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From the Executive Director

Ute Wartenberg Kagan

Dear Members and Friends,

Last month, we opened a new exhibition, Signs of Inflation, at the Federal Reserve Bank, which addresses the question of inflation by looking at the physical evidence of coins and currency from ancient times to today. Gilles Bransbourg, our Adjunct Curator of Roman Coins, specializes in the late Roman period, in which inflation is a central topic; during his years as bank officer in foreign exchange and fixed income, he got first-hand experience how money today functions, and in this show he addresses the concept of inflation. Although books and articles on this subject are plentiful, it presents a particular challenge to illustrate inflation by showing primarily objects — currency, coins, ingots and other unexpected objects. The exhibition opened on March 29th, and guests from the ANS and the Fed enjoyed a wonderful evening. For those of you who will not be able to visit New York, Gilles has written an article in this issue of ANS Magazine, which highlights all the main topics covered in the exhibition. The exhibition will be on view until late September 2012.

Our main feature, written by Oliver Hoover, tells the wonderfully strange story about the battle for Egyptian obelisks, an archaeological item it seems every capital of the Victorian era aspired to own. In New York, the obelisk was placed in Central Park, today right behind the Metropolitan Museum of Art, and its unveiling in 1881 was a major event for a young city, which was able to demonstrate to everyone that it was competing with European capitals such as Paris or London. The ANS, then a very young organization, issued a beautiful medal; at least one specimen was issued in solid gold, and we were able to add this medal recently to our collection; my special thanks to our Fellow Anthony Terranova for all his help with this purchase.

As we acquire more US and foreign medals, our needs for qualified experts in cataloguing those medals becomes even greater. It is therefore with great pleasure that I can announce that David Alexander has joined the staff as Heritage Auctions Research Fellow. He will spend about one day each week at the ANS, while otherwise working at the New York and Dallas offices of Heritage Auctions. I am most grateful to Greg Rohan of Heritage for his generous offer to help the ANS in this unusual manner. Although the ANS continues to flourish, we will need more help in the curatorial departments. As our collections continue to grow through purchases and gifts at a rapid rate, our curatorial staff is very small, arguably smaller than at any time during the last 50 years. I hope that this will eventually change, and I encourage our members to donate towards our curatorial departments.

In closing, I would like to end with some news about one of our most esteemed Fellows. Beth Deisher, who has been the editor of Coin World for 27 years, retired April 30th. Beth, who has been a good friend of mine and a steadfast supporter of the ANS, has a number of exciting projects planned, and I am sure that ANS and her many friends will be able to count on her advice in the future. I wish her and her husband Art that all their plans and ideas will come true!

Ute Wartenberg Kagan
Executive Director
In 30 BC, as the Roman forces of the victorious Octavian closed in on Egypt, Cleopatra VII (fig. 2), the last and arguably one of the greatest queens of Egypt's Ptolemaic dynasty abandoned all hope and committed suicide. With her death, Octavian, who would become the first Roman emperor under the name of Augustus three years later, took possession of a rich and immeasurably ancient land. In 10 BC, on the twentieth-anniversary of his victory, Augustus removed and transported two Egyptian obelisks from the temple of Atun-Re in Heliopolis (Iunu in Egyptian) to Rome. Originally erected by the pharaohs Seti I (1290-1279 BC) and Psammetichos II (595-589 BC), these obelisks were re-erected to ornament the spina of the Circus Maximus and to serve as the gnomon of a massive sundial in the Campus Martius.

This expression of Augustus’ seemingly god-like power to manipulate matter, location, and even time, started a fashion among emperors anxious to present a similar image. To this end, Rome was adorned with six further Egyptian obelisks from Heliopolis and Karnak during the reigns of Gaius Caligula (AD 37-41), Diocletian (AD 284-305), and Constantius II (AD 317-361). All of these emperors had good political reason to want to cast themselves as equals to Augustus. In AD 390, an obelisk originally erected at Karnak was carried off by Theodosius I to adorn the hippodrome of Constantinople, the capital of the Roman Empire in the east (fig. 3).

In the seventeenth and eighteenth centuries, as these toppled and often broken imported monuments were re-discovered in Rome, it was common for Popes to move and re-erect them to their own glory and that of the city. In this way they not only demonstrated their Renaissance taste for Roman antiquity, but also stood in the refracted light of Augustus (figs. 4-5).

The nineteenth century saw this incredible custom spread to the great capitals of Western Europe and at last to the United States in a web of war, politics, and inter-city rivalry knitted by a group of obelisks known collectively as “Cleopatra’s Needles.”

The French Connection
In 1829, Muhammad ‘Ali Pasha al-Mas’ud ibn Agha (fig. 6), the Ottoman Wāli (Governor) and self-proclaimed Hıdiv or Khedive (Viceroy) of Egypt and the Sudan presented the French government with a remarkable diplomatic gift: two 75-foot obelisks that stood at the entrance of the great Temple of Amun at Luxor (ancient Thebes). This present was made to France at a time when the French people were developing a new appreciation for Egyptian antiquity and Muhammad ‘Ali was deeply interested in European modernity—particularly with respect to military technology. His first great European-style fleet had been destroyed two years earlier by a combined Anglo-French force supporting Greek revolutionaries at the battle of Navarino (20 October 1827). Now the Khedive deeply desired its replacement by new state-of-the-art French fighting ships with updated naval facilities. The French naval engineer, Louis-Charles Lefebvre de Cerisy, who had overseen the construction of some of Muhammad ‘Ali’s previous fleet, was sent to Alexandria in April of 1829. There he was responsible...
for creating a new fleet that was rated the seventh most powerful in the world when it was complete.

However, upon his arrival, Cerisy’s first order of business was to begin the construction for transporting the first of the obelisks to France. Although it had been first carved and erected during the reign of Pharaoh Ramesses II (1279-1213 BC), this obelisk, officially known as the Obélisque de Louxor or “Cleopatra’s Needle.” Thanks to Cerisy’s skill and ingenuity, the Needle arrived safely in Paris on 21 December 1833. Three years later, on 25 October 1836, it was erected amid much pomp in the Place de la Concorde at the order of King Louis-Philippe I (1830-1848) (fig. 7). The installation of the obelisk on the spot where the guillotine had stood during the French Revolution was calculated at once to memorialize the victims of the Terror and to mark—prematurely as it turned out—the end of the revolutionary period of modern France (fig. 8).

Despite the successful transportation and installation of the first obelisk, its twin proved to be too heavy to move and remained in Luxor, where it still stands today. Late in the presidency of François Mitterand (1981-1995), the Republic of France officially renounced its rights to the second obelisk and symbolically restored it to the Egyptian people.

London Calling
The impressive new adornment to the Place de la Concorde in 1836 was a cause of some slight embarrassment and annoyance in Great Britain, France’s long-time competitor and sometime adversary. Already in 1819, ten years before the gift of the obelisks to France, Mohammad ‘Ali had presented the British government with a fallen obelisk in Alexandria. The occasion for this present was the ten-year anniversary of the British victories against French Revolutionary forces in Egypt at the battle of the Nile (1-3 August 1798) and the battle of Alexandria (21 March 1801). British intervention at the beginning of the nineteenth century had created the conditions in which Mohammad ‘Ali was able to seize power and virtually exterminate the previous Mamluk rulers of Egypt. While Parliament had gratefully acknowledged the gift at the time, no attempt was made to remove the 68-foot obelisk from its location in Alexandria. With the economy of Great Britain still reeling from the costs of the recently concluded Napoleonic Wars (1803-1815), financing the transportation and installation of the ancient Egyptian monument was completely out of the question.

Stung by the 1836 erection of the misnamed Aiguille de Cléopâtre in Paris, interest in adorning London with the obelisk long-promised to Great Britain gradually grew. At last, in 1877, the wealthy English surgeon and dermatologist, William James Erasmus Wilson, provided the £10,000 needed to cover the costs of removing, transporting, and erecting the obelisk on the Victoria Embankment (fig. 9). With this funding, the English naval engineer, John Dixon, designed and constructed a special vessel—essentially a giant iron cylinder—to carry the obelisk from Alexandria to its new home. Somewhat predictably, this special vessel was christened the Cleopatra, thereby indicating the equal status of its cargo to that of the French obelisk.

This second monument also had almost equal justification to the title of “Cleopatra’s Needle.” Like the obelisk in the Place de la Concorde, London’s Needle had little to do with the famous last queen of the Ptolemaic dynasty of Egypt. Instead, it was one of a pair of obelisks originally carved and erected before the temple of Atum-Re in Heliopolis by Pharaoh Thutmose III (1479-1425/1454-1450 BC), in 1443/1471 BC. A second hieroglyphic inscription was later added in honor of Ramesses II. In 22/1 BC, it and its twin were removed and carried off to Alexandria as an adornment to the Caesarium, a temple dedicated to the worship of the Roman Emperor, Augustus (27 BC-AD 14), and his successors to the imperial purple. It is only through this new location that the obelisk is even vaguely connected to the great Cleopatra. Before the installation of the Heliopolis obelisks and before the dedication to the imperial cult, the temple had been conceived by Cleopatra to honor her lover, Mark Antony. The queen is said to have committed suicide within the walls of this temple.

Whatever difficulties the ancient Roman engineers may have had in moving the obelisks from Heliopolis to Alexandria paled in comparison with those encountered by the Cleopatra and the Olga (the ship responsible for towing the Cleopatra) in transporting the single Needle to London in 1877. On October 14, a storm in the Bay of Biscay forced the Olga to abandon the Cleopatra, but Spanish trawlers discovered the vessel intact a few days later. It was rescued by the Glasgow steamer, Fitzmaurice, and repaired in the Spanish port of Ferrol. The Cleopatra and her cargo were subsequently towed to London by the tugboat, Anglia, on 21 January 1878—but only after a £2,500 salvage claim by the master of the Fitzmaurice was paid. Cleopatra’s Needle was at last erected on the Victoria Embankment amid great festivities on 12 September 1878.

If I can make it there, I’ll make it anywhere…

The dramatic story of the obelisk’s removal from Alexandria and trip to London soon appeared in newspapers across the Atlantic. Much as the erection of the obelisk
in the Palace de la Concorde had galled some Englishmen and ultimately resulted in the late claiming of Muhammad 'Ali's gift to Great Britain, the arrival of Cleopatra's Needle in London inspired similar feelings in the United States—particularly among the elite of New York City, who did not wish to have their city outdone by the great capitals of Europe. A clique of important New Yorkers seems to have felt an inadequacy with respect to Egyptian antiquities already in 1869, when William Henry Hurlbert, the editor of the New York World newspaper, is reported to have suggested to Isma'il Pasha (fig. 10), the grandson and heir of Moham-mad 'Ali as Khedive of Egypt and the Sudan, that New York harbor might open up to shipments of Egyptian cotton if he were to give the city an obelisk of its own.

The conversation between the newspaperman and the Khedive was later described as follows:

"A great way to open the harbor and the hearts of New York would be for Your Highness to present America with an Egyptian obelisk. After all, both London and Paris have been so honored."  

"There is no insurmountable obstacle to preclude such a gift. Have you a particular obelisk in mind?"  

"Forgive the pun, Your Highness—but any old obelisk will do. There's one hanging over the seawall in Alexandria for instance. It could readily be moved."

"Ah yes. The so-called Cleopatra's Needle. Yes—I think it might be arranged."

Despite this private discussion, no further action was taken with respect to this Needle—the matching twin to the obelisk given to Great Britain—either by Hurlbert and his primary backer, the American railroad magnate, William H. Vanderbilt, or by the Khedive. However, when Cleopatra's Needle arrived in London, Hurlbert's New York clique considered it an affront to their city and by extension to all of the United States. Leaping into action to correct the dreadful situation, in 1877, John Dixon was hired to remove and transport Cleopatra's remaining Needle to New York City for £15,000. However, Isma'il Pasha took considerable—and understandable—offence at being left out of the discussion, pointing out that the obelisk was not Dixon's property to sell and that negotiations for the removal of the monument would have to be initiated by the United States government.

Troubled by this setback but certainly not defeated, Hurlbert immediately enlisted the assistance of William Everts, the U.S. Secretary of State; the former Congressman, Henry G. Stebbins, who was currently serving as President of the New York Stock Exchange and Parks Commissioner for the City of New York; and Judge Elbert Farman, the U.S. Consul General to Egypt. Through the agency of these men, in May 1878, the Khedive was finally convinced to permit the removal of the last of Cleopatra's Needles to New York.

Hurlbert and the New York clique had obtained their desires, but not everyone was pleased with the outcome. In early August of 1879, when the work to remove and transport the obelisk began, it sparked anger in New York and in Egypt. One writer for The New York Times—sounding remarkably modern—argued that taking the Needle was tantamount to despoiling Egypt of its ancient possessions and remarked that,

"If New York really needs something Egyptian, we should have snapped up the ex-Khèdivé [Isma'il Pasha when he was in the market and we might even now wait for the next Egyptian crisis and obtain possession of the Tewfik Pasha [Isma'il's son and successor] and an assortment of wives at a reasonable rate."

Meanwhile, protests and legal challenges forced Lieu-tenant Commander Henry Honeychurch Goring— the U.S. Navy engineer hired to remove and ship the obelisk—to suspend work for several months. A group of foreign residents of Alexandria with plans to build an apartment complex around the obelisk were thwarted by the untimely American interest in the monument and rioting became an almost daily occurrence. Ac-cording to a report in the New York Times, the unruly mob was only cowed when Goring hoisted a make-shift American flag atop the Needle while the monument was to be lowered from its upright position (figs. 11-13). The great respect accorded to "Old Glory" by the Alexandrian mob seems truly remarkable. It has been suggested by some commentators that the imposition of the flag was actually the cause of some of the public uproar rather than its solution. The legal and public relations mess was finally cleaned up only through consular intervention, thereby allowing Gor-ringe to continue his work.

After narrowly avoiding serious damage when it fell during the operation that lowered the obelisk onto its side, Cleopatra's Needle was slowly slid into the hold of the dry-decked steamer Dessough through a hole in the hull, which was then sealed. Goring encountered fur-ther difficulties when he discovered that he could hire no Egyptian crew for the trip to New York. Egyptian sailors considered the removal of the obelisk a desecra-tion of their country and were plagued by superstition about the doom that might await those who participat-ed in the American enterprise. The fact that the Dessough was a rusting hulk purchased from the Egyptian Postal
Despite these difficulties, Gorringe and his crew finally set out with their cargo on 12 June 1880. Bad weather and a broken crank shaft plagued the Atlantic crossing, but on July 19, the Dessoug was spotted off New York’s Fire Island. Cleopatra’s Needle was unloaded on Staten Island, thanks in part to the use of cannon balls as rollers. From Staten Island, the obelisk was floated up the Hudson River to a dock on West 96th Street, where it was hoisted ashore. A specially constructed steam winch and a system of rollers was then used over the course of 112 days to move it across Manhattan to its final location on Greywacke Knoll in Central Park.

Needless to say, Lieutenant Commander Gorringe instantly became the toast of the town.

Excelsior

Once Cleopatra’s Needle had arrived in New York City, most of the earlier objections to its acquisition vanished in a cloud of civic self-congratulation. The young American Numismatic and Archaeological Society (the full name of the ANS until 1907) was swept up in the excitement along with the rest of the city.

Public interest in Cleopatra’s Needle reached fever pitch already by 9 October 1880, when a procession of 9,000 Freemasons paraded up Fifth Avenue for the laying of the cornerstone of the obelisk’s new base. (In the nineteenth century it was widely claimed that many of the rites of the secret society originated in ancient Egypt. Almost all of the personalities involved with bringing the Needle to New York were members.) This event was presided over by Jesse Anthony, the Grand Master Mason of New York State. An estimated 50,000 spectators came out to watch the parade and witness the ceremony. To commemorate the occasion, a 37mm medallion was struck in white metal and copper (fig. 14). This medallion features the emblems of the Grand Lodge of the Free and Accepted Masons of the State of New York and a somewhat fanciful depiction of the obelisk as it would look when erected.

It seems to have been in the immediate aftermath of this spectacle that the Society fully grasped the importance of the obelisk to the image of the city and its potential importance for that of the American Numismatic and Archaeological Society. On 16 November 1880, Society member, Gaston L. Feuardent proposed a brief synopsis of the monument’s history, management brought by this new member was not lost on anyone. Thus, the meeting of 20 December 1880 was dedicated to discussion of the coins in the Lieutenant Commander’s collection. This primarily included gold coins of the Ptolemaic dynasty of Egypt and base metal issues of Roman Alexandria obtained during his time in Egypt (fig. 15).

By no coincidence, this meeting was also the occasion on which the design of a new 42mm medal to commemorate the approaching installation of the obelisk (22 February 1881) was presented to the membership for approval (fig. 16). The medal was commissioned by Robert Hewitt, Jr., the Vice President of the Society, and designed by Charles Osborne and Gaston L. Feuardent—the latter seems to have been the main force behind Gorringe’s involvement with the Society. The obverse depicts Cleopatra’s Needle catching the rays of the sun while the emblems from the seals of the United States and New York City stand in the foreground. The rising sun motif is informed not only by the original relationship of the obelisk to the Egyptian solar cult, but also by the sun rising over the Catskill Mountains on the Great Seal of the State of New York. The Latin motto, DISCIPULUS EST PRIORIS POSTERIOR DIES (“The day succeeding is the student of the one preceding”) surrounds the type. This maxim, taken from the Sententiae of Publilius Syrus (fl. first century BC), was especially fitting in the case of Cleopatra’s Needle, as it not only expressed the nineteenth-century appreciation of Egyptian antiquity, but also New York’s emulation of London and Paris. The English text on the reverse presents a brief synopsis of the monument’s history, managing to obliquely connect New York City to the greatness of the Roman Empire as well as to the hoary antiquity of Egypt while also establishing it as a city of a stature equal to its European competitors. William Vanderbilt and Gorringe are both honored as the key figures responsible for bringing the obelisk from Alexandria to New York.

Not surprisingly, this design—which seems to have already received assent from such original agitators for Cleopatra’s Needle as William H. Hurlbert and Henry Stebbins—was immediately approved. It was also agreed that as part of the commemorative ceremony examples of the medal struck in white metal and bronze would be distributed as prizes to 100 of the leading students of the public schools throughout New York City. Silver medals were produced for presentation to Vanderbilt and Gor-
The silver medals were presented to their recipients in wooden cases, while the base metal examples were awarded to the students in a cardboard container shaped like a book and embossed with the hieroglyphic inscription on the pyramidion of the obelisk and the seal of the American Numismatic and Archaeological Society.

A gold version of the medal (Fig. 15) was given to Gorringe separately on 4 March 1881 in recognition of his Herculean efforts to bring the obelisk to New York City. The existence of this medal was largely forgotten until it appeared at auction early in 2012. It has now returned to the American Numismatic Society.

At midday on 22 February 1881, a crowd of some 20,000 people braved the bitter cold to witness the erection of Cleopatra's Needle on its base in Central Park and to hear the speeches associated with this epoch-making event. A week before, the entire membership of the American Numismatic and Archaeological Society were honored with a special invitation to attend the ceremony en masse. The main program consisted of the successful raising of the obelisk, the singing of a hymn specially composed for the occasion, and the oratory of William Everts; John Taylor Johnston, the President of the Metropolitan Museum of Art, located across the street from the obelisk; and William Russell Grace, the Mayor of New York City. It concluded with the presentation of the commemorative medals by the New York lawyer and prominent Society member, Algernon Sydney Sullivan.

The Afterglow

The Society's involvement in the ceremony brought it much positive press and significantly increased its prestige as a venerable New York institution, much to the obvious delight of Vice President Hewitt. The medals also proved to be popular even outside of Manhattan, as evidenced by a request for one, dated 21 March 1881, received from the Franklin County Numismatic Association in Columbus, Ohio. In this same month, Hewitt collected the medal dies as well as the documents and memorabilia related to the event. Taking to heart the Publilius Syrus maxim, the Vice President provided the printed materials with suitable frames and then donated them to the New-York Historical Society and the National Geographic Society in December. By this means he attempted to memorialize for posterity the role of the American Numismatic and Archaeological Society in the celebrations surrounding Cleopatra's Needle. It is unfortunate, but perhaps only fitting, that the memory of this important event in the early life of the ANS has often faded from view, much like the acid-rain washed titles of Thutmosis III and Ramesses II on the obelisk itself (fig. 17).

Fig. 15: Ptolemaic Kingdom, Berenice II (246-221 BC). AV octa-drachm, Alexandria mint. Svoronos 972. (ANS 1967.152.562, bequest of Adra Newell). 32 mm (image enlarged). A coin of this type was part of Gorringe's collection displayed at the ANS on 20 December 1880.

Fig. 16: United States. AV medal commemorating the erection of Cleopatra's Needle in Central Park, by Charles Osborne and Gaston L. Feuardent, 1881. (ANS 2012.9.1) 34 mm.

Fig. 17: "Central Park, New York, the obelisk." Anonymous photograph (c. 1900) of the Detroit Publishing Company. Library of Congress LC-D4-12688.
In 1869, George B. McCartee, the second Chief of the First Division National Currency Bureau (the future Bureau of Engraving and Printing) (fig. 1), and James M. Wilcox & Sons, paper makers of Glen Mills, formalized a contract for the manufacture of distinctive paper for the Bureau. This was at least eight years after bonds and bank notes were first printed in New York City by private bank note companies for the federal government. Prior to government production, notes and bonds were privately produced through individual banks located in the various cities within the United States. These notes, issued by banks, were acceptable for transactions within a limited distance from their source. The further away a note moved, the less likely it was considered safe, and worse, considered counterfeit. With the government’s involvement in the printing of currency, the goal was to provide a product that would be acceptable at full face value anywhere in the country.

Willcox was one, but not the only company to supply paper to the National Currency Bureau during the 1860s. In those early years several others including Stuart Gwynn, Melancthon Hudson, Edward Goodwin, Seymour & Company, L.L. Brown, and Crane & Company supplied distinctive paper. With the exception of Gwynn, Willcox and Crane, the relationships of the above named companies to the National Currency Bureau are not well known. While some research has been done on this subject, the interactions of these companies with each other and/or with the Bureau have not been fully explored and invite further investigation.

When the federal government began producing currency there were questions that had to be addressed, especially how to produce notes that could not be counterfeited. Paper with features that could not be easily replicated would enhance the deterrent qualities of engraving and printing. These print qualities included the use of equipment such as the geometric lathe or a sideography press, and engraved lines that had a specific depth, width or length that only skilled bank note engravers could replicate. Initially distinctive or security papers, designed to have some form of fibers, watermarks, or threads uniquely arranged to make it difficult to replicate or counterfeit, were supplied for bank notes and bonds. It is the intent of this paper to trace those firms that produced security papers during the first ten years of the Bureau of Engraving and Printing. In this article I will examine some of these paper manufacturers in relation to their work for the Treasury (fig. 2).

Setting the Stage: The Advertisement

The quest for distinctive paper began even as Spencer M. Clark (fig. 3), the Bureau’s first chief, set up the National Currency Bureau in the Treasury building in Washington, DC. In June, 1862, the Washington Times included the following advertisement for sealed bids for distinctive paper to be produced for the printing of bonds and bank notes but:

Sealed proposals for the manufacture and delivery of paper for use by the Treasury Department, in the issue of Notes and Bonds of the United States, will be received until 12 o’clock, m., of Saturday, July 19th 1862. (fig. 4)

This was the federal government’s first foray into the acquisition and manufacture of distinctive papers (figs. 5 & 6). Who bid on the proposal and how were they perceived by the Treasury as potential providers of a secure product? Of the six original bidders, four came from the New England states of Connecticut and Massachusetts; the other two came from Chicago, Illinois, and Philadelphia, Pennsylvania. By the end of July, samples of bank note and bond paper from the bids had arrived and had been reviewed by a Mr. Homans for
Clark. In his 1864 Report to the Secretary of the Treasury from the First Division National Currency Bureau, Clark discussed the relative merits of the following companies: Hudson and Goodwin both from Connecticut, Wilcox from Pennsylvania, Seymour & Company also from Connecticut (who did not supply a sample), Hayward from Illinois, and Gwynn from Massachusetts. Clark noted that Hudson’s and Goodwin’s samples were the best. Hayward’s uniquely included threads as a security feature. Arranged horizontally within the paper, Hayward’s threads were composed of some form of finely spun silk, cotton or jute. However, Clark was most impressed by the paper made by Stuart Gwynn, and ultimately Secretary of the Treasury Salmon P. Chase (fig. 7) entered into a contract with Gwynn to manufacture his ‘membrane’ or ‘spider leg’ distinctive paper within the walls of the Treasury.

Clark was impressed with Gwynn’s samples which contained tinted fibers imbedded between two sheets of paper, and thereby the name “spider leg” or “membrane” paper (fig. 8). Gwynn claimed that these particular fibers could not be successfully photographed and therefore could not be counterfeited. While his first samples failed to produce fibers that could not be photographically reproduced, Clark wrote that Gwynn did indeed eventually find a pigment that worked. In that 1864 report, Clark enumerated the value of this paper:

He [Gwynn] now produces a paper under his contract which cannot be dissolved in hot or cold water, which cannot be split, which has an irremovable [sic] non-photographic tint in its spider-leg fibre, and which takes ink more readily, retains it longer, and wears better than any paper heretofore manufactured for the purposes of currency in any country.

In addition to dealing with Stuart Gwynn, Clark interacted with Melancthon Hudson regarding the supply of paper stock. These interactions involving currency production are demonstrated in an interview conducted by Senator George F. Edmunds during an inquiry by the Senate Joint Select Committee on Retrenchment in 1869. Senator Edmunds interviewed Thomas J. Chapin, a papermaker, about Chapin’s work in the Treasury, manufacturing membrane paper. In Chapin’s testimony, Hudson figures in as the supplier of the sheets of paper Gwynn used in the formulation of his spider leg paper.

Q. [Edmunds] Have you had charge during the whole of that time of the paper making?

A. [Chapin] I have had charge since these paper machines started. When I first came here I came under Mr. Hudson. I was employed by Mr. Gwynne [sic], making membrane paper. ...
Q. In what year was that paper-making operation commenced?
A. When I first came here, I believe it was in 1864.
Q. Did you run a paper-mill alone?
A. The paper was made in Connecticut—Mr. Hudson made the paper. Then it was put together, two sheets joined, here on a machine. I put up the machine and started it and ran it.
Q. Who was the person next over you in the management, at that time, when you first came?
A. Mr. Hudson was here. It was Hudson and Gwynne, but Gwynne did not come here much while I was here. …
Q. You received it [the paper] from Mr. Clark and returned it to him?
A. I received it from Mr. Hudson. Mr. Hudson made the paper and brought it here. …

Chapin’s comments regarding Hudson’s manufacturing of paper for Gwynn are not surprising. Hudson had submitted a bid at the time of the original 1862 advertisement, and on February 11, 1863, Clark was in touch with him, requesting 50,000 sheets ‘of your best Sixteen pound (16 lb) Bank Note paper on hand … [to be] delivered in New York.’ On July 9, 1863, Clark again wrote to Hudson regarding the type of paper the Treasury wanted to use and Stuart Gwynn figures in this letter:

It will be partially made in Mills and completed in the Treasury Building. The Mill you refer to would likely answer well to use in the preliminary operations. St. [Stuart] Gwynn will visit Manchester at an early day on other Business and will confer with you on the subject and examine the Mill.

Gwynn’s membrane paper was composed of two sheets of paper in between which different types of fibers were placed and “sealed” (figs. 9-12). Hudson’s role was to produce the basic paper used as two parts of the distinctive paper sandwich. In the Report of the House of Representatives Select Committee, (H.R. Rep. 140, 38th Congress, 1st Session), Gwynn implied that manufacturing this sandwich was his technique. ‘The peculiarity of the 'paper' was such that it was to be partly made at the mills and, under the direction of my assistants, by my operatives in the treasury [sic] building.” The technique of manufacture is certainly noted in Gwynn’s patent applications of 1868 and 1869. In studying his patent for the manufacture of vegetable membrane, to deal with the transformation of a fiber web or “vegetable felt” into the spider leg paper, a description and illustration of the final process is included in US Patent number 88,035. The transformation of a fiber web or “vegetable felt” into a “transformed web” … [that] passes on and through the wash-waters and neutralizing-fluid, and finally over the stream-heated drying rolls and J and 11.” This machine (fig. 13) was probably the type installed in the Treasury Department.

In the scant textual evidence concerning Gwynn’s work at the Treasury, none indicates the installation of machines to manufacture paper. It seems from the correspondence that another mill (most likely Hudson’s) supplied the raw web or felt from which the spider leg paper was created. With all of the clerical work for the various divisions under the control of the Secretary of the Treasury including customs, internal revenue, comptroller, and auditors as well as offices such as the Attorney General, the Light House Board, and the Bureau of Construction housed in the Treasury building, it would be very surprising if there was space for manufacturing paper as well. Papermaking required areas for cutting and cleaning the linen and cotton rags, a clean water source, vats in which a fiber slurry could be mixed, and cylinder, later, Fourdrinier machines to formulated the final paper. However, it did make sense to have the sheets made elsewhere and brought to the Treasury where they could be assembled into the distinctive paper sandwich – the spider leg paper. These were the first notes printed in the National Currency Bureau. After quitting government service, Gwynn wrote to Secretary Chase on June 21, 1864, that he had appointed the Boston lawyer, Albert G. Brown, to collect fees due him and Hudson "of North Manchester Ct." and that Hudson was to be "the person who will finish the 'National Paper' for me in the Treasury Building and deliver it to the 'Paper Clerk.'” In response on June 25, 1864, George Harrington, the Assistant Secretary of the Treasury, wrote to Gwynn:

Sir: Your letter of the 21st inst. is received, proposing Mr. M. Hudson of Manchester Conn. as the person to finish the 'National Paper' in the Treasury. The Secretary requires satisfactory evidence by letter as to the character of Mr. Hudson.

Harrington’s, or actually Chase’s, request must have been satisfied given Chapin’s testimony and given the fact that Clark had contracted with Hudson before.

Very little is known of Melancthon Hudson. In 1832, his father Henry acquired and converted a grist mill and a saw mill into paper mills in Manchester, Connecticut. Melancthon, and later William and Philip W. (sons of Melancthon), inherited the mills. It was here that paper was created. With all of the clerical work for the various divisions under the control of the Secretary of the Treasury including customs, internal revenue, comptroller, and auditors as well as offices such as the Attorney General, the Light House Board, and the Bureau of Construction housed in the Treasury building, it would be very surprising if there was space for manufacturing paper as well. Papermaking required areas for cutting and cleaning the linen and cotton rags, a clean water source, vats in which a fiber slurry could be mixed, and cylinder, later, Fourdrinier machines to formulated the final paper. However, it did make sense to have the sheets made elsewhere and brought to the Treasury where they could be assembled into the distinctive paper sandwich – the spider leg paper. These were the first notes printed in the National Currency Bureau.
The Federal Government’s Quest for Distinctive Paper

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The history of the Goodwins goes back to the early 1800s when George Goodwin and Barzillai Hudson (seemingly no relation to Melancthon) had a partnership in paper manufacturing which dissolved in 1815 with Hudson’s retirement. In the process Goodwin received paper mills in East Hartford, Connecticut. By 1825, Goodwin’s sons, George Jr., Charles, Henry, and Edward, formed a venture under the name of Goodwin & Company with George Jr. becoming the paper manufacturer, Charles the manager of their bookstore, Henry the foreman of the printing office, and Edward the editor of The Connecticut Courant newspaper. Mills belonging to the Barzillai Hudson family were sold in 1851 to Boswell, Keeney & Company. Sometime between 1861 and 1863 the Goodwin mills were also sold. Edward Goodwin, Jr., with whom Spencer Clark interacted, was the son of the editor of the Courant. Correspondence between him and Clark is addressed in care of Keeney in Hartford, Connecticut. It is speculation, but most likely the paper Clark was receiving from Goodwin was made by the company of Boswell & Keeney.

The Willcox company (also spelled Wilcox), that ultimately received the first long term paper contract, is briefly mentioned in Clark’s 1862 report to Chase, noting only that their “No. 6 is the best water-mark; but that is too poor.” As a family, they began paper manufacturing about 1837. By 1845 they had constructed two buildings at Glen Mills (figs. 15-16) near Philadelphia, Pennsylvania. These were designed to fabricate machine-made paper and became the future site for the production of bank note, bond, and revenue paper for the government.

On July 24, 1866, James M. Wilcox received patent number 56,650 for Safety-Paper. In his patent, he described this paper as:

… [an] intermingling with certain portions of the body of the paper … fibers of any suitable material or materials different from the ordinary fibers of the paper, the other portion or portions of the paper being left free from such additional fibers or their equivalent in such a manner that a paper is produced which cannot possibly be imitated, and which, when used for bank-notes, bonds, or other documents of value, will effectually prevent alteration or counterfeiting….
Most likely this patent was the basis for the paper Willcox produced throughout their contract with the Bureau.

In the 1862 bid, Henry Hayward submitted a paper sample with horizontal threads. Clark found this sample “ingenious,” but was not impressed enough to contract with Hayward or to purchase his paper in separate orders. In March 1862, Hayward patented this paper as a new and useful “improvement in safety [distinctive] paper.” He contacted Secretary Chase regarding infringement of his patent, his interaction with Spencer Clark, and Clark’s initial interest in incorporating threads in the government paper; but to no avail. In 1880 after the Treasury’s contract with Willcox had ended and a contract with Crane begun, Hayward applied to the Treasury for compensation for his form of distinctive paper. Receiving no moneys, Hayward tried again in 1884, writing to the President of the United States, who forwarded Hayward’s letter to the Treasury. The final consensus was that Hayward’s patent had expired for this type of counterfeit deterrent and it was in the public domain. Hayward’s particular format in the presentation of the fibers was horizontal, parallel lines (figs. 17-18). Despite the government’s rejection of his paper during his lifetime, his arrangement should not be dismissed. From Series 1991 to the present, a vertical security thread has been included in United States bank notes. Although different in execution, the concept is similar.

The Second Bid

In September of 1863, Clark reported to Chase on a second paper bid in which five companies were solicited. Three of them are familiar from the bid of 1862: Goodwin, Willcox and Hudson. Only Crane and Brown were new. In a letter dated September 26, 1863, to the Secretary, Clark discussed the proposals. Willcox, Hudson, and Goodwin were given equal weight regarding the quality of their paper. However because of price, Hudson was recommended over Goodwin and Willcox.

Although Crane & Company is today well known for its continuous contract with the Bureau of Engraving and Printing to produce distinctive paper for currency, they were not Spencer Clark’s first choice. Stephen Crane contacted Secretary Chase regarding incorporation in safety [distinctive] paper. He was recommended over Goodwin and Willcox.

Finally Distinctive Paper: One Contract, One Contractor

Under the government’s contract with James M. Willcox & Sons, signed in September, 1869, the paper to be manufactured not only included bank note and bond, but also paper for revenue stamps. At that time, these were the only products for which the government needed a secure paper (fig. 19). Although Willcox dominated government contracts early on, they were outbid by Crane in 1879. To this day, Crane & Company supplies the Bureau with distinctive paper in printing currency. The other manufacturers discussed are no longer in existence, but their early importance in relation to the Bureau of Engraving and Printing and its efforts to regularize the production of its products should not be underestimated or forgotten.

Author’s note

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Bibliography

Clark, Spencer M. Report to the Secretary of the Treasury from the First Division National Currency Bureau (Washington, DC, 1864).


National Archives and Records Administration, College Park, MD. Record Group 53, Finding Aid NC 120, Entry 546; Record Group 56, Finding Aid A3, Entry 165, and Entry 879C, and Finding Aid U.D. Entry 70A; and Record Group 318, Finding Aid NC 47, Entry 5, Volumes 1 and 2.


German monthly inflation topped 29,500% in 1923; France had to let its currency depreciate by 93% against gold and silver between 1914 and 1939; in July 1946, Hungary experienced the highest rate of inflation ever reported: $4.19 \times 10^{16}$. The 20th century has witnessed radical impoverishment in Europe (and elsewhere) at the hands of inflation. With no significant inflation in the developed world since the 1980s, the recent economic turmoil has nevertheless managed to revive these old fears, pushing gold prices to spectacular new heights.

### The Supply and Demand of Money

Inflation is a rather easily grasped concept: the value of goods, money included, is determined by their relative availability vs. other forms of wealth (Table 1). In other words, limiting the money supply should keep inflation under control. This is nevertheless a goal that is far from easy to achieve, as political authorities throughout history have instead seldom resisted the temptation to increase money supply in order to provide for wars and other unfunded public expenses. Inflation is as old as money itself, and indeed is older than coinage since monetization began well before the first coin was struck. Miscellaneous pieces of cut silver and bronze alloys were used for a variety of monetary payments in ancient Eurasia, alongside other materials or goods such as cowries in most of Asia and Africa, or such as measures of grain, oil and wine in Egypt. As mining activities as well as the general production and circulation of goods developed, new supplies could affect the quantities of metal needed for commercial transactions.

China during most of its pre-imperial and imperial history (fig. 1), the Aztecs before the arrival of the Europeans (fig. 2) or several African nations well into the twentieth century, were among the areas using shaped forms of metal as monetary objects. Stamped monetary ingots served as money from the time of the Romans until as recently as 19th century Brazil (fig. 3). The discovery of the American gold and silver mines by the Europeans is largely responsible for inflation in the 16th century. Similarly, increased circulation of base metals and shell-money as a result of European trade created strong inflationary conditions in many African areas: a slave was valued at 4 manillas in the 1400s vs. 57 in 1522 in West Africa (fig. 4); later on, a typical bride-price had risen from 50,000 cowries in 1850 to 700,000 in 1949 (fig. 5).

Lydia

The reasons why some authorities decided to coin standardized weights of metal have been debated for a long time. There was certainly an element of trade facilitation: trading a marked piece of metal theoretically allowed people to avoid the compulsory weighing step. This did not always work so well in practice since wear and deviations from weight standards led money users to often adjust coins’ relative values. Another important factor is that states played with the alloy content of their coins. That a profit could

---

Table 1

| MONEY SUPPLY | PRICES |
| X | X |

| VELOCITY of MONEY | TRANSACTIONS of GOODS and SERVICES |

---

Facing page: Zimbabwe. Enlarged portion of 100,000,000,000,000 dollar banknote, Harare, 2008. (ANS 2012.10.1, gifts of Frederick G. Withington and François Velde).
for issuing coinage from the very beginning was the ability to deceive, illustrating how public profits were often entangled with the concept of official currency in Mediterranean cultures. Since there are no records of prices for this period, we can only guess whether or not prices of goods rose as a result of this metallic manipulation.

**Greece**
From that moment onward, the rise or decrease of prices in monetary terms became a combination of the change in the relative supply of monetary metals and of the degree of monetary manipulations undertaken by the states issuing coins or other forms of marked money. Greek and Roman history provide clear illustrations of the latter situations. Athens had from the very beginning of its coinage stuck to very strict standards and issued silver coins of full intrinsic value, supported by the resources of the Laurion mines. As its coins became the standard anchor of value in the Mediterranean world at the time, Athens took great care in ensuring highly consistent quality and standards. But, cut off from its mining district and about to lose its struggle against Sparta and its allies during the Peloponnesian War, Athens started to produce debased coinage consisting of plated coins in order to keep up its war effort. In addition, the city’s gold statues were melted down to produce an unheralded gold coinage. Prices rose significantly during that period, although it is hard to determine the relative impact of the debased coinage versus the grain shortage in Athens that resulted from the partial blockade by the city-state’s enemies. Once its political situation had been restored, Athens demonetized this coinage and returned to a stable silver currency. Other Greek entities resorted to plated or debased coins. Elsewhere, non-Athenian coins were usually traded at a discount vs. Attic coins, implying a degree of price instability in some areas of the Greek world as a result of official coinage manipulations including plated or debased coins (fig. 7).

**Rome**
Non-Greek Italian states initially based their monetary dealings on objects, bars and ingots of bronze (aes rude) which became progressively more standardized within regions and noted by specific designs (ramo secco), leading to the aes signatum in Rome (fig. 8). In the early 3rd century BC, the Roman Republic developed a cast bronze coinage upon the weight standard of the Roman pound, which weighed about 323 g (fig. 9). The heavy base unit, the as, initially weighed one Roman pound, while fractional coins were minted at proportions of this pound. At the same time, a silver coinage was initiated in order to connect Rome with the Greek monetary world.

**Table 1**

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Description</th>
<th>Weight (g)</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Ancient Americas</td>
<td>AE prototype knife, dao, ca. 800-400 BC (69.24 g) (ANS 1907.179.19477, gift of Frances Reilly).</td>
<td>69.24</td>
<td><img src="https://example.com/1.png" alt="Image" /></td>
</tr>
<tr>
<td>Brazil</td>
<td>Brazil (Pedro I)</td>
<td>Gold inscribed ingot, Serro Frio, 1830 (167.22 g) (Friedberg, Brazil 106).</td>
<td>167.22</td>
<td><img src="https://example.com/2.png" alt="Image" /></td>
</tr>
<tr>
<td>Nigeria</td>
<td>Nigeria, British Colonial period</td>
<td>Bronze manilla, Birmingham, ca. 1900 (86.32 g) (ANS 1991.8.6, gift of George M. Golden).</td>
<td>86.32</td>
<td><img src="https://example.com/3.png" alt="Image" /></td>
</tr>
<tr>
<td>Lydia</td>
<td>Lydia</td>
<td>EL 1/3 stater, 7th century BC (4.68 g) (SNGBYB 1135).</td>
<td>4.68</td>
<td><img src="https://example.com/4.png" alt="Image" /></td>
</tr>
<tr>
<td>Macedonia</td>
<td>Macedonia, Neapolis</td>
<td>AR-plated AE drachm, ca. 450 BC (4.54 g). Neapolis (ANS 1934.86.12, gift of Dr. E. P. Roberts)</td>
<td>4.54</td>
<td><img src="https://example.com/5.png" alt="Image" /></td>
</tr>
</tbody>
</table>
Roman monetary weight standards quickly collapsed during the second Punic War (218-204 BC), triggering a massive rise in prices, in a fashion highly reminiscent of what had occurred in Athens at the end of the Peloponnesian War (Chart 1). The difference here is that Rome never returned to the previous standards and more debasements followed throughout the next two centuries, until Octavian stabilized the monetary system at the end of the 1st century BC. At the time, the Roman as weighed 1/24th of a Roman pound (fig. 10). As a result of these successive debasements, the Roman bronze monetary unit had been stripped of 95.8% of its metal value in about two centuries. Current prices were multiplied at least ten-fold during the same period.

The Roman Empire based its monetary system on a coinage of nearly pure gold and less pure silver (fig. 11). Starting with Nero, Roman emperors progressively debased the silver denarius. By the time of Septimius Severus in the early 3rd century AD, denarius included less than 50% silver and their overall weight had significantly decreased. This is clearly a major development in Roman monetary history since there is no strong evidence that this monetary debasement significantly threatened either price stability or the Roman state successfully managed to establish a confidence in the official coinage. This illustrates that the nominal value of each coin could be modified by official decision. Much of medieval and pre-modern Europe operated under similar currency regimes.

Diocletian (AD 284-305) restored imperial order and established the Tetrarchy, a shared system of four co-rulers. By AD 295, a major currency reform aimed at emulating the previous Augustan system was implemented. It relied upon a system based on gold, silver, and billon (5% silver). The denarius was ‘resurrected’ as a unit of account, but not as a coin. Such a scheme allowed nominal price increases disconnected from any change in the coinage itself, since the nominal value of each coin could be modified by official decision. Much of medieval and pre-modern Europe operated under similar currency regimes.

Diocletian’s successors failed to keep the monetary system intact. The billon nummus became lighter and disconnected from any change in the coinage itself, since the nominal value of each coin could be modified by official decision. Much of medieval and pre-modern Europe operated under similar currency regimes.

The rise in Roman prices from 125 - 25 BC.

![Chart 1](chart1.png)

Modern France

During the later medieval period, the emergence of a banking system led to fiduciary money. Money could be created through credit and the practice of fractional reserve. As the public learned to accept (and reject) paper money, modern European states were able to run unprecedentedly high deficits, which could be covered by flooding the market with paper money, as France did in 1720 with the Banque Royale of John Law (fig. 16).

Revolutionary France illustrates this pattern even better with the crisis of the assignats (1790-1797)(fig. 17). Initially issued in limited amount, the assignats were supposed to facilitate the sales of the vast, confiscated Church properties to the general public. As such, their notional amount should have remained below the value at stake, about 2 to 3 billion livres. As France was attacked by all its neighbors and had to use hard cash for its external supplies, it quickly ran out of precious metals and the assignats became compulsory paper money. By early 1793, their issued volume was higher than the properties supposed to guarantee them. By 1796, the overall stock of assignats was about 20 times the original French metallic money stock, and current prices had increased 500-fold or more compared to 1790 (Chart 2). The financial situation only stabilized.

Unfortunately, an ongoing budgetary crisis led to further debasements. A coin weighing 50% more than the denarius but valued twice as much was introduced under Caracalla in AD 215; we call it the antoninianus (fig. 12). During the crisis of the years AD 240-270 that followed soon after, silver vanished from that coinage (fig. 13) and prices skyrocketed; Egyptian papyri dating between AD 260-270 depict a ten to fifteen-fold increase for most observed prices.

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Diocletian’s successors failed to keep the monetary system intact. The billon nummus became lighter and less pure (Figs. 14-15). Nominal inflation reached very high levels. In AD 301, one pound of gold was worth 72,000 denarii. It stabilized at about 5,000,000,000 denarii by the end of the 4th century. This is equivalent to an average annual compounded inflation of 12.5%. The depreciation of the base coinage itself was far more limited: one needed 7,200 nummi to purchase one pound of gold in AD 301. By the end of the fourth century, over 500,000 debased nummi were needed, implying an average rate of depreciation of 5% per year. Gold became the sole anchor of a system of a deteriorating base currency. The progressive debasement of the nummi is a very visible phenomenon.

Signs of Inflation

Modern France

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In the period immediately after the War, paper money banknotes for the larger transactions (fig. 20). With the First World War (1914 - 1918), gold convertibility was suspended. War expenses exceeded the government’s income from taxes, so that the notes’ aggregates grew well above their pre-war level. By 1918, France had lost over 2 million men to casualties or injuries and close to half of its industrial infrastructure had been destroyed. The US insisted on full dollar repayment of war debts, even though there was little hope of collecting the war damages theoretically owed by Germany as per the Treaty of Versailles (1919). The franc lost about 80% of its value against the dollar. In 1928, Prime Minister Raymond Poincaré linked the franc to gold again at 0.0655 g of 90% pure gold, hence making the loss of value official. This did not last for long: the combination of the Depression of the 1930s and the build-up for World War II (1939 - 1945) led to renewed devaluations from 1936 onward. After a period of deflation between 1931 and 1935, inflation resumed and reached 26% in 1937, and remained above 20% per annum throughout World War II (fig. 21). The rare gold coins issued after 1928 were hoarded (fig. 19), while no silver coins were issued, being replaced by base metal for the smaller denominations and banknotes for the larger transactions (fig. 20).

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In the period immediately after the War, paper money was issued without limitation in an effort to help fund reconstruction. As a result, inflation went as high as 58.7% in 1948. As the franc was devalued within the Bretton Woods framework, 1 dollar went from 119.1 francs in 1945 to 350 francs in 1949. French coins and banknotes showed increasingly high notional values. The temptation to monopolize the money supply. The end of the War did not stop this as the Soviet occupation troops used their own currency, leaving the Hungarian government to handle its own depleted budget. During the fighting of 1944-45, 40% of the wealth of Hungary had been destroyed and the country had to support the heavy costs extracted by Soviet occupation troops as well as the war indemnities insisted on by the USSR, Czechoslovakia and Yugoslavia. The rate of inflation culminated at 350% a day in the summer of 1946, and overall price levels increased by 2 × 1025 in a 13 month period (fig. 24). On August 1, 1946, a set of fiscal measures was implemented and a new currency, the forint, was introduced. The value of the entire pengo money supply was effectively wiped out.

An Area of Limited Inflation: The US

In 1792, the young United States defined its standard unit of value as a dollar worth 24.057 g of pure silver (fig. 25), but the US government had no interest or ability to monopolize the money supply. Within a short time, theoretically-convertible banknotes were issued by about 1,600 local state-chartered banks (fig. 26). Gold was only sporadically minted by the US government, with its unit of value, the eagle, worth 10 silver dollars (fig. 27). Usually, the half-eagle coins (½ dollars) were minted at a standard of 135 grains (= 8.01 g) of 91.67% fineness, or 1.6038 g of pure gold per dollar. Despite the monetary fights of the late 19th century between those vying for a single gold or silver standard, bimetallism persisted until March
14, 1900, when gold was made the sole legal standard, upholding the Coinage Act of January 18, 1837, which set 1.5 g of pure gold to the dollar (1.67 g of 90% gold). This was the equivalent of $20.67 per ounce of gold. All told, the price of gold remained relatively stable throughout the first century or so of US monetary history (Chart 3).

As noted, the government chartered banks meeting certain qualifications, authorizing them to issue standardized paper money, a system that would survive until the Great Depression of the 1930s. The Resumption Act of 1875 sought to withdraw the legal tender notes issued during the Civil War by 1879. This led to a controversy between ‘hard money’ advocates and those who thought the greenbacks were good for the economy by increasing the money supply. As the Treasury had accumulated enough precious metal to satisfy the demand for resumption, the public realized that the paper money was as good as gold or silver. The Act of December 23, 1913, created the Federal Reserve Banking System, which started to issue new type of notes that were originally convertible to gold or silver. The Federal Reserve and National banknotes, silver and gold certificates, and United States legal tender notes all added to the diversity of circulating paper and metal money.

As a result of the severe depression that plagued the US starting in 1929, the country entered a deflationary spiral. The general price index of consumer goods lost 25% between January 1930 and January 1933, an annual average rate of negative inflation of -9%. Intended to stem the tide, on April 5, 1933, President Franklin D. Roosevelt issued emergency measures that confiscated most privately held gold in the country, suspended the convertibility of dollars into gold, and devalued the dollar from $20.67 to $35 an ounce of gold. This alleviated the deflationary pressures, although the consumer price index was still 17.5% lower in January 1941 than in January 1930. Inflation had been decoupled from the price of gold (fig. 28).

The Second World War brought back some degree of inflation, since the government had to print money to pay for the war effort. By the end of 1945, consumer prices had risen 28.5% compared to the level at the end of 1940, implying an annual average rate of 6.5%. The general reconstruction effort in Europe and Asia, combined with higher consumer demand in the US, led to more inflation after the war itself: between 1945 and 1948, prices rose by about 10% per annum. At Bretton Woods, in 1944, the Gold-Dollar Exchange Standard was devised. Contrary to the pre-1914 Gold Standard, it did not reintroduce any form

![Fig. 23: Zimbabwe. 100,000,000,000,000 dollar banknote, Harare, 2008.](image)

![Fig. 24: Hungary. 1 billion h–pengo banknote, Budapest, June 1946.](image)
of direct gold convertibility to the general public. The US pledged to keep the dollar stable against gold, at $35 an ounce, and to ensure its convertibility at that rate vis-à-vis the other participating countries’ official dollar reserves. But within a generation things began to change. The US continued to mint fractional silver coins until 1964, when high silver prices forced a change to new non-silver alloys (Figs. 29-31). The growing balance of account deficits accumulated by the US during the 1960s and a progressive resurgence of inflation from 1968 onward, led to the complete breakdown of the system of limited convertibility in 1971. From $35 an ounce, gold rapidly jumped to $180 in 1974, then toward $600-700 in 1980. At the same time, inflation picked up: until 1982, consumer prices stood 117% above their 1974 level, implying an average compounded inflation rate of 9% per annum. Inflation was effectively checked by Paul Volcker, the Federal Reserve Bank Chairman. Since that time, inflation has remained subdued in the US.

Conclusion: The Patterns of Inflation

Inflation started with the fluctuations in the supply and demand of monetary metals. When political authorities perceived the interest of striking standard- ized pieces of metals, the debasement of coinage either through changes in weight or alloy became the main source of inflation. The Romans learned to separate coins from units of value, something that provided a new degree of flexibility to monetary authorities and thus promised a great future of monetary manipulations. Increasing the notional values of coins and banknotes became the main source of inflation in the modern and contemporary periods.

Observing the main outbursts of inflation through history provides us with a general pattern: inflation is one of the manners by which states have tended to cope with fundamental budgetary imbalances. It is no wonder that situations of inflation generally occur during or after major external or civil wars. The cases of Revolutionary France, the US Civil War, World War I and II, and a disintegrating Yugoslavia, perfectly illustrate these patterns. The resolution of the most extreme periods of inflation inevitably involves major fiscal reforms and very often regime changes.

That said, inflation does not necessarily lead to the spiraling phenomenon called hyperinflation, with its corollary monetary collapse and rebirth. Various countries managed to address their budgetary issues through moderate inflation and fiscal rebalancing, followed by stricter monetary policies, such as those in Britain after the Napoleonic wars or more recently in the US after World War II or in the early 1980s. Provided it remains under control, a certain degree of inflation may even be desirable since it depreciates the value of idling money and thus encourages investment and activity. The production and supply of goods rose much faster throughout the 20th century than during the 19th century, a century with no inflation and a rather strict adhesion to Gold Standard. As a result, wages and income grew much faster than prices. In 1800, there was no disposable income among the working class: almost all income was spent on basic food and housing. In 2012, about half of the average American household budget goes to food, clothing and housing, showing how the overall level of material comfort has increased well beyond basic necessities. Broadly speaking, the accelerated increase in money supply as the US progressively withdrew from the Gold Standard during the 20th century may have contributed to an unprecedented improvement in real standards of living. The average US real net income has multiplied three-fold from 1800 to 2011 in constant dollars (adjusted for inflation). In other words, incomes rose about three times faster than prices and (some) inflation contributed to America’s success towards material prosperity. The key question for the future is whether the external and budgetary imbalances that have been accumulating as a result of expanding monetary supply will finally lead to a new period of more destructive inflation.
Over the course of the last several months, the American Numismatic Society continued to receive important donations and also purchased items that have been hitherto unrepresented in the collection.

After more than 130 years, the gold “Cleopatra’s Needle” medal, issued by the ANS and the New York City Board of Education in 1881, came back “home” to become a treasure of the collection. It was obtained from the latest Stack’s Bowers sale (Auction 134, January 2012, Lot 6317). More information about this spectacular purchase—probably the only gold example of this issue—can be found in Oliver Hoover’s article in this ANS Magazine issue.

Several interesting gifts for the United States collection recently came to the collection. From Karen Alster we were given an excellent example of a Capped Bust quarter of 1832 (Breen 3904). This coin displays a wonderfully flashing mirror silver, underlining bright rose-orange toning and hints of pale peripheral blue on the reverse. The late Walter Breen noted in his Encyclopedia of US and Colonial Proof Coins that Wayte Raymond had known of only six proofs of this important variety. This glittering example is wonderfully preserved and would rank high on any modern condition census of known normal-denomination proofs (fig. 1). On another coin from Karen Alster’s donation, a Capped Bust half dollar of 1834 (Overtont 120; Breen 4710, proof-like), the date shows staggered digits and youthful features distinguish the bust of Liberty. The distinctive horn-top 5 in the denomination is the result of re-cutting a straight-top digit. The faintest hint of gold, a marvelous strike, and resulting rich detail make this coin a visual standout (fig. 2).

A remarkable Capped Bust half dollar of 1832 (Breen 4638) of 1821 was donated by Barbara Phillips. It is a good example of a “one-sided proof”; the obverse displays the flashing field and needle-sharp, meticulous detail of a true proof coin, while the reverse offers virtually pristine steel blue toning over surfaces that are wonderfully smooth but lacking the mirror reflectivity of a full proof strike. Researchers have long been puzzled over such coins, with some suggesting that the pieces were made for display in old-time coin cabinets with the obverse uppermost. This coin was not noted by Breen and may well be unique (fig. 3). A second coin in Ms. Phillips’ donation is a Capped Bust closed-collar quarter of 1831 (Breen-3913, Proof-63), with large letters. Richly reflective mirror fields on both sides highlight the precise detail of all the portions in relief (fig. 4).

In the US department, we also received an exceptional and beautiful Draped Bust/Heraldic Eagle dollar of 1799 (Breen 5391, Bolender 17a). Unbroken, softly glowing luster places this coin high among the finest known of its date and variety (fig. 5). This handsome coin, as well as a fabulously well preserved Capped Bust dime of 1830/9 (Breen 3185, JR-5), is a generous gift from Rita Shulak (fig. 6).

Another remarkable donation to the US collection came from Dorette Sarachik, a Liberty Seated (no drapery) dime of 1840 (Breen 3228, Ahwash 2; Greer 101). This coin displays a meticulous touch with amazingly precise detail on the main devices, stars and leaves, framed by exceptionally high outer rims. Slight rose-gold and lilac blush make this coin a visual standout (fig. 7). Through another gift of Ms. Sarachik, the ANS obtained an 1861-O Liberty Seated half dollar (Breen-4904). The late Walter Breen enumerated six apparent proofs of this New Orleans date, the year of Confederate secession and take-over of the New Orleans Mint, and also the year of the creation of the rare Confederate half dollar, which used a regular US Liberty Seated obverse die. Our new coin boasts deep rose, light gold, and electric blue toning over its reflective surfaces. The edges are sharply squared, the reading mathematically precise. This coin reveals a few contact marks and hairlines, but maintains its exceptional beauty and appeal (fig. 8).

A curious donation came to the US department from ANS Fellow and Augustus B. Sage Society member Anthony Terranova: a group of ten Colonial-era hand-made iron “10 penny” nails. In this terminology, “penny” referred to the medieval English standard for the number of pennies required to purchase 100 nails of a given size; today nails of this size are still called “10 penny” nails (fig. 9).

Mr. Terranova has also given to our collection of US medals a wonderful example of a silver proof medal minted at the Northwest Territorial Mint in recognition of the 200th anniversary of Henry Clay becoming Speaker of the House of Representatives. Henry Clay was one of the longest-serving Speakers during the nine-
teenth century, and it was he who transformed the role of Speaker into the powerful position it is today. The obverse design of this commemorative issue was inspired by an 1852 medal struck by the Philadelphia Mint to honor Clay and his accomplishments. The reverse side includes a modern description of Clay’s achievements (fig. 10).

We are grateful to have been given, by ANS Fellow and Sage Society member Dr. David L. Menchell, another fine group of American items formerly lacking from the collection. Among these are 2010 and 2011 uncirculated coin sets from the Philadelphia and Denver Mints; two proof silver sets of 2010 and 2011 from the San Francisco Mint; an uncirculated 20 dollars Federal Reserve Star Note (Series 2004A); a US Army commemorative coin program proof silver dollar (fig. 11); and an uncirculated clad half-dollar of 2011 (fig. 12). In 2003, the United States Mint introduced the National Wildlife Refuge System Centennial Medal Series, honoring President Theodore Roosevelt, founder of the National Wildlife Refuge system. Thanks to Dr. Menchell’s donation, we have now completed a set of these medals, each featuring a different animal (fig. 13).

Dr. Menchell also continued to improve our collection of United States Mint congressional medals. Pieces in this gift, analogous to the First Spouse Program gold coins, include medals honoring Jane Pierce, Mary Todd Lincoln, Eliza Johnson, and Julia Grant, as well as the James Buchanan “Liberty” issue and the Edward William Brooke III commemorative. Another interesting example in the group is a silver proof medal issued in commemoration of the tenth anniversary of the September 11th, 2001, terrorist attacks on the United States. Its obverse features Lady Liberty holding the Lamp of Remembrance. Behind her are beacons of light stretching skyward. Liberty, the lamp and the light symbolize not just the immeasurable loss on that fateful day, but also the resiliency and triumph of those who persevered. The reverse depicts an eagle, symbolizing the strength of the survivors, families, and nation, against a backdrop of cascading water, which is emblematic of peace, serenity, healing and the continuity of life. The medal was designed by United States Mint Master Designer Donna Weaver and sculpted by Phebe Hemphill (obverse) and Joseph Menna (reverse) (fig. 14).

From Andreas Jähnig, a prominent contemporary German sculptor, the ANS recently obtained, “Als die Kirche noch im Dorfe stand” (“When the Church Was Still in the Village”), which represents on one side a church with a high steeple that forms the center and focus of the village landscape. On the other side, the same church is dwarfed by city skyscrapers, reflecting the artist’s nostalgic vision of the transformation of a spiritual tradition (fig. 15).

From the Collections Manager

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Fig. 10: United States. Henry Clay Memorial Foundation. 200th Anniversary of Henry Clay becoming Speaker of the House AR Commemorative Medal, by Charles Cushing Wright (obv.). Northwest Territorial Mint, 2011. (ANS 2012.4.1, gift of Anthony Terranova) 49 mm (image reduced).

Fig. 11: The United States Mint and the US Army commemorative coin program. Silver dollar. Proof. Philadelphia, 2011. (ANS 2011.84.119, gift of David L. Menchell) 38.1 mm.

Fig. 12: The United States Mint and the US Army commemorative coin program. Copper-Nickel-Clad 50 cent. Proof. Philadelphia, 2011 (ANS 2011.84.121, gift of David L. Menchell) 30.6 mm.


Fig. 15: Germany. “Als die Kirche noch im Dorfe stand” – “When the church was still in the village”, Andreas Jähnig, 2003. (ANS 2012.5.2, purchase, in part sponsored by Ute Wartenberg Kagan) 77 mm.

Fig. 16: Thessaly. Gonnos. AE trichalkon (6.76 g.), c. 350 BC. (ANS 2012.1.3, purchase) 19.2 mm (image enlarged).

Fig. 17: Thessaly. Gonnos. AE dichalkon (5.21 g.), c. 350 BC or later. (ANS 2012.1.4, purchase) 20 mm (image enlarged).
We have as well been busy making purchases from a number of recent auctions, including CNG-Triton XV (3-4 January 2012), which provided the ANS with a fine opportunity to acquire missing issues from the comprehensive BCJH collection of Thessalian coins. Five coins were acquired for our Greek Department from this sale. They include several rare bronzes—a trichalkon (fig. 16) and a dichalkon (fig. 17) of circa 350 BC or later from Gonnos; an unknown and apparently unpublished trichalkon of the early to mid-fourth century BC from the same mint (fig. 18); and a very rare dichalkon (the “double” denomination according to Warren) of 170 BC from the Thessalian League issue (fig. 19). Another important piece from the CNG-Triton auction is a very rare silver didrachm from Bamblyke-Manbog (Cyrhesh- tica, Syria), dated to c. 342-331 BC. This interesting coin featuring the head of god Atargatis wearing turreted crown on the obverse and an interesting image of the Persian Great King and a driver in quadriga of mules on the reverse (fig. 20).

Another new accession of high scholarly interest, which should be singled out for special mention is a bronze coin of Mithridates VI (120-63 BC) struck in Sarbanissa, a city in Pontus, which prior to this coin was not known to have been minted (fig. 21).

Towards the end of last year, we also had an excellent opportunity to fill gaps in our holdings of Roman Republican coins, purchasing 102 coins from the extensive RBW Collection, offered in the Numismatica Ars Classica Auction 61 of 5-6 October 2011. Among the very rare items acquired are a silver litra (fig. 22) with a head of Janus and prancing horse; a bronze tetrans with C before prow from a Sardinian mint, c. 211 BC; an uncia and a semuncia from Canusium struck around 206-195 BC (Crawford 100/7); and a very rare semis of the staff series, but without the symbol on the reverse (fig. 23). Through this sale, the ANS also obtained other extremely rare items, such as a quadrans with bird and rudder symbol (fig. 24); and a sextans of Valerius, c. 169-158 BC (Crawford 191/5). We also acquired a quadrans of M. CIPI M.F, c. 114 BC, one of three examples known (fig. 25).

Thanks to the generosity of ANS Fellow and Sage Society member Herb Kreindler and another anonymous ANS member, we were able to obtain an additional group of 116 silver and bronze Roman Republican coins from the same sale. Among these are a very rare semis with corn-ear symbol from Sicily (fig. 26); an extremely rare semis of the thunderbolt issue (possibly unofficial) of 206-195 BC (fig. 27); and a sextans of the highest rarity issued by the magistrate M. Tittinius (fig. 28).

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Although a large portion of the ANS Harry W. Bass Jr. Library is naturally focused on numismatic literature, there is a significant portion of non-numismatic resources that complement the collections by providing important supplemental information. There are nearly 23,000 monographs in the ANS Library. (With an additional 24,000 auction catalogs, 8,000 offprints and nearly 2,000 serial titles, each of which contain numerous volumes and issues, the number of physical items in the library hovered around the 100,000 mark). Of these monographs, about one-third are not specifically numismatic, but instead relate to one of many topics that provide important additional information within the related fields of archaeology, economic history, and art history. Additional subjects cover mythology, general history, Greek and Latin texts, and more. Two examples from such non-numismatic subjects will be discussed in further detail here.

History and Art
Of the more important non-numismatic subjects that are relevant to the field for researchers are art and history. As with the rest of the library collections, items acquired within these fields have no chronological or geographical limitations, and cover a wide range of time periods. However, due to the natural numismatic focus of the ANS library coupled with restrictions in budget and space, items in these non-numismatic fields are more selectively acquired. The ANS Library recently acquired, with funds donated by Mr. Kenneth L. Edlow, an important historical reference work on the Civil War. The work is The Photographic History of the Civil War in ten volumes, published in 1911-1912 and compiled by Francis Trevelyan Miller (1877–1959), who brings together some 3,389 photographs along with descriptive text (fig. 1). The photographs themselves are the work of Mathew B. Brady (1823-1896) and his staff and represent the first instance of a comprehensive photo-documentation of a war. The photographs are also important due to the fact they were produced when photography as a medium was still in its infancy. Moreover, the process of producing negatives that could make multiple positives had only just been introduced in 1841 when the British inventor William Henry Fox Talbot (1800 – 1877) had introduced a negative-positive procedure that made it possible for a single image to be reproduced almost unlimitedly, thus allowing for mass copies to be made. This development, along with Frederick Scott Archer’s wet collodion process, allowed photographs to be reproduced and shared with the masses in a new way that older daguerreotypes did not. It was this new process that allowed these horrific pictures of the Civil War to be brought boldly to the public eye (figs. 2, 4-5).

The importance of having a work like this in the ANS Library collections is multifaceted. The Civil War touches on our US numismatic collections, which contain thousands of items from this period, such as (northern) US currency, Confederate currency, encased postage stamps, and fractional currency (fig. 3). Since we are in the midst of the sesquicentennial anniversary of the Civil War, and interest in the War is likely to increase over the next few years, Miller’s compilation will prove useful in providing a fuller picture, quite literally, of the era’s history, particularly the social and political aspects that provide a backdrop to the monetary history.

Dictionaries
In addition to important art and historical references, there is also a substantial section of dictionaries in the ANS Library that can serve as an important guide to coin legends and inscriptions, as well as to understanding the literature on various topics. Dictionaries also address terminology within specific topics, such as Frey’s Dictionary of Numismatic Names or The Oxford Classical Dictionary. The ANS Library contains more than 700 dictionaries that guide readers in more commonly encountered languages such as French, German, Italian, Russian, Latin, Greek, Hebrew, Chinese, Japanese, Arabic, etc., and to less common languages such as Tagalog, Romany, Maori, Ethiopian, Pahlavi, Coptic, and Pali. After an email inquiry, I discovered that we have a very rare Japanese-English dictionary from 1862. Only 18 existing originals are known and the ANS Library copy is only the second known complete copy in the United States. This copy was previously owned by Edward Groh (1837-1905), who served as ANS librarian for a short period from 1864-1865. Groh donated a large number of books, including this dictionary, which was accessioned in October 1902. The dictionary is printed on very fine Japanese paper and contains 953 pages bound into a volume that is no more than 2 inches thick. The book was compiled in Yedo (Tokyo) in 1862 by Hori Tatsnoskay.
a Dutch interpreter with some knowledge of the English language. Since Dutch was previously the dominant western language studied in Japan, the arrival of US Navy Commodore M.C. Perry at Uraga Bay in 1853 brought about a growing necessity for English. It was under these circumstances that Hori Tatsnoskay developed this pocket dictionary. When it was first published in 1863 only two hundred copies of the dictionary were printed and distributed by the government. However, demand proved to be so great that it was revised and published again in 1866, 1867 and 1869.

The title page of the dictionary (fig. 6) gives us some clues about its ownership prior to Edward Groh, who likely acquired it at the start of the 20th century. The red stamp of three Kanji (Chinese and Japanese) characters can be read as “The Army Agency” (fig. 7). This branch of the Japanese Government existed from 1862 to 1869 and must have acquired the dictionary soon after it was published. In addition, at the left top there are four characters written in black (fig. 7). These are read as “Miscellany”, “Twenty”, “Eight” and “Year”, from right to left, respectively. The characters may have been written by a curator of a library in Japan, or another similar institution, at the end of the 19th century, as the 28th Japanese calendar year in the Meiji period (1868-1911) is AD 1895. “Miscellany” could possibly be a classification code of the dictionary for the library or institution. With these clues—the date, and the date of deposit at the ANS Library—we can deduce that Groh must have acquired the dictionary sometime between 1895–1902.

The free endpaper at the back of the dictionary holds additional clues about the provenance of the dictionary. Written in Japanese in a cursive style that is rarely used in the modern period, the black script says at the top right (fig. 8): “to Mr. (or Esquire) Fukuda” and below that: “Mamaru Watanabe.” It is rather difficult to identify these two individuals since Fukuda and Watanabe are common names in Japanese. Nevertheless, we can indulge in some speculation: “Fukuda” could be Mr. Shoji Fukuda, who became president of a school called Hanaura Medical School in 1874. The school was closed in 1883, but many books from the school still exist and are stamped with red characters similar to “The Army Agency.” (Many thanks to Akira Miyoshi, a researcher in Japan, who assisted with deciphering the details of the dictionary!).

The variety of resources at the ANS Library is interesting not only for their contents and wide breadth of coverage, but also sometimes for their own history and provenance. Not only can a wealth of information be found by consulting the many books in the library, but a wealth of information and stories often exist behind the pages and history of the books themselves!
Attempts to summarize and present some of the staff’s ongoing curatorial activities can seem a frustrating effort. All of the ANS staff members are constantly busy, and have little time or occasion to prepare, collect or swap narratives about the many and varied demands on our hours and energies. For the most part, I merely select a few points of reference of which I am readily aware, and essentially let coins in the ANS cabinet “speak for themselves” in the supposition that whatever subjects may have attracted inquiries could well prove interesting to readers.

Some Crusader Coins
Dr. Heather Badamo, a post-doctoral fellow from the University of Chicago, visited the cabinet to study some of the coins of the Crusades. She was particularly interested in an issue of Roger de Hauteville, prince of Antioch (1112-1119), and some of the gold bezants (biçancios) that were minted by the Crusaders in imitation of contemporary Muslim coinage. The former (figs. 1-2) were presumably minted in the old Greek Syrian capital city of Antioch, although this has not been thoroughly established. On their obverse is St. George on horseback to right, riding down and spear-wielding a dragon, with the letters O F E W (or similar) dispersed in the field to left and right. Roughly, with variations, the reverse reads +/ ΡΟΤΖΕΡ/ ΠΙΠΙΤΩΕΙΟ/ ΚΑΝΤΙΟ/ XI (“Roger, prince of Antioch”).

The Nephew and heir of Tancred de Hauteville, Roger was killed in battle by the forces of the Artukid Turkoman Amir Najm al-Din ibn Artuk from Aleppo (Halab). This conflict took place at the Ager Sanguinis ("Field of Blood") (Tel-Aqibrin, near Sarmin), on June 27, 1119. Perhaps something of Roger’s martial spirit can be glimpsed in his selection of the unusual obverse type of his Antiochene coinage. Many of these folles appear to have been overstruck. This issue, probably Roger’s third type, is definitely among the earliest representations of the legendary equestrian St. George and his cross, as both an initial mark in the inscriptions and as a design type. In 1250, the papal legate Eudes de Châteauroux had complained about the Islamic invocation to Muhammad and use of Hijri dating on the coins minted by the Crusaders (Metcalf p. 44-5), so thenceforth (until at least 1258), although coins continued to bear Arabic inscriptions, the Christian proclamation of faith in the Holy Trinity and Anno Domini year reckoning appeared (fig. 3). The coins may have all been minted in Acre (Akka).

Many of the Crusader bezants in the cabinet have been the subject of analytical study (Gordus and Metcalf 1980). The Society holds an excellent collection of the coins of the Medieval Western invaders of the Eastern Mediterranean. It is a pleasure for me to have an excuse (if I need one!) to call attention to some of these pieces. The database catalog has not yet been updated to reflect more recent scholarship in the field. This should provide a fine scope for future work.

Talbot, Allum and Lee, and Who?
An inquiry from ANS Board of Trustees President Roger S. Siboni about mules of the issue led me to investigate the ANS holdings of Talbot, Allum and Lee cent tokens of 1794-95 in the collection. Among the ten “regular” issues of this famous early American piece, I found, for instance, that there are no examples of the 1794 cent (Fuld 1794.1, Breen 1029) without the words NEW YORK on the reverse (called the obverse by Fuld), but there are five of the 1794s including NEW YORK on the reverse, with a large “6” in their legend (fig. 5; Fuld 1794.2, Breen 1029). We also have examples with the small “6” (Breen 1032), of both of the known die varieties Fuld 1794.3 (fig. 6) and Fuld 1794.4 (fig. 7). To my surprise, I found in addition that we have an unpublished variant that I will have to describe in more detail elsewhere! We also hold one beautiful example of the 1795-dated issue (fig. 8).

The generally well-made Talbot, Allum and Lee cents were the products of Peter Kempson and Co., of using their standard Islamic inscriptions, betrayed only by stylistic anomalies and aberrations in their Arabic and lower gold content (fig. 3). Others utilized the same basic elements and Arabic script, but introduced Christian variation in the legend wording and the cross, both an initial mark in the inscriptions and as a design type. In 1250, the papal legate Eudes de Châteauroux had complained about the Islamic invocation to Muhammad and use of Hijri dating on the coins minted by the Crusaders (Metcalf p. 44-5), so thenceforth (until at least 1258), although coins continued to bear Arabic inscriptions, the Christian proclamation of faith in the Holy Trinity and Anno Domini year reckoning appeared (fig. 3). The coins may have all been minted in Acre (Akka).
Birmingham. Like many additional “Condor” tokens, this subject was indebted to muling with other British dies, producing scarcer “collector” pieces. Nine TA&L mules are to be found in our trays, although there are no examples present of the TA&L obverse combined with the 1793 Birmingham, the John Howard, or the 1795 York Cathedral halfpennies. We have five examples, however, combined with the standard “storm” reverse die of the 1793 Hampshire Petersfield issue (fig. 9); of these, three have the LONDON edge variety and two the WAREHOUSE LIVERPOOL (Dalton & Hamer Hampshire 52 and 52a, Breen 1044 and 1043). The cabinet holds only one example of the Blofield Cavalar reverse mule (Breen 1051; D. & H. Norfolk 10), with “vine” or “serpentine” edge (fig. 10), and we have three examples of the Earl Howe reverse muled with the TA&L obverse die (fig. 11). Two of these show the usual cracked obverse die and LONDON edge (Breen 1047); the other is anomalous, now requiring further research, I think.

Unsurprisingly, the TA&L mules had been filed and catalogued in nearly every case as British “Condor” tokens, classified as part of the 18th century provincial series. Thus, they had escaped being photographed as we added images of suites of items to the database (whereas our Early American section had already received attention). Fortuitously, while I was searching out those mules among the trays of British tokens, I also encountered another attractive example of a George Washington ship halfpenny (Breen 1225!)

Papal Issues
This year’s Mark M. Salton Memorial lecturer, Dr. Giancarlo Alteri, Director of the Numismatic Department of the Apostolic Library of the Vatican, visited the cabinet along with Dr. Eleonora Giampiccolo, former ANS seminarian and intern, who now assists him with the Vatican cabinet. Dr. Alteri looked at a variety of items that were of interest, noticed an unattributed Renaissance-period medal in the trays, and volunteered that it was an issue of Pope Paul III (Alessandro Farnese, 1534-1549). Checking further, we determined that it is a badly preserved example of a work by the celebrated Leone Leoni, which evidently was an issue of Pope Paul III’s building projects for the city of Rome.

Questions?
All manner of questions come to the ANS cabinet, from the typical “What is it worth?” perspective to the erudite verification of slight details on specific specimens. We are happy to help inquirers in whatever ways we can. In common with other institutional collections, these days we are finding that, more and more, we must institute charges for services. We are a not-for-profit cultural and educational organization, and we are also a private membership organization, a society that depends upon outside sources of funding for its very existence. Fortunately, numerous inquirers are thrilled with our help, delighted to be able to obtain high-quality images of specimens at relatively modest costs and appreciative of having personal access to a superb collection for study. We invite you to come for a visit to the cabinet or, if you are unable to travel to New York, to make use of our on-line database catalog and other services. Let us know what we can do to contribute to your own enjoyment of the wonderful science of numismatics.

Bibliography


Frank Holt and Osmund Bopearachchi

What follows is not really a review in the usual sense. I am not a specialist in early Hellenistic coinage nor in Greek art, and I do not pretend to be able to evaluate the numismatic merits of the claims made in this book. However, the authors offer some unusual arguments that raise real methodological questions, and it is these, as they apply to numismatics in general, that I address here.

In brief, the topic of the book is the debate concerning a medallion of gold from ancient Alexandria, which was struck in the wake of his victory in India and dug up as part of a huge hoard at Mir Zakah in Afghanistan. Or, alternatively, it is a modern forgery made in that part of the world by a skilled engraver—who had little knowledge of Greek art but was provided with relevant models to follow—and passed off by an unscrupulous middleman as part of the Mir Zakah hoard (see, for example among several, the review of Bopearachchi and Flandrin by Wolfgang Fischer-Bossert in ANS Magazine Vol. 5 no. 2, Summer 2006).

Although the principal authors make clear their position on this question, to their credit they do not refrain from including ambiguous evidence that might plausibly be seen as weakening their case. Holt, for example, points out the peculiar ductus of the AB monogram on the reverse, and the contribution by Maryse Bler-Lemarquand on the elemental composition of the coin concludes that “it is made from an ancient gold core” (p. 91). It is the lengthy essay by Bopearachchi on the Mir Zakah hoard that offers the most food for thought in this regard. The description of his investigations of the hoard, lavishly illustrated with items in the Miho Museum in Japan that Bopearachchi believes to have come from this hoard, clearly documents the tragic toll that decades of war and anarchy have taken on Afghani stan’s cultural heritage. He describes seeing huge quantities of silver and bronze coins from the hoard being sold in Peshawar by the 50-kilogram sack. He includes photographs of the Mir Zakah location itself, and of local villagers with ancient coins they found there. However, in response to those who have questioned the authenticity of some of the items he believes to derive from the hoard, Bopearachchi states, “Any attempt to undermine the results of our investigations serves only to encourage illicit traffic” (p. 60).

This attitude is perplexing. I am not aware of anyone who is arguing that these items are both genuine and legal. So far as I know, everyone would agree with Bopearachchi’s courageous (since it cannot be pleasing to some of his informants) position that these items, including the Alexander coin, if they are genuine, are illicit antiquities recently pillaged from Afghanistan, whose current possessors do not legally own them. The question, rather, considering that Bopearachchi makes it clear that the Mir Zakah hoard has passed through criminal hands on its way to market, is whether the criminal gangs that trafficked these items can be regarded as completely trustworthy.

It is very useful for those who hope to defend Afghanistan’s cultural heritage to have Bopearachchi’s evidence regarding the huge hoard of silver and bronze coins said to have been found at Mir Zakah in the 1990s, and its evident connection with the earlier deposit found there in the 1940s. Much less information seems to be available about the illicit traffic that distributed the more spectacular gold items, although it is the crux of the questions regarding the Alexander coin. Certainly there are craftsmen in the region who produce fake antiquities; are the organized-crime groups that trafficked the Mir Zakah treasure also capable of working with these forgers?

Collecting behavior, at the more expensive end of the spectrum, sometimes seems implicitly based on an assumption that the price elasticity of supply is zero. This is not exactly true, of course. High prices may cause an increase in supply by inciting people to search more assiduously for previously unknown specimens, by fair means or foul, but they may also encourage the fabrication of new forgeries.

Because of this latter possibility it is clear that the evidence of a coin without a well-documented provenance can never be considered fully as reliable as one whose context of discovery is known. This is especially true of unique pieces. If a factory in China produces new 1804-dated United States silver dollars, no experts are deceived; the slightest anomalies are easily spotted in such a well-studied type. Unique items, such as the Alexander coin, present a more difficult problem for the experts. What is really an anomaly on a unique piece, and how many peculiarities are too many?

Holt maintains, in his contribution to this volume, that such artifacts should be assumed to be genuine unless it can be proved that they are not (p. 14). At the same time, though, he uses the term “null hypothesis” to refer to the hypothesis that the coin is a forgery (p. 15). A null hypothesis, in statistics, is the hypothesis of no difference or no effect (e.g., the hypothesis that a particular medication is no more effective than placebo). It is an understandable metaphor to use the term “null hypothesis” to mean the hypothesis that this coin makes no difference to our knowledge of Alexander’s coinage, but it is rather unusual to make a default assumption that one’s null hypothesis is false. For good reasons, the opposite is the norm in most statistical reasoning. If unverified new evidence would make a significant change in what we think we know—and Holt and Bopearachchi seem certain that the Alexander coin does that, although John Boardman’s foreword to the volume is rather hyperbolic (p. 7)—then there are two possible types of error: accepting the new evidence when it is actually false or rejecting it when it is actually true. One would like to minimize both types of error, but controlling the former is usually regarded as much the more important. It is best to assume that an unusual observation is significant in certain highly critical applications, such as quality control of aircraft components, but numismatics is hardly in this category. Any genuinely important conclusion in numismatics will eventually emerge from the overall pattern of accumulated data, even if one or two clues are mistakenly ignored. On the other hand, it can be very difficult to escape the effects of old misconceptions once they have been imprinted in the literature. Thus, it is difficult to commend the authors’ claim that the burden of proof should privilege this single object rather than the whole of the accumulated evidence about Alexander’s coinage. Whatever the judgment of future numismatists will be on this coin, it is unlikely that it will come from the object itself, except in the unlikely scenario that something as yet unconsidered should reveal it to be unambiguously false. Ultimately, any positive advance in our knowledge will have to be based on a wider sample of better-provenanced evidence—something that is, unfortunately, unlikely to come from Afghanistan in the immediate future.
Once more we have new books to announce. In addition to being fine works of scholarship, both are innovative and presented challenges to the production staff to push beyond the limits of our traditional publications. The first of these is Mark Tomasko’s The Feel of Steel: The Art and History of Bank-Note Engraving in the United States.

The Feel of Steel provides an unusual look into the two-hundred-year history and process of bank-note engraving in the United States, a beautiful art brought to its peak in America in the nineteenth century. Part I traces the history, with particular attention to the American Bank Note Company, the small bank-note firms founded after the Civil War, and the Bureau of Engraving and Printing. The decline of the industry in the late twentieth century closes the history. Part II lays out the process of designing, engraving, and printing bank-note-engraved documents. Part III contains an extended discussion of the artwork origins of the picture engraving, information found in few other places. Part III introduces the members of American Bank Note’s picture-engraving department at thirty-year intervals in the twentieth century, shown in group photographs and with an illustration of each man’s work.

This volume is, in fact, a revised and expanded edition of the original Bird and Bull fine press limited edition published in 2009. It has 50% more illustrations than the original Bird and Bull edition, and herein lies the technical challenge in its production. Fine engraving does not lend itself well to the digital press production we generally use for our publications. For this volume our printers have used a stochastic printing method that allows the fine art of intaglio printing, beyond the limits of our traditional publications. The new understanding of the coinage achieved from the die-study then forms the basis for a study of the iconographic commemoration of Faustina in all media throughout the empire. It sheds significant new light on the changing nature of the cult of Faustina during (and perhaps after) the lifetime of her husband Antoninus Pius, on the nature and mechanisms of family commemoration in the Antonine period in general, on the cult of divi and divae, and especially on the role of imperial women, living and dead, in the presentation of the public image of the emperor both in Rome and in the provinces. The book contains illustrated catalogues of the sestertii and aurei in the name of Diva Faustina, including forgeries and a statistical analysis, co-authored with Warren Esty.

Both volumes are available for pre-order and are expected to ship in August of 2012.

Jerusalem is not my hometown, but I feel as comfortable there as I do anywhere in the world. So it was great fun for my wife Jeannie and me to meet up with Victor and Cathy England, Syd and Sharon Martin, Harlan and Pam Berk, Jay and Joanne Galist, and David Sundman for the 2012 Augustus B. Sage Society trip to Israel and Jordan.

Even though I have been to Israel nearly a hundred times since I lived there for the year following the 1967 Six-Day War, this trip was the first time I have ever led a group. We viewed some amazing sights through the eyes of the people who know them best in a country for which millennia has been a world cultural and religious hub for Judaism, Christianity, and Islam.

Here are some of my travel notes:

Dinner Monday night was at the Colony Restaurant located in the renovated Jerusalem Railway Station complex which was used for the old Turkish and British Railroad systems that passed through Jerusalem. There we met our professional guide Uri Feinberg, who had served in Israel’s elite paratroopers.

On Tuesday, after breakfast, we went over to the Old City and began our examinations of the Temple Mount, site of the First and Second Judaean Temples, and the third holiest place in Islam. For a couple of hours we explored the areas around the Temple Mount, including the original main steps up to the Second Temple. 2,000 years ago, Jesus preached on those steps, and other priests and teachers met their followers there as well.

We went up to the Temple Mount, where visitors are strictly limited to very few hours on a small number of days per week. Uri had arranged this visit for us in the Dome of the Rock, also called the Mosque of Omar, is surely the most beautiful building I have ever seen in the world. It is so beautifully built and so well placed, that a person of any religion (or none at all) only needs to look at it to feel its spiritual presence. Unfortunately non-Muslims are no longer allowed inside to view the foundation stone, said to have been the focal point of the First Temple, and the rock where Abraham attempted to sacrifice his son Isaac. A short distance from the Dome of the Rock is the Al Aksa Mosque, said to have been built to commemorate the spot where Mohammed ascended to heaven in his night dream.
I am betting that the reader thinks we put in a pretty good day. But actually we were just warming up for the day’s big feature. Our special guide for the rest of the day was Prof. Dan Bahat, who for many years had been the chief archaeologist of Jerusalem as well as co-director of the Western Wall Tunnel, which travels underground from the Via Dolorosa. It was a real treat to be shown these extensive works with the man who had been on the spot day-in and day-out for years directing the excavations.

Right after an early breakfast on Wednesday, I took the group to a tomb built by Herod the Great for his family members, only a five-minute walk from our hotel. We spent the rest of the morning at the Israel Museum and one remarkable bit of hospitality unfolded after another. First we were met by Haim Gitler, Curator of Numismatics, who showed the group around and led us into the Museum through the entrance to the offices of the Israel Antiquity Authority. We popped in to say hello to IAA chief numismatist Donald Ariel, whose amazing book (soon to be reviewed by this writer) The Coins of Herod (Brill), has just been published. Knowing we were mainly a group of numismatists, Donald invited us to enter the electro-chemically dehumidified security vault in which all of the coins that belong to the State of Israel, including coins from excavations, are stored. It is a small, almost clinically organized room with labeled bins and drawers of paper envelopes; within each one is stored a coin and whenever possible there is a record of exactly where and when this coin was found. From this vault, Haim Gitler whisked us into the dramatically more spacious numismatic vault of the Israel Museum. It was a great thrill even for the non-collectors in our group to pass around and examine trays of some of the rarest and most historic Judaean/Biblical coins ever discovered.

Later we met Dudi Mevorah, curator of Roman art at the Israel Museum. He generously escorted all of us into the Israel Museum’s restoration studios, where, aside from the usual chores, the staff is preparing an exhibit about the life and death of Herod the Great, which will open in January 2013. Herod’s Tomb was built. The exhibit also features Herod the Great’s mountain palace and the site of the Jewish Zealots’ last stand against Roman legions in AD 73. We also visited the beautifully designed, dramatic, and well-stocked new museum and foodcourt at its base, including — can you believe it! — the Masada McDonalds.

After a night at the Dead Sea we departed early Friday for Jordan. We drove south to the Arava Border Crossing and entered Jordan, where we were promptly met by our local guide, Jamil Hahisen, and our military escort (no name, he was not a talker), the latter provided by the tourism division of the Jordanian government. After hours on the road, Jamil wasted no time in showing us Wadi Rum, a gorgeous valley cut into the sandstone and granite rock in south Jordan. The area has been inhabited for more than 2,000 years by various cultures, including the Nabataeans, who left rock paintings, graffiti, and temples. The area today has a certain notoriety because it was the headquarters of the British officer T.E. Lawrence (of Arabia) during the Arab Revolt of 1917. Today, several Bedouin tribes inhabit the area, and we were invited by one of them to have some tea. Afterwards we drove north to our hotel, the Taybet Zaman, one of the best preserved and largest cities near and when this coin was found. From this vault, Haim Gitler whisked us into the dramatically more spacious numismatic vault of the Israel Museum. It was a great thrill even for the non-collectors in our group to pass around and examine trays of some of the rarest and most historic Judaean/Biblical coins ever discovered.

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We spent much of Saturday in Petra, the desert fortress and tombs of the Nabataeans, often referred to as “the rose red city half as old as time” after a line in a poem by John William Burgon. Petra never disappoints. It simply a spectacular place. Incidentally, Petra was completely unknown to the Western world until 1812 when it was opened by Swiss explorer Johann Burckhardt.

Our Sunday drive north took us to the biblical Mt. Nebo and the remarkable Byzantine Medaba Map on the floor of an old church in the town. Gerash was the big stop of the day, one of the best preserved and largest cities from Roman and Byzantine times. The ruins at Gerash easily rival those at Ephesus in Turkey and Beit Shean in Israel. By late afternoon we were on way to Tiberias on the shore of the Sea of Galilee. Here we spent the night.
at the guest house run by Kibbutz Nof Ginosaur. Not only do they offer nice accommodations, but they also run a small museum that focuses on a single artifact: the so-called Jesus boat. A couple of decades ago, during a drought when the Sea (actually a large freshwater lake) was very low, two kibbutz members came across an exposed section of the boat. Because the timbers were exposed, risking rapid drying and destruction, an emergency excavation of the vessel was conducted. Subsequently preserved, reconstructed, and dated to around the time of Jesus, the vessel remains the sole example of an ancient Galilean fishing boat.

Monday morning we visit the ancient synagogue at Capernaum, where Jesus preached. Then we drove up to the Southern Golan Heights. From former Syrian machine-gun nests we were able to look out over the Sea of Galilee as well as half a dozen villages and kibbutzim that Syria lobbed munitions onto from 1948 until 1967.

I was excited that our next stop would be at Sepphoris, where I served as the numismatist during excavations in 1985-7, and again last year in 2011, as part of Duke University's Sepphoris Research Project. Sepphoris is now a national park; it is also the site of Rabbi Yehuda Hanassi’s codification of the Mishna, the Jewish oral law. Some of the most spectacular mosaics discovered in Israel are at Sepphoris. I was pleased to be able to point out the mosaic of the beautiful woman, which had been dubbed the “Mona Lisa of the Galilee” on the front page of the New York Times when it was discovered. By coincidence, I was visiting Sepphoris during the 1987 season just as this amazing mosaic was uncovered.

On our way to Haifa everyone was put into an even better mood by a visit to the boutique winery Somek, for a tour and tasting. Somek is in the residential neighborhood of Zichron Ya'akov, one of the first communities established by early Zionist pioneers. Barak, the proprietor, is among the fifth generation from this town, and his was a family of grape growers and wine makers. After a discussion and tasting, every household in our group shipped home a sampling of Somek’s best red and white wines.

Our last night in Israel was spent in Haifa, where we visited the colorful and elaborate Ba’hai Gardens and Shrine on Mt. Carmel. Our last day in Israel was another busy one. We drove to Akko (Acre) on the coast and where we found Danny Syon waiting for us. Danny is the chief scientific officer of the Israel Antiquities Authority, and a principal excavator of the Crusader City of Akko. His amazing tour took us through tunnels and passages, many of which are closed to the public. We also viewed the Ottoman Fortifications and finished with lunch in the Akko Marketplace, which is so well known for its amazing humus that nobody seems to know its name except for “the humus place!”

We spent our last afternoon on the beach at Caesarea, and for the first time during our late-winter stay we experienced some nasty weather—cold biting winds—so we made our way to Tel Aviv where we had a farewell dinner at Maganda in the Yeminite Quarter.

Should the reader assume from the above that we saw a lot of fascinating things, ate good and interesting food, and had wonderful conversations over a few (!) bottles of wine, the reader would be correct. Indeed, these are some of the benefits of joining the Sage Society!

The Augustus B. Sage Society is an intimate and vital group of serious numismatists. To commemorate the spirit of the earliest ANS meetings, a unique level of membership named after one of the Society’s original founders, Augustus B. Sage, was established. Sage members enjoy benefits including receptions, lectures by leading specialists, travel opportunities, private curatorial consulting, use of the beautifully appointed Sage Room at ANS headquarters and much more. For more information, please contact the Membership Office at 212-571-4470 ext. 117, membership@numismatics.org.
### ANS Lectures and Events

On February 23rd, 2012, Dr. Richard G. Doty, Curator of the National Numismatic Collection at the National Museum of American History of the Smithsonian Institution, received the 2011 Huntington Medal Award. The award is conferred annually in honor of the late Archer M. Huntington in recognition of outstanding career contributions to numismatic scholarship. Dr. Doty also presented the Silvia Mani Hurter Memorial Lecture entitled "A Remarkably Close Fit: America's Money and the Civil War." Many thanks and congratulations to Dr. Doty!

On February 27th and March 2nd, Curator of North American Coins and Currency Robert Wilson Hoge traveled to Spain as a guest lecturer for the Department of Art History at the University of Barcelona. There, he presented two talks in Castilian entitled Coleccionismo numismático: historias de coleccionistas, colecciones y conocimiento in a seminar called Monedes, Medalles i Col.leccions—part of a graduate level course taught by Dr. Immaculada Socias i Batet. Other co-speakers for the seminar were Catalan numismatic scholars Dr. Miquel Crusafont i Sabater, President of the Societat Catalana d’Estudis Numismàtics, and Dr. Marta Campo, Conservadora en cap del Cabinet Numismatic de Catalunya at the Museu Nacional de Arts de Catalunya (MNAC). Members of the public were invited, attendance was substantial, and the classes were considered a significant success in introducing numismatics to the university audience.

On March 7th Stefan Heidemann presented a lecture entitled "The Wrapped Coin: The Ritual of Coin Giving in the Early and Middle Islamic Period" which focused on the cultural context of these coins and the custom of using coins, in many cases special issues, as presentation pieces.

Prior to the lecture, a special ceremony was held for the donation of a rare and unusual Umayyad silver dirham to the ANS cabinet. Long-time ANS Member Hon. Robert H. Pelletreau, Jr. presented the coin in honor of Dr. Michael L. Bates, ANS Curator Emeritus of Islamic Coins, in recognition of his many valuable contributions to the field of Islamic numismatics. Dr. Bates spoke briefly about the historical context of the coin and its attribution.

On March 12th, the ANS hosted the Mark M. Salton Memorial Lecture with Giancarlo Alteri, Director of the Numismatic Department, Vatican Library. Dr. Alteri and his assistant Eleonora Giampiccolo (an E.P. Newman Summer Seminar Alumni) presented a brief history of the papal medal, from the beginning until the pontificate of Benedict XVI, focusing on the artists who made the papal medal a great form of art, and on the medal as an important propagandistic instrument of Papal activity.

### Global Kids Visits the ANS

The ANS was delighted to host a group of students from Global Kids, a non-profit educational organization for global learning and youth development focusing on leadership, participation in the democratic process and success at school. ANS Adjunct Curator of Roman Coins Gilles Bransbourg spoke with the students on the theme of "Coinage and Ideology". Using items from the ANS Collection to illustrate, Dr. Bransbourg discussed regime change by focusing on the evolution of the Roman coinage as the Republic became Imperial and then turned into what we call the Empire. He discussed religious change by going through the mutations of the Roman coinage during the 4th century AD and he highlighted race issues using selected banknotes from the European Colonial era as well as from the Confederation of the United States from the time of the Civil War. The students were very inquisitive and left the session having discovered new concepts, raising their awareness of importance of history and the fact that ideologies are not reserved to modern societies, but thrived in ancient societies as well.

### ANS Hosts AIA Young Patrons

On March 27th, the Young Patrons of the Archaeological Institute of America, a special membership group designed for those aged 21 through 39, visited the American Numismatic Society. ANS Executive Director Ute Wartenberg Kagan and ANS Deputy Director Andrew Meadows treated the group to a behind-the-scenes tour of the Society and a viewing of some outstanding specimens of ancient Lydian, Greek, and Roman coinage from the ANS Collection.
Robert Wilson Hoge Appointed to CCAC

The United States Mint has announced the appointment of ANS Curator of North American Coins and Currency Robert Wilson Hoge to the Citizens Coinage Advisory Committee (CCAC), filling a vacancy created by the expiration of the appointment of ANS Past President Arthur Houghton. This committee appointment is designated for a member specially qualified because of his education, training or experience in numismatic curation.

Mr. Hoge has served as curator of North American Coins and Currency for the American Numismatic Society since 2001. He is an author and columnist for the ANS Magazine, as well as a frequent lecturer in the field. In addition, he is the current president of the New York Numismatic Club. From 1981 to 2001, Hoge served as curator for the Money Museum of the American Numismatic Association (ANA), in Colorado Springs, Colorado, where he also managed the ANA’s Authentication Bureau and served as a columnist and contributing editor of The Numismatist.

The CCAC, established by an Act of Congress in 2003, advises the Secretary of the Treasury on theme or design proposals relating to circulating coinage, bullion coinage, Congressional Gold Medals and other medals produced by the United States Mint. The Mint, created by Congress in 1792, is the Nation’s sole manufacturer of legal tender coinage and is responsible for producing circulating coinage for the Nation to conduct its trade and commerce. It also produces proofs and other special issues for coin and bullion collectors.

The CCAC makes recommendations to the Secretary of the Treasury and advises on events, persons or places to be commemorated, as well as on mintage levels and proposed designs. The CCAC is subject to the authority of the Secretary, and submits an annual report to both Congress and the Secretary of the Treasury, describing its activities and providing recommendations.

New Staff

The American Numismatic Society is pleased to announce that David Alexander, a long-time member and Fellow of the Society, has joined the staff as Heritage Auctions Research Fellow. His responsibilities will involve cataloguing and researching the ANS collection of over 100,000 U.S. and foreign medals. David Alexander is one of the leading authorities on medals in the U.S. He worked for over two decades at Stack’s and has just joined Heritage Auctions as Senior Numismatist. His part-time work at the ANS, which is generously funded by Heritage Auctions, will initially focus on some of the uncatalogued items and new acquisitions.

David is a 25-year member of the American Numismatic Society and was made a Fellow in 2008. He has presented papers at the 1999 and 2005 ANS Conferences on Coinage of the Americas. David’s book American Art Medals, 1909–1959, Circle of Friends of the Medalion, Society of Medalists was published by the ANS last year to much critical acclaim.

“We are truly delighted to have David join us on a formal basis”, said Dr. Ute Wartenberg Kagan, Executive Director of the American Numismatic Society. “He has always been one of our most valued volunteers, when we needed help in recent years. It is hard to imagine a more expert cataloguer or better friend. We are so grateful to Heritage Auctions and Greg Rohan, Steve Ivy and Jim Halperin for their support of the ANS and of David.”

Robert J. Myers

April 12, 2012

It is with sadness that we learned of the death of longtime ANS member Robert J. Myers, who passed away at the age of 77 on February 14, 2012. A member since 1966, Bob is remembered for his robust and inquisitive spirit that found expression in a wide range of professional and personal interests, as well as for his generosity. His donations to the Society over the years included, among other things, a significant contribution of Greek Imperial and Byzantine coins in 1975—the year he became a Society Patron—and a number of ancient Greek and Roman forgeries in 1991. Among the projects that he was involved in at ANS was the photographing of coins for two books—Early Greek Coins from the Collection of Jonathan P. Rosen by Nancy M. Waggoner (1983) and The Arthur S. Dewing Collection of Greek Coins by Leo Mildenberg and Silvia Hurter (1985)—photography being just one of his many side interests.

Bob had two primary careers—biochemist and coin dealer-appraiser—the roots of both traceable to his earliest years. What began as tinkering at age 10 in a home chemistry lab would eventually lead to his work as a medical researcher at Cornell Medical College, a job he held until the mid-1970s, when he left the scientific life behind in favor of numismatics. He had bought his first coin, a bronze of Augustus, at the age of 13, and a few years later, with his collection of mostly of ancient coins growing and the first volumes of his numismatic library in place, he and a fellow Indiana University student opened a coin and stamp shop. Later, having established himself and his library in a New York City railroad flat, he began cataloging coins for clients, ultimately deciding to hold his own auctions and eventually issuing 13 catalogs under his own name. Characteristically, he elected to call the auctions himself, an endeavor that benefited greatly from his off-Broadway acting experience, just another of his secondary pursuits.

-David Hill
Contributions February 2nd, 2012 through April 11th, 2012

TOTAL CONTRIBUTIONS $181,511.30

GENERAL FUND $179,706.30

General Contributions $57,406.30
Gala 2012 Auctions $5,000
Gala 2012 Tickets $3,000
Gala 2012 Sponsorships $50,000
Gala 2012 Program Advertising $2,350
Sage Dues $61,000

RESTRICTED FUNDS $1,805

Harry W. Bass, Jr. Library Fund $1,555
Digitization Project (MANTIMS) $250

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