Book Reviews

J. T. Wilson and the Fraternity of Duckmaloi. By Patricia Morison (Editions Rodopi, Amsterdam/Atlanta, 1997, illus., ISBN 90-420-0232-8 [bound], 90-420-0246-8 [paper], $49.95) xiv + 474pp. (Clio Medica 42: The Wellcome Institute Series in the History of Medicine.) Copies also available from the author, 22 Darling Street, Barton, ACT 2600 at the wholesale price of $35.

BEHIND THE SOMEWHAT MYSTERIOUS-SOUNDING TITLE OF THIS BOOK LIES an excellent biography of a highly regarded figure in early twentieth-century comparative anatomy, a man whose contributions to science and to the intellectual life of the country where he spent much of his working life, Australia, have been unduly neglected.

James Thomas Wilson (1861–1945) was a Scot, a graduate of Edinburgh's renowned medical school who in 1890 became the University of Sydney's first Professor of Anatomy after spending the previous three years there as lecturer. In Sydney he developed a scientific reputation sufficient to see him elected a member of the British Empire's premier scientific society, the Royal Society of London, in 1909, and eventually, in 1920, to carry him back to Britain to the prestigious chair of Anatomy at Cambridge. The 'fraternity' referred to in the title of Morison's book was a group who came together in Sydney, with Wilson in the early 1890s, to institute a highly successful programme of anatomical and physiological research on the indigenous Australian fauna. The other members of the group were the university's recently appointed Lecturer in Physiology, the Londoner Charles Martin, another young Scot, J. P. Hill, appointed Demonstrator in Zoology at Sydney in 1892 at the age of nineteen before he had even completed his bachelor's degree, and Grafton Elliot Smith, a recent graduate of the Sydney medical school. For a time, the eccentric Scottish-trained physician Robert Broom was also associated with the group, until he left for South Africa in 1896.Others joined in the work from time to time, or supplied specimens. The name the group coined

for themselves derived from their regularly camping together on the banks of the Duckmaloi River in the Blue Mountains of New South Wales in the pursuit of the animals—platypus in particular—that they needed for their research. Morison's book constitutes a history of the group as well as a biography of its most senior member, Wilson.

As Morison's detailed discussion makes clear, the group's research was of more than local significance; it was a major contribution to evolutionary biology at the time. Wilson began studying the anatomy of Australian marsupials soon after arriving in Sydney. In 1892, he and Martin investigated the 'duckbill' or snout of the platypus, especially the source of its remarkable sensitivity. Martin subsequently concentrated on the toxic principles of Australian snake venoms, while Wilson and Hill began a close and highly productive collaboration on the embryology of monotremes and marsupials. Wilson also continued his neurological investigations. Meanwhile, Elliot Smith studied the brain anatomy of these animals, work that won him a considerable reputation even before an 1851 Exhibition science research scholarship carried him to England in 1896 to find renown as the leading British anatomist of his generation. Broom, obsessed with finding the origin of mammals, also studied monotreme anatomy. The group was only together a few years before, one after another, they found prestigious appointments elsewhere. Some months after Smith left for England, Martin also departed, initially for Melbourne, and then in 1903 for London to take up the directorship of the Lister Institute. Hill spent a year in Edinburgh in 1897–98 completing his bachelor's degree, and then worked with Wilson for several more years before leaving Sydney permanently in 1906 for a chair at University College London. All four core members of the group were, in due course, elected Fellows of the Royal Society of London, as was Robert Broom. Morison's admirable account enables us to understand why they were so honoured.

During his thirty-three years in Australia, Wilson also played a major role in the affairs of the University of Sydney and its medical school. The significance of his contribution to the university was well recognised at the time, as Morison shows, but has subsequently been undervalued. General histories of the medical school and of the university published during the past two decades have placed much greater emphasis on the contributions of Wilson's fellow student from Edinburgh, the founding professor of the Sydney medical school, T. P. Anderson Stuart. Meanwhile, biographies of Wilson's two most famous students—Grafton Elliot Smith and the man who succeeded Wilson in his chair at Sydney, Johnny Hunter—have presented them as largely self-taught geniuses, denying Wilson any significant role in their training.

Morison convincingly demonstrates the misleading nature of these portrayals, and also provides a plausible explanation for their currency.

Anderson Stuart's legacy at Sydney, she argues, was material and social—a magnificent building to house the school and the 'quasi-aristocratic rank' enjoyed by the medical profession in Australia. 'Stuart had little interest in teaching or research', she says, 'his metier was organization and his objective power and influence'. Wilson's legacy, on the other hand, was intellectual, 'an internationally respected tradition of research during his own lifetime, and a foundation for neuroscience in Australia'. Wilson played a major role in shaping Sydney's medical course. He insisted, in the face of increasingly strident demands to include more and more clinical work in the curriculum, on the importance of maintaining a strong foundation in the basic sciences. Stuart, on the other hand, championed vocational medicine. In Sydney's 'intensely practical community' opinion favoured Stuart and the clinicians, but Wilson held his ground. The published histories suggest that the construction of buildings and the development of clinical training continue to be seen as much more important in the history of the medical school than promoting a tradition of scientific inquiry within it.

Sydney's extraordinary adulation of Wilson's protégé, Johnny Hunter, is a phenomenon in itself, and Morison's account is a welcome addition to the literature on it. Wilson nurtured Hunter throughout his medical course and appointed him as a demonstrator as soon as he graduated. When, soon afterwards, Wilson was appointed to the Cambridge chair, he persuaded the authorities in Sydney that Hunter, still only twenty-two years old, should succeed him there. After a couple of preparatory years as associate professor, during which time he developed a very active research programme of his own, Hunter was duly appointed to Sydney's Chair of Anatomy in 1923, only to die of typhoid fever a year later. There had long been some resentment in Sydney at the domination of the medical school by an 'Edinburgh clique' of which Wilson and Anderson Stuart were the most prominent members. Wilson had pressed for Hunter's appointment because he had recognised his talent, but others welcomed the appointment of a popular 'local boy'—one of a number of its own graduates whom the university appointed to chairs at this period, as Morison notes—for chauvinistic reasons. His death led to an astonishing outpouring of grief that in due course gave rise to absurd claims that he was a self-taught genius, far in advance of Wilson his teacher. Morison attributes these and similar claims that were later made in respect of Grafton Elliot Smith to a combination of the existing anti-Edinburgh feeling, 'a great surge of national pride' in the years after World War I leading to a search for home-grown heroes, another 'burst of unbridled chauvinism' during the great depression of the 1930s, and the wider changes in the relationship between Australia and Britain that accompanied these events.

Morison also describes in considerable detail the important role, likewise neglected in recent histories, that Wilson played over many years in the affairs of the University of Sydney more generally, especially as chair of the Professorial Board almost continuously from 1908 until his departure for Cambridge in 1920. Wilson had strong views on the nature of a university education, as he did on most things, and he established a strong moral ascendancy at Sydney. When the university entered on a period of rapid expansion after World War I, it was he who laid down an enduring academic structure to accommodate this. He also played an important role in the selection of many new staff—a role that continued even after he had left for Cambridge. Many people hoped that he would return to Sydney as the university's first executive vice-chancellor, and he seriously considered doing so before deciding to remain in England.

Morison thus provides a number of important correctives to existing histories of the University of Sydney and its medical school. In addition, she has interesting and important things to say about the state of Wilson's chosen field, anatomy, at this period. She notes, in particular, the rise of microscopic and experimental anatomy, and the continuing tension between anatomy and physiology and its crystallisation in debates over where histology should be located. In Britain and its colonies, histology had been captured by physiology—to the great detriment, Morison suggests, of British anatomy. Wilson fought long and hard in both Sydney and Cambridge to recapture histology for anatomy, but without success in either case.

Wilson was one of many Scots who travelled the world during the nineteenth century to man the outposts of Britain's empire. He, like his fellows, carried with him a strong religious faith and a devotion to building moral and civic virtue. Like others of his generation Wilson was a staunch imperialist. A firm believer in the need for Australia to build its own defences, he joined the militia and in due course became commander of the NSW section of the Australian Intelligence Service. Following the outbreak of war in 1914, he was responsible for setting up, and then for the first sixteen months of the war running, the NSW branch of the Censor's Office. This brought him into conflict with sections of the press and with civil libertarians troubled by the government's use of censorship, not just to protect military secrets but to permit arbitrary actions against individuals and to promote its own warlike propaganda—for example, by suppressing accounts of battlefield losses that had been passed by the British censor and later in the referendum campaigns over conscription. Morison notes some of the problems but seems unperturbed by the implications for Australian democracy.

Morison's book is the result of many years of research, and is securely based on a wide range of archival sources. She was also able

to interview members of Wilson's family, and a number of former students and others who knew him. She presents a convincing picture of a man whose contributions to science and to the country to which he devoted most of his working life deserve to be better known. The book is more than a biography of one individual; its wide-ranging discussion makes it a notable contribution, as well, to the history of science and to Australian intellectual history.

R. W. Home
University of Melbourne

Medical Geography in Historical Perspective. Edited by Nicholaas A. Rupke (Medical History, Supplement No. 20, Wellcome Trust Center for the History of Medicine at UCL, 2000, ISBN 0 85484 072 9).

MEDICAL GEOGRAPHY WAS A DOCTRINE OF PHYSICAL ENVIRONMENTAL determinist epidemiology that flourished in Western Europe, Germany especially, in the nineteenth century. Geographers, medical practitioners and sanitary reformers with nationalist–imperialist ambitions were leading proponents. Ordinary folk, as C. S. Valencius displays in a splendid paper on the European occupation of Arkansas and Missouri before the Civil War, also held common beliefs about healthy dry, breezy hills, threatening sites of miasmas, the release of effluvia by disturbances to the pristine natural order, and the constant need in dangerous places to husband personal 'vital power'. The intellectual structure of medical geography was built from dubious nosologies and scrappy but pretentious geographic information. Most of the system crashed with the move to germ theory. Its legacies include such specialties as high latitude and altitude medicine and 'tropical' medicine. The new science of environmental pollution hazards and pathologies seems to owe little to its coarse-grained, assertive forerunner.

This collection derives from a conference at Gottingen in 1996. The topics range across continents and periods, reflecting the visions of nineteenth-century believers; but the quality is variable, with a few papers makeweight.The liveliest and clearest contributions include Frank Barrett on August Hirsch, Warwick Anderson on the debate about the prospects for white supremacy in 'tropical' Australia, and the papers by Anne Buttimer and Ronald Numbers on the Hippocratic tradition of airs, waters and places invoked by pre-germ theory epidemiologists.

Readers of this journal will have inescapably consulted Hirsch's monumental accumulation of data about the occurrence of illnesses around the globe (1859–64), but few of us will have known much about the