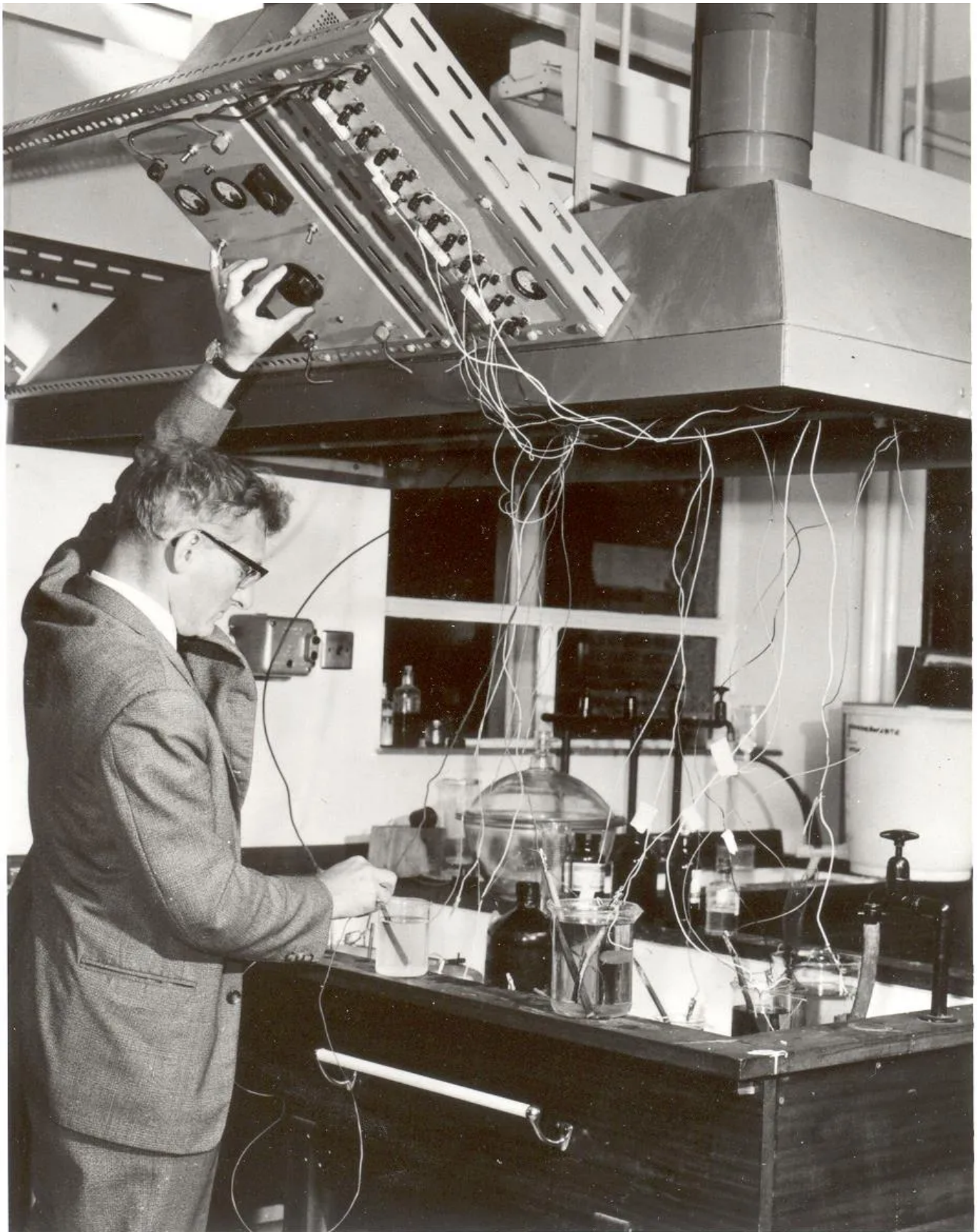


# Obituary: Robert Organ

Submitted by Graham on 16 Nov 2016

Image



**Robert Organ, who died on 11th October 2011 aged 91, was almost the last survivor of the second generation of scientists who applied their expertise in a handful of museums and**

universities to the conservation and examination of antiquities in the years immediately following the Second World War. His expertise was metals, especially corroded bronze and silver, and his studies of the deterioration of archaeological bronzes were fundamental to the modern profession of conservation. But not only did he elucidate the mechanisms of deterioration but he also invented treatments. His 'silver oxide' treatment for bronze disease was a clever application of simple chemistry, and his realisation that stabilisation of corroded metal work in museums could only be guaranteed by the elimination of soluble chloride led to an 'intensive washing' treatment for bronzes that had been chemically or electrochemically 'stripped' in which the wash solution was routinely tested with a conductivity meter. Organ had also to turn his attention to the scientific examination of antiquities as a means of preventing the British Museum, which he joined in 1951, from buying forgeries which started to become relatively common in the stock of antiquities dealers after the war. His use of metallography to study corrosion products enabled him to distinguish between a genuine patina that had developed during a long period of burial and a corroded surface which had been artificially induced in a short time. It can truly be said that he laid the foundations for the forensic study of antiquities but kept his findings close to his chest lest the potential forgers discover what he was looking for. The result was that when he moved to Canada in 1965 and his designated successor for this work asked him how to do it he replied "use your eyes". He turned his attention to the problem of corroded silver when in one very hot summer the silver lyre from one of the royal graves at Ur, excavated by Sir Leonard Woolley in the 1920s, started to fall apart in a showcase because of the softening of the wax with which it had been restored. The lyre, as originally restored, consisted of a modern wooden frame that had been covered with the original thin sheets of silver that were totally corroded to silver chloride. However, before it was re-conserved, Organ decided to investigate the possibility of converting the silver chloride back to metallic silver. He built an apparatus to deliver partly rectified current and using this mixture of AC and DC was slowly able to reduce the silver chloride back to the metal. He called this process 'consolidative reduction'. The lyre was rebuilt on a Perspex former and may once again be admired in the British Museum. During his time at the British Museum, Organ's 'masterwork' was the thorough investigation of the Ardagh chalice, one of the most important artefacts in the National Museum of Ireland. He supervised the dismantling and study at the British Museum of this eighth century communion chalice discovered in 1868 by a man digging potatoes! The chalice is a complex object consisting of a silver cup decorated with gold appliques. Organ, ever meticulous, produced technical drawings and descriptions of the method of manufacture on a scale probably never applied before to one single object. Sadly, the projected book on the project, to be edited by an Irish scholar, never materialised and eventually Organ lost patience and published his contribution in the proceedings of a conference held in Boston, USA. Only now, half a century later, is another Irish scholar trying to establish an archive of what was actually achieved. Robert Muller Organ was born in 1917 at Halesowen in the industrial Black Country of the West Midlands. After leaving school at 18 he worked as a research chemist on a wide range of commercial materials while continuing his formal education in the evenings. By 1951 he was working as a scientific civil servant in a Post Office quality control laboratory in Birmingham from where he was able to transfer to the Research Laboratory of the British Museum. He found that the British Museum laboratory was occupying temporary and cramped quarters as a result of being displaced from its original location, fitted out in 1920, by a bomb during the war. Equipment was antiquated, and the first microscope available for his work was a mid 19th-century biological instrument made of brass and quite unsuitable for metallography. He was eventually able to acquire a Vickers metallurgical

microscope with inverted optics that allowed him to look directly at sections polished on the edge of an object, thus obviating the need for removing a sample. Eventually the funds were made available to restore the original laboratory building and Organ applied his meticulous mind to designing workspaces for specific jobs. He researched the latest ideas of industrial ergonomics and the result was not only a state of the art laboratory, but also a book entitled *Design for Conservation*. Aware no doubt of limited prospects for promotion in the UK because of the smallness of the field and the antiquated grading in the scientific civil service at that time with separate streams according to the level of qualification, in March 1965 Robert Organ emigrated to Canada to become Curator of Conservation at the Royal Ontario Museum. He was a new broom in the fledgling Department that soon began to enrich the work of the Museum's curators. But the honeymoon period did not last for long and a change of director, bringing with him a change of priorities, led Organ to accept the post of Chief Curator of the Conservation Analytical Laboratory at the Smithsonian Institution in Washington D C in June 1967. Once again his role was to invigorate an existing department and he stayed there until his formal retirement at the age of 65 in April 1982. The Smithsonian was supportive and space, equipment and staff were gradually forthcoming. Within ten years space had doubled and the staff grown from five to 18. Throughout his career Robert Organ devoted considerable time to lecturing and he enjoyed the stimulation provided by students in the laboratories. While in London he worked closely with the new Department of Conservation at the Institute of Archaeology of London University, and once across the Atlantic he developed a close relationship with the UNESCO Institute of Conservation that had been established in Rome in 1959. He helped to develop courses, in particular one entitled *Scientific Principles for Conservation* that ran for many years with him as a visiting lecturer. He was also very active in the Conservation Committee of the International Council for Museums, being the 'rapporteur' for the Metals Conservation Group for many years from 1957 and serving as Vice Chairman from 1981 to 1984, and being awarded the ICOM-CC medal in 2005 for 'significant contributions to scientific conservation'. He published more than 60 papers and reviews. Robert Organ had a passion for labour saving devices which were not always successful. At the British Museum he had tried to automate the washing of archaeological bronzes, and once in Washington he set about tape recording and video recording lectures that could be used for training purposes. He also decided to video record conservation processes, but at that time the equipment was heavy and bulky and was too disruptive in working spaces that were generally very cramped. Today's lightweight digital cameras make this concept much more possible. Robert Organ and his wife, Barbara, moved to Scotland in 1996 where he died sudden on the 11th October 2011 aged 94. He is survived by his wife, a son and a daughter. Robert M Organ, Museum Scientist, born Halesowen, Worcestershire, April 1917, industrial chemist 1935, Senior (then Chief) Experimental Officer, British Museum, 1951, Curator of Conservation, Royal Ontario Museum, Toronto, 1965, Chief of the Conservation Analytical Laboratory, Smithsonian Institution, Washington DC, 1967, retired 1982. Died Tarbert, Argyll, 11th October 2011. *Andrew Oddy*