production of animals for food and commercialized pet keeping. "Veterinarians have sought to address Americans' uncertainty about the 'proper' human–animal relationship as the ideological driving force of their profession. They did not pretend to be philosophers, but operated as rationalists meeting social needs" (p. 3).

One could question such an influential and active role for the veterinary profession within social-economic and political processes that determined the value attributed to animals and the development of animal health care. As representatives of a very practical profession, even with a certain aversion to theorizing, most veterinarians operated from an economic rather than an ideological point of view. They simply wanted to make money. One could also argue that veterinarians did not shape Americans' relation with domestic animals but just took advantage of new business opportunities that resulted from social, economic and political change.

Nevertheless, Susan Jones has written a very interesting book. It suggests the necessity for an international comparison of the historical development of the veterinary profession, before we can evaluate whether indeed this profession constituted a significant directing force in twentieth-century history in general, and in human–animal relationships in particular.

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Paolo Palladino, *Plants, patients and the historian: (re)membering in the age of genetic engineering*, Manchester University Press, 2002, pp. ix, 250, £47.50 (hardback 0-7190-6152-0).

Plants, patients and the historian contains elements of three books in one volume: an insightful, well-documented history of plant breeding research in Britain, 1910–40, a biography of the surgeon and cancer researcher Percy Lockhart Mummery, and an intellectual memoir tracing the author's attempts to come to terms with his role as a historian and his relationship to his subject matter. Palladino opens by describing the parallels between the practices of genetics and modern historiography: genes and archives are both repositories of the victors' spoils in struggles for power and domination, though victory is tempered by conflicting documents and genetic aberrations. Exploring the two together, Palladino promises, will illustrate how the archive is not merely a repository of the past, but also "the principle of formation of the past, the present and the future"(p. 7).

At the beginning of the twentieth century, after William Bateson rediscovered the work of Gregor Mendel, many British botanists believed that Mendelian principles would transform plant breeding into a precise and exact science. At the same time, the rapidly expanding brewing industry, which held considerable political clout, sought improvements in quality control and crop uniformity. Because the development of new crop varieties was an expensive and risky proposition, there was a push for state support of agricultural research, resulting in the creation of three state-supported scientific research centres, including the Plant Breeding Institute at Cambridge University.

However, plant scientists had conflicting views regarding the utility of genetic theory for farming practice. Sir Rowland Biffen, first director of the Plant Breeding Institute, believed genetic principles were essential to developing improved plant varieties, a view supported by the success of his influential Yeoman wheat variety. But others, for example, John Percival of the Department of Agriculture at University College of Reading, insisted that characteristics of interest to farmers, such as yield and strength, were influenced by such a complex array of physiologic and environmental factors that they could not be reduced to Mendelian principles.

Throughout this debate, there was a parallel tension between the aims of the academic scientist and the needs of the farmer. Cambridge plant researchers insisted that in order to be objective, agricultural science must be wholly

https://doi.org/10.1017/S002572730000747X Published online by Cambridge University Press

independent of the agricultural industry. In contrast, the University College of Reading was established in 1892 specifically to meet the needs of the local farming community and was more closely associated with agricultural practice.

At this point, Palladino abruptly shifts his attention to cancer research. He rightly points out how historians have been complicit in the triumph of the laboratory as the preferred route to biomedical knowledge and vows instead to focus on clinical research and, in particular, the neglected voice of the research subject. But after poring through twelve filing cabinets of records from the St Mark's Hospital Polyposis Registry, he comes to realize that his efforts are fruitless. These voices cannot be recovered from medical records and family disease histories. "I have been deploying historical actors . . . to serve my own historiographical purposes, almost as if they had no agency in the making of historical recollection" (p. 157).

So Palladino delves even further into the life of one individual—Lockhart Mummery—with an eye to what made the surgeon tick. He uncovers a complex and iconoclastic character, a man very attractive to women, with a passion for gambling, who viewed eating as an art form. Not only did his life violate social conventions, "[i]t was without rhyme or reason beyond itself" (p. 173). What is a historian to do? Palladino falls into existential crisis mode, questioning his motives as a historian and even his own identity (at this point his friends and colleagues must have feared the worst). Rather than simply constructing an argument, Palladino makes the reader struggle along with him, and it is this autobiographical element that makes the book especially engaging and unique.

In the end, Palladino is saved by an occurrence of intellectual serendipity (the book is full of such moments), as he notices on his bookshelf a book of essays by Sir George Stapledon, a director of the Welsh Plant Breeding Station. Stapledon resisted the preservation thrust of the National Trust, arguing that nature should be appreciated in action, not as a static monument. Palladino finds inspiration here for understanding the historian's relationship to the archive, which "should not be conceived as a place of recognition, but as a place of experiment in transformation" (p. 183). In other words, while the archive cannot reveal the true voices of historical actors, the historian's interaction with the archive can produce new voices that have authentic relevance for the here and now.

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Keir Waddington, *Medical education at St Bartholomew's Hospital 1123–1995*, Woodbridge, Boydell Press, 2003, pp. xii, 464, illus., £45.00 (hardback 0-85115-919-2).

Recent years have seen considerable additions to our knowledge of medicine in London and of medical education in particular. A glance at Keir Waddington's select bibliography will confirm this. His own impressive study adds much to this new literature, not least because of being closely focused on a single institution: one that was regarded both by its students and teachers and by many elsewhere as the premier teaching hospital in the capital. In this large volume Waddington attacks a long period but really only gets into his stride in the nineteenth and twentieth centuries. He has been diligent enough with the earlier centuries but there is little to say about medical education, however. It is noteworthy, though, that he finds the presence of apprentices and medical graduates common on the wards before the eighteenth century (p. 19). As in all other voluntary hospitals, clinical teaching increased dramatically in the Enlightenment and, at Bart's, Percival Pott was the initial mover of this development. Waddington, however, has no doubt that it was the surgeon John Abernethy who became the powerhouse of Bart's teaching and the virtual single-handed creator of the medical school. By the 1820s several hundred students on the surgical side were attending the hospital. It was in this decade that Abernethy began to refer to Bart's as having a "Medical School" (p. 39). Waddington's account of these changes is not a linear, myopic one. He draws the reader's

https://doi.org/10.1017/S002572730000747X Published online by Cambridge University Press