
The conference was organised by Katharine St Paul, Curator of Collections and Frank James, Professor of History of Science at the RI. There were six talks in the morning and six in the afternoon. The conference was preceded by a reception at the RI on the previous evening; at the main conference there was a good representation at both events of RSCHG members.

The morning session was chaired by Bill Griffith, Secretary of the RSC Historical Group. Dr. David Saunders, Keeper of the Department of Conservation and Scientific Research, British Museum, spoke on *Conservation Science and the wider aims of the Museum*. The aims of the BM are the long-term preservation and study of their antiquities; the establishment of authenticity was obviously an important feature. Some case studies were presented, e.g. the Geyer Anderson Egyptian bronze of 600 BC, and the physico-chemical methods used to study its patination.

He was followed by Prof. Robin Clark FRS from UCL, on *Spectroscopic methods in Conservation Science*. He listed the various spectroscopic methods available but concentrated on the non-invasive technique of Raman spectroscopy. Examples of its use were given, e.g. in identifying pigments in a number of paintings or manuscripts, including the Lindisfarne Gospels (by showing that the blue pigment was indigo rather than *lapis lazuli* this refuted the prevailing theory that there was a trade route from Afghanistan – then the only source of natural lazurite - to Northumbria); mid-19th century Mauritan stamps, both genuine and fake, and other examples.

Dr. Barry Knight, Head of Conservation Research at the British Library spoke on *The SurveNIR Project for the use of Near Infrared Spectroscopy to estimate important properties pf paper*. He pointed out that the use of pH electrodes to assess the pH of paper (acidity is an enemy of paper longevity) can damage the material. A collaborative EU project on the use of non-invasive near IR spectroscopy with a group in Ljubljana showed that, over the range 1000 – 7000 cm⁻¹, it could provide valuable information on pH, lignin content, ash, gelatine and rosin content.

After a coffee break, Dr. Vincent Daniels, Research Fellow at the Royal College of Art and the Victoria and Albert Museum (and RSCHG member) spoke on *The Changing Appearance of Objects*. As soon as objects are made they begin to deteriorate, and it is the mission of the museum conservator to minimise or reverse this situation. Various examples were given – e.g. GC and MS studies showed that the black ‘patina’ of the Rosetta Stone is caused by the grease from visitors’ fingers; cleaning of this waxy deposit revealed a band of pink stone. Other examples included bronze disease in an Egyptian figurine, the light-induced fading of pictures and papyri and discolouration in figurines.
Dr. Bronwyn Ormsby, Senior Conservation Scientist at the Tate Gallery spoke on *The Tate AXA Modern Paints project – the conservation of acrylic emulsion paints*. Acrylic paints were first introduced in the 1940’s, and became (and remain) popular with some artists after 1950. They are water-based and dry quickly, often within 90 minutes. Examples by David Hockney, Patrick Caulfield, Andy Warhol and Jeremy Moon amongst others were shown. The material is soft and can bubble in hot weather; show drip marks etc, but like oil paints, can survive intact for long periods if properly conserved.

Helen Hughes, the Head of Historic Interiors, Research and Conservation, Kenwood House (English Heritage) spoke on *Theory and practical work – there is a link*. After discussing the seminal work of Cesare Brandi in his book *The theory of Restoration* – he, and some others, has objected to cleaning procedures used at the National Gallery and other institutions - she described in details the restoration and conservation of a room at Wollaton Hall, Nottingham (completed in 1588 for Sir Frances Willoughby), in which she had been involved on behalf of English Heritage and Nottingham Council.

The first afternoon session was chaired by Katharine St. Paul, Curator of Collections at the RI, and started with a talk by Katherine Doyle about the *MLA Prism Fund that was established in 1973 for the preservation of industrial and scientific material*. About 45% of the Fund is used to acquire historic material, and the remaining 55% used for the conservation of such material. At the RI there is a collection of 6,000 stored objects and, given the scale of the project, it was decided that the Fund should finance a conservator to work on them full-time for two years.

Angela Karsten spoke to the challenge that this work presented. Objects had been relabelled/renumbered up to three times whilst in the possession of the RI and it was deemed necessary to renumber them yet again, in the light of contemporary practice. Grease and dust had to be removed (mechanically) and decisions had to be taken whether or not to remove signs of corrosion, and wear attributed to their earlier life as scientific instruments.
Rupert Harris, of Rupert Harris Conservation spoke of the project his firm had under taken in *restoring the RI’s grand staircase*. This dated from 1778 and the many layers of paint applied since then had obscured much detail. They were removed by caustic poultices, followed by hand picking. Some of the lead ornamentation had been damaged, and this was repaired by making moulds (from the intact areas of decoration) and casting replacements. The ironwork was treated with zinc phosphate and then painted in suitably “period” colours. Rupert then concluded his talk by looking at the problems associated with lead sculpture work (of the type often encountered in historic gardens). One recurring problem was that often the lead work was mounted over an iron support to give it strength. Over the years this would rust, sometimes expanding its volume 10-fold. This caused splitting of the lead layer. One way to deal with this is to replace the iron armature with supports made from stainless steel, but this was difficult to achieve without considerable “opening-up” of the statuary.
Mark Sandiford (of Sandiford and Mapes) summarised the work he and his firm had carried out on the conservation of the *Kinkarakami wallpaper* panels used to decorate the famous RI lecture theatre. This is a type of hand-embossed wallpaper of Japanese origin, made by indenting the paper over a wooden former, using a hard, weighted brush. The paper panels were removed by dry peeling. Mark’s colleague, Daniel Gillberg, described the conservation treatment applied to the panels in their studio. Essentially they were consolidated with 10-20% methyl cellulose and relined with high-strength Japanese paper, and missing portions replaced with inserts moulded from intact areas of the hangings. The wooden panels were relined with paper, leaving “bubbles” to accommodate shrinkage and expansion of the wood induced by changes in relative humidity of the theatre. Finally the wallpaper panels were placed in position and painted a bronze/gold colour to reproduce their original finish.
After a tea break the final session was chaired by Frank James, Head of Collections at the RI. Katharine St Paul, Curator of Collections at the RI, gave an overview of the Heritage Project. The RI had received a £5,000,000 Lottery Fund grant to carry out the work. The last major building project was in 1931 and the museum in 1973, though acceptable at the time, by 2000 it was looking very dated. Three major decisions were taken. Firstly, many of the objects in the collection and heritage such as the wallpaper and grand staircase would need conservation and restoration. Secondly, much more space (across three floors) would be allocated to the displays, including some newly created atrium space. Thirdly, it was realised that most visitors would need more guidance as to the significance of the objects on display: attention would have to be given interpretation.
Lenore Symons, Archivist at the RI, spoke of the *updating of the archive storage*. The RI had records of the Institution itself, the papers of the great scientists who had worked there, a rare book collection again relating to the RI’s scientists, a collection of oil paintings, watercolours and sculptures, and a collection of photographs from the 1840s onwards. The material would now be stored within the RI in premises that complied with BS5454: 2000. Provision is made for visitors to consult the material (by appointment).

Anthony Peers of Rodney Melville and Partners: Conservation Architects spoke of the importance of adequate *researching of the premises in coming up with plans for changes* in use, and their presentation to regulatory authorities. Much of this can be carried out by consulting floor plans relating to earlier fabric work and then constructing a colour-coded plan of the proposed changes, contextualising them in the light of the building’s history.
But there was more than simply floor-plan architecture to consider. Within a building there might be constructions of historic importance such as the RI’s grand staircase, designed by John Carr, of York, that would need special, sensitive conservation. Decayed plasterwork might have to be reconstructed from moulds. Justification of the proposed changes would be paramount, and these would involve a thorough consideration of the history of the building, the people who worked in it, and (in the case of the RI) the discoveries made within its walls.

Finally, Frank James, Professor of the History of Science and Head of Collections at the RI, spoke on “Reflections on the Royal Institution’s role in the history of conservation”.

The conference dispersed at 17.45 into a hot and humid London. It had been a successful event and thanks must go to Frank James and Katharine St Paul of the Royal Institution for its organisation and for proposing to the Historical Group of the RSC that it should be a joint venture.

- Royal & Sun Alliance and Harrow Green for sponsorship
- The MLA Prism Fund, for identifying itself with the conference.

Bill Griffith and Alan Dronsfield