ṣināᶜat al-jarrāḥ, al-Uṣūl fī sharḥ al-fuṣūl, and Sharḥ kulliyyāt 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-Ẓāhiriyya Library, mosques, al-Madrasa al-ᶜĀdiliyya, Baptist Mission Hospital in ᶜAjlūn, 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: ᶜAlī Ibn ᶜĪsā, Aristotle, Archigenes, Aetius of Amida, al-Baᶜlabakkī (Qusṭā Ibn Lūqā), Bukhtīshūᶜ, 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.