

The Trial of the Pyx

By John Andrew

The Trial of the Pyx is not open to the general public. However, groups of up to four people may attend if space permits. Applications should be sent in writing to the Assistant Clerk, The Goldsmiths' Company, Goldsmiths' Hall, Foster Lane, London EC2V 6BN, United Kingdom. The Trial normally takes place in either late January or early February.

The Worshipful Company of Goldsmiths, commonly referred to as the Goldsmiths' Company, is one of the 110 livery companies in the City of London. Incidentally, the word 'goldsmith' has traditionally referred to individuals who work in both gold and silver, while more recently platinum and palladium has been added to their repertoire. The earliest reference to the then Goldsmiths' Guild was in the 1179-80 Pipe Roll, the name given to the financial records of England's royal government until circa 1300. The document lists 18 guilds that were operating without a licence and the fine that they had to pay to King Henry II. The Goldsmiths topped the list with a fine of a hefty 45 marks (about £30), which was far higher than any other guild. This indicates that it was already firmly established and not a fledgling institution.

It had to wait 120 years for its next big step on its journey towards greatness. In 1300 Edward I passed a law requiring gold and silver in England to be of a defined standard. Furthermore, it appointed 'the Guardians of the Craft', i.e. the Goldsmiths' Guild, to mark the two precious metals that conformed to the law with a leopard's head. It is thought that this mark was chosen as it was part of the royal coat of arms. Whatever the reason, one of the earliest forms of consumer protection had been launched. Hallmarking (i.e. being marked at the Hall of the Goldsmiths' Guild) was to develop over the years.

In 1327 Edward III granted the Goldsmiths' Guild its first Royal Charter. This was the beginning of the organisation's formal existence as a craft guild with St Dunstan as its patron saint. The Charter gave it the right to enforce good authority, standards within the trade and emphasised its standing over goldsmiths working outside London. The highpoint of the organisation's development took place in 1462 when Edward IV changed the organisation's legal entity from a guild to a body corporate having perpetual succession. The Worshipful Company of Goldsmiths was born. It is very unusual for livery companies today to have a statutory function. However, the Goldsmiths' Company (the Company) has two. The most well-known one is assaying. It has





In 2015 the Queen's Remembrancer Barbara Fontaine wearing full court dress and tricorne hat standing in front of the buffet in the Livery Hall displaying the ceremonial plate of the Goldsmiths' Company. Photo Courtesy *The Goldsmiths' Company*

been running the London Assay Office for over 700 years, but it has another statutory function, which is not so well known.

This is the Trial of the Pyx, an annual event in the UK for assuring that coins newly minted by the Royal Mint conform to the statutory requirements regarding the composition of the metal used to strike the coins as well as the size and weight of the coins. Throughout the year, the Mint Foreman takes samples of the production, say one in every 10,000 coins struck, and places them in a mint box known as a pyx, hence the name of the Trial. Although the Company has been responsible for assaying the quality of precious metals in London since 1300, it was involved with the Trial much earlier than this. It is believed that the first one took place before 1000 AD during the Saxon period. The first record of a Trial is in 1248 before the Barons of the Court of Exchequer by a jury of 'Twelve discreet and lawful Citizens of London with twelve skilful Goldsmiths of the same place.' The earliest known writ ordering a Trial is dated 1282. The Company was granted responsibility for the proceedings by Elizabeth I in the 16th century.

The Trial is presided over by the Queen's Remembrancer, a post created in 1154. This is the oldest judicial position to have remained in continual existence in England. Barbara Fontaine (as Senior Master of the Queen's Bench Division of the High Court) currently holds the position. As is the tradition, she wore full court

dress complete with tricorn hat. This year the 12 jurors also included all the Company's four Wardens, wearing their crimson gowns with fur trim. These are the Liverymen responsible for all matters relating to the policy and direction of the Company. Since 1871 the venue has been the Livery Hall of Goldsmiths' Hall. This is the Company's third building on the site, which it has owned and occupied since 1339. No other London livery company can claim a longer or earlier tenure to the same site. The Hall opened in 1835. Its Livery Hall is a finely proportioned chamber with Corinthian columns of scagliola, a richly decorated moulded ceiling and five Georgian crystal chandeliers of English cut glass. The draped embrasure in the north wall was designed as a buffet to display the Company's ceremonial plate. Up to 232 may be seated in the room for a banquet.

In the early days of the trial, the only coin in circulation in England was the silver penny with a diameter of just under 2cm (around 0.8"), whereas at the Trial on 28th January 2020, saw a coin with a 17.5cm diameter (6.9i") being placed before a jury. So, why the increase from a coin a little larger than a shirt button to one the size of a saucer or tea plate? Simplistically, mints no longer just strike coins for circulation, but issue coins that are exclusively collectors' pieces. We have been accustomed to seeing proof coins being sold at premiums to collectors for many years. A recent trend in the UK has been to issue over-sized proof coins in silver, as well as gold, which will never be placed into circulation. This 'plate-sized' piece is a 2019 'Una and the Lion UK Five-Kilo Gold Proof Coin' struck in '999 Au Fine Gold' – or, to use the vernacular, 'pure gold'.

Graeme Smith, Queen's Assay Master at The Royal Mint said, 'Every year coins produced by the Royal Mint go to the Trial of the Pyx, a ceremony which tests and confirms the quality and accuracy of each coin and is something the Royal Mint prides itself on. This year sees the largest coins that the Royal Mint has produced in its history go to the trial – the five kilo and the two kilo Una and the Lion. Both of these coins have been remastered from an original die used almost 200 years ago [181 years ago to be precise] and are part of a new Great Engravers series, celebrating the finest artists who have worked on British coinage.'

It is not surprising that an example of William Wyon's work was chosen to launch the Great Engravers series as he was the best known of a long and distinguished family of coin designers and engravers. He succeeded Benedetto Pistrucci as Chief Engraver at the Royal Mint in 1828. The portrait coins of William IV were designed by him as well as the principal coins of Victoria, until his death in 1851.

The reverse of his 1839 pattern five pounds crown features Victoria standing beside the British lion, which she is guiding with her sceptre. It always appears to have been known as Una and the Lion, possibly because of Una in Edmund Spenser's 16th century poem *The Faerie Queen*. Una is the beautiful daughter of a king and queen who have been imprisoned by a ferocious dragon. Princess Una undertakes to free her parents. While pursuing this quest she encounters a fierce lion, which intends to eat her. However, captivated by Una's innocence and beauty, the lion abandons devouring her and instead becomes her companion and protector. The coin has been highly regarded by collectors of British milled coins for many years and in the Royal Mint's view is, 'widely acclaimed as one of the world's most beautiful coins'.



Here are the specifications for the 5-kilo and 2-kilo coins:

Coin title	Una and the Lion 2019 UK Five -Kilo	Una and the Lion 2019 UK Two -Kilo
Denomina-	£5000	£2000
Alloy	999 Fine	999 Fine
Weight	5.01-kilo	2.01-kilo
Diameter	17.5cm	15cm (5.9in)
Obverse De-	Jody Clark	Jody Clark
Reverse De-	William Wyon	William Wyon
Quality	Proof	Proof
Issue	1	4



2kg Una & Lion.jpg

Front and back of the 2019 2-kilo gold Una and the Lion which has a face value of £2000. © *The Royal Mint & The Goldsmiths' Company*

In addition, there was an issue of a dozen 1-kilo Una and the Lion coins. The three categories of kilo gold coins completely sold out.



Dr Timothy Schroder, Prime Warden of The Goldsmiths' Company holding the reverse of the 2019 5-kilo gold Una and the Lion to camera, capturing William Wyon's masterpiece to perfection. The coin is a £5000 denomination. © *The Royal Mint & The Goldsmiths' Company*



A modern pyx box used at the Trial. *Crown copyright*

The members of the jury take their oath and appoint a foreman. The Queen's Remembrancer then gives a learned speech and adjourns the Trial. The proceedings continue in the period of recess with the Pyx boxes being opened and the sealed paper envelopes distributed to the jury containing a specified number of coins of the same denomination. Each member of the jury has two bowls – one in copper and the other made of wood. With supplied scissors, each member of the jury opens his or her envelope and selects one coin at random.

This is placed into the juror's wooden bowl; the remaining are counted into the copper one. The bowls are then promptly removed and returned empty and the procedure is repeated. The single coin in the copper bowl will be assayed and measured to ensure its metal composition, weight and diameter is accurate, while those in the wooden bowls will be weighed to ensure the coins' average weight is correct. The Trial is adjourned until May to allow time for the coins to be tested by the Assay Office Laboratory of the Goldsmiths' Company and the National Measurement Office.



The Royal Mint's security guards carrying the empty pyx boxes from the Livery Hall down the Grand Staircase at Goldsmiths' Hall. *Courtesy the Worshipful Company of Goldsmiths*

A UNIQUE COLLECTION OF TRIAL PLATES



In the late 15th to the late 16th century Trial Plates were 'chisel' shaped and were identified by a tag secured through the drilled hole in the Plate. This is the oldest surviving example and was made in 1477. It is for Angel Gold which is 23 carat 2 pennyweight (dwt). It features an impression of an angel coin die. This was a haphazard occurrence on early plates. © Royal Mint



The Exchequer's portion of the 1601 silver trial plate for sterling silver (925 fine) – the actual standard of the plate is 925.1 fine. The die impression is the reverse of a 1601 Elizabeth I sixpence. This is the only plate for which I have the dimensions: length 3.9". From this date, the plates always bear an impression of a crown as well as the engraved description. *Crown copyright*

Then as now, the coins were tested against standard samples of precious metal known as trial plates. A small piece would be clipped from the plate and it too would be assayed so that the fineness of the coins could be compared to the fineness of the plate.

For centuries the Exchequer's portion of the plates were kept at Westminster Abbey in a chamber that is part of the crypt of the East Cloister. It was built around 1070 but was walled off from the rest of the room during the 12th century and may have been used as a sacristy during Henry III's rebuilding project. During the reign of Edward I (1272-1307) the chamber and the crypt of the Chapter House were assigned to a Department of State known as the Royal Wardrobe. Royal treasures as opposed to clothes were stored there. In 1303 money and silver objects were stolen from the chamber. The Abbey's Abbot and monks were suspected and imprisoned in the Tower of London. However, they were later released when one Richard de Podicote and his associates were apprehended. They were later tried and sentenced to death.

As a macabre warning to others, Podicote was flayed alive and his skin nailed to the door. After this incident the trial plates were stored there by the Exchequer and gradually it became known as the Pyx Chamber or Pyx Chapel because of the plates' association with the Trial of the Pyx. They remained there in a large early 14th century wooden chest until 1837 when they were removed to the Royal Mint together with old coin dies. The chest was transferred to the Public Record Office.

Six years later, further material was transferred to the Mint from this medieval depository. This included an unusual silver ingot believed to have been made at about the time of Edward I's recoinage of 1279. In the 19th century the opinion was that this was the earliest surviving trial plate. However, more recently it is doubted whether the ingot had anything to do with the Trial of the Pyx. Instead the earliest Trial Plate is now regarded as the gold example made in 1477 during the reign of Edward IV.

The earliest plates were chisel-shaped with one end hammered out so as to receive the reverse impression of the coinage die. Later a rectangular form was adopted. However, whether chisel-shaped or rectangular, the common characteristic of the plates is a jagged or indented outline. This is a simple but very effective security measure to ensure that neither the Crown nor the monarch's subjects were defrauded. After a plate had been made of the required standard, it would be cut into a number of portions. One or two would be given to the Royal Mint, one to the Worshipful Company of Goldsmiths, while the remaining portion went to the Exchequer. At the Trial of the Pyx, the Mint's portion would be presented and because the original plate from the 17th century had been cut in a distinctive fashion, its authenticity could be established by fitting it like a jigsaw piece, to the Exchequer's central portion of the original whole plate. Likewise, the portion of the Goldsmiths' Company could be authenticated.

The trial plates form a virtually unbroken series from 1477 to the present day. This unique collection bears testimony to the importance that the authorities have attached over the centuries in maintaining confidence in the nation's coinage. They also illustrate how technology has improved over the centuries. The earlier plates were not necessarily made within the allowable tolerance of the exact composition required by law, whereas the modern examples reflect the greater accuracy achieved as a result of chemical analysis and metallurgical research.

The most memorable Trials are associated with the year 1707. Prior to June 1871, the Trials were held quarterly. In July 1707 the proceedings were conducted in the parlour belonging to the Usher of the Exchequer. After the initial formalities had been undertaken, the Jury retired to conduct the assay against the plates for 1688. Unfortunately, the flue of the furnace 'set fire on so the top of the house' and the water used to quench the flames ruined the Trial. The proceedings were transferred to Goldsmiths' Hall the following day.

Following the Act of the Union, in the same year, the Goldsmiths' Company was instructed to make new trial plates. There is a document in the Company's archive



The Exchequer's portion of the 1688 trial plate for sterling silver. The die impression is the reverse of a 1688 James II crown. Crown copyright

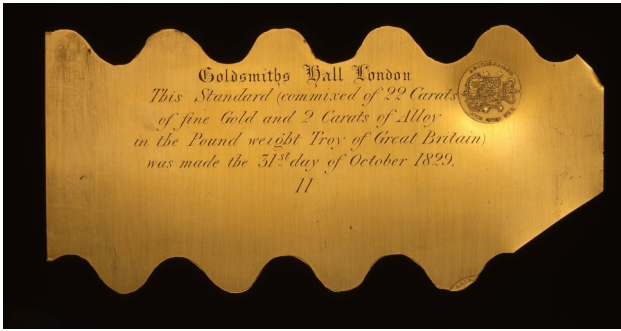


The 1707 trial plate for sterling silver. The two die impressions are both the reverse of a Queen Anne 1707 half crown. Courtesy The Royal Mint



The 1707 trial plate for 22 carat gold. The two die impressions are both the reverse of a Queen Anne 1707 two guineas. Courtesy The Royal Mint





The 1829 gold trial plate issued to the Goldsmiths' Company. The die impression is the reverse of an 1829 George IV sovereign. *Courtesy the Goldsmiths' Company*

that shows in great detail how the subsequent plates were to be divided. Unfortunately, not the same degree of care was taken with the actual composition of the gold plate. The fineness was in fact 917.1 instead of 916.67 for 22 carat gold. The 1707 plate was not used at the Trial in July of that year as it was not ready. As no gold coins were minted for two years after July 1707 the new plate was not used until 1710. Sir Isaac Newton, Master of the Mint, was naturally present at that Trial. Imagine the amazement of this mathematician and physicist who was one of the foremost scientific intellects of all time, when the Jury declared that the 1710 gold coins were marginally below standard.

An acrimonious discussion ensued. Nevertheless, the jury insisted, despite Newton's strong protests, that the gold coins were $\frac{1}{4}$ pennyweights (just over one part per thousand) below standard. Of course, technically the Jury was right, but the Company had to admit that there had been an error. At the next Trial in 1713, the 1688 gold plate was used. In fact, it was probably used at all subsequent Trials up until about 1816. Indeed, when it was transferred from the Pyx Chamber to the Royal Mint in 1837 was a fraction of its former self, indicating that the other portions of the plate had been entirely consumed over the years.

The Trial of the Pyx is a very interesting ceremony. Now as in the days of yore, the coins are presented to the assembly in pyx boxes. However, today the Jury just counts some of the coins. Where large quantities are concerned these can be counted by machine. The National Weights and Measures Laboratory supply the trial plates used at the Assay Office.

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