



# The Royal Scottish Society of Arts

*Celebrating 200 years of Scotland's Science, Technology and Innovation*

**Patron: Her Majesty The Queen**

## **Presidential Report for the 200th Session of the Society (2020-21)**

Dr Alison Morrison-Low, President

This is the **President's Report** for the 200th Session of the Royal Scottish Society of Arts. My report concerns the objectives and activities of the Society from this time last year, and, despite our activity having been truncated from 22 March 2020 by the effects of the pandemic, there is still much has been achieved.

As you know, the Society was formed almost two hundred years ago for 'the encouragement of the useful arts in Scotland', which these days is taken to mean that we are concerned with advances in science, technology, engineering and manufacture – and indeed, our strap line is 'showcasing Scotland's Science, Technology and Innovation'. Since last June, the Society sadly has been unable to make any visits, nor, with national school examinations cancelled, been able to award any medals or prizes. We did manage to arrange a complete lecture series of 7 talks through Zoom, and were able to consider virtually the Society's future at 3 Council meetings – for all of which I must thank Councillors, the Vice-Presidents, Office-holders and especially the Secretary for keeping the Society on track. Also many thanks from all of us to the Programme Secretary, Brigadier Ian Gardiner, for all the splendid efforts put into the programme, past and present. Thanks too, to Treasurer Graham Rule, who has kept us all connected through Zoom, as well as recording events for YouTube. We are most grateful to you all. I'd also like to thank you, the Fellows, for supporting what we do by turning up and tuning in on (mostly) the fourth Monday of the month to hear about new and recent aspects of cutting-edge Scottish scientific developments.

As you may recall, two years ago, Council formed a small sub-committee, to work out how we might celebrate our forthcoming Bicentenary: 200 years of 'showcasing Scotland's Science, Technology and Innovation' should not go unmarked. Because of coronavirus, we have been forced to postpone our celebrations for a year, and much of our intended events will now happen not this summer (to be covered in the next Presidential Report) but probably the one beyond; that is, summer 2022.

However, the subcommittee, which met virtually 6 times in the past year, has continued with organisation of the bicentenary events, and I can report, in no particular order, progress towards some of the events that we hope to undertake. These are:

- We were able to have the Society's coat-of-arms made into a special and rather splendid bicentenary coat-of-arms by the genealogist and heraldry expert Mark Dennis, who kindly did this without charge to the Society. This has been used on our stationery produced for the year, and it can be seen on the website;
- Fellows will be provided with a mug with this coat-of-arms, together with the ability to purchase more for members of their families (for who drinks coffee or tea alone?);
- Fellows have also been provided with lapel badges made with Minerva's head in gold on a red ground, and 'RSSA 200' and the dates 1821-2021, which should have arrived through the post with a copy of the Annual Report and accounts;
- Through the firm Lochcarron, we are investigating a Society Bicentenary tartan, based on the colours of the bicentenary coat-of-arms - mostly green, brown, blue with smaller stripes of white and red. Lambswool scarves will be available for Fellows - and through them as gifts for friends and family.
- We plan to get the Society's 19 volumes of Transactions – published between 1841 and 1927 – digitised and made accessible on-line to both Society Fellows and the general public. We continue to discuss this with the National Library of Scotland, who may be prepared to do this for free, and support the project on their website. This really has not moved forward during lockdown, but we hope to have news about this shortly.
- We continue to plan the award of an RSSA Bicentenary Prize: this would be in the form of a travel scholarship to the value of £2500. Submissions will be invited from Scottish Universities.
- A Bicentenary Lunch, with an invitation to the Society's Patron HM The Queen: a celebratory lunch in the Upper part of the Signet Library to which our Patron will be invited in late June or early July 2022. Costings will need to be established but a figure of approximately £60 per person attending the lunch is envisaged. On the same day, the lower part of the Signet Library will be used to house an exhibition with invited displays from university departments and relevant companies that have provided lectures in the recent past.
- A Civic Reception: the Lord Provost's Office will be approached.
- The Society's Royal Charter (held in the National Library) is to be photographed and placed into a new, bespoke conservation-approved box, instead of being

folded up in its small tin.

- The lecture series for the 201st Session, 2021-2022, will be very much the flavour of the current and immediate past series: but we hope to hold a day symposium in which invited speakers will discuss the future of their subjects – with perhaps an introduction showing where their discipline was 200 years ago.
- We hope to hold a seminar which will mark the foundation of the Society, with a talk about the Society's history and change during the past 100 years, and another about the future.

At last year's AGM, I was able to report that the RSSA 200 subcommittee had moved this agenda forward. Despite progress being frozen for much of the past year, we have managed to carry things forward a little further, as I have just outlined; but actual celebrations are still unclear. Once 'normal life' in whatever guise it takes is resumed, I hope to keep you posted as to what is happening. Please keep an eye on the website, where events will be announced. For the moment, I should tell you more about what we have done during this past year.

As I said, there were, due to Covid, no excursions. In September our 200th annual lecture series began, all given virtually through Zoom, and recorded by Graham Rule and put on YouTube. Fellows who were unable to attend the 'live meeting', were on request, able to watch these recordings. There were in total seven lectures, the first given by Professor Wilson Poon, Professor of Natural Philosophy, University of Edinburgh. Entitled 'The Physics of Covid-19 Transmissions and Disinfection: what we don't know!', Professor Poon explained that although much of the response has to come from biomedicine and biotechnology, the physical sciences and engineering are also required to provide a holistic approach to this and any other future respiratory viral pandemic. This will necessarily look at 'goo physics' (technically, 'soft matter physics'), which studies 'liquids with bits', and may provide clues as to the ways and substances we can use to disinfect our environment. Our second speaker, Professor David Harrison, Professor of Pathology at the University of St Andrews and Director of the iCAIRD project, delivered an enlightening talk on 'Interpreting the art of pathology with AI', which was about the application of Artificial Intelligence to the interpretation of tissue biopsies from patients undergoing diagnostic tests. Our third absorbing presentation came from Professor Catherine Heymans, Professor of Astrophysics at the University of Edinburgh, and Director of the German Centre for Cosmological Lensing, Ruhr University Bochum on 'The Dark Side of the Universe'. She looked at the problems of 'dark matter' and 'dark energy', and how 95% of our universe is made up of these; and yet we don't know what they are. Subsequently we heard from Dr Alasdair William Clark, Senior Lecturer at the James Watt School of Engineering, University of Glasgow, on the fascinating topic of 'Whisky Tasting using a Nanoscale

Optical Tongue'. This device - one of a number - was developed through nano-engineered devices based on the interaction of light with nanoscale metals, known as plasmonics. Our fifth presentation came from Craig Clark, founder of Clyde Space Ltd, who talked about his involvement in setting up and ensuring the growth of Scotland's first commercial space company, Clyde Space Ltd, sending payloads into space and developing small satellites, in particular the successful CubeSats. Next we heard from Professor Keith Bell, ScottishPower Professor of Smart Grids at the University of Strathclyde, speaking about 'Powering past Fossil Fuels: Electricity and Net-zero', a really pertinent topic which concerns us all. Scotland has, it was reported, made massive strides towards net-zero greenhouse emissions in the use of wind energy, but further challenges remain, in particular the maintenance of the accustomed reliability of supply. Our final presentation came from Professor Siddharthan Chandran, Director of the Centre for Clinical Brain Sciences, Edinburgh Neurosciences, Euan MacDonald Centre and Anne Rowling Regenerative Neurology Clinic, at the University of Edinburgh on a subject that has probably affected us all: 'What are the Prospects for Regenerative Neurology?' The talk centred on the diseases which develop mostly in the ageing brain, discussed why meaningful therapeutics had so far remained rare, but explained why and how there is hope for exciting new developments in the near future. Despite these presentations all being delivered virtually, they were nevertheless effective; for which we must thank Graham Rule for his mastery of the technology. I think you'll also agree that Council suggested some quite extraordinary and powerful speakers, who gave some inspiring talks: and our thanks to Brigadier Ian Gardiner, Programme Secretary, for pulling it all together.

The Society has presented awards and medals since its earliest days, back in the 1820s. These days, we endeavour to engage with younger people by the annual presentation of medals and book tokens to the student with the top marks in the Engineering Science Higher examination, and another to the winner with top marks in the Engineering Science Advanced Higher examination. Usually these awards are presented at the 'Science and the Parliament' day, which this year was held virtually; but as there were no examinations, thanks to the pandemic and state response to it, sadly no medals were awarded.

Council's plans to celebrate the Society's Bicentenary have been similarly thwarted. Although the actual foundation date of the Society (and here I speak as a historian) is strangely difficult to place one's finger on, we decided that as the centenary - when Fellows had emerged from a Great War and another pandemic - was held with a public dinner in July 1921, we would follow their lead and try for July 2021. Alas! This is not to be; but Fellows should have received a lapel pin, with a golden Minerva's head (Minerva being the Roman goddess of wisdom, usually seen with an owl - two owls' heads are on the 'shield' in the coat-of-arms) together in the post with the Treasurer's

## Annual Report.

We sincerely hope that other bicentenary activities - the digitisation of the Society's Transactions, care of its archives and Royal Charter - will be put again in motion with the easing of lockdown. Lunch in the Signet Library, we hope in the presence of our Royal Patron, will be programmed for July 2022. Other celebratory events, once firmed up, will be posted on the website and announced at meetings, which we hope will be held once again in the Augustine United Church with an option of watching virtually from home.

I trust that the coming year, now that we are coming out of the shadow of Covid-19, will prove as interesting and as varied as the past (perhaps more so): and thank you all again for your support.

Dr Alison Morrison-Low  
President  
25th May 2021