

Book Reviews

Al-Birūnī's book on pharmacy and materia medica, ed. with English translation by H. M. Said and R. E. Elahie, Karachi, Hamdard National Foundation, 1973, volume 1, pp. viii, 376+430 pp. (Arabic text), \$30.00; Introduction, commentary and evaluation, by S. K. Hamarneh, volume 2, pp. 152, illus., \$6.00.

SAMI K. HAMARNEH, *The physician, therapist and surgeon Ibn al-Quff (1233–1286), an introductory survey of his time, life and works*, Cairo, Atlas Press, 1974, pp. viii, 199+27 pp. (Arabic text), \$6.50. (Copies may be obtained from the Smithsonian Institution, Washington DC 20560, U.S.A.)

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The Arabic text of al-Birūnī's *Pharmacy and materia medica* in which the author mentions names of plants and other medicinal drugs in several languages (Greek, Syriac, Persian, Hindī, Sindhi, Sigzī, Zabulī, etc.) appears for the first time with an English translation. It is intended to celebrate the millenary of al-Birūnī (b. 973), and comes as a complement to the *Hamdard pharmacopoeia of Eastern medicine* (Karachi, 1969). Al-Birūnī's *Kitāb al-Ṣaydanah* fills a gap in the historical studies of Arabic medicine and pharmacology, and serves among other purposes to elucidate the names of many drugs which may seem unintelligible to readers of Arabic medical and pharmaceutical manuscripts. An attempt has been made to give Latin names and taxonomy of plants. In editing the Arabic text (volume 1), manuscripts from Cairo, Baghdad, and Istanbul have been used. The Arabic text is handwritten by Dr. Elahie in clear *naskh* script, and variant readings and notes are given in the margin. Plant names in the English translation (which is the product of collaboration of four scholars under the editorship of Dr. Said) are given in transliteration, following the letters of the Arabic alphabet. Interesting and extensive notes and references appear at the end of each group of drugs. Dr. Hamarneh (in volume 2) gives a comprehensive introduction, and an evaluation of this important work of al-Birūnī, commenting on such subjects as, al-Birūnī and Arabism, his role in pharmacy, environmental ecology, and devotes a section to toxic and potent drugs in *Kitāb al-Ṣaydanah*. Bibliographical and biographical notes, drawings of certain plants, appendices (with commentary), and notes on simples appear in this volume, at the end of which are given useful bibliographical notes on the authors cited in volume 1, also a select bibliography, and an index of botanical and other names.

Hamarneh's book on Ibn al-Quff is in four chapters. The first deals with historical and political events in the Ayyūbid and Mamlūk periods, during which Ibn al-Quff al-Masiḥī lived and practised. Chapter two is on Arabic medicine and pharmacy from 1187 to 1286, and deals with physicians of *Bilād al-Shām* (al-Bayyāsī, al-Khuwayyī al-Baghdādī, Ibn al-Maṭrān, 'Abd al-Laṭīf al-Baghdādī, al-Dakhwār, etc.) all of whom appear in the last section of Ibn Abī Uṣaybi'a's '*Uyūn al-anbā'* . . . (in volume 2), from which Dr. Hamarneh draws most of his material. Chapters three and four are devoted to the life and works of Ibn al-Quff, whose bio-bibliography is also based on the same source. Since the date of Ibn al-Quff's death (685/[1286]) appears in '*Uyūn al-anbā'*', it is right to conclude that Ibn al-Quff's bio-bibliography was brought up to date by a later hand, after the death of Ibn Abī Uṣaybi'a (d. 1270). Plates of manuscripts are given (*al-Shāfi fi al-ṭibb*, '*Umdat al-iṣlāh fi 'amal*

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ṣināʿat al-jarrāḥ, al-Uṣūl fī sharḥ al-fuṣūl, and Sharḥ kulliyāt al-Qānūn), all of which are among Ibn al-Quff's medical works which so far have remained unedited. Other plates represent medieval items and modern examples of art and architecture (ceramics, al-Zāhiriyya Library, mosques, al-Madrasa al-ʿĀdiliyya, Baptist Mission Hospital in ʿAjlūn, Citadel of al-Karak, etc.). Along the lines of his publication on al-Bīrūnī (see above) Hamarneh gives appendices of authors cited in his book. Many of these names appear (with almost the same accounts) in his two publications, as for example: ʿAlī Ibn ʿĪsā, Aristotle, Archigenes, Aetius of Amida, al-Baʿlabakkī (Qusṭā Ibn Lūqā), Bukhtishūʿ, Būlus (Paul of Aegina), Dioscorides, Galen, Hippocrates, Ḥubaysh, Ḥunayn, etc. "Claudius" should be omitted from Galen's name. Yūḥannā Ibn Sarābiyūn author of the *Kunnāsh* is placed in the ninth century (Hamarneh, *Ibn al-Quff*, p. 178), and the tenth century (Hamarneh, *al-Bīrūnī*, vol. 2, p. 131). Interesting information is revealed by Hamarneh on Ibn al-Quff who seems to have been familiar with one of Ibn al-Nafīs's books: a commentary on Hippocrates' *Aphorisms*. Hamarneh ends with his lecture in Arabic which was read before an International Conference on the History of *Bilād al-Shām*, held in Amman (20–25 April 1974), and is supplemented with an "Arabic select bibliography" (pp. 21–27).

FRANCISCO JOSE AYALA and THEODORIUS DOBZHANSKY (editors), *Studies in the philosophy of biology. Reduction and related problems*, London and Basingstoke, Macmillan, 1974, 8vo., pp. xix, 390, £12.

In order to discuss some of the fundamental issues which concern biology and its relationships with other natural sciences a group of distinguished scientists and philosophers met at Bellagio in September 1972. This book contains the pre-circulated papers presented, and some of the discussion they generated. In addition to the well-known editors, there were present Eccles, Goodfield, Medawar, Monod, Popper, Rensch, Stebbins, and others who provided a formidable forum of talent. It is impossible to summarize the individual contributions, but each was important, so that the book will be of great value to philosophers of science, historians of biology and of medicine, and to some biologists.

The main theme was the many problems relating to reductionism, which are currently of much interest, for there is the reductionist approach characterized by modern molecular biology, and the anti-reductionist who denies its value. Thus a central part of the debate concerned the strategy of future research: should it be pitched at a molecular or at an organismic level, or are both necessary? It seemed to be generally agreed that the study of biological problems at a given level of complexity must include consideration of higher and lower levels of organization. But it is unlikely that the majority of experimental biologists will bother about these philosophical niceties.

The topic is by no means a new one for a seminar. The participants were selected because they each represented a specific viewpoint and they were allowed full opportunity to develop relevant questions. Moreover, discussion involved many other aspects of the philosophy of biology. For historians, June Goodfield's essay on reductionism in the nineteenth and twentieth centuries may be the most popular, but most articles contain historical material. In any case, the issues under discussion are so vital for an adequate concept of living matter that medical historians will proceed at their own peril if they do not study them in this book.