

# MICROSCOPICAL EXPLORATION

## FORTY FOUR (ME44)

### Microscopes, Monarchs and Money

What, you might ask, is the connection between the three Ms in the title? Bear with me and all will be revealed.

#### **Background**

For many years I have used my old ATP model DMS-USB2 2 Megapixel USB digital microscope alongside my stereomicroscopes for macro microscopy. The ATP device afforded a maximum resolution of 1600 x 1200 pixels, and served me well since the 1990s, capturing images used in some of my previous Microscopical Explorations.

Now, towards the end of the first quarter of the twenty first century, the time has come for an upgrade...enter the Ninyoon 4K WiFi microscope, a relatively inexpensive device which offers image capture at resolutions up to 3840 x 2160 pixels. The device is shown in the image below, set up with a wired connection to my PC and fitted with my LED ring light.



The microscope is fitted with eight LEDs surrounding its lens to provide specimen illumination, but their proximity to the lens can give rise to unwanted reflections with some specimens. More remote illumination from a ring light is to be preferred in such cases. What, I wondered, would be a suitable subject for testing out the capabilities of my new device... could it be MONEY?

I've had some old coins lying around in a junk drawer for donkey's years, so they might provide an interesting start.

## KINGS, QUEENS AND COINS

Although the monarch's head first appeared on English coins during the reign of Athelstan, who died in 939 CE, the farthest I can go back for ME44 is to Queen Victoria, who reigned from 1837 to 1901.

Here is a depiction of her head facing left as seen on the obverse of a solid silver crown coin minted 1887.



The Reverse





Edward VII succeeded Victoria to the British throne and reigned from 1901 to 1910. Here he is on a very worn penny from that time, and facing the other way. Why the change of direction? That is explained [here](#).



The Reverse





Next up was George V who was on the throne from 1910 to 1936  
This is his visage, once again facing to the left, on a World War One penny



The Reverse



Here he is again, this time on a 1920s silver threepenny piece





The Reverse





Upon the death of George V in early 1936, his son Edward Albert Christian George Andrew Patrick David succeeded to the throne as Edward VIII, but abdicated less than one year later. Edward had intended to break with tradition and have his favoured left profile on the coinage, (he should have faced right), but no coins bearing his effigy were issued during his reign, and tradition was re-instated when he was succeeded by his brother Albert Frederick Arthur George, as King George VI in December 1936. This is his head depicted on the obverse of a farthing minted towards the latter end of his reign.



The Reverse





Following the death of her father in 1952 Queen Elizabeth II succeeded to the throne. She was crowned in June 1953 and reigned until her death in 2022. Here she is on a 'Two Bob Bit' (two shilling piece) minted early in her reign in 1955.



The Reverse





1962 Penny



The Reverse





1967 threepenny piece



The Reverse





Since the introduction of decimal coinage in 1971 in Great Britain, the dates have been shown on the obverse of the coinage. Therefore, no further images of the reverse of the subsequent coins considered in ME44 will be included.

1971 penny



1976 penny





1981 two pence piece



1985 two pence piece





1997 two pence piece



2008 two pence piece





2017 five pence piece



2020 one pound coin





As can be seen above, five different depictions of Queen Elizabeth II's head have been used on British coins during the many years of her reign, and a more detailed description of each can be found [here](#).

All coins considered, I am very pleased with the versatility and the image quality afforded me by the new instrument

**As we say here in Cumbria:  
'Ave a go yersel'!**

**Comments, gratefully received, to:**

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Published in the May 2025 issue of *Micscape* magazine.