

Sculptures, Symbols and Medals

Emeritus Professor L. W. Barr

University of the West of Scotland

"What's the difference between a method and a device? A method is a device you use twice" George Polya (1887- 1985)

In the early 1990s, the Society's membership had been stagnant for thirty years following a sharp decline after 1942. A particularly large drop followed the sale of the society's Bath Street Building in 1961. A sad result of that sale was the dispersal of the Society's collection of busts of distinguished members and other memorabilia.

This decline was not unique. The membership had suffered previous falls, notably around 1806 and 1830. Corresponding periods of rapid growth happened in the mid 1830s, after the 1860s and at the centenary celebrations. Reasons for these shifts is not entirely clear but it seemed reasonable to look at these events as a guide to possible action.

For growth, two conditions seemed essential. Firstly, a convenient and suitable meeting place and secondly, the deliberate cultivation of interest in and enthusiasm for the Society and its aims. To achieve this a variety of devices was used including interesting meetings, exhibitions and publications. A notable step was the award of a Royal Charter in 1901 with the appreciation and recognition implied. But emphasis was also placed on creating symbols and artefacts, identified with the Society, in which members could take pride.

For some years before the mid 1990's meetings were held in the Mitchell Library at 6pm. While good for small meetings and at a time conveniently between finishing work and other evening activities, it was unsuitable for large audiences and extended meetings permitting discussions and socialising. Indeed when unusually large attendance was expected, venues other than the Mitchell Library had to be used with disruption of continuity. The Council therefore decided to hold future meetings in a large lecture theatre in Strathclyde University at 7.30pm. This change was introduced in the 1995 session and exactly paralleled the move to the Andersonian University in 1831 and the opening of the Bath Street Building in 1880. Both events were followed by a membership surge. It was anticipated that would again occur.

By 1805 the number of members paying the annual subscription had halved. Late in 1804 the Council decided that "a receipt engraved should be got for giving to gentlemen as their admission to the Society and paying their entrance money" Simultaneously a seal for the Society was ordered.

By September 1805 the receipt had become a Diploma and James Haldane, a founding member, was entrusted to engrave the plate while William Duncan, Secretary in 1804, was to procure the seal. It was noted almost a century later by Professor Archibald Barr, President in 1902, that the seal represented the transit of Mercury on the day the Society was founded. This knowledge had apparently been lost. It was almost certainly designed by Professor William Meikleham, Professor of Astronomy and first President of the Society. A link between the introduction of the Diploma and doubling of membership by 1812 is not provable. What is certain is that the Diploma was highly prized and several are still extant 200 years later.

The beneficial effects of the move to the Andersonian University and the acquisition of the Bath Street building have been noted. With a secure base a collection began of other, less portable artefacts. The first was the Presidential Chair. Engravings on its back picked up the Diploma's Minerva theme but introduced the Glasgow coat of arms and the city motto. This indicates a closer link between

the Society and the city. This link is reflected in the subject matter of the Society lectures and the interests of the members. The Minerva theme was continued in the medallion, inset into a box, now in the possession of the Society, which was made to commemorate the incorporation of the Society in 1879. Little is known of the provenance of the medallion but the engraver's name - Cunninghame is on it. (A picture of the medallion is on page 19 of the 215th Annual General Meeting Report of the Society). The medallion has the usual Minerva symbols of the lamp of knowledge and the owl of wisdom and again includes the city's coat of arms on the pedestal.

Additionally, the Society acquired a number of busts of distinguished members. Amongst these can be listed a marble bust of Thomas Thompson by Sir John Steell (1804-1891) now in the University archives, a bust of Thomas Graham on loan to the Royal College of Physicians and Surgeons and a bronze bust of Lord Kelvin sculpted in 1896 for the Society on the occasion of the jubilee of his appointment to the Chair of Natural Philosophy. The bust was sculpted by A. MacFarlane Shannan (1850-1915). James "Paraffin" Young the founder of Scotland's (and the world's) first oil industry, and a distinguished member of the Society gave statues of Thomas Graham (William Brodie 1815-1881) and David Livingstone (John Mossman 1817- 1890) to the city. All these sculptures testify to the contributions made by members of the Society to the progress of science and the improvement and beatification of the city. They are a source of pride to the members.

In 1879 was held the first of a long series of Graham Lectures to commemorate his work. The lecture was delivered by William Roberts (later Sir William Chandler Roberts-Austen) who was to become the foremost metallurgist of his age. He was invited by Dr William Ramsay (later Sir William Ramsay, Nobel Laureate), head of the chemical section and the lecture was chaired by Dr James Young. What a galaxy of talent!

At the same time a medal was instituted to be awarded for original research in chemistry. It seems to have been given only twice and fell into abeyance by 1926. The medal was struck at the Royal Mint using gold supplied by the Society. Only one Graham medal survives in Strathclyde University Library.

The idea of having a named lecture in the programme clearly comes from the success of this lecture. In 1959 and 1978 two further named lectures were added; the Kelvin Lecture in 1959 and the Arts Lecture in 1978. These had no perceptible effect on the membership of the Society. Merely adding a name to a lecture, lacking the long history of the Graham Lecture, had little impact. It also seems that the Arts Lecture was not as highly regarded as the Graham or Kelvin Lectures.

In view of the membership problem the Council decided in 1993, reviving the idea of the Graham Medal, to award medals to those giving the named lectures, all being given equal footing. The aim was to distinguish these lectures from the normal programme and to give the speakers a memento having historical associations and artistic merit. The Chair of the meeting could, where appropriate, link the lecture subject to the contributions made by the Society in that area. The award ceremony involves all members, reinforcing pride in membership. At the same time the Council agreed the acquisition of the Presidential Insignia to commemorate the Presidency of Jenny Johnston. A portable version of the Presidential Chair.

Making the Medals

"but special care should be devoted to the preparation of dies for striking artistic Coins, with a view to give people pleasure in the things they are obliged to use"
Vannoccio Biringuccio (1480-1539)

Medals can be either cast or struck. Striking a medal gives a sharper more precise image and is used on all of the Society medals. In this process the chosen metal alloy is forced by very high

pressure into the details engraved, in reverse, into a hard steel die. Cutting the die is a skilled manual process. The "die-sinker" is artistically trained. A range of alloys is used but mainly bronze or brass. Bronze, an alloy of copper and tin but with other additions, is harder and more durable but more difficult to engrave. For this, and other reasons, it is more used for coins, busts and bells. For example, the British 2012 Olympic bronze medal was 97% copper, 2.5% zinc and 0.5% tin by weight and was struck at the Royal Mint.

The brass alloy chosen for the Society's medals is 90% copper and 10% zinc. This is slightly softer but more easily struck and engraved. This alloy has a colour indistinguishable from pure gold and is, when engraved, very attractive. After striking, and before engraving the inscription, the medal was patinised to a bronze colour in chemical bath.



The lead strikes of the Minerva Medal, the original Kelvin Medal and the Society's seal

After the die is engraved a strike is made into a soft lead block so that the engraving can be checked for accuracy. Examples are shown in the illustration. The Kelvin test strike shows that initially Kelvin's dates were omitted. The die was altered to include them. After the test strike, the die is hardened by heat treatment after which changes are difficult.

Two dies are used for each medal. The obverse- the principal symbol and the reverse -the Society's seal. The chosen size was 50mm diameter and 4mm thick

The medals were struck in a hydraulic press using 200 tonnes of pressure by Reliable Stamping Ltd, Birmingham. The dies were cut by Trevor Charles Barr who studied at the Mosley Road School of Art and trained as a die-sinker under Paul Harper. The agent for all this was Hamish McLean of Paisley who also engraves the inscriptions.

The Medals

*"Let us now praise famous men
All these were honoured in their generation
And were the glory of their time"
Ecclesiasticus, 4.4*



The Society's medals, left to right, The Minerva Medal, the Graham Medal, the Kelvin Medal, the Society's Seal

The illustration shows the Society's three medals together with the Society's seal.

The most straightforward to commission was the Graham Medal. A photograph of the original Graham medal from Strathclyde University library was supplied to the die-sinker. That medal was struck at the Royal Mint around 1878. The original die was cut by John W Minton Jnr. (c1850-1892) who was based at the Mint between 1866 and 1871. He probably had seen Graham there before his death. He was well known as an engraver and portrait medallist who exhibited at the Royal Academy of Arts between 1866 and 1892. A test was made, using the first medal, of the size and layout of the inscription that could be made on a medal. It was satisfactory.

During the Council's discussions of the medals it emerged that the Society's secretary Mrs Campbell had had in a box room in her house since the sale of the Bath Street building, amongst other items, the bronze bust of Kelvin already mentioned. The sculptor A MacFarlane Shannan sold an identical bust to the National Portrait Gallery after Kelvin's death. When it was proposed that a statue of Kelvin be commissioned, a competition launched. MacFarlane Shannan won by pointing out that he was the only person who had made a bust of Kelvin from life. The statue in Kelvin Park, for which he had made three alternative designs, was unveiled in 1913. The version selected, showing Kelvin seated, may have been chosen for its resemblance to Graham's statue in George Square. The similarity of the head and shoulders of Kelvin in the statue, to the Society's bust, is most marked. Photographs of the bust were supplied to Trevor Barr and the necessary die cut.

When the first Kelvin Medal was presented to Lord Marshall, who also had been Director of Harwell, the Government's Chief Scientific Advisor and Head of the General Electricity Board, Kelvin's bust was displayed. This practice has continued, though a less valuable plaster copy is now used. This gives members a rare opportunity to appreciate part of the Society's art collection. Perhaps a similar copy of Graham's bust could be displayed at the Graham Lecture?

When the Council decided on an Arts Award Medal, on the same footing as the Graham and Kelvin Medals, agreement as to the suitable title was not possible. For this reason the original medal had a blank obverse to be engraved "Arts Award Medal" with the recipient's name and date. Only a small number were struck. When these were exhausted the matter was to be reviewed. This happened in 2009/2010 and discussion was started as to a suitable design. Various proposals were made but the decision was to go back to the original Minerva design of James Haldane on the Diploma. A suitable sized Minerva drawing was found in the form of a book plate in a survivor of the Society's Library. It was in a book "The Franco-Prussian War" Michael Howard 1961. When in the library it had been classified as Foreign History. Hence the inscription on the plate.

Minerva is a rich symbolism. The owl wing head-dress denotes wisdom, the mirror self-knowledge (psychology?) the globe the world (or geometry) and the triangle music (or geometry) The many breasted figure in the background could represent abundance or perhaps nature as in the Rubens/Bruegel painting in the Art Gallery, Kelvingrove. The Minerva medal was first presented in the 2011/2012 session, appropriately to a distinguished philosopher Baroness O'Neil.



The Society's Book plate, c1961

Concluding Remarks

"For time is the greatest innovator" Francis Bacon (1561-1626)

Simultaneously with the venue change and the introduction of medals other reforms were made, these included changes in administration, membership, recruiting, financial arrangements and publicity. For this reason it is not possible to gauge the impact of any one. There is some anecdotal evidence of medals helping with publicity and wider appreciation of the Society.

It proved easier to get advanced publicity in the press and elsewhere for the named lectures. The award of a medal is an admirable story for an article or an interview.

After the death of Lord Marshall, a memorial service was held at St Margaret's, Westminster Abbey. The Kelvin Medal was listed both at Westminster and the official press. The President of the Society was invited to the service and seated with the President of the Royal Society and the Lord Chancellor. After the service much interest was shown in the Society and the Medal.

Recipients of the Kelvin and Arts Medal in 2005/2006 were the then President of the Royal Society of Edinburgh, Sir Michael Atiyah and the Queen's sculptor in Scotland, Alexander Stoddart. Each, after the award, expressed interest in commemorating distinguished Scots mentioning particularly James Clerk Maxwell. It made sense to introduce them to each other. This was done. The outcome, after three years work, was the magnificent statue of Clerk Maxwell at the junction of St Andrew's Square and George Street in Edinburgh unveiled in 2008. Members can take pride that, but for the lecture programme and the medals, the statue might not exist. A full account of the statue and its origin can be found in the reference.

But innovations do not stop, 2019 is the 150th Anniversary of Graham's death and the 140th of the first Graham Lecture. There is no suitable marker on his grave nor in the Cathedral. It should be possible to erect a memorial stone at his grave similar to the one that the Society, placed next to the Thomson family tomb in the Glasgow Necropolis. The memorial was erected in 2007, the centenary of Kelvin's death, although Lord Kelvin is buried at Westminster Abbey. It is to be found only a few yards from the Bridge of Sighs in the Necropolis.

There are no memorials to more recent distinguished members. Neither Sir William Ramsay nor Sir Sam Curran (1912-1998) are commemorated though both were Honorary Members. There was discussion of a plaque for Ramsay's birthplace but this has not yet been followed through.

What is certain is that the Society, like Glasgow, will continue to flourish. There will be more innovations like the most recent addition to the aims "and better understanding of public affairs". Most appropriate for

*"I know of no safe depositary of the ultimate powers of society
but the people themselves; and if we think them not enlightened
enough... the remedy is not to take it from them, but to inform
their discretion by education"*

Thomas Jefferson (1743-1826)

Acknowledgments

The Society should remember, with gratitude, the help given in the furthering its aims and securing its future, by Dr Neil Bell, George Gorman and Dr Arthur Shenkin. Mrs Nancy Campbell also demands recognition. She was the long serving secretary and sole administrator during the lean years and preserved in her house many of the Society's most precious relics including several busts, the seal and a complete set of its publications.

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