1991). While Fahd's Arabic edition of al-Filāha al-nabatiyya (1993 and 1995) is quoted in the chapter's endnotes but does not appear in the general bibliography (in which his most recent listed publication is dated 1977), many important works published by Savage-Smith long before this encyclopedia are missing, and recent Spanish publications, undoubtedly known to the authors and cited by Samsó in another publication of 1992, have not been included. The chapters by Jacquart and Micheau are virtually the only ones employing publications issued after 1990. In the case of Savage-Smith's chapter, it ends with a note (p. 956) stating that it was written in 1983 and updated in 1987, but that no publications after 1987 were able to be used—presumably because there was no opportunity given by the editor for a further updating. This indicates that the encyclopedia was in press for a long time, nearly a decade, before its actual publication.

Nevertheless, in spite of certain shortcomings, the *Encyclopedia of the history of Arabic* science is still a useful introductory book.

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Malcolm Barber (ed.), The military orders: fighting for the faith and caring for the sick, Aldershot, Variorum, 1994, pp. xxviii, 399, illus., £55.00 (0-86078-4338-X).

This volume publishes a selection of the papers presented at a 1992 conference on the military orders from their origins in the eleventh and twelfth centuries down to the present day. Though the mission of caring for the poor and the infirm was always a prominent objective of these orders, the medical historical aspects have often been neglected in favour of military and political developments. This volume is unfortunately no exception, in that only four of the 41 studies deal directly with the theme of "caring for the sick" expressed in its subtitle. Nevertheless, these studies are of considerable value and merit attention among medical historians.

Anthony Luttrell's account of the medical tradition of the Hospitallers from the final collapse of the Crusader presence in Syria in 1291 until the transfer of the Order to Malta in 1530 (pp. 64-81) stresses that the Hospitallers had originated as a charitable order dedicated to relief for the poor and the sick, and that this aspect of their work, though overshadowed for a time by increasingly military activities, was never abandoned. After the fall of Acre, the convent moved to Cyprus and then Rhodes, taking with it a long medical tradition based on experience in Palestine. Numerous hospitals and infirmaries were established in both the East and in Europe itself, and organizational statutes were repeatedly revised and promulgated anew. In all this activity there was also an important propaganda function, as offering relief to paupers, patients, lepers, and orphans and foundlings was extremely expensive and there were no longer glorious victories in the Holy Land to attract the donations and endowments upon which the military orders depended. Such support was attracted not only by the existence of the facilities themselves, but also by the statutes sustaining them, tales of their ancient origins and miracles, and hyperbolic accounts of the remarkable cures on offer and the importance of their services.

Two papers discuss the actual hospital function of the Knights of St John. Fotini Karassava-Tsilingiri studies their great fifteenth-century hospital at Rhodes, which took fifty years to complete and survives today in renovated form as the Rhodes Archaeological Museum (pp. 89–96). Following the lead of Luttrell, the author sees the foundation at least in part as an effort to impress the Latin Church and laity and secure support from the West. But his main concern is the plan, as there are no unproblematic remains of Hospitaller hospitals elsewhere, and of most there are no extant remains at all. That the arrangement of rooms around a central courtyard suggests a Middle East origin—the conventional wisdom to date-is rejected in favour of the pattern available in European hospital types dateable as far back as the ninth

century (tenuously, since, as the author does not state, only the plan for this example is known and there is no evidence that the building was ever erected) and still in use in the thirteenth century for hôtels-Dieu and monastic hospitals, mainly Benedictine.

Though Karassava-Tsilingiri does not say so, his conclusions—if accepted—are of very great importance for the history of medical institutions in Europe and the Middle East, since they would significantly undercut the role of the medieval Islamic hospital as an institutional model adopted by the Franks during the Crusades.

Ann Williams follows the Knights of Malta in 1530 and assesses the significance of the shifting role of the new hospital in Valetta from xenodochium to Sacra Infirmaria (pp. 97-102). From the 1580s onwards the hospital's position expanded on all fronts: its activities became more ambitious, its demands for supplies were voracious, its role as an employer was vital, and its political domination extended from Valetta out into the villages via allocation of physicians and strict enforcement of quarantine regulations. Charitable services remained prominent, but the Knights used the Sacred Infirmary to achieve a "medicalisation of the state" that ensured the harmony of their domain and kept the bishop and inquisitor at bay.

A final medical contribution by Susan Edgington examines Crusader sources, in particular her new edition of the Historia Iherosolimitana of Albert of Aachen, to establish what ideas about illness and treatment the Crusaders brought with them from Europe (pp. 320-6). Though the evidence is limited, it can be seen that the Frankish armies regarded their physicians as expert authorities and were successfully able to treat even very serious wounds and injuries. In seeking to explain disease, they overwhelmingly sought natural causes and displayed little interest in magicoreligious remedies; this seems to surprise the author, but it is consistent with recent findings refuting the once-popular notion that in Europe prior to the Crusades people were inclined to seek magical and religious rather than natural causes for disease. She concludes that "this

practical approach may explain why the Crusaders learnt so readily from medical practice in the East", but it could also be suggested that her important findings call into question the proposition that Frankish medical practice was significantly inferior to that of their Muslim foes in the first place.

Apart from the direct conclusions that emerge, these studies clearly reveal that if documentation remains limited for certain aspects of the medical historical study of the military orders, there yet remains considerable room for further investigation. For other aspects, however, the extant sources are very rich indeed, and one can only hope that this material will soon attract the detailed study that it so obviously deserves.

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Carol Benedict, Bubonic plague in nineteenth-century China, Stanford University Press, 1996, pp. xx, 256, £30.00 (08047-2661-2).

The last plague pandemic broke out at the end of nineteenth century. After initially appearing in Hong Kong and Canton in 1894, the disease soon disseminated and escalated to pandemic levels within a few years. In this book, Carol Benedict sets out to identify the origins and the routes of dissemination of plague in China, and to analyse the social and political responses to it.

The first half of the book adopts the approach of ecological history. Based on the ecological studies of plague reservoirs in present-day China, Benedict claims that plague originated in Yunnan province of southwestern China. The author identifies the numerous epidemics of Yunnan reported during 1772 and 1830 as plague. The prospering copper mining activities in the eighteenth century brought about a growth in population which contributed to the outbreaks of plague. The mining activities declined in the early nineteenth century and, consequently, there were few epidemics between 1830 and 1850. During the