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Australian Pre-Decimal Bronze Coinage

Paul M Holland

Australian pennies and halfpennies offer an unusually complex and fascinating series. In circulated grades, the pre-decimal bronze coinage provides the young collector, or those of limited means, a significant yet accessible subject for numismatic study. This is important if numismatics is to thrive over the long term, as there should be good, affordable entry points which can compete with other collectibles such as stamps, sports trading-cards, etc. At the same time, for the advanced collector or numismatist, the pre-decimal bronze coinage, with its numerous important varieties, can offer a nearly insurmountable challenge as well as scope for new discoveries.

A detailed numismatic understanding of the pre-decimal bronze coinage begins with the production of dies for these coins. This involves a multi-step process in which blows by a punch (or hub) are used to transfer the design on the master die to a steel die 'forging' with cone shaped top, with annealing (softening) of the metal by heat treatments between each step. Typically three blows are required to transfer the design for pennies and two for half-pennies. In the overall scheme of mint operations, a cascade of tool and die production is employed to produce large numbers of essentially identical dies from a single master die as shown in Figure 1.

This process also allows 'derivative' master dies with specific dates and

mintmarks to be produced. Here, the final date numeral is ground off a punch, which is then used to produce a die to which a new final date numeral is added using a hand punch. This results in a fully dated derivative master die, allowing efficient production of numerous identically dated dies for a given year. The overall scheme, shown in Figure 1, also allows the same master die type to be used for coins of many different years and mints. For example, 1964 Melbourne mint pennies were produced from the same reverse master die as those used for 1938 pennies, and the reverse master die for 1955 Perth mint pennies was the same as that used for 1951-PL pennies.

Coinage dies are directly responsible for producing nearly all of the numismatically interesting features on coins. This includes the usual differences in designs, dates and mintmarks as listed in the standard catalogues. Conversely, it should be pointed out that the coins themselves provide an accurate inverse image of each of the dies used by the mint. Thus the coins provide a detailed record of the placement of date numerals and mintmarks, border beads, traces of deliberate mint alterations such as overdating and any accidental alterations to the die or mint tools. Furthermore, a detailed history of each die, as it sustains wear and damage, is reflected in the coins by a progression of clash marks, die cracks and cuds (where a

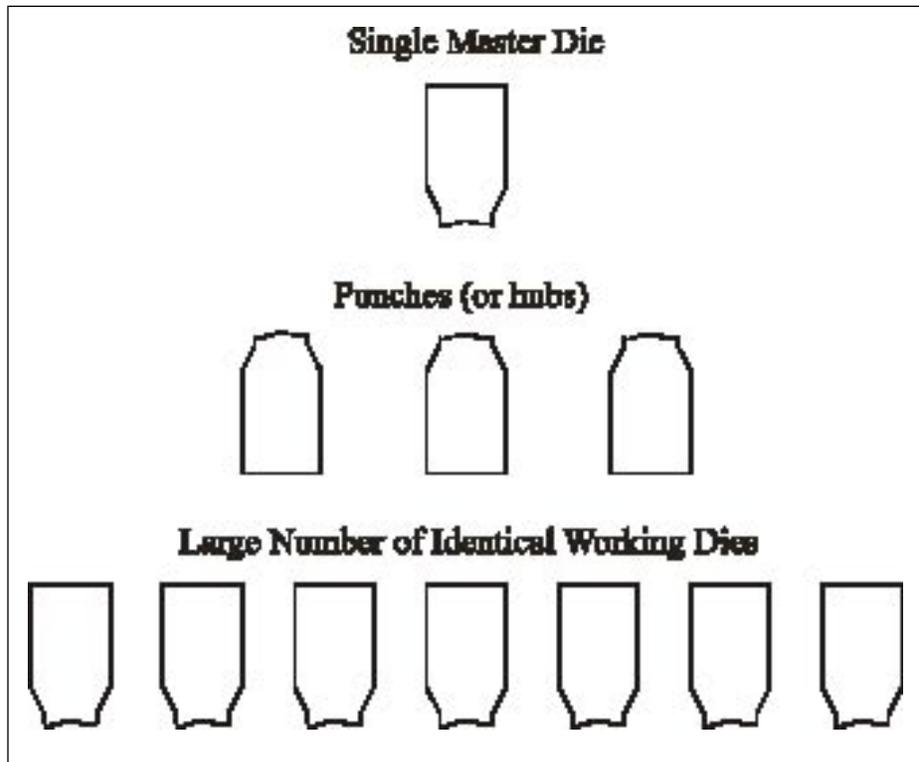


Figure 1. Overview of scheme for the production of many dies from a single master die.

portion of the die breaks away), up to the point where the die is removed from the coining press. This provides the specialist collector or numismatist with a rich trove of numismatic information.

An example of a variety of pre-decimal bronze coinage that exists beyond the usual scope of collecting is shown in the close-up photographs of INA in REGINA of a 1953 halfpenny obverse (Figure 2). This exhibits strong doubling in the legend as the result of a misalignment between blows during die production. The remnant of the lettering from the first blow of the punch can be seen to the right, being more pronounced at the bottom and fading away towards the edge of the coin at the

top. This clearly reveals how the design was transferred by the punch to the cone-shaped die forging in two blows, registering from the centre outward.

The different types of varieties encountered in the pre-decimal bronze coinage might be classified as follows:

Deliberate variations in the dies due to mint activity and operations, such as different master die types and their pairings, overdates, date numeral style variations, mintmark type and placement, and the different dated punches used for working die production.

Unintended variations due to routine mint operations, such as doubled dies, date numeral position variants, and mintmark position variants.

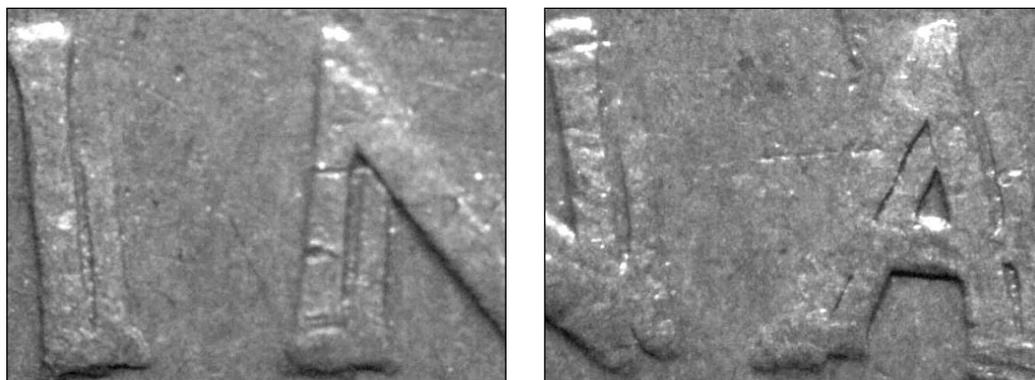


Figure 2. Close-up photographs showing doubling of INA in REGINA in the obverse legend of a 1953 halfpenny.

Accidental variations, or the so-called ‘lumps and bumps’, raised dots, etc, due to die damage resulting from chipped and cracked dies, die clash marks and wear.

Errors during the manufacturing process, such as rotated dies, off-centre strikes, clipped or cracked planchets, filled dies, and strike-doubling or mechanical-doubling damage.

The most numismatically significant of these are deliberate variations in mintmarking and master die types. In the pre-decimal bronze coinage the pennies are especially rich in mintmark and master die varieties, with important mintmark placement variations in the years 1919 to 1920 and 1941, and with eighteen different master die types used. Detailed study of the master die types is especially rewarding, showing for example that 1932–36 George V pennies employed the same master die types as those of 1912–15, and that the reverse used for 1964 Melbourne pennies is the same type used from 1938 to 1951 at both Australian mints. Master die types observed on Australian pennies are often associated with particular mints.

The well known ‘English’ and ‘Indian’ obverse dies of George V pennies allow 1922 pennies struck at the Perth Mint and 1924 pennies from the Sydney mint to be identified. Other master die types associated with particular mints include distinctive ‘Bombay’ and ‘London’ mint reverse die types for George VI pennies, and ‘Melbourne’ and ‘Perth’ die types for Elizabeth II pennies. Pairings of these have resulted in a number of scarce or rare varieties of Australian pennies including English die pennies of 1920–21, Indian die pennies of 1924, 1927 and 1931, the 1943 Bombay pennies with 1942 style denticles, the Melbourne mint penny of 1953 without serifs on the 5 using the new reverse die type of 1955–59, and Perth mint penny ‘mules’ of 1955–56 with either the newer Perth style obverse or older Melbourne style obverse. Detailed descriptions of these different penny die types and their pairings are beyond the scope of this short article. For descriptions, photographs and further information the interested reader is referred elsewhere.^{1–4}

While Australian halfpennies are less

complex than the pennies, they are also interesting. Coins of special numismatic significance include the rare 1916 quarter anna obverse mule struck in Calcutta, the distinctive Bombay master die varieties, and various pairings of obverse and reverse dies prepared at the Melbourne and Perth mints in 1951. Again, the interested reader is referred elsewhere for details.^{5–6}

Besides major mintmark variations, different master die types and their pairings, Australian pre-decimal bronze coins include the important 1933/2 overdate penny. Careful study of overdate pennies coupled with Melbourne Mint records has shown that this overdate resulted from over-hubbing a batch of six partially completed penny working dies dated 1932 with a 1933 dated hub in late 1932.⁷ This would have been done as an economy measure. Deliberate variation in the style, position and spacing of date numerals is also known, with Perth Mint pennies of 1952 providing especially interesting variations. Here, variations in the final date numeral 2 are associated with a series of trials in preparing new coinage dies using 1951 dated master tools supplied by the Royal Mint in London during the transition to working die production at the Perth mint.⁸

Among the more interesting examples of unintended die variations are the many different positions of the mintmark after the A of AUSTRALIA on the 1953 Perth Mint halfpennies.⁶ The obverses of these coins also exhibit numerous examples of doubled dies such as that shown in Figure 2.

Accidental die variants from damage, such as die cracks and flaws, offer individual working die ‘fingerprints’ which can be useful

in numismatic research, as well as providing a wide range of amusing and sometimes colourfully named varieties for the devoted collector of ‘lumps and bumps’. These include various coins with raised dots in the field (presumably from die flaws), many of which are listed in John Dean’s book.⁹

Errors during the manufacturing process which result in misstrikes can reveal important information about the minting process. For example, a study of off-centre strikes has demonstrated that the orientation of dies in the coining presses at the Melbourne and Perth mints differed, and this can help account for the unusual number of ‘strike-doubled’ dates observed on Melbourne mint pennies of 1948–52.¹⁰

Finally, even the pre-decimal bronze proofs merit careful study, especially those of the Perth Mint from 1955 to 1963. These show numerous distinctive ‘die markers’ which allow individual dies to be identified, and demonstrate such features as die-linkages between different years, with clear evidence of reverse-date-order striking for some of the proofs.¹¹

Australian collectors are fortunate in having a series as fascinating as the pre-decimal bronze coinage. The wide availability of these coins offers a good starting point for novice collectors, while their inherent complexity presents a significant challenge to the numismatist.

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Paul Holland is a specialist in die varieties of British and Australian predecimal bronze coinage. He has a PhD in physical chemistry, an MSc in oceanography, and much of his work in developing miniaturised instrumentation for oceanographic and space flight measurement is funded by NASA.