

## Bodleian Libraries Conservation Research Strategy

The Bodleian Library has historically had a tradition of pioneering conservation development. This includes the implementation of a boxing strategy including box design and specification, and the development of several intricate conservation techniques for special collections, such as the treatment of limp vellum. These continue to be major contributions to the conservation profession and are copied in many institutions worldwide.

More recently other institutions have been proactive in exploring new technologies and have developed science based methodologies to help reveal more information about their collections. Readers, funders, academics and the general public will be aware of these developments through the publicity they receive and the way that they grip the public imagination, as well as from learned publications. They will want and expect the same level of service from the Bodleian Libraries. It is imperative that we satisfy their expectations by providing facilities and expertise to provide 'best practice' service commensurate with the status of our collections. Additionally we will need to work in collaboration with other similarly research-driven institutions inside the University and beyond on knowledge transfer, sharing resources and exploiting funding opportunities to answer common research questions.

This degree of excellence will only be achieved by conservation research being embedded in the research activity of the University as a whole. This will involve the expansion and formalisation of a network of academics in sciences and social sciences as well as the humanities, and will support research more broadly in special collections, exhibitions, and conservation within libraries, museums and other heritage bodies.

The Conservation and Collection Care Section does have a range of scientific equipment and with the creation of a Conservation Research section there is an opportunity to set up research facilities, utilising the equipment we already have and acquiring other essential tools in a planned and strategic manner.

### **Definition**

'Conservation research' is best used for describing any type of research, be it from reviewing conservation literature, scientific analysis, artificial ageing experiments, real-time condition monitoring or other types, which **yields an improvement in the preservation, understanding or treatment of the cultural heritage.**

The three main areas of focus are;

1. The development and exploitation of scientific research and visualisation techniques.
2. Applying for and participating in large-scale funded research projects.
3. Increasing the Bodleian Libraries' profile in the arena of international conservation research.

### **Scientific Research and Visualisation Techniques**

To some people conservation research is seen as scientific analysis (chemical, spectroscopic, microscopic, etc.). To differentiate this from other investigations that a conservator or conservation scientist might carry out, conservation research would be better termed materials analysis, archaeometry, or identified by specific types of analysis, e.g. dye analysis using High Performance Liquid Chromatography, or metals analysis using X-Ray Fluorescence Spectroscopy.

The requirement or need for analysis, to find out what something is made of or how it is made purely for academic interest, comes mainly from curators and researchers who will already have a wide understanding of what is known about the different types of material in their care and where

the gaps in the knowledge are. Conservators may wish to investigate a particular pigment or fibre to inform conservation decisions.

The role of the conservator researcher or conservation scientist will be to inform curators what may be analysed, and if there are any accompanying risks, either to objects or reputation. They will also be able to advise on the equipment required and assess its availability, whether in-house or by borrowing, purchase or hire. The availability of equipment within diverse subject areas within the University as well as the skills to operate it will be investigated while at the same time evolving a 'user group' or web of specialists more globally.

A specific example of increasing customer demand is the requirement for revealing hidden texts such as those found in palimpsests, erased or over-scored marginalia and 'scratchings'. Some techniques have already been investigated and decisions need to be made as to which techniques merit further investigation and investment. This will involve engagement with manufacturers and existing users of relevant equipment.

Key objective:

1. To acquire the appropriate and necessary equipment and expertise, under the umbrella of the Centre for Study of Book for carrying out cutting-edge research and satisfying readers, curators, conservators, and partners requirements and aspirations for the opening of the Weston Library (2014).

### **Large-scale funded research projects**

Libraries worldwide share major challenges which are beyond the capacity of individual institutions. For example, the problem of acid paper in bulk collections such as newspapers has not been dealt with in a systematic way in the UK, largely because when anyone does begin to investigate the issue they are daunted by the science, politics and ethics involved. In other countries mass deacidification is the norm for some larger institutions but they are constantly questioning the ethics of their methodologies.

Other major challenges are energy use and environmental specifications for storage and use of collections, dust and pollution and their effects on collections and removal, the constraints of the lack of permissions to take samples for analysis, and the rapid development of visualisation techniques and how to develop these for library usage. All of these challenges would benefit from focussed international collaborative research in which the Bodleian should be a major player.

Key objective:

2. To be a partner in at least one funded national or international high-impact and high-profile research project by 2013.

### **Profile in International Conservation Research**

Research is already ongoing in a number of key institutions. Because of the status of our collections and our reputation for caring for them, these institutions are keen to collaborate with the Bodleian Libraries. There is not yet an organisation or 'club' of high-performing research laboratories but one is evolving quickly. We need to be in on its formation.

Key objective:

3. To have formal partnerships in place to progress collaborative research programs with the National Library of China, University College London, the British Library and the Library of Congress by 2014.