Treasures of the Royal Pharmaceutical Society's Collections

'Pharmacographia' (1874), by Daniel Hanbury and Friedrich Fluckiger

Anyone who has to visit a pharmacy while travelling abroad this summer may wonder whether the drugs they receive are equivalent to those available in the UK. But in the 19th century one did not need to go abroad to be thoroughly confused by the available medicines. The origin of most medicines in British pharmacies was uncertain and disputed.

The 'Pharmacographia' (1874) contains the scientific notes garnered by pharmacists holidaying abroad across the Continent and in the Middle East. Daniel Hanbury (1825–75) and Friedrich Flückiger (1828–94) spent much of their time investigating the origin of crude drugs because adulteration, as well as ignorance as to a drug's true source, was a risk to patient safety — as it may still be.

Adulteration was also a risk to patient confidence and professional reputation, as a quote from *The Times* (1856) shows: "Drugs are the executive of the medical man, and therefore with bad or inefficient drugs he acts like a paralysed man, whose limbs refuse to obey him." So a holiday for pharmacists such as Hanbury and Flückiger was an opportunity both to collect plant specimens and to make contact with people who had local knowledge about the use of drugs. Returning home with this information they were able to respond to questions about the origin of the drugs in use at the time.

During the 19th century pharmacy was at a crossroads. The emerging technique of microscopy and the industrialisation of drug production meant that studying materia medica could have been considered a step backwards. Active ingredients were being isolated and mass-produced by the burgeoning pharmaceutical industry, being removed from the traditional pestle and mortar.

Pharmacognosy, however, was becoming part of pharmaceutical science and was aiding the development of standardised works on drugs, such as pharmacopoeias. An example from the 'Pharmacographia' is *Arnica montana*, which was mentioned in the London Pharmacopoeia of 1788. This plant was used for the treatment of bruises, mainly in Germany. The 'Pharmacographia' describes its chemical composition and explains how the root can be distinguished from that of *Geum urbanum*, with which it is commonly adulterated. The moot point is that the efficacy of arnica is debatable and the 'Pharmacographia' describes well the relationship between conventional and herbal medicine — people take what they perceive to work.

William Evans (2002), in 'Trease and Evans' Pharmacognosy', says that the inclusion of crude drug monographs in pharmacopoeias shows "acceptance by orthodox medicine of the potential of plant products". Health care professionals may not always be sympathetic towards alternative or complementary medicine when it comes to NHS budget constraints but nevertheless Hanbury and Flückiger set out in the preface of 'Pharmacographia' to assess the variety of views before coming to a conclusion using "the thoughts of others" in an attempt to record "observations that no one else had written down".

In an increasingly globalised world the need for standardised qualitative information on drugs has become more significant. The World Health Organization oversees the production of the International Pharmacopoeia, which its member states can adopt. The identification of plant material continues to develop and is now predominantly elucidated by genetic tests as opposed to examining plant physiology.

Efficacy is still often judged on documented or historical use and so the work of Hanbury and Flückiger contributes to this ethnographic data collection but its validity is being challenged by evidence-based medicine. Materia medica continues to be studied, for example at the Royal Botanic Gardens, Kew, and at La Mortola, the garden in Italy cultivated by Hanbury's brother Thomas, which is a showpiece for his work and pharmacy's origins.

Daniel Hanbury; investigated the origin of crude drugs

The 'Pharmacographia' is just one of many important reference works in the Society's library. These include an Early Printed Collection, consisting of about 3,500 volumes published between 1485 and 1859 and including early pharmacopeias and herbals and other rare and unusual texts. Part of this collection is a bequest from Daniel Hanbury's own library. Further information is available from the library pages of the Society's website (www.rpsgb.org/informationresources/library).