wooden panels on which were displayed actual human veins, arteries and nerves. Donated to the young Royal Society in 1667, the panels were seen as works of art as much as tools for learning and teaching. Even in 1702 Evelyn was still stressing their literal, static qualities. The conflict between rationalism and empiricism is illuminated through an account of the personal war between Dr John Woodward and Dr Richard Mead, the former drawing on the accumulated wisdom and reputation represented by his collection of ancient texts, the latter relying on observation and practical efficacy, although at the risk of straying into quackery. In spite of his attitude to medicine, Mead was a prodigious antiquary who at his death owned 180 works by 90 artists and was responsible, with Hans Sloane and others (notably William Hogarth), for establishing London’s Foundling Hospital (the first public art gallery in Britain). It was Sloane’s collection of plants, animals, coins and other antiquities that formed the first core of the British Museum (1753) and, later, the Natural History Museum, just as John Radcliffe’s library formed the core of Oxford University’s Radcliffe Camera.

Thankfully, the concentrated and demanding text—liberally sprinkled with arcane language—is lightened by 10 excellent colour plates, including several of Evelyn’s panels, and 62 black and white figures, just a few of which suffer from either their unsuitability for photography or a lack of contrast in printing. With 70 pages of notes, plus references, The English virtuoso informs rather than entertains but it richly rewards the effort that has to be put into its reading.

doi:10.1098/rsnr.2010.0019
Published online 14 April 2010

TESTING THE WATERS


reviewed by Mike Jay*

The hot springs beneath Bath percolate through Carboniferous limestone at a volume of about a million litres a day and a temperature of about 46.5°C, and contain around 2.2 g l⁻¹ of minerals: mostly calcium, magnesium and sodium but including traces of silver, helium and radium. Since antiquity this striking natural feature has given the city its name and raison d’être as a spa town; it has also, as this volume demonstrates, made it the focus for a distinctive spectrum of scientific researches. Chemists have been attracted to the waters at least since Dr Edward Jorden’s Discourse of Natural Bathes and Minerall Waters of 1631, and Joseph Priestley’s celebrated isolation of oxygen took place at nearby Bowood House. Geologists were drawn not only by the springs but also by the teeming fossil beds exposed in nearby lias quarries, and the stratigraphy of William Smith evolved through his studies of the local canals and coal pits. The healing virtues of the spa offered lucrative practices for physicians, from the Roman oculist Titus Junianus, whose medicine-stamp was unearthed in 1731, to the ambitious and innovative practitioners of its Regency heyday. The

*mail@mikejay.net
excavation of the Roman baths extended from early antiquarians such as John Leland to the late Victorian works that exposed the temple complex of Sulis Minerva and epitomized the emergence of modern archaeology.

As early as the 1720s these researches were beginning to be promulgated through public scientific institutions. Lecturers on Newtonian philosophy took up residence for the season in Harrison’s Assembly Rooms, and touring experimenters offered crowd-pleasing displays of air pumps and Leyden jars. The first Bath Philosophical Society was founded in 1779, and the Bath Royal Literary and Scientific Institution (co-publishers of this volume) in 1825. Trevor Fawcett’s valuable outlines of these organizations highlight the ways in which disciplines such as Earth sciences and engineering, chemistry and medicine—considered separately in the first half of the volume—cross-pollinated one another through a network of polymaths and multi-disciplinary researchers. At the same time, they informed an expanding field of botany, zoology and landscape surveys, which by the mid nineteenth century had made the natural history of Bath and its environs one of the most minutely studied in the world.

Yet by no means all of the city’s scientific history can be contained within this local framework. William and Caroline Herschel’s astronomical visions were on a grander scale, although the recently founded Bath Philosophical Society had an important role in their development and diffusion. Thanks to a remit that extends generously into Wiltshire and Somerset, William Fox Talbot’s discovery of photography at Lacock Abbey is also included, and yoked to the careers of subsequent practitioners such as William Friese-Greene, who helped to make Bath a centre for the new art and whose ‘chronophotographic’ camera, demonstrated to the Bath Photographic Society in 1890, edged it towards the birth of cinematography. From oxygen to photography, from John Harington’s invention of the water-closet in 1596 to the Herschels’ discovery of Uranus, Bath can claim not only a remarkably fertile history of local studies but also an impressive roster of world firsts.

The volume’s editor, Peter Wallis, has done a great service in assembling these many threads into a collection that is both useful and beautiful. Richly illustrated and referenced (notably with a full gazetteer of Bath’s scientists and their local residences, landmarks and connections), it offers an intersection of local and scientific histories that, in the manner of William Smith’s famous map that it takes as its cover image, exposes a cross-section through the landscape formations of science itself.

doi:10.1098/rsnr.2010.0004
Published online 27 January 2010

DARWIN AND HUMAN ORIGINS


reviewed by Aileen Fyfe*

National University of Ireland, Galway, Ireland

*aileen.fyfe@nuigalway.ie