—divinities—they tended to attribute anthropomorphic characteristics to them. As such, gods and goddesses were supposed to enjoy gifts and reward their mortal benefactors by granting them some of their wishes in exchange. The



Fig. 5: The Bryant Park "hoard."



Fig. 6: Jeanne and Felix Bransbourg studying the "hoard."

more precious the object offered, the greater the expected return. One may recall Agamemnon's sacrifice of his own daughter Iphigenia in order to secure favorable winds for the Greek fleet heading towards Troy or Abraham about to offer his son Isaac. Their symbolic replacement by animals in both cases symbolizes a major historical shift, as offering human beings became no longer acceptable even though that very same concept survived in later Roman gladiatorial practice. Sacrifice, especially blood sacrifice was done on a massive scale in the Greco-Roman world, such that butchers tended to settle around temples in order to trade the meat surpluses. Long after Christianity's bloodless sacrifice began to change religious mores, these practices were rejuvenated in the 4th century CE under the reign of Julian II the Apostate as possibly celebrated by his coinage (fig. 7). Old habits are hard to break.

Besides blood, it made sense that all sorts of precious objects would please the gods, hence the frequent offering of gold and silver in manufactured or raw forms. The practice began early: foundation deposits buried under temples are known from Mesopotamian contexts. Farther to the west, and as the economies grew more monetized, coins came to play a significant role in sacred offerings as seen by a 7th-century BCE foundation deposit at the Temple of Artemis at Ephesus (fig. 8). In addition, about 800 other small finds of gold, electrum, silver, ivory, bones, amber, and glass, all offerings, were uncovered by David Hogarth during the excavation campaign of 1904–1905.⁴ Among these objects was an additional 24 early electrum coins. Yet another deposit found at the Artemision, a “pot hoard” (fig. 9), was discovered with 19 electrum coins that again had been deposited for cultic reasons. Propitiating the gods with coins thus goes back to the very beginnings of coinage in the western tradition. More generally, however, foundation deposits that were linked to buildings as diverse as temples, tombs, and even workshops tended to mix coins among other precious artifacts like jewelry, ceramics, figurines, votive vessels and remnants of animal and vegetable sacrifice in the Greek world, particularly in Asia and the Aegean. Coin deposits have also been retrieved from the Temple of Artemis at Sardis (3rd–2nd century BCE), the Temple of Athena Polias at Priene (2nd century BCE), among many others.⁵

This relationship between a sacred place and offerings to the gods is found well beyond the Mediterranean region, however, indicating that the impulse to make offerings is universal and embedded deep within our humanity. Before human beings built temples—and temples were often built on grounds near sacred waters—sacred wells and springs represented, alongside sacred trees, standing and megalithic stones and pillars, the most ubiquitous

locations for offerings in ancient times. Such sites have been uncovered by archaeologists in many different geographic, cultural, and (pre-) historical contexts, including North and Central America, Western and Northern Europe, Greece, the Middle East, India, and elsewhere. Retrieved offerings include cloth strips, pins, stone carvings, sacrificed humans and animals, figurines, crystals, weapons, shells, metal artifacts, small pieces of food, and so forth. Again, as coin-use spread across the world, coins appear progressively as the most frequent votive item offered to the divinities and spirits. Some of the largest deposits of coin offerings found to date come from Roman Britain; this disproportionately high number of scientifically recorded sites may have something to do with the permitted use of metal detectors in England and a liberal and pragmatic legislation favorable to treasures' discoverers, but it also is clearly due to a convergence of Celtic and Roman traditions that favored such coin offerings in daily lives.

Coins in the Sacred Wells of Roman England

Coventina's Well (fig. 10), a shrine on Hadrian's Wall, for example, offers to date the largest assemblage of coins tossed for religious reasons in the Roman world; the original deposit comprised about 16,000 coins, of which about 8,000 survive, and 13,490 were catalogued.⁶ Mixed with the usual assemblage of animal bones, pottery shreds, bronze objects, pieces of lead, and glass, the coins cover a chronological range from Marc-Antony to Gratian. Near the well was a military garrison inhabited by soldiers originating from the Lower Rheinland. It is likely that they identified the goddess of the well with one of their own, much like the transplanted divinities known from discoveries of votive inscriptions and coins from the source of the Seine and the thermal reservoir at Bourbonne-les-Bains in France. The practice of tossing coins to the goddess at Coventia lasted more than two centuries, ending long after the establishment of Christianity as the preferred imperial religion. One of the most interesting features of the offerings lies with the values of the coins that were donated to the goddess. They include 4 aurei, 193 silver pieces, and thousands of sesterces on top of bronze coins of lesser value. Knowing that military pay stood at 300 denarii per year after Domitian, this means that some forlorn figures were tossing in the equivalent of \$20–40 to the goddess. By comparison with the coin tossers at Bryant Park, the soldiers were a far more serious group. Offerings of similarly large denominations have been found at Bath as well at another sacred spring, where 12,613 coins have been uncovered alongside 1,500 curse tablets near the Temple of Sulis Minerva. Here too, the deposit incorporates a decent number of coins post-dating the Christian conversion of the ruling emperors.⁷



Fig. 7: Bronze coin of Julian II, 360–363 CE. A possible sacrificial bull appears on the reverse. RIC 8.319 Arles, (ANS 1944.100.20565, E. T. Newell bequest). 28 mm.



Fig. 9: The pot hoard from the Temple of Artemis at Ephesus, c. 630 BCE. According to the terms of the excavation permit granted by the Turkish government, the pot came to the British Museum, while the original coins are kept in the Archaeological Museum, Istanbul. The coins on display in the British Museum are electrotype copies. Image © Trustees of the British Museum.

Bryant Park Hoard: a Bridge to our Past

While Bryant Park is not an age-old sacred place and pilgrimage destination like Bath, those tossing their pocket change into the Platt fountain, perhaps more as a reflex than as an actual offering, still participate in an amazingly long-lived tradition. And indeed, traditions over time often become mindless, with human behavior, beliefs and practices displaying consistent patterns across millennia, about which we are nonetheless unaware most of the time. Our word “sinister,” for example, comes from the Latin “sinister,” meaning “left,” the side equated with bad luck, while “right” means ‘correct.’ When Louis XVI, King of France, welcomed the *Etats-Généraux* in May 1789, the Clergy sat on his right, following a long established tradition. In September of the same year, those who were opposed to allowing the King the veto sat on the left. Soon, the right side was called the “Side of the Queen” as she opposed the reforms more vehemently than her husband. To



Fig. 8: Overview of the remains of the Temple of Artemis (“Artemision”) at Ephesus. Photograph by Ahmet Tolga Tek.

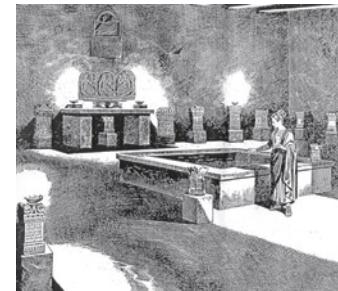


Fig. 10: Artist's impression of what Coventina's temple may have looked like with woman offering coins.

this day, conservative parties sit on the right of national assemblies and parliaments; thus our “left” and “right” politics. In a similar fashion, tossing coins into water connects us to very ancient beliefs that associated water springs, the source of all life, to deities and spirits that one would hope to befriend. Coins of merely symbolic value—only a few cents worth—have replaced coins of high denominations and expensive objects, including living creatures. A gratuitous, almost mindless gesture of good omen has thus replaced bloody acts of sacrifice.

4. D. G. Hogarth, *Excavations at Ephesus. The Archaic Artemisia*, London: British Museum, 1908.
5. G. Hunt, *Foundation. Rituals and the Culture of Building in Ancient Greece*, PhD dissertation, University of North Carolina, 2006.
6. L. Allason-Jones and B. McKay, *Coventina's Well: a Shrine on Hadrian's Wall*, Chesters Museum, 1985.
7. D. R. Walker, “The Roman Coins,” in B. Cunliffe, *The Finds from the Sacred Spring*, volume 2 of *The Temple of Sulis Minerva at Bath*, Oxford, 1982, 281–339.

COLLECTIONS New Acquisitions

Elena Stolyarik

During the past season our collections continued to be improved by new donations and purchases. This time the Greek department received a silver tetradrachm imitating the style of Archaic Athens, perhaps made in Sicily around 500 BC. Purchased in the 1970s, this coin had been on long-term loan at the Society, but was recently donated by ANS Life Fellow Jonathan Kagan (fig. 1). A further addition to the Greek collection is a purchase from the Triton XVIII sale on January 6–7, 2015, lot 391. This fine Sicilian tetradrachm of Dionysius I of Syracuse (405–367 BC) struck circa 405–400 BC, is of a very rare type not previously represented in the ANS collection (fig. 2). This coin also has a distinguished history; it was previously sold with the Maddalena Collection in 1903 and the Gustav Philipsen Collection in 1909. It also was a part of the Charles Gillet collection and the Robert Jameson collection, and most recently belonged to the Money Museum in Zurich.

Also at the beginning of the year the Society's Medals department acquired a fine group of rare Spanish colonial proclamation medals from the John W. Adams Collection through the Stack's Bowers and Ponterio auction of January 10, 2015. Two rare cast and chased silver medals of this purchase are from Mexico. One, which bears the image of an armored bust of Charles III on the obverse and the arms of Veracruz on the reverse (fig. 3), is clearly modeled after the earlier Veracruz medals of Louis I and Ferdinand VI; the other one, also of Charles III but from Xalapa, is a completely unlisted medal of crude design and execution. It seems that the reverse mold for this latter one was modified from an impression of a 2 reales coin (fig. 4). Another extremely rare medal from this group is an Argentinian cast silver proclamation medal of 1747. It shows Ferdinand VI (1746–1759) on the obverse and the emblem of Buenos Aires, two ships at sea with eagle above and anchor below, on the reverse (fig. 5). The proclamation medals of Ferdinand VI are the first medals to have been produced in Argentina. Through this sale the ANS also obtained a very interesting Colombian proclamation medal struck from locally produced dies (fig. 6) and a cast and chased silver proclamation medal from Cuba, which bears an image of Charles III and the arms of Havana. The obverse mold for this example was also used to create other Cuban proclamation medals (fig. 7).

In the same auction the Society also purchased two unusual examples of Swedish plate money for the Modern department. One of these is a 1748 ½ daler silvermynt of Fredrik I (1720–1751) (fig. 8) that has been cut down from its original square shape to a rectangle weighing about two-thirds of its normative weight. The other is a 1753 ½ daler silvermynt of Adolf Fredrik (1751–1771) (fig. 9) that has been struck on a plate cut down from, oddly, a 1754-dated 1 daler silvermynt whose stamps are still readable on the reverse. Both plates serve to illustrate the complexities of use and circulation for this interesting and cumbersome coinage.

In January, the ANS collection of world paper notes received an outstanding gift from Edward Allworth, Emeritus Professor of Turco-Soviet Studies at Columbia University. Dr. Allworth worked for many years as director of the Program on Soviet Nationality Problems, as well as head of the Center for the Study of Central Asia and general editor of the Central Asia Book Series. His most recent gift to Society reflects his research interests, consisting of important historical artifacts from the Central Asian region of 1919–1923, as well as modern banknotes from Afghanistan and the former Soviet republics of Central Asia. Among these is an example of the earliest notes of the Bolshevik period in this Central Asian region: a 10 ruble credit note of 1918 from the Semirechye Region (present-day Kazakhstan and Kyrgyzstan) (fig. 10), signed not only by the official authority of the State Bank but also by the military and financial commissars. This donation also includes an interesting 250 ruble credit note of the Turkestan Regional Soviet dated 1919, with the unusual and eclectic design of a rococo coat of arms supported by torches on the top and a hammer and a rifle butt on the bottom (fig. 11). The most numerous group of banknotes in this gift consists of paper money of the Bukhara Soviet People's Republic. The Emirate of Bukhara was a Russian protectorate until 1920, when it was conquered by the Soviets. Dr. Allworth's gift includes a banknote of 50 rubles of the first series issued in Soviet Bukhara dated AH 1338/AD 1920 (fig. 12), a 20,000 ruble note dated AH 1339/AD 1921 (fig. 13), and a 10 ruble note dated AH 1340/AD 1922 (fig. 14). The first two specimens were printed with wooden blocks, while the third looks to have been



Fig. 1: Uncertain mint. AR tetradrachm. 510–490 BC. Athenian imitation, possibly struck in Sicily. (ANS 2014.50.1, gift of Jonathan H. Kagan) 22 mm.



Fig. 2: Sicily. Syracuse. Dionysius I (405–367 BC). 405–400 BC. AR tetradrachm. (ANS 2015.1.1, purchase) 25 mm.



Fig. 3: Mexico. Veracruz. Charles III (1759–1788). 1760 AR Proclamation medal. (ANS 2015.9.1, purchase) 33.5 mm.



Fig. 4: Mexico. Xalapa. Charles III (1759–1788). AR Proclamation medal. (ANS 2015.9.2, purchase) 26.5 mm.



Fig. 5: Argentina. Buenos Aires. Ferdinand VI (1746–1759). AR Proclamation medal. (ANS 2015.9.3, purchase) 31.5 mm.



Fig. 6: Colombia. Santa Fe de Bogotá. Louis I (1724). AR Proclamation medal. (ANS 2015.9.4, purchase) 20 mm.



Fig. 7: Cuba. Havana. Charles III (1759–1788). 1760 AR Proclamation medal. (ANS 2015.9.5, purchase) 33 mm.



Fig. 8: Sweden. Avesta. Frederick I (1720–1751). 1748 AE ½ daler silvermynt. (ANS 2015.9. 6, purchase) 104 × 65 mm (images reduced).



Fig. 9: Sweden. Avesta. Adolf Frederick (1751–1771). 1753 AE ½ daler silvermynt. (ANS 2015.9.7, purchase) 105 × 99 mm (images reduced).



Fig. 12: Central Asia. Bukhara Soviet People Republic. 50 ruble/som note, 1338 AH/1920 AD. (ANS 2015.8.14, gift of Edward Allworth) 103 × 70 mm (images reduced).



Fig. 13: Central Asia. Bukhara Soviet People Republic. 20,000 ruble note, 1339 AH/1921 AD. (ANS 2015.8.21, gift of Edward Allworth) 221 × 155 mm (images reduced).



Fig. 14: Central Asia. Bukhara Soviet People Republic. 10 ruble note, 1340 AH/1922 AD. (ANS 2015.8.31, gift of Edward Allworth) 110 × 80 mm (images reduced).



Fig. 11: Central Asia. Turkestan Regional Soviet. 250 ruble credit note, 1919. (ANS 2015.8.2, gift of Edward Allworth) 189 × 109 mm (images reduced).



done with a printing press. It is interesting that along with Islamic symbols and calligraphic ornament the designs of the Bukhara banknotes also included symbols of the Russian Revolution—hammer and sickle or sometimes only a sickle, which was the more appropriate sign for the agricultural economy of Central Asia at that time. Bukhara remained a republic until 1925 when it was dissolved and incorporated into the Soviet republics of Uzbekistan, Tajikistan, and Turkmenistan. This gift from Edward Allworth is precious evidence for the study of the turbulent history of Central Asia during the twentieth century and the impact of Russian rule upon the political, economic, and cultural life of this ancient distinct region.

The ANS holdings of the British Art Medal Society (BAMS) series have been enriched with several new examples. Our latest purchase is a 2014 medal of bronze, partly enameled, entitled *Wreck of the Titanic* (fig. 15). This medal was designed by Paul Huybrechts, a prominent Belgian engraver and medalist. His work over the last 40 years include the designs for twelve coins and more than 50 postage stamps for the Belgian government, as well as many medals. His BAMS medal concentrates on the British passenger liner RMS *Titanic*, which sank in the North Atlantic in 1912. Over 1,500 lives were lost in this famous oceanic catastrophe. On October 21, 1986, the wreck of the *Titanic* was designated as an International Maritime Memorial. Paul Huybrechts designed a medal showing a view of the wreck as it was found in 1986, with the ship seen as if under water (dark blue enamel) on the reverse.

The bronze BAMS medal *Facet Medal*, by the Netherlands sculptor Niko de Wit, is an abstract geometric work (fig. 16). The artist believes that this asymmetric object is reminiscent of our vision of the world, full of different aspects and of a lot of surprises.

The 1991 silver medal *The Parma*, by Malcolm Appleby (fig. 17), was the third medal designed by this famous artist for the British Art Medal Society. The *Parma* was a ship built in Glasgow in 1902, which completed the journey between Australia and Britain in record time. The artist's father sailed with this ship from Hamburg, where the ship was purchased, until she was scrapped in 1936. On one side of the medal, the *Parma* is shown at anchor, without ballast, ready for loading with grain in Australia, shimmering in the Australian sun; on the other, she is under full sail and moving through stormy seas. The shape of the medal was taken from a photograph of the profile of Appleby's father's head, on his sailing run around the Cape of Good Hope. The medal was made to mark the sixtieth anniversary of the purchase of the *Parma* and because the vessel had such

powerful emotional value for the Appleby family.

The Society also obtained the 1996 cast bronze uniface medal *The Dreamer*, designed by the Polish artist Stanislaw Cukier (fig. 18). He has had several solo exhibitions and has participated in numerous group shows in Poland and abroad. He is also connected with FIDEM and has contributed to its shows since 1983. Cukier has been awarded several prizes in Poland, and has also received the gold medal at the Dante Biennial in Ravenna. In his BAMS medal Cukier expresses a feeling about his children, observed in different situations.

Mamoo is a cast bronze medal from 2007 designed by one of the leading British medalists, Nicola Moss, the winner of the J. Sanford Saltus Award for Outstanding Achievement in Art of the Medal in 1996. This interesting work is described by the artist as a medal “about Source (Mother), who inspires much love, compassion and wisdom.” Moss chose to name the medal *Mamoo*, which is a universal childish name for “friend” but was also the name that she and her sister warmly called their beloved grandmother (fig. 19).

Also among the BAMS items is a bronze medal called *Sheep Moor II*, designed by another British Saltus Award winner, Ron Dutton (fig. 20). Like other medals in our collection by this talented sculptor and medalist, this item shows how landscape plays a central role in his medallic work. In 2009 the Society had an exhibit of Ron Dutton's medals, organized in conjunction with his receipt of the J. Sanford Saltus Award.

Also among the new BAMS acquisitions is a 2009 cast bronze medal, *The Saint of St. Pancras*, by Robert Elderton (fig. 21). Robert Elderton is a British artist, also known as a designer and engraver for numerous coins and medals produced at the Royal Mint, where he worked from 1964 until 2002. He is an associate of the Royal Society of British Sculptors, a fellow of the Institute of Professional Goldsmiths, and a regular contributor to FIDEM exhibitions. Our new BAMS medal is a bronze version of Elderton's silver medal dedicated to Sir John Betjeman (1906–1984), one of the most distinguished twentieth-century British poets. Betjeman was also known as a defender of Victorian architecture; his support helped to save numerous architectural landmarks in London, including St. Pancras railway station. He called the plan to demolish it in the 1960s “criminal folly”. In 2007, when St. Pancras was reopened and became the international terminus for the Eurostar link with Paris and Brussels, a realistic bronze statue of Betjeman was placed on the platform, as an acknowledgment from London and Continental Railways to the man who made the redevelopment of



Fig. 15: United Kingdom. British Art Medal Society. Wreck of the Titanic. AE medal by Paul Huybrechts, 2014. (ANS 2014.51.1, purchase) 122 mm (images reduced).



Fig. 16: United Kingdom. British Art Medal Society. Facet Medal. AE medal by Niko de Wit, 2014. (ANS 2014.51.2, purchase) 65 × 65 × 25 mm (images reduced).



Fig. 17: United Kingdom. British Art Medal Society. The Parma. AR medal by Malcolm Appleby, 1991. (ANS 2015.2.1, purchase) 60 × 67 mm.



Fig. 18: United Kingdom. British Art Medal Society. Dreamer. AE medal by Stanislaw Cukier, 1996. (ANS 2015.2.3, purchase) 110 × 106 mm (image reduced).



Fig. 19: United Kingdom. British Art Medal Society. Mamoo. AE medal by Nicola Moss, 2007. (ANS 2015.2.4, purchase) 90 mm (images reduced).



Fig. 20: United Kingdom. British Art Medal Society. Sheep Moor II. AE medal by Ron Dutton, 1982 (ANS 2015.2.6, purchase) 78 mm.



Fig. 21: United Kingdom. British Art Medal Society. The Saint of St. Pancras, AE medal by Robert Elderton, 2009. (ANS 2015.2.5, purchase) 64 mm. Beside the medal is a photograph of Sir John Betjeman and a photograph of the Sir John Betjeman sculpture on the platform of the St. Pancras railway station (images reduced).



Fig. 22: Germany. Baden-Baden. The Roasted Goose and The Singing Swan, AE medal commemorating the 600th anniversary of Jan Hus death and the 500th anniversary of the Protestant Reformation by Victor Huster with Daniel Harmelink, 2014. (ANS 2015.5.1, gift of Dr. Daniel Harmelink) 73 mm (images reduced).



Fig. 23: Austria. Marriage medal of Charles I and Princess Zita of Bourbon-Parma. AE commemorative medal, by Franz Kounitzky, 1911. (ANS 2015.4.2, gift of Robert W. Schaaf) 55.2 mm (images reduced).

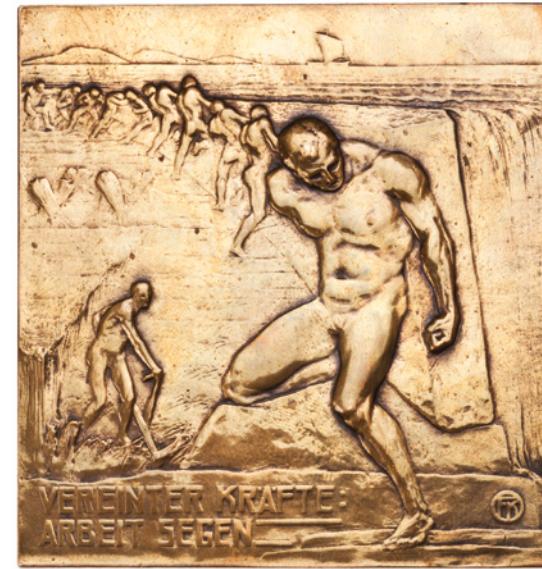


Fig. 24: Austria. Österreichische Gesellschaft zur Förderung der Medaillenkunst und Kleinplastik. Vereinter Kräfte Arbeit Segen, AE medal, by Franz Kounitzky. (ANS 2015.4.1, gift of Robert W. Schaaf) 75 × 71 mm.



Fig. 25: United States. "Net Zero coin". The Sport Index, Inc., Chicago, Illinois. Produced by Northwest Territorial Mint, Dayton, Nevada. 2014. (ANS 2014.52.1, gift of Thomas P. Poulos) 39 mm. Above the coin is a photograph of a fragment of the Antikythera mechanism.



Fig. 26: Wooden box with 38 silver proof commemorative coins for the 2008 Beijing Olympics. (ANS 2015.10.1–38, gift of the New York Transit Museum). 620 × 270 mm. In the accompanying photograph, five of the coins are arranged showing how the colored Fuwa mascots represent the Olympic logo. 40 mm (images reduced).

the station possible. Elderton's work is another tribute to this British national icon. On one side of this medal is a realistic portrait created by die-engraving; the other side was produced by modeling and bears an image of Betjeman looking at an old steam train emerging from St. Pancras. This medal is a wonderful addition to our BAMS medal collection.

We are also pleased to enhance the ANS collection of modern medals with an interesting medal from Dr. Daniel Harmelink, president of the International Association of Reformation Coins and Medals (IARCM) and executive director of Concordia Historical Institute. This ultra-high-relief bronze art medal *The Roasted Goose and The Singing Swan* is dedicated to the 600th anniversary of death of Jan Hus and 500th anniversary of the Protestant Reformation (fig. 22). It was handcrafted by the renowned German medalist Victor Huster. The obverse has a portrait of Jan Hus (looking forward, to the right) and depicts the martyrdom he suffered at the Council of Constance. Surrounding the portrait is the prophecy that legend attributes to Hus at his death: COQVAS HVNC ANSEREM AT CENTVM ANNIS VOCEM CYCNO NON COMPRIMES (You may burn this goose, but in a hundred years a swan will appear that you will not be able to silence). Hidden in this Latin inscription is a chronogram: the year of the 600th anniversary of his death, VMMM = 2015. The reverse of this medal presents a portrait of Martin Luther (looking back, to the left) during the time he was sheltered at the Wartburg Castle under the name "Junker Jörg." Around the portrait is a favorite Scripture passage often read on Reformation Day (October 31): FILIUS MANET IN ÆTERNUM · SI ERGO VOS FILIUS LIBERAVERIT VERE LIBERI ERITIS (The Son remains forever; so if the Son sets you free, you are free indeed) (John 8:35b–36). The chronogram in this inscription is MMVVVII = 2017.

ANS Fellow Robert W. Schaaf contributed two interesting medals by the Austrian artist Franz Kounitzky. His latest gift includes a beautiful 1911 commemorative medal, dedicated to the marriage of Charles I, who would be the last ruler of the Austro-Hungarian Empire (1916–1919), to Princess Zita of Bourbon-Parma, which took place at Schwarzau castle in Lower Austria (fig. 23). The other medal in this donation, *Vereinter Kräfte Arbeit Segen*, represents the people united working against the forces of nature (fig. 24). This medal was issued by the Österreichische Gesellschaft zur Förderung der Medaillenkunst und Kleinplastik.

The Society received an unusual coin-like medal from ANS member Thomas P. Poulos. This "Net Zero coin" and its accompanying die-cast brass membership card

are a limited edition product of the Sport Index, Inc. (Chicago, Illinois) (fig. 25). It has a copper core and silver plating with 24-karat gold highlighting and proof surfaces, and was manufactured by Northwest Territorial Mint, Inc. The reverse shows an image of the enigmatic, ancient Antikythera mechanism. Found in a shipwreck near the Greek island of Antikythera around 1900, the mechanism is probably an ancient analogue computer for calculating the movements of planets and stars. The obverse has a bull and a bear, symbolizing the stock market, to convey the hypothesis that the stock market is a zero-sum game, that is, that the total gains of the participants and the total losses will balance out to zero. The design also incorporates a proprietary mathematical representation of the number zero ($+\pi -3.14\infty$). This item pays tribute to the significant connection between the ancient and modern mathematical concepts and the world of finance.

A set of Chinese commemorative coins produced for the 2008 Olympics in Beijing, originally presented to MTA Chairman Lee Sanders by a delegation in New York City, has been generously transferred to the ANS by the New York Transit Museum. These thirty-eight silver proof coins, along with a miniature magnifying glass, are housed in an attractive wooden box (fig. 26). Each coin bears the image of a sport featured in the Summer Olympic program in Beijing on one side and the image of one of the Fuwa (good-luck mascots) on the other. There were five Fuwa, each using one of the main colors of the Olympic logo and representing a type of sport, an auspicious character, and a part of the world: Beibei (blue, representing Europe), Jingjing (black, representing Africa), Huanhuan (red, representing the Americas), Yingying (orange, representing Asia), and Nini (green, representing Oceania). They express prosperity, joy, enthusiasm, health, and good luck, and manifest well the spirit of the Beijing Olympics: "Peace, friendship, and progress".

Current Exhibition

In March 2015, the Jewish Museum of New York opened a new exhibition called *Repetition and Difference*. Through more than 350 items, including historic objects from the Jewish Museum's collection and recent works by contemporary artists, this exhibit explores how subtle differences within repetition can reveal significant meaning. *Repetition and Difference* is inspired by Gilles Deleuze's seminal book *Difference and Repetition* (1968), a landmark work of philosophy that questions concepts of identity and representation and proposes that repetition involves reinvention—it is an "active force producing difference." Among the significant objects on display are 45 eighteenth- and nineteenth-century Hanukkah lamps from Eastern



Fig. 27. Phoenicia. Group of Tyrian silver shekels. 2nd century BCE–1st century CE. From the collection of the American Numismatic Society. 29–30 mm (images reduced).

Europe that may seem the same at first glance, but on closer observation display a multitude of motifs as well as small differences due to the condition of the model or casting flaws. The show includes a group of patterned nineteenth-century German Torah binders, enigmatic Judahite pillar figurines from ancient Israel, ornately decorated nineteenth- and twentieth-century Iranian marriage contracts, elegant silver spice containers, mezuzah cases, and many other interesting objects. One of the highlights of this exhibit is a group of 98 Tyrian silver shekels dated between 126/25 BCE and 58/59 CE, from the ANS collection. Prized in the ancient world

for the standardization of their silver content and weight, the coins were, however, quite irregular in the way the image of Melqart, the god of the Phoenician city Tyre, was positioned on the struck coin as well as in the nuanced changes that artists made to the figure from one die to another. This provides a rare opportunity to examine the contrast between the remarkable consistency in imagery over time and their variations due to human involvement in the minting process (fig. 27). The ANS coins and all the fascinating objects in *Repetition and Difference* will be on view through August 2015.

ARCHIVES: Scrapbooks Hold the Past Between Their Covers

By David Hill

Some might dismiss scrapbooks as trivial things, with their baby announcements, faded wedding photographs, and newspaper clippings of winning touchdowns. But they can be so much more than that. During the latter half of the nineteenth century, and well into the twentieth, scrapbooks were used not only to document and celebrate personal and family life but also as a way for individuals to obtain some control over information at a time when printed materials were proliferating. Professional workers sometimes used them as record-keeping tools in their work. And the unique format of scrapbooks can make them particularly rewarding as historical artifacts. Cultural historian Ellen Gruber Garvey has shown that the selection and juxtaposition of materials in scrapbooks can present alternative views of history, especially if assembled by those living in opposition to the dominant cultural forces of a particular period: abolitionists in the heavily censored Deep South during the American Civil War, African Americans facing an overwhelmingly white press, and early women's rights advocates in a male-dominated culture.¹ I won't propose "numismatists" as an oppressed cultural subgroup, but the ANS Archives does have many scrapbooks in various collections that document the world of coin collecting and scholarship. One challenge we face as custodians of scrapbooks, these miniature collections of often randomly arranged, but sometimes unique, items, is how to let the world know of the individual treasures that can be found between their covers.

The rise in popularity of scrapbooks in the mid-nineteenth century was the direct result of an American public confronting rapidly expanding forms and quantities of information. Technological and social advancements—cheap paper, booming railroad distribution networks, more and better schools—led to a surge in the number of newspapers and magazines that were being eagerly consumed by an increasingly literate population. (Handbills, pamphlets, advertising cards, and other ephemera made possible by decreased printing and distribution costs only added to the flow.) These new publications presented information in fragmentary bits—articles, poems, cartoons, illustrations, advertisements—only some of which would have been of interest to a particular reader. Today we face the same sort of information overload online, but easily sort and organize the data with search engines and electronic tools.

In the nineteenth century they used scrapbooks. Men, women, and children of all classes and backgrounds took up scissors and knives, slicing and extracting the parts they wanted to keep, pasting them onto pages in bound volumes. Physicians used them to organize patient records and collect the latest medical news; ministers to gather and keep materials for preparing sermons. Authors, actors, and politicians gathered materials relating to their work—booklets, columns, speeches, playbills—to produce scrapbooks that served as assembled resumes or diaries.²

One entrepreneurial spirit who cashed in on the public appetite for "scrapping" was Mark Twain, always with an eye out for profitable schemes to supplement his writing, though more often than not meeting with limited success. He did hit it big in the 1870s with a Patented Self Pasting Scrapbook, his innovation being the gummed strips on each page that could be moistened to serve as adhesive. These became so widely known that the press began using the term "Mark Twain Scrap Book" when discussing scrapbooks of any kind. Book reviewers and advertisers playfully treated his invention like his other publications, wags calling it "one of the humorist's best works." Printers reinforced the notion by including title pages and applying labels proclaiming the volumes to be "published" (fig. 1).³ Two of the scrapbooks in the ANS Archives are of the Mark Twain variety, both assembled by Richard Hoe Lawrence, ANS librarian in the 1880s. The design on the cover of one of them celebrates Twain's revolution in scrapbooking, featuring a cherub hoisting aloft Twain's pasteless book while defiantly upending a gluepot (fig. 2).

The proliferation of newspapers in the nineteenth century also gave rise to a new kind of business that promised relief for those sifting through the deluge for relevant pieces of information: the clipping bureau (fig. 3). Subscribers to these services, which emerged in the 1870s and were flourishing by the 1890s, would supply topics of interest to the offices, where low-wage women and

1. Ellen Gruber Garvey, *Writing with Scissors: American Scrapbooks from the Civil War to the Harlem Renaissance* (Oxford, New York: Oxford University Press, 2013).
2. *Ibid.*
3. *Ibid.*, 61, 64–65.

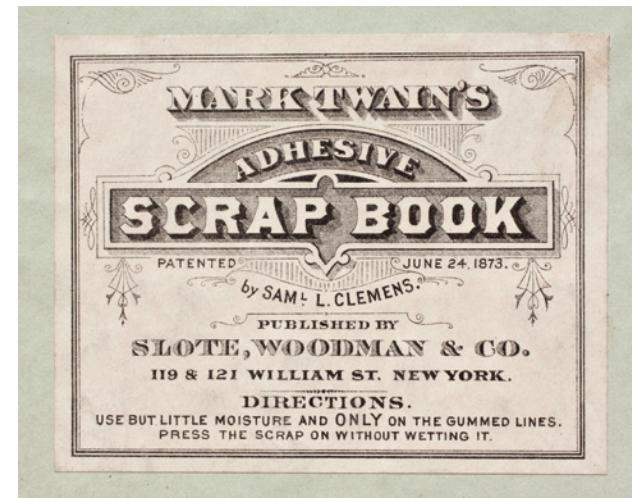


Fig. 1: Printer's label from a Mark Twain type scrapbook in the ANS Archives.



Fig. 2: Twain's innovation was the adhesive strips that eliminated the need for the application of paste, a revolution in scrapbooking symbolically represented on this cover by overturning a gluepot.

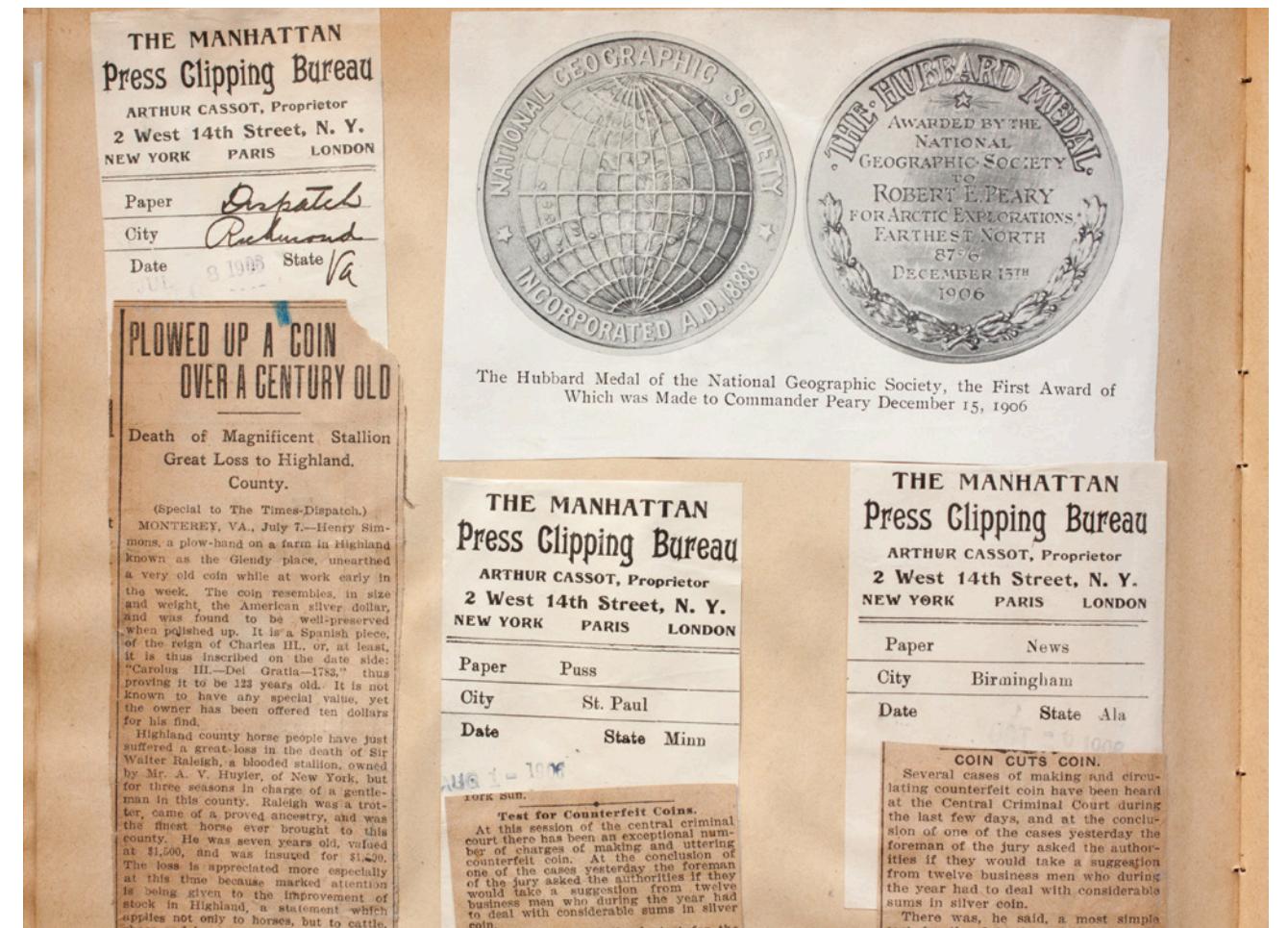


Fig. 3: These pasted clippings came from a new kind of service that gained popularity in the late nineteenth century: the clipping bureau.



Fig. 4: Boxes of unprocessed nineteenth- and twentieth-century newspaper clippings in the ANS Archives testify to the difficulty of keeping up with the flow.

boys would scissor, sort, and send the clips.⁴ At one such service in New York City, 28 employees sliced and diced thousands of newspapers into manageable bits each day, 20,000 envelopes of clippings prepared for delivery each month.⁵ Did these services live up to their promise of taming and controlling the flow? No doubt many recipients, thinking they had channeled the floodwaters into manageable streams, came to regret opening the sluice gates at all once they found their inboxes overflowing with clippings.

Not coincidentally, along with the late nineteenth-century onslaught of information came the professionalization of American librarianship. A central figure was Melvil Dewey, a founder of the American Library Association (1876) and of the world's first library school (1883) and originator of a system for classifying the totality of human knowledge, worked out as a twenty-one-year-old student at Amherst College.⁶ When his Dewey Decimal Classification System was first published in 1876, it already addressed the matter

of clippings. Aware of the difficulties presented by a static arrangement of clippings glued to pages, he was skeptical of "common scrap and note-books," recommending instead the use of envelopes of loose clippings, arranged into his subject classification scheme.⁷ By the 1880s, the subject "Clippings: Scrapbooks or Files" was to be covered in the library student's senior year,⁸ and there were numerous published guidelines for preparing scrapbooks in libraries.⁹

4. Ibid., 236–242.
 5. W. A. Bardwell, "Report on Scrap-Books," *Library Journal* 14, nos. 5–6 (May–June 1889), 195.
 6. Wayne Wiegand, *Irrepressible Reformer: A Biography of Melvil Dewey* (Chicago: American Library Association, 1996), 21–22.
 7. Melvil Dewey, *A Classification and Subject Index, for Cataloguing and Arranging the Books and Pamphlets of a Library* (Amherst, Mass., 1876), 9.
 8. University of the State of New York, "Library School Handbook, 1891–92," *State Library Bulletin* (August 1891), 40.
 9. Bardwell, "Report," 199.

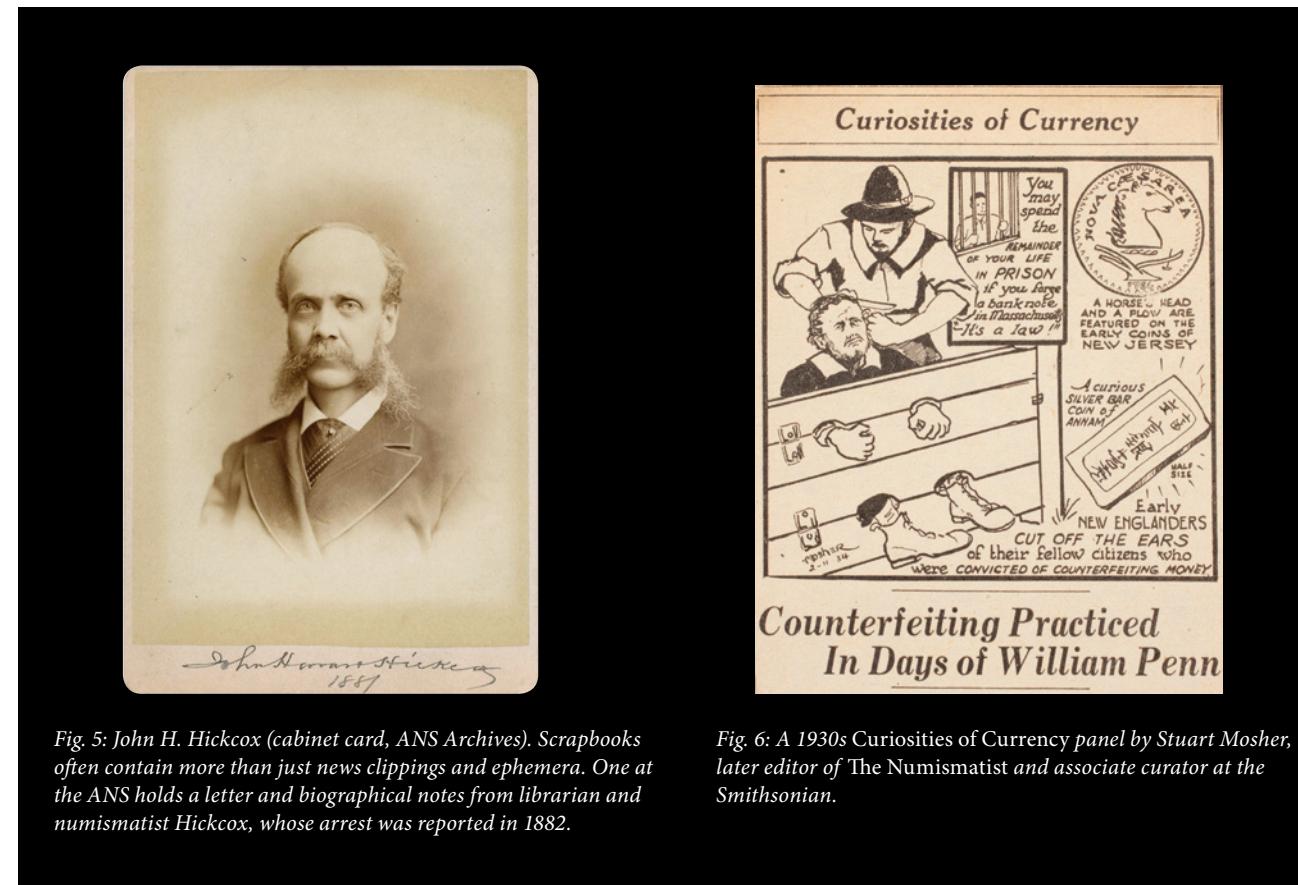


Fig. 5: John H. Hickcox (cabinet card, ANS Archives). Scrapbooks often contain more than just news clippings and ephemera. One at the ANS holds a letter and biographical notes from librarian and numismatist Hickcox, whose arrest was reported in 1882.

Fig. 6: A 1930s Curiosities of Currency panel by Stuart Mosher, later editor of *The Numismatist* and associate curator at the Smithsonian.

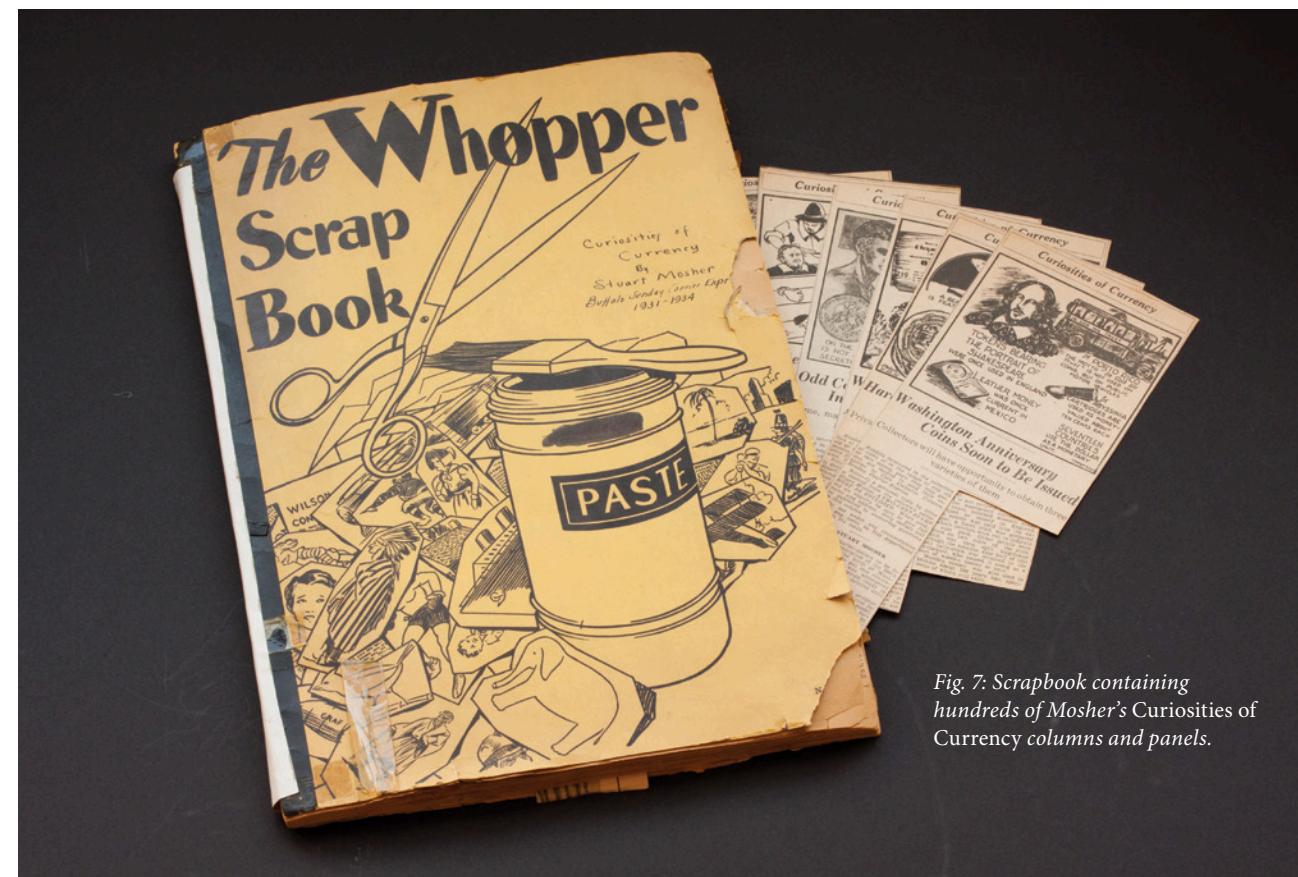


Fig. 7: Scrapbook containing hundreds of Mosher's Curiosities of Currency columns and panels.



Fig. 8: The scrapbooks of the ANS abound with curious pieces of numismatic ephemera. What are we to make of dealer John Schayer of Boston's trademark, an ecstatic crocodile on a tropical shore pulling on a fine pair of boots?

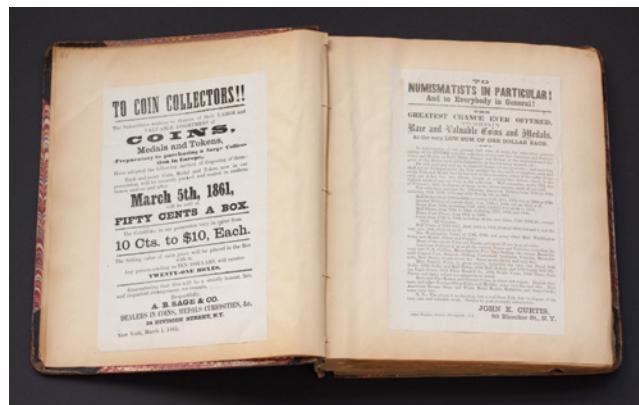


Fig. 9: John Curtis blamed the “dull state of the trade” for having to conduct his coin sale as a lottery in 1861. He assured the public, “The above is no humbug, but a real Bona Fide Sale.” Augustus Sage held a similar one the same year. Announcements of both sales are pasted into a scrapbook assembled by Lyman Haynes Low.

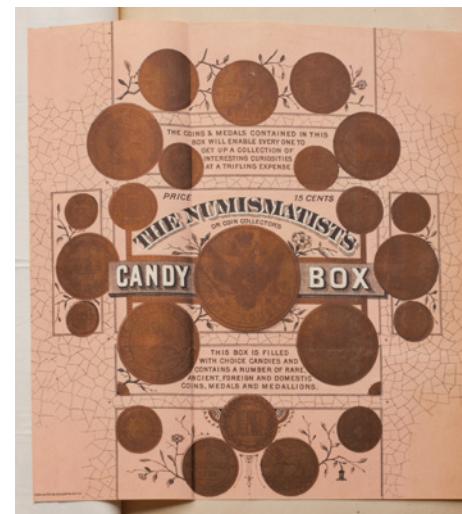


Fig. 10: This label for *The Numismatist's Candy Box* promised that the coins and medallions included along with the chocolates would “enable every one to get up a collection of interesting curiosities at a trifling expense.”



Fig. 11: Coin thefts are a common theme of the broadsides and circulars pasted into some of the ANS scrapbooks. Maybe it was this precise description that led to the apprehension of “Rattlesnake Pete”: “sallow skin, gray eyes, light brown hair, shaved smooth, stoop shouldered, had scar on right cheek under one eye, walks as if stiff in ankles.”

It was also a hot topic at library conventions. In 1889 Brooklyn librarian W. A. Bardwell presented his “Report on Scrap-Books” in which he asked, “Does scrapping pay?” Not everyone thought so. Despite the optimism of the experts, many found it impossible to stay on top of the job, and Bardwell’s summary of one participant’s comments, that “Mr. Barton considers the theory of scrap-books a good one, but the practical working out of the theory not so easy a matter,” neatly sums up the gap that can exist between grand ideas and their actual application in the ranks.¹⁰ A few years later at a gathering of librarians at the World’s Columbian Exposition in 1893, various schemes were once again presented, some favoring classified packets of clippings, others an “index scrap file,” complete with precise instructions for measuring and folding the boards onto which the clippings would be glued. Still, not all were optimistic. Many felt unable keep up with

the task, with one librarian casting an aura of gloom over the entire idea: “there is nothing drearier than an old scrapbook, the living fastened to the dead.”¹¹ In 1915, newly minted ANS Librarian Sydney Noe, holding the first of the many titles he would have over his nearly forty-year career at the ANS, set about mounting “a great accumulation of newspaper clippings” on over 600 large sheets.¹² Alas, the whereabouts of the fruits of Noe’s labors are unknown, and the numerous boxes of unprocessed clippings in the ANS Rare Book Room attest to the challenges of keeping up with the barrage (fig. 4).

There were earlier official efforts at the ANS to compile numismatic ephemera into scrapbooks. Two of these volumes—filled with meeting announcements, clips on the history of coin collecting, dealer advertisements, circulars, price lists, exhibition invitations—were assembled by Richard Hoe Lawrence, an ANS officer who volunteered to serve as the Society’s librarian from 1880 to 1886. Lawrence addressed the fundamental problem of scrapbooks—how to find what you are looking for in a collection of randomly pasted bits of information—by including a simple index at the beginning of each volume. Most lack even this kind of rudimentary finding aid. That is why at the ANS we try to catalog and describe as much as possible the contents of individual scrapbooks so that relevant materials can be retrieved with keyword searches. In the case of the Lawrence scrapbooks, detailed descriptions of the contents, as well as transcriptions of his indexes, were included in the Society’s archival database ARCHER, leading to discoveries of previously unknown items used for the preparation of articles on the 1804 Dollar¹³ and the numismatic bibliographer Emmanuel Joseph Attinelli.¹⁴



Fig. 12: Unused exhibitor’s label for the Exposition Universelle, Paris, 1900. Despite the reservations of some of its officers, the ANS was able to mount an impressive exhibition of coins, medals, and tokens for the event.



Fig. 13: United States. General Ulysses S. Grant Monument Dedication. Bronze medal, Tiffany & Co. (ANS 1985.81.161, gift of Daniel M. Friedenberg). 62 mm (images reduced).

A few years ago, one of the descendants of Library of Congress librarian John H. Hickcox (1832–1897) (fig. 5) came upon the description of the Lawrence scrapbook in ARCHER, discovering that it contained a letter and biographical notes filling in many details of his ancestor’s life. In it Hickcox tells of growing up as one of ten children of a father who was a banker and official with the Albany and Susquehanna Railroad, of obtaining a classical education at the Albany (N.Y.) Academy, of working his way up through the New York State Library in the 1860s, and of operating a book store in Albany. Until recent years, such details about Hickcox’s life were largely unknown, though two enterprising librarians uncovered what they could, publishing their findings in two separate papers in 1995 and 2004.¹⁵ Hickcox is remembered in library circles as a groundbreaking cataloger of

U.S. government publications, having produced a privately published catalog that predated the government’s later Monthly Catalog of United States Government Publications. But he also dabbled in numismatics and in fact produced what is considered the first substantive reference work on early U.S. coins, *An Historical Account of American Coinage*, published in 1858, the very year a group of coin enthusiasts gathered at Augustus Sage’s Essex Street home to inaugurate our illustrious Society. This little group took notice of Hickcox and his book, bestowing upon him an honorary membership in January 1859, the second individual so honored by the Society. In gratitude he sent along a copy of his book, one of the ANS’s earliest accessions, now on a shelf in the Society’s Rare Book Room.¹⁶ Hickcox has mostly been forgotten as a numismatist, since, unfortunately for him, Montro-

10. Ibid, 200–202.
 11. “Papers Prepared for the World’s Library Congress,” in *Executive Documents of the House of Representatives for the Second Session of the Fifty-Third Congress, 1893–’94, Education Report, 1892–93* (1895), 1009.
 12. “Report of the Governors,” *Proceedings of the American Numismatic Society* (1915–1916): xxxii.
 13. David Hill, “Truth Comes to Light: Researcher Discovers Letters in the ANS Archives Absolving Chapman Brothers of 1804 Dollar Mischief,” *ANS Magazine* (2014, no. 2), 50–55.
 14. Arnold Tescher, “Hidden Voices in the ANS Archives: Emmanuel J. Attinelli Heard Again,” *Asylum* 31, no. 4 (Oct.–Dec. 2013), 148–153.
 15. Nancy Stimson and Wendy Nobungaga, “Life and Times of John H. Hickcox: Government Publications History Revisited,” *Journal of Government Information* 22, no. 5 (1995), 403–412, “The Arrest and Vindication of John H. Hickcox,” *Journal of Government Information* 30, no. 5–6 (2004), 751–758.
 16. John Hickcox to Frank Norton, January 24, 1859.



Fig. 14: Unsuccessful design for the Grant medal, one of several included in a two-volume scrapbook prepared by Tiffany and Co. for the ANS.

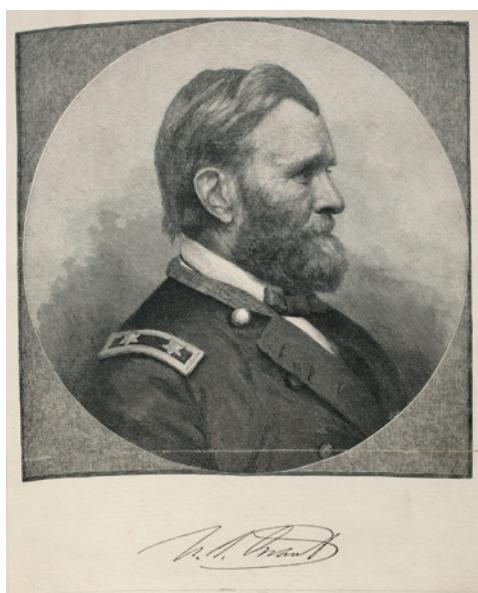


Fig. 15: Portrait used for the Grant medal from *The Century* magazine, December 1884.

ville Wilson Dickeson's more comprehensive *American Numismatic Manual* appeared in 1859, overshadowing his work completely.¹⁷

If Hickcox's name does ring a bell, it may be because of his arrest in Washington D.C. in 1882. The ANS found out about the scandal at the time from one of its older members and one-time curators, William Bramhall, who was living in the Capital (and mulling over the possibility of forming a numismatic society there). As he wrote to recording secretary William Poillon, he had run into Ainsworth Rand Spofford, Librarian of the United States Congress, who told him that Hickcox had been fired from the Library on the "charge of opening mail letters and pocketing the money." Bramhall said that Spofford "exceedingly regretted the committal of the offence, as Mr. Hickcox had served for a number of years faithfully and acceptably."¹⁸ In fact, it looks like Spofford later rallied to Hickcox's defense, the newspaper *The National Republican* reporting that Spofford said "he had perfect confidence in Mr. Hickcox's integrity," and that, "none of the employees of the Library believe that there is anything wrong with Mr. Hickcox." As it turns out, the grand jury declined to indict Hickcox on the charge of "purloining and rifling letters," and his vindication was announced in the press.¹⁹ Hickcox would continue to have a distinguished career as the publisher of his government catalog and as a bookseller, but his employment at the Library of Congress ended the year of his arrest. And despite his apparent exoneration, that same year the ANS summarily dropped him from its rolls as honorary member.

As had happened with Hickcox, a few years ago I picked up the phone and found myself speaking with a grandson of Stuart Mosher, who had come upon a scrapbook description in ARCHER relating to his grandfather. Many will be familiar with the elder Mosher's distinguished career, including stints as editor of *The Numismatist* (1945–1954) and associate curator of numismatics at the Smithsonian Institution (1947–1956), but many will be surprised to learn, as his grandson was, that in the 1930s Mosher had a regular column in the *Buffalo Courier Express* called "Curiosities of Currency," which presented fun facts on the world's coins accompanied by cartoon illustrations, drawn by Mosher, in a style similar to *Ripley's Believe it or Not!* panels (fig. 6). He did hundreds of these from 1931 to 1936, clippings of which are pasted into a scrapbook held in the Society's Archives (fig. 7).

The Hickcox and Mosher materials were discovered because we put detailed descriptions of them online. Treasures in other scrapbooks have had to be discovered the old-fashioned way, by thumbing through the

volumes. This has been the case with the six scrapbooks of coin dealer Lyman Haynes Low, Lawrence's successor as ANS Librarian (1886–1891), though these are now being cataloged in detail by Archives and Library volunteer Arnie Tescher. Flyers, broadsides, and advertisements of all kinds await discovery in these volumes (fig. 8). There is, for example, a rare announcement from John Curtis of Bleecker St. in New York City from 1861 ("To Numismatists in Particular! And to Everybody in General!") which describes his scheme to sell off each coin in his collection individually in unmarked packages, the buyer gambling that his coin, once revealed, will be worth more than the one dollar purchase price. An Augustus Sage sale from the same year, pasted onto an adjacent scrapbook page, proceeded along similar lines (fig. 9).²⁰ One has to assume that many of the items found in these scrapbooks exist nowhere else. I have been unable, for example, to find any reference at all to *The Numismatist's Candy Box*, whose label, pasted into the scrapbook, promised that inside, along with the chocolates, were "a number of rare, ancient, foreign and domestic coins, medals and medallions" (fig. 10).

One recurring theme is theft. "Stolen!" shouts one handbill, seeking the return of uncirculated 1793 and 1803 cents, among other things. "\$150 dollar reward," promises another, "no questions asked." A smaller reward was offered for the apprehension of "Rattlesnake" Pete Anderson after he skipped town with the collection of world coins of his employer, C. F. "Coffee" Johnson of Carbon County, Wyoming (fig. 11). Anderson made it all the way to Copenhagen before being apprehended. Johnson was frustrated in his attempt to have him sent back to the U.S. to face justice but must have been satisfied to learn that Anderson had received a ten-year sentence, far harsher than he might have expected in the U.S.²¹

In one of the Lawrence scrapbooks is an unused exhibitor's label for the Exposition Universelle held in Paris in 1900 (fig. 11). This was an important event for the ANS, particularly since its plans to exhibit at the World's Columbian Exhibition in Chicago in 1893 had fallen through. The Society was able to mount an impressive display of coins, medals, and tokens of the United States, mostly from its own cabinet, for the 1900 show, though it first had to overcome concerns of some members about cost as well as fears of potentially mounting a "poor exhibit,"²² that "medals produced in this country could not compete with those of France in artistic merit."²³ You would think such pessimism would have been dispelled when medalist (and Lincoln penny designer) Victor David Brenner cabled to say the collection had been awarded a silver medal, but this wasn't enough for ANS president Andrew Zabriskie: "I am distinctly disappoint-

ed but 'half a loaf is better than none' I suppose."²⁴

For those who might still be inclined to dismiss scrapbooks as trivial, consider one produced for the ANS by the venerable Tiffany & Co. This handsome two-volume set was assembled to document the issuing of a medal commemorating the dedication of the General Grant National Memorial, or "Grant's Tomb," on Manhattan's Upper West Side in 1897 (fig. 13). Production of the scrapbook, which has bronze copies of the medal set into its covers, was overseen by Tiffany vice president George Kunz. In the volumes are news clippings and other printed materials, as well as correspondence, such as responses to invitations to an ANS ceremony held to present a gold medal to General Horace Porter, Ulysses S. Grant's aide-de-camp during the Civil War. One letter declining the invitation was sent on behalf of president William McKinley. Of particular interest are some unsuccessful designs that Zabriskie had come across in one of the Society's rented rooms and sent along to Kunz, thinking they would "add greatly to the interest of the volume" (fig. 14).²⁵ The portrait chosen for the medal was the one used in a December 1884 issue of *The Century* magazine, a clipping of which is pasted into the scrapbook (fig. 15). The likeness, said to be one favored by Grant himself as one that best represented him "in his prime," shows the general at about the time of the battle of Shiloh (1862) (fig. 15).²⁶

These are just some of the thousands of treasures that can be found between the covers of scrapbooks at the ANS. Much more remains to be revealed, and there are in fact scrapbooks in the Archives that have yet to be cataloged. It is a task we turn to with eager anticipation of the gems that await discovery.

17. See Q. David Bowers, "New Introduction," in John Hickcox, *An Historical Account of American Coinage* (Wolfeboro: Bowers and Merena, 1988 reprint), and *American Numismatics Before the Civil War, 1760–1860* (Wolfeboro: Bowers and Merena, 1998), 53.
 18. William Bramhall to William Poillon, February 24, 1882.
 19. Press reports quoted in Stimson and Nobungaga, "Arrest and Vindication."
 20. Both the Curtis and Sage lottery circulars are listed in Emmanuel Joseph Attinelli, *Numisgraphics* (New York, 1876), 87. For more on the lottery schemes see Q. David Bowers, *American Numismatics Before the Civil War, 1760–1860* (Wolfeboro, N.H.: Bowers and Merena, 1998), 317–318.
 21. Bob Leathers, "'Rattlesnake' Pete," from the website of the Hanna Basin Museum, Carbon County, Wyoming.
 22. Joseph Ciccone, "The ANS and the Paris Exposition of 1900," *ANS Magazine* (Summer 2007), 13–15.
 23. Howard Adelson, *The American Numismatic Society, 1858–1958* (New York: American Numismatic Society, 1958), 137–138.
 24. Ciccone, "Paris Exposition," 14.
 25. Andrew Zabriskie to George Kunz, March 14, 1898.
 26. "Medal For Grant Day: Description of the Design Prepared for the Numismatic Society," *New York Times*, April 4, 1897.

OBITUARY

Richard “Rick” Witschonke, 1945–2015

Rick Witschonke passed away after a lengthy battle with cancer on 24 February in Sarasota, Florida, in the company of his longtime partner, Heidi Becker, her daughters, and his two sons. A successful businessman, who for the last dozen years turned his attention full-time to numismatics and to assisting at the ANS, Rick will be sorely missed, not only by the ANS staff, but by the larger numismatic community, which included many of his closest friends.

Raised in Connecticut, Rick graduated from Harvard Business School in 1972 with an MBA with high honors and took a position with American Management Systems (AMS), a technology consulting firm. Rick worked for AMS for most of his career, and after leaving the company in 2000, he continued to work in technology consulting in California before deciding to retire to Califon, New Jersey, to be with Heidi in 2003. Soon thereafter, he began to volunteer several days a week at the ANS, before becoming a Curatorial Associate in 2006. Numismatics, especially the coinage of the Roman Republic, had long been a major passion of his; another collecting passion was fine wine.

Rick’s coin collecting interests began as a teenager. In 1960 at age 15, he obtained a Roman Republican denarius from a Lu Riggs auction. His interest in denarii was intensified after reading Edward A. Sydenham’s *The Coinage of the Roman Republic* (1952), which inspired him to learn more about Republican coinage in general. Republican period coinage was his major collecting focus for the next several decades, during which time he assembled an impressively comprehensive collection of Roman Republican and provincial coins. Most of the Republican collection was sold over the last several years and is featured in the the 2013 Numismatic Ars Classica publication *The RBW Collection of Roman Republican Coins*. The second part of his collection, over 3,000 provincial coins of the Republican period he has bequeathed to the ANS. This important group of coins, probably the only area of Roman coinage that has never been properly catalogued, is comprised of coins from the 3rd to 1st centuries BC, produced in various parts of the Mediterranean region under Roman control. A volume on this portion of the collection will be published in the near future by the ANS.

Rick’s affiliation with the ANS began after his first visit in the late 1960s, when he became, for a while, the ANS’s youngest member. In 1999, Rick was elected a member of the Society’s Governing Council and served one term as an ANS Trustee. Where he felt better able to serve the Society, however, was in the curatorial department helping with the care of the Roman collection, and in sharing his passion for coinage with Summer Seminar students. With his immense enthusiasm for teaching and his conviction that the Seminar is one of the most important activities of the ANS, since it helps to train the next generation of numismatists, Rick was asked to co-direct the Seminar in 2006. Thanks to his enormous input and energy, an already good program was turned into a great program. His commitment to teaching was demonstrated again last summer, when he was already in steep decline from the cancer and in tremendous pain; he still insisted on coming into the Seminar to teach his full roster of sessions.

Although he never considered himself a scholar, Rick shared his vast knowledge of Republican coinage in a series of articles and helped as well to edit *Festschriften* for his close friends, one for Charles Hersch that appeared in 1998, and another for Roberto Russo, that appeared in 2013. As a fitting tribute to a man who was so well respected and beloved by friends and colleagues, a volume in his honor is being prepared that will be published by the ANS later this year.



Michel Amandry, Ute Wartenberg Kagan, Rick Witschonke, and Sarah Cox.



Rick Witschonke.



David Wigg-Wolf and Rick Witschonke with students from the 2011 Summer Seminar.



Rick and the 2012 Summer Seminar on the run.

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Legend: LIBERTAS PACIS SOB-OLE'S PRVDENTIAE ALVMNA
(Freedom is the offspring of Peace and child of cautiousness)

Rev. Under a radiant sun the crowned shields of France and the States General connected by a chain and olive branches coming from the clouds, below view on the city of Nimeguen.

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