clearly derived from previous writings on the Chinese materia dietetica and from the more theoretical texts on Chinese medical philosophy, extracts of which are included in his book. Yet Buell and Anderson show that the dishes themselves are "in essence Mongolian boiled cauldron food" with spicing that is identified as "mostly Islamic". Sheep's meat, tail, lungs, fat, stomach, loins or tongue, or wild goose fat, meat or grease, or wild camel hump or meat, and the like, form the bases to which are added spices such as fenugreek seeds, saffron, turmeric, black pepper, cardamon or cinnamon, and additives like chickpeas, bottle gourds or cheese.

Thus, Buell and Anderson undertake the endeavour of attempting to single out the "essential Mongolian", the "Turko-Islamic influences", and the "Chinese framework". They first discuss every thinkable aspect of the Mongolian style of life and its pastoralism in the "harsh environment" of the steppes. They then compare and contrast it with the Muslim world that is marked by great cultural diversity and a high degree of urbanization, "good life" and "individual pleasures" in the private courtyard; and with the Chinese ideology of interconnectedness of body, homestead, state, and cosmos, which is seen in relation to an "usually strong state" that could subject individuals to regular services. Having drawn out this threefold framework of cultural context, in the analysis of the text, they proceed to identify the original culture of the foodstuffs and spices by a phonetic interpretation of their names, which are given in Chinese. This undertaking involves long footnotes over controversial issues that reveal (perhaps not entirely surprisingly to anyone aware of the hybridity of any culture and the dangers involved with interpreting names) that their endeavour has met substantial scepticism.

The translation itself is clearly presented and informative. One may be attracted to the exotic food avoidances and diet regimes ("if a mother has eaten turtle meat, it will

cause the child to have a short neck"). instructions on hygiene ("one must not defecate and urinate towards the northwest"), and recipes such as Mr Tie Weng's Red Jade Paste, which "reverses old age and restores youth". Yet there are also others more familiar to the modern reader: "Poppy seed buns: white flour, cow's milk, liquid butter, poppy seeds; slightly roasted. [For] ingredients use salt and a little soda and combine with the flour. Make the buns". Some terms may appear overdetermined in translation such as gu zheng (literally: "bone steaming") given as "hectic fever due to yin deficiency", which reflects an interpretation of the term according to Traditional Chinese Medical theory, or mu chi (literally: "the eyes are red") as "conjunctivitis", which refers to a biomedical interpretation, but whoever is familiar with the difficulties of such "technical" texts can only admire how painstakingly meticulous the translation is. As the authors say in their preface, this book is their life's work, and as such it is an achievement that deserves to be commended.

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Angelika C Messner, Medizinische Diskurse zu Irresein in China (1600–1930), Münchener Ostasiatische Studien, vol. 78, Stuttgart, Franz Steiner, 2000, pp. 294, DM 84.00, SFr 84.00 (paperback 3-515-07548-8).

Great topics deserve great monographs or even more than one. Appearing a mere decade after Vivien Ng's thought-provoking *Madness in late imperial China: from illness* to deviance (Norman and London, University of Oklahoma Press, 1990), any subsequent author was bound to face an uphill struggle. Angelika Messner has mastered this challenge with aplomb, partly by exposing perceived weaknesses in Ng's argumentation, but mainly by producing a monograph that is coherently argued and well-structured in its own right. While encouraging the "testing" of patterns observed in western history, Messner condemns Ng's alleged superimposition of socio-cultural mirror images: whereas madness in European modernity formed part of an evolution towards a more humane society (i.e. from "deviance" to "illness"), China's ever-expanding absolutism sought to impose itself also onto the medical facets of social life. The author's main criticism is reserved for Ng's choice of sources, a collection of juridical cases from the eighteenth and nineteenth centuries (Ng cites the compilations by Xue Yunsheng and Nakamura Shigeo as her main inspiration, cf. Ng, pp. xi-xii). Instead of concentrating on such "exceptional" legal cases, argues Messner, the study of madness would be better pursued through the study of medical sources-and this is precisely where the merit of her Medizinische Diskurse lies. The author has pursued this aim by analysing three distinct medical discourses, a division that also forms the basic structure of the monograph.

In the first part (pp. 31-77), the western discourse of madness in China is scrutinized, mainly through the medium of writings by medical missionaries during the nineteenth century. Missionaries such as John G Kerr were rooted as deeply in the scientific environment of their time as they were convinced of the superiority of (European) Christianity. The symbiosis that new scientific developments forged with traditional "Christian" views is vividly described by the author in this part (pp. 37-63). Messner then proceeds to analyse the autochthonous Chinese discourse, the part that constitutes the bulk of her monograph (pp. 78-194). After defining the basic concepts of madness in traditional China, authors and general models are discussed in chronological sequence, from antiquity to the late imperial

period. In this main part, Messner by and large follows the pattern also observed by Vivien Ng, though admittedly using clearer categories and a more disciplined structure. A true departure from this model materializes with the third part (pp. 195–253), which analyses the exchange of medical concepts at the end of the nineteenth century and during the republican period. Medical authors such as Wang Qingren, Tan Sitong and Kang Yingchen are vetted for elements of western research absorbed by the late imperial intellectual élite. The final chapter of this third part deals with the reflections of modernizing nationalism within the medical discourse of the republican period, starting with Lu Xun's Diary of a madman and culminating in the vision of a civilized (wenming) "society without madness".

The author deserves praise for the wide range of sources used for this triple analysis, appearing equally at ease with documentation of missionary provenance, as with modern and ancient medical sources. Yet, ironically, it simultaneously displays a weakness in Messner's argumentation: having placed so much emphasis on the "neutral" quality of the medical discourse (as opposed to the legal—and hence political—nature of the sources employed by Vivien Ng), the third part in particular clearly shows that a medical argument can never really be valuefree. Other authors have demonstrated this truism in their studies of modernizing medical discourses, such as those of eugenics or race. A minor technical weakness lies in the absence of a general index, handicapping the otherwise excellent appendix. The bibliography, in particular, reveals a wealth of source and reference materials which students of all aspects of China's medical history will find useful. All in all it can be stated without exaggeration that despite occasional flaws in Messner's work, the author has provided an innovative, well-structured and immensely

useful complement to existing studies on madness in early modern China.

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Louis Rosenfeld, Four centuries of clinical chemistry, Amsterdam, Gordon and Breach Science Publishers, 1999, pp. xvii, 562, illus., £91.00 (hardback 90-5699-645-2).

The history of clinical chemistry, particularly in the last hundred years, has been sadly neglected by historians. Biochemistry, its academic parent, has had at least some attention, but the rethinking of disease in metabolic terms and, more important, the ways in which that rethinking was realized through technology have scarcely been considered. No doubt this is in part because of the technical knowledge demanded of any interpreter and, of course, of how little twentiethcentury disciplinary knowledge has been the object of history. In Louis Rosenfeld clinical chemistry has found a champion to whom historians, certainly this one, can be immensely grateful.

This is not to say this book will find more than a small readership among historians and even for readership insert "consulting audience". Four centuries, for a start, was very ambitious. The earlier material on, for instance, Sylvius, Boyle and Lavoisier is hardly unknown. The historical approach, as the book's title suggests, most readers will find outdated. None the less, Rosenfeld aspires when dealing with early material to be as thorough in his research and meticulous in his footnoting as he is with the later history that he knows so well. When he moves into the late nineteenth and early twentieth century, Rosenfeld comes into his own. His command of the technical knowledge of clinical chemistry is enviable. No work of this comprehensiveness exists. The book is not in fact organized on strictly chronological lines although the later chapters do have a predominantly modern flavour. Chemicals, machines, people, commercial companies and much else besides all serve as sub-headings.

In many ways the first fifty years of the twentieth century were the golden age of clinical chemistry. The late nineteenth century had seen the identification of many of the body's chemicals or at least the broad groups into which later discoveries would be placed. But the early twentieth century saw two related developments: the invention of relatively simple tests for these substances and the institutionalization of these tests in hospital laboratories so that examination of the blood's chemistry began to become routine. This, of course, stimulated the creation of a profession of clinical chemistry. In these developments America largely led and the rest of the world followed. The names of the men who built this field are still synonymous with chemical solutions and tests: Stanley Benedict at Cornell, Otto Folin at Harvard and Donald Van Slyke at the Rockefeller Hospital in New York. The post-Second World War years saw, in many ways, a building on these foundations rather than any radical departure from them. With the routinization and mechanization of testing and the massive employment of tests by physicians, clinical chemistry arrived. Arrived indeed to the extent that the use of tests is now cause for concern. Rosenfeld touches on all aspects of this story and, throughout, his footnotes are a source of gold. Although he attempts to grapple with all aspects of the discipline, this is by no means an integrated modern history, rather it is a work of the extremely knowledgeable enthusiast. I for one will continue to refer to it constantly as I grapple with the history of clinical chemistry in the 1920s. Other historians doing similar work in the modern period would be advised to do the same.

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