



# NEWSLETTER

The Journal of the London Numismatic Club

*Honorary Editor*

Peter A. Clayton

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## **EDITORIAL**

The Committee of the Club apologises to the members for the long interval that has elapsed since the last issue of the Newsletter in February 1993. Our Joint Honorary Editors, Sue and Marcus, had hoped to be able to produce an issue during that time, and certainly in time for the AGM earlier this year, however pressure of other things precluded them from achieving those aims. The present editor, who took office at the AGM in March, subsequently received all the outstanding material gathered over the last two years by them, with no editing or input being available. It has therefore meant starting from scratch on the material for this issue when the material was received in April. To bring things up to date, the President's Address to the Club at the AGM in March this year is printed first, and then followed by all the earlier material to hand. The next issue of the Newsletter will therefore be able to start from talks delivered in February this year.

In order to try and achieve credibility with, hopefully, future advertisers and get this issue out as soon as possible, advertising has not been pursued as normal. We hope that, in being able to show a current issue of the Newsletter to potential advertisers we shall be in a better position to secure their advertising and thereby revenue for the next issue.

The Newsletter has been issued sporadically in recent years when Sue and Marcus had enough material available for an issue. If the Club is to have a Newsletter issued on a more regular basis there has to be material to put in it. The content is largely reports or resumes of talks given to the Club, hopefully from a script supplied by the speaker or from a willing scribe in the audience on the night. Other inclusions depend entirely on you, the Club members, sending copy to the Editor. Please remember this when attending Congresses and other numismatic events and write a piece about it if you think it will be of interest to members; notes on coins or series, reviews and other news are always welcome and all goes to make up your Newsletter.

P.A.C.

## **THE PRESIDENT'S ADDRESS**

DELIVERED BY PETER CLAYTON TO THE LONDON  
NUMISMATIC CLUB AT THE AGM ON THURSDAY, 9 MARCH 1995

This past year, like so many of those enjoyed by the members of the London Numismatic Club, has been an active one with excellent lectures. In June we continued the experiment started the previous year of holding our June Meeting in the afternoon at the London Coin Fair in the Cumberland Hotel, by kind invitation of Howard and Francis Simmons. We heard Roy Ladell speak about Coin Weights, a most appropriate choice of subject in the light of the then recently published "weighty" volume on the subject by Paul and Bente Withers. July saw our own member, Dr David Rogers address us on a subject for which he is well known, Hammered Halfpennies and Farthings. Our September meeting was an intriguing excursion into East and West presented by another of our members and a past-President, Tony Holmes, who took Arab and Western Coinages: Their Mutual Influences, as his topic. In October unfortunately Michael Broome was unable to be with us and Joe Bispham nobly stepped into the breach at very short notice to present a paper on Edward VI, an area of numismatics where he has very special expertise. We had the honour of welcoming again in December the former President of the Royal Numismatic Society and British Association of Numismatic Societies, David Sellwood, who presented us with A New Look at the Parthians, and, not least, a new look at himself in one of the slides making obeisance at the foot of a Parthian relief. In January, our Librarian, Philip Rueff, led another of his library evenings which gave rise to much valuable discussion on the future of the library, the results of which are before you this evening for comment and decision. Last month, February, yet another of our members, Hugh Williams, addressed us on the subject of the British usurper emperor Carausius, a subject close to his heart and one where he has done deep study. August was, as usual, our Members' Own

Evening, an occasion over which the Committee usually worries but, in the best theatre tradition, is always "alright on the night". In addition, we had our two Club auctions, numbers 89 and 90, in May and November, once again under the able direction of David Sealy, who also doubles as our Programme Secretary and was responsible for gathering the array of speakers and lectures just recalled. You will notice a very special aspect regarding the lecture programme that I have just recounted - we had a total of seven lecture meetings and over half were given by our own members. We can be proud of ourselves as a "Club" and of the numismatic expertise that we can muster in not only our own members addressing us but also so many of whom take the time and trouble to visit other societies and speak.

In April last year the BANS Annual Congress was held in London, hosted by the British Numismatic Society. Only the previous week, on 28 March, Robert Bridge, our President from 1967 to 1973, celebrated his 90th Birthday. The Committee, in the name of the Club, could not let this pass unnoticed and so discussions were held with the Director of the BNS to mark this momentous occasion appropriately at the Congress. Without Robert's knowledge (although we knew he intended to attend) the BNS agreed to host a sherry party in Robert Bridge's honour before the Congress dinner. The Club's part in this was for me to design and have made a special birthday cake to mark the event. Taking a leaf from heraldic vocabulary, a large iced sponge cake was specially ordered from Simmons of Hatfield (Bakers) with a motif as a rebus, i.e. a pun on Robert's name. His interests lie in Byzantine and Roman coins and so the reverse type of a sestertius of Trajan was chosen showing the Danubian Bridge (hence the pun) as the centre piece cleverly reproduced in the icing. His abbreviated Christian name was given above as Robt with the Roman exhortation in the icing VOT XC - MVL T C (Votis 90, Multis 100 - celebrating 90 years and looking forward to 100). Beneath, the initials BANS and LNC signified his connection with the BANS as Treasurer for

many years and his Presidency of the LNC. Not only was the cake a great success, it was a complete surprise for Robert. David Sellwood then presented Robert with a suitably worded scroll to mark the event (David's fine calligraphic hand is well known numismatically). The occasion was attended by a large number of members of the Club as well as, obviously, so many of Robert's friends from the numismatic world. Photographs of the cake and the occasion as I presented the cake and Robert cut it are in the Club's archives.

And now to bring us to this evening. When the Club elected me as its President in 1987 I quoted the Harrow School song, subsequently used by Alan Bennett as the title of a play and also taken over by a number of schools, including my own. It begins: "Forty years on when afar and asunder, parted are those who are singing today", and it was more than appropriate at that point since the Club later that year celebrated its own 40th Anniversary. There are still some of us here who were present at its 21st Anniversary held at Williamson's Tavern in the City of London. It is not long now before we shall be looking at preparations for our 50th, the Jubilee. Tonight I step down as your President, not through any loss of interest in the Club but because I feel that it is more than time enough for me to make way for other worthy members to fill that office. You have done me the honour of electing me to that office annually for a total of eight years - in fact, after the late Clifford H. Allen who held office for ten years (1957-67), it is the Club's longest Presidency, and I thank you for your confidence in me and support. Once again, "Forty years on" is appropriate tonight since I calculate that I have been a member of the Club for just a little over that span, having been introduced to the Club in 1954 by the late A.W. "Pop" Jan, the well-known collector of 18th century tokens. I have served in various offices over the years, principally as Librarian after Mrs Johnson and also as Newsletter Editor in the days when it was simply typed and cyclostyled. If it is your wish in the elections later this evening, I shall take up that post again, giving Sue and Marcus a

rest after their decade in office.

At the conclusion of this meeting, assuming that the Club endorses the names put forward for office on the Agenda, I shall have great pleasure in investing Anthony Portner with the London Numismatic Club's badge of office, a splendid jewel that was presented to the Club by Mrs Doreen Turner in 1976 in memory of her husband, Norman Turner who sadly died that year just before he could take office as President. Such is the longevity of many members that there are still among those present here tonight, along with me, several who remember Norman with affection as a friend and as a most able Secretary, and subsequently Deputy-President, and also his remarkable collection of English shillings. We still honour him with our bi-annual Norman Turner Memorial Lecture.

In conclusion, it falls to me to thank simply but sincerely all the members of the Committee who have stood alongside me over the course of eight years in office and especially to note in this last year the support of Anthony Portner as Deputy-President in the latter months of last year when I was away for almost two months lecturing in Australia. Thanks also to Stella Greenall as a cheerful and ever efficient Secretary, even despite her nasty accident late last year; to Paul Edis who keeps us financially sound as Treasurer; to Philip Rueff who struggles against adversity in managing our books in difficult conditions and who has produced the splendid list of library holdings this year; to David Sealy as Programme Secretary (and I know he already has our next season's talks well in hand) and for running our auctions; to Sue Tyler-Smith and Marcus Phillips our joint Newsletter Editors, and to the other members of this year's Committee, Niall Fairhead, Nash Patel, Denise Robins and Hugh Williams. Like so many other numismatic clubs and societies, we all are noticing the general decrease in numbers, but we are holding our own with a membership of 74, although we shall always welcome new members of any age and collectors of any series.

The Club's 50th Anniversary, our Jubilee, falls in just over two years, and it is not too soon to begin thinking about how we intend to mark this milestone in our history. Let us hope that it will be met with an increased membership and, following the Roman precedent mentioned earlier, with the fervent wish and hope of *Multis L, Votis LXXV*.

### **London Numismatic Club meeting, 8th September 1992**

Roy Ladell spoke on "Weighing Coins".

A superb display of coin weight and of coin balances of different designs, was a most striking feature of the evening. Most of the coin balances were in their original cases, and several were also equipped with a full set of the weights they used. Material advertising the makers of the balances, several from the seventeenth century, was also included in a most unusual and comprehensive exhibition of material.

The weights displayed included several for nobles and angels of Edward III, Henry V and Henry VI; weights for Henry VIII included one stamped with what appeared to be a sovereign penny punch; weights made in Scotland for English gold coins were shown, and also several Antwerp weights stamped with the hand symbol. The slides also showed up details of a range of James I weights included in the display, including some with the ewer mark of the Founders' Company which authenticated weights. The speaker also pointed out several different attitudes on the weights for angel coins, and showed different weights for fractions of moidores and Johannes coins in common use in this country in the eighteenth century. Amongst many interesting weights and balances from the nineteenth century was a Wilkinson self-opening balance, a Harrison sovereign rocker, and a thickness gauge invented by R. Henry.

After a lively discussion Peter Clayton thanked the speaker, with especial praise and thanks for the care taken to give the Club such a wonderful exhibition of his superb collection.

**London Numismatic Club Meeting, 5th May 1993** David Sellwood, former President of the Royal Numismatic Society, spoke on "The Introduction of Machinery in European Mints".

David Sellwood began by showing a familiar slide of a medieval mint illustrating the hammer method; an account of this method, written in 1617, showed a total of 27 operations - rods were cast, annealed, chopped up into bits which could be beaten into a round flan - which required 6 or 7 annealings - then striking the flan between two puncheons, held with two fingers round the lower, and two round the upper to ensure good alignment; then weighing, checking the mark-up to ensure a profit for the issuer. Clearly production by machinery was cheaper.

Machinery was developed first in Italy; Bramante in the 1480s devised a screw press, and thence Leonardo's machine (illustrated in Denis Cooper's *The Art and Craft of Coin Making*) described and utilised by Benvenuto Cellini. Here the dies were aligned by horizontal bars. Leonardo also made the important point that a constant diameter required control of thickness of the flans to secure a constant weight and value. The pressure exerted was much more even and steady than by hammer; a 2Ib hammer can produce a force of some 7 tons, much less under control than that of the swinging arms shown in Leonardo's screw press, but producing a better result from the engraved die. The 'pastry cutter' was also suggested at the time.

Punching out flans by machine is shown in Pantheo's book of 1519 - referring back to the 1480s; this had a much coarser thread on the screw; a half-turn would punch out a blank, with a return spring to carry it back to the starting position.

Henry VII employed Alexander of Bruchsal and, looking at the edges of his portrait testoons, it seemed likely that the blanks were produced by a screw press. Another very fine coin of Lorraine, 1473-1508, showed a very slightly double struck edge implying a machine was



used; medals today had to be annealed, restruck, squeezing out the metal. David Sellwood observed that he had no evidence that this piece was machine made except by observing it. Striking a half-pound piece by hammer made it very difficult indeed to secure a continuous impression over the whole flan; the Oxford and Shrewsbury Civil War mint coins were obviously hammered. Similarly, the 1509 coins of Maximilian, would be virtually impossible to produce by hammer; furthermore, the remarkable engraving of the 1500s Saxony coin, showing a very great depth of relief, would be impossible to raise with one or even two blows, nor was there any sign of double striking. These were, of course, very rare prestige pieces so great care would be taken with them.

In 1527 Charles V's army sacked Rome; in 1540 his son Philip II became ruler of Milan and Naples, marrying Mary Tudor in 1556. A coin with the most unlikely legend "Hilaritas Universa" of Philip II as King of Naples and Milan showed a very high standard of engraving, but the mints in Milan were resisting machinery - in 1554/5 this was still produced by hammer. About 1547 Henry II of France heard of Schwab's experiments in Augsburg and sent his mint-master Olivier to investigate them; from about 1549 the 'balancier' with a swinging arm producing a very large kinetic energy was adopted. It had a coarse screw, not rigidly connected to the square upper die which was constrained by guides so that it did not rotate but moved vertically only; however, the problem of uniform thickness was unsolved. If the roller for a 1mm thick coin is 1/10mm out, the thickness varies by 20%, which was unacceptable so that although the coins looked superb they were unsatisfactory and the method was abandoned for gold and silver, though not for copper whose fiduciary value was much greater than that of the metal, so variations didn't matter. Elizabeth I employed Eloye Mestrel to install a similar machine, but the variations of thickness were still a problem; the majority of English coins continued to be hammer struck. The Papal mints of Italy were still not using machines even in the 1590s, though by 1629 Papal coins were

machine made.

Rule of Central Europe was given to Ferdinand by Charles V at his abdication. A thaler of 1564 made at Hall on a newly introduced machine, a roller press, was shown. As only a portion of the blank was being squeezed under rollers at any one point, much less force was needed. However, first results by Rohrdorf were disappointing and the method was abandoned; but a version produced in 1565 by Stampfer in Switzerland was very much better; a 2-angel thaler produced by his son might perhaps represent the best results ever produced up to that time for depth of relief.

Ferdinand next employed Söller, who came to England with his workmen to melt down the debased coinage of Elizabeth I; not understanding the dangers involved most of them died - or were charged with forgery. The problems of rolling even-gauge strip were still not resolved; even by 1617 Briot had not solved it. The mint at Hall was much more successful; in the 1580s German engineers brought to Segovia machinery powered by an undershot wheel which ensured that this mint was more successful than the other Spanish hammer mints. The rocker press employed the same principle as the roller - the upper die rocked over a static base; dies impressed a strip from which coins were then chopped out with a 'pastry-cutter'. A 1616 coin of Maximilian produced in this way was technically very good though slightly bowed; also the double thaler of Leopold and Claudia, a superb prestige-issue coin, was shown. The Taschenwek Mill such as that in Kremnic used engraved curved dies mounted on a square shaft; engraving dies on a cylinder was very difficult. Pieces were rolled onto a strip then sheared. A coin of Saxony was shown whose edge was not a circular arc, i.e. it was not machine blanked, but edge hammered.

Briot initially worked for Louis XIII. The French mint also had the problem of controlling thickness; the huge gold Louis d'or coins were made on the balancier, and were of a satisfactorily even thickness. This became the standard method in France, and also in England after the Civil

War, the Roettiers' crown for Charles II was a good example.

Two other methods used were illustrated. The first showed Leonardo da Vinci's idea of dropping a weight from a height onto a flan; this was adopted in Russia, and seemed to have worked reasonably well. Secondly, trip-hammers driven by a cogged wheel, pushed around by men, by a horse, or driven by water, were used for striking the large Swedish plate money.

Finally, we saw a slide of the balancier machine in use in 1809 at the Tower Mint, showing the long thongs on each arm.

A lengthy discussion followed on many aspects of the lecture. SG

### **LNC AT THE CUMBERLAND HOTEL, THE LONDON COIN FAIR, 5 June 1993**

At the suggestion and invitation of Mrs Frances Simmons of Simmons & Simmons, the organisers of the highly successful London Coin Fair, the London Numismatic Club held its June Fair during the afternoon on 5th June. This gave a number of members who live outside London and do not relish an evening journey to our usual venue, the Institute of Archaeology, the opportunity to enjoy the coin fair and a Club meeting. The meeting was open to all attending the Fair, and a large audience of over fifty people assembled to hear the LNC's President, Peter Clayton speak on "Finders, Keepers? Treasure Trove and the Law". Since he is not only a numismatist but also a qualified archaeologist, the Chairman of the Antiquities Dealers Association, president of several archaeological societies and an advisor to a number of museums, he is uniquely placed and much concerned with the subject from many different angles.

Peter outlined the present position regarding the law of Treasure Trove and also looked at some past and more recent discoveries that were subject to the law and also some major finds that were outside the law but needed to be protected so that they did not go unrecorded. These were all

illustrated by a fine series of his colourful slides.

The law of Treasure Trove is one of the oldest extent on the statute books of England. It was introduced under Henry II in the 1170s as a means of augmenting the Royal Exchequer. Basically it stated that any objects of gold, silver or bullion that were found became the property of the Crown if it was shown that the said items had been concealed with intent to recover and the original owners could no longer be traced. Items of the metals stated shown to have been lost or deliberately abandoned , e.g. deposited in a burial or a votive offering, are not Treasure Trove and become the property of the finder.

The law as now administered is governed by the Coroners Act 1984 and the Coroner decides when items are reported whether they should be the subject of an enquiry, with a jury if deemed necessary. The two exceptions outside the law as it stands are the Duchies of Cornwall and Lancaster. It is required that a finder reports the find to the proper authorities and, if the items are subsequently declared to be Treasure Trove and retained by a museum, the finder (not the landowner) received a reward amounting to the current market value of the items concerned. Such rewards, since 1 April 1993, are paid by the Department of National Heritage (previously the Treasury paid). The value is determined by a Treasure Trove Committee set up in April 1977 that first met on 2 June 1977; it consists of a chairman and three other persons of appropriate qualifications or status. Concealment of Treasure Trove is an offence under section 1 of the Theft Act 1968.

There is a Bill before Parliament, probably to be introduced in the next session, sponsored by Lord Perth with the support of the Surrey Archaeological Society and the British Museum to reform the law of Treasure Trove. Essentially it widens the declaration aspect to include all items of historical interest and not simply those of precious metals. The question of ownership is also under discussion but the important aspect is that requiring the reporting and recording of all such items.

The colour slides shown ranged over past finds of the Bronze and Iron Ages, including the strange stories of the Mold gold cape and the Rillaton gold cup, to the recent hoard of over 150 Celtic precious metal and bronze torcs from Snettisham. From Roman Britain there was the great Mildenhall silver table service, the Water Newton early Christian silver, the Thetford hoard of silver spoons and gold rings and the more recent great Hoxne hoard of jewellery and over 14,000 gold and silver late Roman coins that will be the subject of a Treasure Trove Inquest in September. A splendid object of enamelled bronze (and therefore not the subject of TT) was the Elsenham pyxis only just saved from being exported and now donated to the British Museum by the British Museum Society to mark the Directorship of Sir David Wilson.

The premier Anglo-Saxon find was the rich Sutton Hoo ship burial from near Woodbridge, excavated immediately prior to the Second World War. As a burial, possible of King Raedwald, c. AD 625, the magnificent finds belonged to the landowner, Mrs Pretty, who generously donated them to the British Museum. Another magnificent find of recent years was the Middleham Jewel, a 15th century lozenge-shaped gold reliquary case set with a large blue sapphire and engraved with scenes of the Nativity and Crucifixion. Declared not to be Treasure Trove since it had obviously been lost by its previous owner, king or high churchman, at auction it had fetched £1.2 million, was bought anonymously only to resurface some years later when an export licence was applied for and refused. Eventually, through government finance and public subscription, it was saved and is now in the York Museum.

The talk was very well received and question time afterwards went on for long period. Peter was joined here by David Sellwood, a past President of the Royal Numismatic Society and a currently serving member of the Treasure Trove Committee. The meeting was a great success and thanks were expressed to Frances Simmons for her generosity in making the venue available. It is anticipated that the LNC June meeting

will follow this lead in future years with an afternoon talk on a topic that has numismatic and also wider antiquarian appeal.

[Note. The Hoxne hoard was declared to be Treasure Trove at the Coroner's Inquest at Lowestoft on 3 September 1993. It was subsequently valued at £1.75 million and acquired in its entirety for the nation by the British Museum.]

## Jettons and Medieval Computing

Dr David J. de S. Rogers

Of almost all numismatic related items, jettons have been very poorly catalogued. There are few good books and those are either expensive or out of print. Others are inaccurate, incomplete or poorly arranged. The problem is that most jettons were base metal and have much less interest to the casual observer than gold and silver. This has left them as the poor relations in the field and it is certainly an undeserved position. Jettons were essential tools for everyday and government mathematics. They may be explained by asking: How do you add 4 to 6 or 9 to 21 and what are the totals? These are very simple questions today, but before the introduction of Arabic numerals the answers could not be easily obtained. Few people had the benefit of a formal education to modern primary school level and medieval mathematics for numbers over ten was too complicated and advanced for most children, even today. The reason for this becomes clearer if the numbers are written as they would have been at the time.

How do you add  $i v$  to  $v j$  or  $i x$  to  $xxj$  and what are the totals? Notice that the Roman numeral for a unit appears either as an  $i$  or as a  $j$  according to the position. These were not different letters, just that a letter-numeral  $i$  was written with a long tail if it came at the end of a number. Also, in the numbers four and six, the numeral  $i$  may mean a positive unit added to the  $v$  or a negative unit subtracted from the  $v$ . As a result, Roman numerals are not written in neat columns with the units one

to nine written above each other in convenient single files of units, tens and hundreds. Instead, the counting board was arranged in columns that represented singles (i), tens (x), scores (twenties or xx), hundreds (c), five hundred (D) and thousands (M). If the calculation involved money, the columns worth more than scores of pounds (£xx) were rarely needed and columns for the shilling and pence were added instead. Most counting boards only required five, or fewer, columns. The Exchequer did use the eight by eight board that we would now call a chess board, but the Exchequer dealt with very large amounts of money and all their accounts were cast up in triplicate to ensure that the calculations agreed on each of the three boards. This required a special cloth with three counting boards side-by-side and was probably the origin of governmental demands for documentation in triplicate, red tape and worse.

Columns used for pure maths:            M    D        c        xx x            i

Columns used for money:                **£xx** **£x**        **Li**    **s.**    **d.**  
Fractions  
lay in this margin

At first, it may seem unnecessary to have had the column for scores (twenties) when you could put three or four counters in the tens column. That ignores the value of the money before 1600. Even ten pounds was a small fortune and it was very necessary to keep the numbers of jettons smaller in the higher value positions. It was not too serious if a jetton fell from the penny pile into the shillings, but it would have been much too expensive to have this happen amongst the pounds. (1) This arrangement explains the language used in English translations of the Bible. 'Three score and ten years' was a direct reading of the four jettons on the board: three counters in the scores column and one in the tens. The French quatre vingts for 80 and quatre vingts dix for 90 originated in exactly the same way. The introduction of written Arabic numerals simplified the columns to just three: £ s d for the pounds, the shillings and pence.

<u>Arabic</u>	<u>Roman</u>	<u>Explanation of the Roman numerals</u>
2	i j	two positive i s
4	i v	a positive v and a negative i
7	v i j	a positive v and two positive i s
1 0	x	a positive x
1 9	x i x	a negative i between two positive x s
1 9 9	cxcix	Mixed - see text below

The final example had a negative x between two positive c s and a negative i in front of a positive x and that will still confuse many people who have passed CSE or GCSE mathematics. Even the first Roman numerals defeated most medieval people and arithmetic was not simple for them. Yet the table is quite simple when using the Arabic numerals 1 to 9. It is simple because the Indian cipher for zero has been put to the 1 of the ten into the correct column, but that convenience did not reach Europe until well after 1400 and it was not widely used until after 1550. As a result, mathematics was done on the shop counter with pebbles or disks made of bone and metal. This method had been used since ancient times in Greece and the scratch marks to place the counters in rows can be found on the floors of some temples, though sand trays were also used. The Arabs called these sand trays ABAQs and the word survives in our word abacus for the strung counting frames of early Russia and the Far East. The pebbles used on the Roman counting boards and sand trays were called calculi and they gave us the words calculate, calculation, calculator, etc. A shop counter was so named because it was used for casting up accounts and other simple counting that might be required. The customer and the merchant could watch to see that the counters were placed fairly and the results were agreed by both parties.

The examples of the jettons that survived for collectors and metal detectorists in this country certainly go back to the Roman period, though some pieces can be ambiguous as games counters. Indeed, there is no



reason why the counters from a counting board should not have been used for games at all periods. (2) It used to be said that the earliest metal counters were made in France around 1250 with the coat of arms of Blanche of Castille, the Queen of St Louis. (3) That often quoted view should be amended to say that the earliest struck medieval counters with recognised and dated designs are those with her coat of arms. There is at least one example that was recovered from an English medieval layer that pre-dated 1280 (4) and a couple of similar pieces have been seen without details of an accurate dated context. In these cases the counters are flat metal disks with no design or just the simplest of hand-engraved decoration. They cannot really be shown to belong to any period without some context of the find spot and associated material. Therefore undisputed proof of their use before 1250-80 in England has not been established. However, the English mint began to strike examples soon after 1280 and precursors of some type would be likely because we read of the use of jettons on the Exchequer counting board from before 1200. The plain bronze disks are the most likely items found so far to fit this early period, though wood, bone, ivory, horn or stone and other ephemeral materials may have been used as well or instead.

The jettons struck by the English mint(s) are recognised by the use of coinage punches, like the crown, head and hair punches, which have already been classified on pennies before 1335. (5) There is some debate how early this practice began. It was certainly after 1280 and may be after 1285. The better dies seem to have been made in London, but jettons were probably made by several mints. The dies were either sent from London, like coinage dies, or the smaller mint may have made cruder dies locally. The commoner pieces show the heads and crowns used on the later pennies of Edward I through to Edward III, after 1300 and mostly from 1320-35. Very few English jettons have any legends and therefore the style of the crown, bust and hair punches are the only way to date these pieces. This may be a fallacy as there is no proof that current punches were used to

make jetton dies and it may be that older punches were reserved to make the less important jettons. Most examples of these jettons are found in worn and corroded condition so that it can be quite difficult to be sure of the details and that can make it more difficult to identify the correct class and date. Other characteristic English jettons were crudely made and clearly they were not made from the dies produced by the better London mint engravers. They may have been from regional mints or made by unidentified metal workers. At present, there is no way to date these cruder pieces accurately.

Jettons really were moved about the counting board. They develop a characteristic appearance as the high spots of the design were flattened in use. Before 1370 in England, they were (meant to be) marked with a central punch, but there is no evidence that jettons were ever used as small change in this country. The most detailed study of jettons was made by Professor Barnard and he looked at many different sources, contemporary and later. He found a few (but very few) examples of Low Country jettons used as two liard coins. He also found records of fraud when jettons were passed off as English gold quarter nobles in a purse, but he could not find records to support the idea of jettons used as small change in England. The early English jettons had to be punched centrally to prevent any confusion with coins and they were introduced when the round farthings and halfpennies of Edward I were struck in adequate numbers. Contemporary with this period there were several token series, even if those tokens have only been reported from the larger towns, like the London Wall and Winetavern hoards from London and Dublin or single tokens from Oxford. The idea about jettons in use as small currency was first quoted by Snelling and was then popularised by Williamson from Boyne in the standard work on seventeenth century tokens. It has been re-quoted by later authors, like Peck and Dickinson, who failed to consult Barnard's extensive and carefully researched work. This was discussed in detail recently and, in 1994, there is still no evidence that jettons were used

as tokens in England. (6)

Jettons were used in post-conquest England from before the thirteenth century up into this century, though their function changes and they were made in different places. Jettons were mostly for calculation until 1550 or 1600. Decorative designs begin quite early but they are in the minority until 1550. The more decorative designs in France, the Spanish Netherlands and the United Provinces became progressively more medallic than functional. There was a period of at least a century while this process developed and it is often difficult to be sure of the primary intention. A useful guide is that jettons use a low relief so that the piles of four or five would not topple into another position on the counting board. Where possible, medals used a high relief to show the maximum of detail and perspective. Between these two classes come the card and games counters, which could be more medallic as it would not matter if piles fell over. After 1700, most jettons in England were used as games counters and the metals are usually clearly different. By 1800, jettons were also used as toys and souvenirs. During this century, many issues have been made of odd materials and since 1950, (long Kong, or more recently China, make the mass-produced moulded plastic issues. Some of these are already being found in gardens. Some have been found by detectorists, though I do not know what type of machine will 'detect' plastic!

The materials used to make jettons have also altered over the years. Pebbles were the original calculi, but rock crystal, bone, ivory, wood and bronze were also used. The more rounded pebbles could not have been stacked and those were almost certainly intended for use in a sand tray rather than on the later counting boards. We cannot be sure of the materials used in England before 1280. A record said that Venetian coins were sent to the Exchequer for use as counters, so other coins were probably also used. It would be surprising if the cheaper stone, bone, horn and wood were not also used. Copper alloys were used after 1280 and the common alloy was laton (or latan or spelled with a double ...tt...). This

'alloy' was made by mixing copper with powdered calamine, or zinc oxide, so that some of the oxide was converted to metallic zinc to form a bronze with much of the calamine still unconverted as a filler. It was commonly used before 1500 because laton was easier to make than a modern brass and it shone like gold. Most collectors prefer to see jettons as they are found and not in that bright golden state. Nuremberg began to use brass after 1450, while the Burgundian issues of the time were more often copper. It would be wrong to assume that these were the only metals used before 1600. There are records of silver and gold jettons quite early, but relatively few of those survive from before 1600. Pewter and lead pieces are also known from about 1300 to 1600 and these can have all the features of jettons. Some of the later examples use legends that say they are from the king's counting house...CAMERA REGIORA... but they are rarely acknowledged as jettons. Similar confusion exists over some 'pattern' shillings of Charles I. These exist in silver, which can look like patterns, but they are also found in laton with the characteristic wear of jettons. Barnard showed that the English Exchequer was still using jettons on the counting board long after the 1660 Restoration and the written accounts will often show the positions of the jettons as a series of dots as an aide to check that the number has been correctly transferred back to Arabic numerals. Only some of the more rural areas of France seemed to use jettons for counting after 1750.

In general, the earlier jettons found from sites in this country were French before 1400, but there are significant numbers of jettons from the English series and a few Lombard jettons. Regional continental mints of Sedan, Tournay, Bruges, Strasburg, Antwerp, Nantes, etc. were making more jettons after 1350. Several characteristic types are found in this country, but precise dates may not be available. Most of these 'regional mint issues' probably came after 1380, when they appear to be as frequent as the more official French types. The political boundaries between the states in northern France, Burgundy, the Spanish Netherlands and the

United Provinces alter frequently from 1400 to 1600 and several important cities that made jettons appear under different series as the boundaries move. By 1450, Nuremberg jettons appear and have become the common source for jettons before 1500. Most of the Nuremberg pieces are stock types with simple devices. Some are either larger, thicker or more decorative, but relatively few are rare because jettons were distributed in sets, or 'jets'. A well-known series included the alphabet on one side and these were clearly used to teach reading as well as numbers, like a hornbook of the period. The average merchant could cast-up his daily accounts with a jet of 30 pieces. A jet of only 15 or 20 counters would have been adequate for most private citizens and only a town or government official needed as many as 50 to 100 or more jettons in the jet.

Shove halfpenny can be played with eight or sixteen counters on any long table or counter and some specially made shove halfpenny (shovegroat or shovelboard) tables existed by 1520, when it was a favourite game of Henry VIII. It should also be noted that a game of fox and geese can be played with five counters in a chess board and draughts can be played with twenty-four men. There are other games played on boards shaped or marked differently. These games are often called merrils or morris and required different numbers of pieces from seven, nine, etc. Some of the lead 'tokens' of the 1450 period show merril boards and they may have been games counters rather tokens. The borderlines between jettons, tokens, games counters and toys can be very difficult to define, if they ever existed.

**Summary of the sources of metallic 'Jettons' by period**

	Commonly	Less often
Rarely		
Before 1250/80 ??		Unproved but may be locally made disks of several materials.
1280s-1370s	French mints	Lombards and Anglo-Gallic mints

1370s-1450s	French and then Low Country mints: like Sedan, Toumay, Bruges, Lille...
1430s-1480s	Nuremberg, or its branch in the Low Countries, near or in Antwerp
1450s-1600s	Nuremberg      French (Paris) Low Countries and English
1600s-1700s	Nuremberg      United Provinces and French English
1700s-1800s	Nuremberg      Birmingham, London and French
1800s-1900s	Nuremberg      Birmingham, London
1900s-	Nuremberg and Birmingham
1950s-	Plastic from Hong Kong, China etc.

(1) Counters were placed in piles. Various shorthand tricks were used and a single counter in the upper half of the square would replace a stack representing six pennies or five shillings or five pounds. This meant that no stack needed to be more than four or five jettons high and that reduced risk of the piles falling over. A full chequer pattern was not required and a few straight lines were all that were used on most boards. It was even possible to use a plain unmarked board by putting thicker or larger jettons to mark the positions for the columns and rows. There were too many variations of method to list then in full here.

(2) D. J. Rogers, *Toy Coins*. 1990. See entries in section 00. Item 1 is a bronze counter that shows in miniature, two counters each with a design that shows two even smaller counters. It represents a 'four' and matches similar counters in the British Museum that are engraved with Roman numerals. Those are not made of stone or rock crystal, nor metal.

(3) F. P. Barnard, *The Casting Counter and the Counting Board*. 1917.

(4) S. Rigold, item 5, in his report on jettons from the Trig Lane excavation in the River Thames, *The London and Middlesex Archaeology Society*, 1982. *Special paper no. 5*.

(5) Some of these jettons were incorrectly attributed to the Paris mint by Milne, Sutherland and Thompson in *Coin Collecting*, 1950. They state that the illustrated examples are 'Anglo-Gallic', following the lead of Barnard, but the Paris mint was not under English control when the punches used to make the dies for those jettons were made. Most jettons with characteristic English punches were made at English mints, but a few do exist with the privy marking system found on Anglo-Gallic coins of Aquitaine under Edward III. Those rare pieces (usually) also lack the central punch mark. Some imported French issues were given a central punch and one of the jettons shown by Berry in his monograph on *Medieval English Jettons* was wrongly included for this reason.

(6) A Purse from Leicestershire, by D. J. de S. Rogers in the November 1994 catalogue of S & B Coins.

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[*MBNG = Mitteilungen der Bayerischen Numismatischen Gesellschaft.*]

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## **VISUAL METHODS OF DETECTING COIN FORGERIES:**

Speakers at the Cumberland Hotel on, Saturday 5 February 1994

David Sellwood, President of the BANS, described a range of methods of producing coins that would deceive the contemporary user; by lowering the weight, or debasing the alloy; by casting from genuine coins; striking from mechanically copied dies; or by making imitative or fantasy dies. Lead content was often used, as lead had a low melting point; Victorians used to bite their coins to test for lead. Cast coins tended to show a flawed surface; a corroded surface could show where copper content debasing silver had eroded away. Often a gap or joining line could be found at the edge showing where two halves had been joined together. A long narrow crack in the surface indicated striking; slides of Parthian coins and also of a Charles I half-crown showed signs of plating. Casting reduced the width of coins slightly by about 2%. Several slides of forged current £1 pieces were shown together with some coins from Baldwin's "Black Museum".

Dr Andrew Burnett, Keeper of Coins and Medals at the British Museum, noted that there were large coin collections formed in the Italian Renaissance period. The Medici's' collection ran to several thousand coins, and the inventory of Pope Paul II included over 1100 coins. Golz in the mid-16th recorded about 1000 collections, and Strada noted over 100 collectors in Rome alone. With demand at that level there were those who were eager to supply demand; in 1555 Vecchio published a work describing the Medals of the Ancients - partly these were true ancient coins, partly they were ancient-like. Slides of examples showed very clearly that many were obviously not genuine to us, though not to the contemporary eye - perceptions changes over time. Many were produced by Domenico Cavini of Padua - dies survived in the Bibliotheque Nationale in Paris; Bishop Agostin had called them 'Paduans', a name that stuck.

Peter Woodhead described the career of an 18th century hat maker in Newgate Street called White, who had a large collection of English

coins, and who died in 1787; the *Gentleman's Magazine* of 1784 published an article, probably by Revd Rogers Ruding, which referred to a notorious forger. In 1762 Snelling indicated the likelihood that certain Richard I pennies were produced by White; a number of coins allegedly part of the Tealby hoard were probably by White. Again, to the modern viewer, these coins were manifestly not genuine but in the past collectors had access to far fewer genuine old coins than we have now, and they were the more easily deceived.

Graham Dyer, Curator of the Royal Mint Library, described the problems of Victorian half-crowns. It was known from Mint records that none were struck at the Mint between 1851 and 1873, so that when one appeared dated 1871 there was a difficulty. However, it looked right, the silver was good, and it was worn, so the Mint felt it was probably genuine; similarly when others turned up, dated 1861, 1866, and 1868, all worn and of good silver, the Mint felt they were probably genuine; indeed by September 1969 more than 30 of these probably genuine half-crowns had been recorded. To their great credit John Kent and Martin Price at the British Museum had always condemned them as counterfeit. Finally, in late 1979, the Mint acknowledged that they were counterfeit. Why was the Mint wrong? A number of reasons had to be reckoned with. They had not considered that at the relevant time, good silver was to be had far below the Mint price, so that counterfeiting in good silver was still profitable; counterfeits had turned up in 1885 and 1889 which were then described as false good coin. The worn appearance was also deceiving but there were features of the design which related clearly to the 1880's which should have sounded a warning. There was also ignorance of the numismatic literature - none of these doubtful dates was in Hawkins or Murdoch; there were also notes in *Coin Monthly*, and in the 1922 *Numismatic Chronicle*; and indeed the Mint records themselves showed no strikings at all between 1851 and 1873 - even Colonial coins would have shown up in the Mint records, as all issues were Imperial and would have been recorded by the

Mint. It was a cautionary tale; analysis of metals, weights etc. was indispensable but these methods need to be supplemented by wide and continuously updated knowledge, and the widest contact with the numismatic scene.

Over 60 people attended and a short discussion period was crowded with lively questioning.

### **10 August 1994 Members' Own Evening**

1. Niall Fairhead spoke on 'A Catastrophe in 660'. About seven years ago he had bought four small gold coins at Henshe, a small village in an area of salt flats in Tunisia - the site of a great battle in 660 when the Byzantine armies were beaten by the Arabs. At the time, a very poor Bedouin suddenly prospered exceedingly, having found many thousands of globular solidi in his back garden. Niall had been offered 20 or 30 and had actually bought four. Showing maps, Niall explained that in AD 650 Rome still held North Africa. In AD 647 a huge Arab army raided Carthage, clashed with Theodor's Byzantine army and destroyed it. The Exarch had bought them off with 300 quintiles of gold. In 660 the Arabs launched another huge raid, and defeated the Byzantine army again at a battle very close to Agramentum - only about 40 miles from the modern village of Henshe where the lucky Bedouin had found his huge treasure - perhaps it had been the pay chest of the Byzantines?

2. David Sealy spoke on 'Some remarks die axes on Victorian coins'. To members of the London Numismatic Club one need not to go into great detail as to what is meant by die axis. Sufficient to say it indicates the "way up" relation to each other of the designs on the two sides of a coin. In modern machine-made coins it is usually upright ( $\uparrow\uparrow$ ), as in British coinage or reversed ( $\uparrow\downarrow$ ), as in French or United States coins. These are sometimes called struck medal and struck coin respectively, and I have

seen the  $\uparrow\downarrow$  condition referred to as a "six-o'clock upset" ! Sometimes, though rarely, other orientation ( $\uparrow\rightarrow\uparrow\leftarrow$  and so on) are met with, or die axis may be random or uncontrolled. Commonly we find in catalogue descriptions the first arrow, which is always upward anyway, is omitted: so we get  $\uparrow$ ,  $\downarrow$  or  $\rightarrow$  etc.

I have recently been looking at British coins of the 19th century at the British Museum and in my own collection, and noticed some very interesting and puzzling things. (I am leaving out of consideration the coppers of the Soho period, which are a jungle on their own, fully explored by Peck.) From the recoinage of 1816-17, the normal die axis of British silver and gold is  $\uparrow\downarrow$  it is for the first farthings of George IV. But for the Wyon issue from 1825 on, the coppers are uniformly  $\uparrow\uparrow$

except that in some cases there are odd proofs with  $\uparrow\downarrow$  : there is in particular a proof halfpenny of 1853. Years ago I found (and have now given to the BM) a very circulated halfpenny of, I think, 1844, also  $\uparrow\downarrow$  . Was this a proof which entered circulation? In any case, as such it is otherwise unrecorded.

The fact is that in the period 1825-87 the silver and gold  $\uparrow\downarrow$ , the copper and bronze  $\uparrow\uparrow$  - with one glaring exception, the Britannia 4d (silver), consistently  $\uparrow\uparrow$  . One might speculate that for some reason the axis was thought inappropriate for the Britannia design, were it not for the small copper halfpennies and farthings of Victoria  $\uparrow\uparrow$  like all copper, but reverse design value in words under a crown. The great question, to which I do not know the answer, is why? To my knowledge no research has been done into this extraordinary feature of 19th century British coinage. Bronze coins from 1860 are, of course, all uniformly  $\uparrow\uparrow$ , and with the Jubilee issue (1887) the inconsistency is swept away and all British coins (indeed all coins struck at the Royal Mint) are  $\uparrow\uparrow$ , except for rare errors.

In a broader perspective, we note that since the die axis required is not often indicated in the legal specification of a coinage, this detail may be left to the mint of production which will then follow its own customary

"house style". In this way it is sometimes possible to distinguish the productions of different mints of otherwise identical coins. It should by now be realised how important it is, when drawing up coin (or token) descriptions, to specify the die axis. This has not always been properly done in the past.

3. Philip Mernick spoke on "William Hall" pieces. They were listed in Williamson's Uncertain section Nos. 36, 37 and 38. They overlapped Philip's collecting interests, being either tokens or jettons. The Imperial orb they showed was a Nurnberg sign - but the head of Mercury, and another head shown on some of the pieces, were of uncertain origin. Between about 1580 and 1640 Nürnberg produced a huge quantity of jettons and when the 30 Years War interrupted supplies of these, an Amsterdam merchant, Zacharias Jansen petitioned successfully for the right to make them. Perhaps William Hall did the same for this country? If so, who was he? It seemed probable that he was a stationer - perhaps the son of William Hall of Lillisfield, Co. Salop, whom Philip had traced in a list of members of the Stationers' Guild at about the appropriate time, early in the seventeenth century.

4. Norman Clarkson gave an account of the Battle of Actium, 31BC, illustrated by coins depicting Cleopatra and Octavius, and Mark Anthony, the contestants in the Battle. He described also the ships involved in the battle, and how it came to be lost.

It was of special interest that one of the ships engaged at the battle had been located and was being raised to the surface this summer. In the last century a bronze prow head with the bust of Athena had been found in the area and is presently exhibited in the Greek & Roman Terracotta Gallery at the British Museum.

Philip Rueff spoke on 'Two Legal Medals', which he displayed. The

first, by W.J.Kirk, showed William Murray, Lord Chief Justice Mansfield, a famous and great judge - as his friend Dr Johnson would have said, 'in spite of being Scottish'; An expert in Commercial Law and Roman Law, he developed the law of sale. His most famous judgment outlawed slavery long before Wilberforce - "The air of England is too pure for a slave to breathe - let the black go free".

The second medal showed Lord Eldon, Lord High Chancellor for 20 years, Speaker of the House of Commons, and a member of Cabinet. He was generally considered to have been sound but slow; Dickins based Jarndyce and Jarndyce on Eldon. The wig he was wearing on the medal had hardly changed today; the clergy abandoned wigs in 1835 but lawyers still kept theirs, and solicitors were pressing to be allowed to wear wigs also.

6. Tony Portner spoke on 'The meaning of extra letters to be found on Byzantine gold coins'. Although there has been considerable research on the officina system of the Late Roman and early Byzantine empire there has been considerably less attention devoted to the additional symbols and letters which sometimes appear on the gold coinage. Although these are found on issues of the sixth century they become particularly common on seventh and early eighth century issues. In particular I am referring to the habit of placing additional letters after the officina letter or the mint mark on the reverse of the coin. There has been speculation as to what these extra letters can mean. Hahn supposes that these represent special emissions. His argument is that each of the ten officinas which operated at Constantinople and struck the gold issues from the fifth to the beginning of the eighth century were given a certain number of coins that they had to strike each year. If it then turned out that additional coins were required these were denoted by the addition of a letter or some other symbol in the reverse field. This is certainly an attractive argument although it cannot be proved for certain. In particular it can be surmised that the constant

warfare of the seventh century particularly against the Arabs which resulted in a large part of the Byzantine empire being overrun would have necessitated a constant series of exceptional issues over and above that which had been anticipated for the year. This would explain why these issues increase so dramatically in the reign Heraclius (610-641). His successors, Constans, Constantine IV, and Justinian II continued these issues. However the necessity for them does appear to decrease because whereas under Heraclius these issues are common, probably nearly *as* common as the regular issues under his successors, they do tend to gradually diminish and become rarer. As with all Byzantine issues however rarity is relative. One of the fascinations of the so-called supplementary issues is that new varieties are constantly coming to light particularly for the period from Leontius to the end of the sole reign of Leo III (695 -720). Indeed, I myself have a photo of a new supplementary issue for Justinian II with the letter 'A' after the officina letter on the reverse. What is interesting particularly in the later issues is that for some of them, or nearly all, the officinas participated in these supplementary issues. It may well be that all of the officinas did participate and that additional varieties are just waiting to be discovered. In some cases, because of hoards that have been discovered which contained large numbers of a certain supplementary issue, these are commoner than the issue without the additional letter (for example the issue of Anastasius with 'theta' after the officina letter).

An interesting alternative suggestion to explain these issues could be that they were struck at another mint but from dies prepared at Constantinople; therefore, in order to differentiate them, the additional letters were inserted after the officina. However, there is no evidence of this and the style is universally that of Constantinople and not of any of the other mints known to be operating at the time in the East or indeed in the West, although provenance alone would suggest that they cannot be western. Could these issues have been utilised for certain specific payments



made to divisions in the army, to certain merchants or to state officials? Unlike the light weight solidi I think it can be ruled out that these were used to pay subsidies to tribes and chieftains across the frontier since hoard evidence has located most of these issues in Asia Minor. Could it just have been vagaries of the die engravers who, once they had added as additional letter, continued the tradition? I think this is highly unlikely in view of the fact that there are also a large number of coins without the additional letter on the reverse. Could these have been in the nature of ceremonial issues struck at the beginning of each new issue? It is possible, but again I feel unlikely bearing in mind the large number of some of these coins that are now available. It may be that these coins had some meaning to the mint officials which has now been lost to us and this may be a far more plausible reason than the argument that they are supplementary issues, as put forward by Hahn.

Grierson has suggested that it may well be the case that some of the marks indicate consignments of coins set apart for particular government offices or regions of the empire, a practice which must have become common after the closure of most of the great provincial mints in the reign of Heraclius. Some, from their positioning, seem to form part of the design from the first while others are apparently subsequent additions. It is noteworthy that the symbols usually continue over several classes in succession, a fact which has to be taken into account in any attempt to explain them. Could it be, notwithstanding previous comments, that these coins had some ceremonial nature, bearing in mind that there are no counterparts to the ceremonial issues of Tiberius II and Maurice Tiberius of the sixth century. One has to be realistic and accept that without the mint records of the time, which are obviously no longer extant, and as there is no reference in contemporary literature to these issues it may not be possible to come to any definite conclusion as to their meaning. That they are linked to the officina system is quite clear and must have had some meaning for the mint workers. This can be shown from the fact that these

letters disappear once the officina system itself breaks down in the 720's. Nor do they re-appear when the so-called control letters appear on the coinage in the later part of the eighth century. Why the officina system which had flourished for more than 500 years in one form or another suddenly disappears in the way it does in the eighth century is another of the mysteries of the Byzantine numismatics which, like the question of the additional letters, may never be satisfactory resolved.

## **AUCTION REPORTS**

### **87th Auction 8 July 1993**

A modest auction of only some 67 lots were on offer from six vendors. Tokens and unusual items sold particularly well. Obscure items in poor condition and not sensibly priced for the market, struggled to find buyers. Eighteen items remained unsold. Total sales fetched £215.50, with Club commission at £21.55.

### **88th Auction 9 November 1993**

Total lots offered: 103

Unsold lots: 43

The number of unsold lots was high - some items deserved a more specialised room, while others were of too general a nature, being more suitable for dealer-orientated buyers. Nevertheless, total sales were £280.25 and club commission (including donated lots) was excellent at £65.38. Top price was paid for an 1820 crown.

### **89th Auction 5 July 1994**

Total lots offered: 71

Unsold lots: 27

There was a good mixture of ancient to modern coins, banknotes, medals, tokens and checks. Top price of £16 was paid for a mixed bag of paranumismatica. However, the 27 unsold lots perhaps promoted the auction compiler's plea for more "proper" coins!

### **90th Auction 9 November 1994**

Total lots offered: 94

Unsold lots: 35

Nine vendors offered coins, banknotes, etc., for sale. Bidding was lively on some lots - often those which had been put in with no reserve (and so could have sold for 50p) - but again a high proportion were unsold. Judging by this auction there is little interest in modern coins and medals amongst the active collector membership. Total sales were £272.50 and Club commission etc. amounted to £30.25.

### **91st Auction 10 May 1995**

Total lots offered: 110

Unsold lots: 43

This auction included the first sale of surplus and redundant books and catalogues from the Club's library. Despite the slightly higher number of unsold lots, the total sales amounted to £317.50 of which the Club's commission, etc, amounted to £53.35.

## **REVIEWS**

**Catalogue of Late Roman Coins in the Dumbarton Oaks Collection and in the Whittemore Collection from Arcadius and Honorius to the accession of Anastasius**, by Philip Grierson, Melinda Mays. Washington DC 1992. Trustees for Harvard University, XV + 499 pp with 37 plates. £60.

This is a most important addition to the relatively limited numbers of publications dealing with the Roman coinage of the late 4th and 5th centuries, and is indeed the first publication of the contents of an important public collection as, to date, the more extensive collections of London, Paris, Vienna and Berlin still await publication.

The authors have had to face up to the problems of where precisely

to begin the catalogue. Whilst their arguments in support of their decision to commence the catalogue with the accession of Arcadius and Honorius have much force, this does mean that they have omitted the concurrent issues of Valentinian II and Theodosius I which the reviewer feels could well have been included, together with the issues of the usurpers Magnus Maximus, Flavius Victor and Eugenius. This does give the catalogue for the period 383-395 A.D. a somewhat lopsided appearance, although the coins in the collection for the period 383-395 had already been published in an earlier *Dumbarton Oaks* publication by A.R. Bellinger. On the other hand, ending the volume with the death of Zeno presents no problems as the subsequent reigns are covered by the *Dumbarton Oaks Byzantine catalogue*.

The plates are of a high quality although neither they nor the quality of the paper and printing attain the heights of the Byzantine volumes. There is, however, a definite advance on the Byzantine catalogue in that every coin is illustrated, not only a selection of the more interesting and better preserved specimens. There is a useful introduction to understanding the coinage and further study and evaluation is assisted by the extensive bibliography.

For collectors the arrangement of the coins in chronological order rather than by mints is not totally satisfactory. Use of the catalogue is further complicated by the fact that, unlike *R I C.*, the various rulers are separated from each other. This makes it difficult to obtain an overview of the coinage as a whole. The authors justify this arrangement by advising that the catalogue had been aimed primarily at historians and other scholars are referred to the forthcoming publication of *RIC X*.

There is an extremely useful account of published hoards of gold, silver and copper. The references to the copper hoards were particularly illuminating as the collection is otherwise rather weak in actual specimens of this material.

The discussion on the contemporary names for the small coppers,

while analysing all the available information, fails to come to any definite conclusions which might advance our knowledge as to their original nomenclature.

The gold and silver coinage is shown to have been of a remarkable fineness whilst the term bronze utilised for the copper coins is shown to have consisted of coins of various levels of impurity, including lead and other metals. Anastasius' reform, in the words of the authors, involved not the replacement of bronze by copper as has often been supposed but that of coins of bad quality copper by ones of virtually pure metal. The section on the metrology of the coinage, particularly the bronze, will be of great assistance to future scholars.

There is a useful discussion of mint organisation of the time as far as this can be ascertained and it is largely based on evidence from the coins themselves. The use of the various mintmarks on the coins is summarised, together with the privy marks which feature mainly on the copper of the 4th century. The proposed attribution of coins to Bologna, Pavia, Narbonne and Cherson is discussed, and dismissed. Coins found in Cherson will have been minted in Constantinople for a specific local need. Coins of Zeno with T on the obverse are given to Thessalonica on the basis of their Eastern style. The reviewer has his doubts whether this is a correct attribution. The difficulty of distinguishing the later coppers is pointed out as the quality of the originals had become so low.

In the section on the coin types and inscriptions there is a general overview of the limited types and inscriptions in the Late Roman coinage as opposed to the earlier Roman coinage and the reasons for this are convincingly discussed and analysed. It is interesting to note that even at this relatively early stage in the development of the coinage the Latin of the die engravers left a lot to be desired which became, of course, ever more evident as the centuries progressed.

The main body of the work is devoted to a thorough examination of the chronology of the coinage first of the Eastern Emperors and then of

the Western Emperors. It will be interesting to see, once RIC X has been published, whether there are any serious differences in the suggested chronology of the coins.

Finally, various appendices set out important information with regard to the imperial consulships, abbreviations on coin legends, gold coin hoards and forgeries. The extensive bibliography has already been referred to and there is also a list setting out the sources of the collection.

Although not possessing as many rarities as some of the major collections, reference to the plates will be essential for academics and collectors interested in the series.

All in all this is a most valuable addition to the study of the Late Roman series and no historian, academic, or collector who is interested in this period can afford to be without this catalogue which is reasonably priced considering its coverage.

Anthony Portner

**The Sacred Tripod: Kroton and its coins**, by W.L.Gale. Ocean Spray Pty Ltd, Mosman, NSW, Australia. 1995. 40pp. incl 17 pls. Hardback, £17 (\$25). Available from Seaby Coins, 14 Old Bond Street, London W1X 3DB)

Kroton, founded in 710 BC by Achaeans from the northern Peloponnese, lies on the western side of the Gulf of Taranto in southern Italy - the area of Magna Graecia to the ancient Greeks. The site has been continually settled up to the present, and is now called Croton. Like many of the colonies of Magna Graecia, it was founded by a band of youngsters setting out from their homeland, driven by 'land hunger', and here led by Myscellus of Rhyes. Curiously, it is to the Greek colonies of southern Italy and Sicily that one must go nowadays to see the finest remaining Greek temples. Kroton is not so blessed compared to its compatriots but in antiquity its reputation was enormous. It was noted for its athletes who won almost consistently at the Olympic Games and at Delphi. It also

supplied the ancient world with some of the greatest medical names (after Hippocrates), including that of Democedes whose medical skill was so much admired by the Persian king Darius that he was held virtual prisoner at the court, until by a cunning ruse he managed to slip away back to his native city. Not least Pythagoras, the philosopher and mathematician, taught here for a while around 530 BC.

Such then is the measure, and more, of this famous city, but what of its coins? The Greek silver coins of Magna Graecia are noted as being amongst the finest products of Greek die engravers and mints, topped by the incredible dekadrachms of Syracuse. Kroton, by comparison, is somewhat prosaic. It was in the later sixth century that the city first issued silver coins and it chose as its device a tripod. This was the symbol of Apollo of Delphi from whence, by the Delphic Oracle, the colonists had been led to Kroton. It was to remain the type of the city, occasionally with additions of other elements such as a crab or heron in the field beside it. The earliest coins are of the type known as *incusi*, a feature of the coins of south Italy where the reverse design reflects the obverse design but is not a brockage. The invention of this technique of striking has been ascribed to Pythagoras.

Immediately identifiable by its tripod badge, the coinage of Kroton, to the untutored eye, has a sameness about it, but this is not so. Bill Gale, a most enthusiastic collector and student of this series has taken the 72 coins catalogued here from his own collection, built up over a number of years with discrimination. We therefore have a very focused view of the series, putting it into order and, more especially, putting it into context in a background text that illuminates the history of the city and also its relationships with its neighbours and their "tyrants", not least Dionysius of Syracuse. An indication of Kroton's once great prosperity comes down to us via Petronius in his *Satyricon* where he describes it as 'a very ancient city, once the foremost in Italy' but whose 'wealth had been diminished by a long series of wars'.

So often it is only through the focused interest of a dedicated collector that some of the issues in the Greek series get the attention they deserve. After the fulsome background history, Bill Gale has catalogued the coins in detail, and made the appropriate references to which have been added the relevant coin's pedigree or origins, which is very useful. All the coins are illustrated and a number of them as enlargements to show greater detail. For the collector of the coins of Kroton, and those interested in the history of the Greek colonies of Magna Graecia, this is a welcome addition to the literature.

Peter A. Clayton

**Lions Ships and Angels: Identifying Coin-Weights Found in Britain**, by Paul and Bente Romlund Withers. Galata, 1995. 80pp. illus throughout. Paperback, £15 (plus p&p £1), from Galata, The Old White Lion, Market Street, Llanfyllin, Powys SY22 5BX.

In 1993 Paul and Bente Withers published their magisterial corpus on British coin weights, a volume of 366 heavily illustrated pages and text. Its price put it beyond the range of all but the most avid collectors of this series, which is only to be expected of a work of that nature. Now, however, in their new small guide to the series they have rendered great service indeed to all collectors as well as those who have but a passing and curious interest in this phenomena of the English coinage. The booklet well lives up to its title, it does identify coin-weights, and they are not the easiest of things to make sense of, especially when they are weights against foreign coins passing within the Kingdom. Some of these coins have exotic names and many weights are for testing against a variety of Portuguese denominations, moidores and its multiples, etc.

After a brief history of coin weights and sections on shapes, materials, Continental reverses and British denominations, the major portion of the book is reached. Here, and giving rise to the amusing title of the book, the obverses are arranged under broad categories which makes it



relatively easy to make a basic identification and get an idea of date if the weights, themselves are not dated. Another section deals with Portuguese and Irish weights, followed by details of Low Countries weights (these often turn up in the southern counties), Apothecaries weights, countermarks and lists of coins, both British and foreign against which weights were issued.

Considering its relatively small size there is a wealth of information between these covers, identifying all major British coin-weights types from 1344 to 1843, together with those foreign examples likely to be found in Britain and, to make it all so much easier, the 450 photos plus some 70 line drawings elucidate even the most obscure items.

This is a book that will prove to be an extremely useful addition to the libraries of all collectors, archaeologists and curators who find they have to deal with and attempt to identify coin weights. It is extremely good value.

Peter A. Clayton

## **OBITUARIES**

### **PETER J. SEABY**

1920-1992

It is with regret that we note the peaceful death of Peter J. Seaby on 18th June 1992. He was born on 5 December 1920 and was educated at Kent College, Canterbury, where he took a keen early interest in retrieving mammoth bones from Swalecliffe near Whitstable and piecing together fragments of Romano-British pottery from a rubbish pit he excavated near the school. His other early interest was as a naturalist. In the event, when he left school in September 1937 he joined the family firm of Seaby, founded by his father H.A. ("Bert") in 1926. He was called up at the outbreak of war and served in the Royal Artillery, 1939-46, spending periods in the North African and European theatres.

His early numismatic specialisation was in the British coinage and he developed an interest in the gold coinage and later, Islamic. One of his particular studies was the complex coinage of King Stephen and he did much original research in that area, reflected in his papers published in the *British Numismatic Journal* over several years. King Alfred, the eleventh century coinage, Henry 1, and also seventeenth century tokens also took his attention. From 1966 for many years he edited the classic Seaby *Standard Catalogue of British Coins*, and compiled Part 3, *Coins and Tokens of Ireland* in 1970. His skill at drawing coins is well seen in the line drawings that illustrated many of the early Seaby publications. Some of this no doubt came from his grandfather who had been Professor of Art at Reading University. His own book, *The Story of British Coinage*, with its first publication forty-three years ago in 1952, has received a completely new lease of life with Peter's enlargement and revision of the text and the addition of photographs of coins. Peter never lost his interest in art and was pleased to be able to pursue it more fully in courses after his retirement when he moved to the delightful city of York. His interest in coin design led him to encourage the Royal Society of Arts to include the design competition, which they did and for some years B.A.Seaby acted *as a* sponsor.

In 1952 Peter Seaby joined the Board of B.A. Seaby, becoming Managing Director in 1966 and then succeeding his father as Chairman when H.A. became President of the Seaby group of companies in 1974.

Peter was particularly active in the formation of the British Numismatic Trade Association (BNTA) in 1973, brought about by concern with the introduction of VAT, and he served as its first Chairman of the Council. In that year he was also Chairman of the Anti-Forgery Committee of the International Association of Professional Numismatists (IAPN), and was later to become a distinguished President of the IAPN.

To many collectors Seaby and coins were synonymous, and certainly to the writer, who has known Peter Seaby from when he first visited the

company many years ago as a school boy, climbing the steep stairs between the car show rooms at 65 Great Portland Street. Peter always had the time for anyone with an interest in coins and his death brings to an end an era in the story of numismatics in England. Peter A. Clayton.

#### WILFRED SLATER

1915-1993

Wilfred Slater died quite suddenly on Tuesday, 5 January 1993, aged 78. He had been a keen member of the London Numismatic Club for ten years, rarely missing a meeting. He had not been fully fit for some time but in recent months had seemed a good deal better; for his wide circle of numismatic friends their last memory of him will be at the Royal Numismatic Society Christmas meeting on 15 December 1992.

Wilfrid's passion for coins was lifelong and his collection included some choice pieces; his comments in discussion were rare, brief and authoritative. As secretary of the British Numismatic Society for 25 years he ran its meetings with a correct and characteristic propriety. He knew all the stars of the numismatic firmament during those years; amongst them all perhaps his chief veneration was for Christopher Blunt and his joy in Christopher's bequest to him of his numismatic commonplace book is a delight to recall. It is very fitting that the British Numismatic Society struck a special medal in Wilfrid's honour that gave him great joy.

Stella Greenall