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THE PERTH MINT PENNY “MULES” OF 1955-1956

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Among the more intriguing observations concerning the predecimal bronze coinage of Australia, is the presence of distinctly different master die types on Elizabeth II pennies from Melbourne and Perth. This situation, which delights numismatic specialists, arose from differences in the number of border beads or their positioning on the penny master tools supplied by the Royal Mint in London starting in 1953. Of perhaps greater interest to collectors is the occurrence of “mules”, or the unintended pairing of different die types by the mint. The most spectacular example of such a mule in Australian predecimal coinage is the 1916 halfpenny struck in Calcutta using a George V obverse die from the Indian 1/4 anna. This great rarity exhibits both a different obverse legend and differences in the portrait, including a small elephant badge on the King’s uniform. In the case of “Melbourne” and “Perth” mint penny obverse types the primary difference is the number of border beads, mainly 120 and 116, respectively. While this is not so dramatic, the two types are easily distinguished and numismatic observations show that apparently unintended die pairings or “mules” occur for Perth mint pennies of 1955-56. These tell an interesting story of the late striking of 1955 dated pennies at Perth (including proofs) and perhaps of a general lack of concern by the mint in matching up die types.

Why the Royal Mint in London prepared different sets of master tools for the Melbourne and Perth mints may never be known

for sure. What is known is that with the advent of working die production at Perth, master tools provided for Perth by London usually differed from those of Melbourne. For example, both the penny and halfpenny reverse die tools sent to Perth in 1951 are distinguishable by master die type or date numerals, the halfpenny obverse tools were from a different master die with different beading, and only the penny obverse was identical to that made for Melbourne (and Great Britain).¹ That this action by the Royal Mint in London was deliberate is strongly indicated by the first Elizabeth II penny die tools which were prepared on the same day in 1953 with 116 border beads for Melbourne and 117 beads for Perth.² It is interesting to note that Royal Mint records³ also strongly suggest that separate halfpenny obverse master tools were prepared for Melbourne and Perth in 1953, using the same “(M)” and “(P)” notation as for the pennies. We may never know for certain however, since Melbourne did not strike halfpennies until 1959, and the single inked impression left in the London die book³ appears to correspond to the Perth mint type.

An exception to this practice occurred with the reintroduction of “F:D:” into the obverse legend of Australian coins. This design change followed the controversy caused by omission of this reference to “Defender of the Faith” in the Queen’s title. The first new Elizabeth II penny obverse tools restoring the legend were of the “Melbourne” type (Obverse 3). London mint records show that various problems were



Figure 1. Differences in obverse border beading on Elizabeth II pennies from Perth (a) "Melbourne" Obverse 3 type with 120 beads, "I" of GRATIA pointing toward bead; (b) "Perth" Obverse 4 type with 116 beads, "I" of GRATIA between beads.



Figure 2. Differences in reverse border beading on Elizabeth II pennies from Perth (a) "London" Reverse D type with upright of "P" of PENNY between large beads; (b) "Perth" Reverse F type with "P" of PENNY aligned with large bead.

encountered in making separate tools for Perth, with a number of attempts rejected until finally a satisfactory master die and punch were made and sent to Perth in December 1955. As a result of this long delay, only Obverse 3 was available for pennies at both mints during 1955.² However, Perth mint records⁴ now show that 1955 dated pennies continued to be struck until May 17, 1956. While these records make no explicit reference to obverse die type, it's clear from numismatic observations of coins that some 1955 dated pennies, including all proofs, were struck using the newer "Perth" type Obverse 4.² When coupled with the change in reverse dies for Perth from the "London" PL type (Reverse D) which was used in

1955, to the new and distinctive "Perth" type (Reverse F), it becomes clear that the normal pairing of dies for Perth mint pennies of 1955 is 3+D and for 1956 is 4+F. These die type are readily distinguishable by different alignments of border beads with the legend, as shown in Figures 1 and 2.

Numismatic observations show that "mule" pairings of these dies for both 1955 and 1956 pennies occur, with those for 1955 having been rated as relatively "rare" and those for 1956 as "scarce".² The observed pattern in the pairing of these die types is shown overleaf

Date	Die Pairing	Description
1955 Y.	3 + D	normal type for Perth (common)
1955 Y.	4 + D	“mule” variety (rare)
1956 Y.	3 + F	“mule” variety (scarce)
1956 Y.	4 + F	normal type for Perth (common)

Newly available Perth Mint records⁴ coupled with records from the London mint,³ may now allow new details of this interesting story to be deduced. This includes *when* the dies were made, *which* dies were used, and *what* the probable (raw) mintage figures were for each of these “mule” die pairings. The time period of interest is clearly bracketed by December 1955, when new die tools were sent to Perth, and the 1st of June 1956, the date of the Perth Mint letter to S.V. Hagley stating that the 1955 dated proofs ordered by him in February were “now ready for delivery.”²

A summary of information on the production of penny working dies taken from the Perth Mint records covering the period from early December 1955 to the end of May 1956 is presented below (slightly modified for clarity).⁴ This shows that working dies were prepared in batches of twelve, consisting of six obverse and six reverse dies each. Although there is no indication of when the changeover to the new obverse die type was made, there is clear notation of which reverse dies were dated 1956 and of the number assigned to each die by the Perth Mint for identification purposes.

It is especially fortunate that Perth Mint records also contain precise information by die identification number concerning the

date(s) each die was used, which of the four coining presses it was placed in, how many coins it was used to strike and why the die was removed (eg. worn, cracked, etc.). While this information was originally recorded to allow the mint to closely monitor the production process and the performance of dies, it provides the latter day numismatist with a wealth of detailed information. Although digging through these details may be tedious, it becomes possible to determine *exactly* which obverse dies were paired with which reverse dies, and how many coins were produced from each pair of dies. Since we already know from observation that 1955 pennies with the newer type obverse are relatively rare and that 1956 pennies struck with the old obverse are scarce, an attempt to deduce in which batch of dies the changeover to the new obverse tools occurred becomes feasible.

To accomplish this requires us to make the assumption that each of the dies in a individual batch were made using the same tools, and that once the Perth Mint switched over to using the newer Obverse 4 tools, the older Obverse 3 tools were no longer used. We begin with the information needed to determine whether any given pair of dies is ?+D or ?+F. Since we don't know at which batch the obverse die changeover occurred,

Perth Mint Penny Dies from Dec 1955-May 1956

Date	Obv 1d	Rev 1d	I.D. #	
Dec 9		6	282-287	
	6		288-293	
Jan 10		6	294-299	
	6		300-305	
Feb 1		6	306-311	
	6		312-317	
Feb 8		6	318-323	dated 1956
	6		324-329	
Mar 1		6	330-335	dated 1956
	6		336-341	
May 18		6	342-347	dated 1956
	6		348-353	
May 24		6	354-359	dated 1956
	6		360-365	
May 30		6	366-371	dated 1956
	6		372-377	

“trial” guesses can be made and the consequences examined by analyzing the records to see whether *both* Obverse 4 pennies dated 1955 *and* Obverse 3 pennies dated 1956 result.

In the present case, a logical initial guess might be that use of the new Obverse 4 tools began at the same time as the new 1956 dated Reverse F tools, that is on February 8. In this case, all obverse dies numbered 324 or higher would be Obverse 4, and all numbered 317 or lower would be Obverse 3. Therefore we would look for *both* pairings of obverse dies numbered 317 or lower with 1956 dated reverse dies numbered 318 or higher, *and* pairings of obverse dies numbered 324 or higher with 1955 dated reverse dies numbered 311 or lower. Careful examination shows that *all* obverse working

dies from the batch of February 8 were paired with 1956 dated Reverse F dies, with a total of 417,600 coins struck from May 17th to May 30th. If these are 4+F coins, then we haven’t accounted for either the 4+D or 3+F “mules”.

Next, we can consider a “changeover” date of February 1, and account for all six obverse dies and their mintages. Here, it is especially interesting to note that three of the dies, numbers 314, 316 and 317, were used more than once, being brought back into service on different presses (presumably after re-polishing or other repairs). Two of these (#314 and #316) were paired with 1955 dated Reverse D dies in February and 1956 dated Reverse F dies in June. Complete analysis shows that this batch of obverse dies was used to produce a total of

489,400 dated Reverse D coins and 183,600 reverse F coins. If these were all Obverse 4 coins, then we've accounted for 4+D "mules", but no 3+F "mules".

An examination of results for January 10th, shows all obverse dies were employed from February 7-14th, except for #304, which apparently was never placed into use. Likewise, results for the batch of December 9 show all obverse dies were used March 21-April 20, 1956 for 1955 dated Reverse D coins. Since *none* of the possible changeover dates from December 9, 1955 to February 10, 1956 allow for the existence of *any* 1956 dated 3+F "mules", the changeover to the new Obverse 4 type dies *must* have occurred later.

Because Perth Mint records clearly show that the date changeover to 1956 dies occurred on May 21st with no use of 1955 dated dies after May 17th, *no* dies from batches prepared on May 18, 1956 or later could possibly have been used to strike 4+D "mules", and this is confirmed by the records. Thus by deduction, there remains only *one* possible date for the changeover to the new Obverse 4 die type, namely March 1, 1956.

Using a March 1st changeover date leads to the following results. Of the six Obverse 4 dies that must have been prepared on that date, three (numbers 339-341) were used to strike 1955 dated pennies from April 27-May 15, with a total raw mintage of 392,400 coins. One die (#338) had been placed in a coining press on April 17th, but was removed with the notation "chipped" before any coins were recorded as being struck. The other two obverse dies were paired with 1956 dated reverses on June 12-13th. Thus, using a March 1st changeover date would provide 392,400 4+D "mules", with earlier

Obverse 3 dies from February 1st and 8th providing 417,600 and 183,600 3+F "mules", respectively. Scaling these results to overall mintage figures of 11,109,600 and 12,121,000 for 1955 and 1956 dated Perth Mint pennies,⁵⁻⁶ yields the following. The 392,400 4+D "mules" would constitute about 3.5% of 1955 Perth pennies and the 601,200 3+F "mules" about 5.0% of 1956 Perth pennies. No other changeover date yields reasonable results.

Based on my own limited experience in searching for varieties, the first number seems high and the second, possibly low. This observation, coupled with an informal survey among several other variety collectors, indicates that the two penny "mules" seem to be encountered at a ratio perhaps closer to 1:3 than the 1:1.5 indicated in the above analysis. The cause of this apparent discrepancy is unknown, since it seems unlikely that obverse dies within the same batch would have been made using different tools or that once the mint switched over to newer Obverse 4 tools that older tools would have been used. The most plausible remaining explanation is that this is due to differences in the original regional distribution of these varieties, which has either affected their survival rate or their current availability to the few variety collectors interested in pursuing them.

Another interesting question and minor numismatic mystery arises concerning the well known "close 55" and "wide 55" date varieties of 1955 Perth pennies.⁵⁻⁷ While these are both of the same reverse D master die type, they are clearly from different dated punches (or hubs) used to produce the working dies. Here, the spacing between the 5s in the "close 55" variety resembles that of 1955 Melbourne mint pennies (Reverse E),

whereas the spacing between the 5s in the “wide 55” variety is a much better match to the wider spacing of the “195” date numerals of Reverse D. My own observations show the “close 55” type to be the scarcer variety and furthermore that specimens with distinctly different die cracks exist, confirming that all dies for this variety must have been produced from a single dated punch. The observation that all 4+D “mules” struck for circulation are of the “wide 55” variety would seem to indicate that the “wide 55” type became the preferred date configuration at Perth, since it is both more common, and as the present work demonstrates, it was used in producing the last batch of 1955 dated penny dies. However, as has been noted previously,² 1955 Perth Mint penny proofs were struck well into 1956, using Obverse 4 and the “close 55” reverse die. The unexplained mystery (to me, at least), is why a “close 55” reverse die would have been used for striking the proofs, if the “wide 55” date variety had really become the preferred type. Details on proof dies and their use unfortunately is not included in the Die Account book. So until additional information that might help address this becomes available, this will necessarily remain a “mystery”. In numismatic research it often seems that when one is finally able to answer a question, another immediately arises to replace it. This is perhaps what makes numismatics such a fascinating, and occasionally frustrating, but rewarding endeavor.

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