



AN ANNOTATED BIBLIOGRAPHY ON IBN SĪNĀ  
(1970-1989)

Including Arabic and Persian Publications  
and Turkish and Russian References

ANCIENT AND MEDIEVAL PHILOSOPHY

DE WULF-MANSION CENTRE

Series 1

XIII

The De Wulf-Mansion Centre which is specialized in Ancient and Medieval Philosophy is established at the Philosophy Institute of the Catholic University of Louvain (K.U. Leuven), 2, Kardinaal Mercierplein, B-3000 Leuven (Belgium).

JULES L. JANSSENS

**AN ANNOTATED BIBLIOGRAPHY  
ON IBN SÎNÂ  
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INCLUDING ARABIC AND PERSIAN PUBLICATIONS  
AND TURKISH AND RUSSIAN REFERENCES

Uitgegeven met de steun van de  
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*To Father G.C. ANAWATI*

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## Preface

In dedicating this work to Reverend Father C. Anawati, I wish to pay homage to a renowned Ibn Sîna-scholar and bibliographer. At the same time, I want to express my sincere feelings of gratitude to him for his skilful advice and for his continuous support during the elaboration of my project.

A special word of thanks has also to be addressed to Prof. Em. G. Verbeke, Director of my Ph.D.-thesis, who introduced me to the real way of scholarly thinking and scientific research.

Many other scholars deserve acknowledgement, since without their help, this present work would probably never have been completed. I may name D. Jacquart, who kindly suggested how to divide the medical chapter according to the medieval context of Ibn Sîna's medical writings; H. Daiber, Th.-A. Druart, M.S. Khan, J. Michot, F. Sanagustin and S. Van Riet, who gave me useful information, and even put some of the materials at my disposal. Last, but not least, I may list a number of scholars, who provided me with some particular piece of information, or who in a substantial way encouraged me in my work: Dr. Ansari, R. Arnaldez, E. Booth, M. Cruz Hernandez, G. Freudenthal, A. Hasnoui, J.-L. Herbert, J. Jolivet, R. Macken, R. Morelon, E. Platti.

I was also honoured and pleased to have been allowed to work at different foreign libraries, such as the Central Library and the Oriental Reading Room of the R.U. Leiden; the Library of the Museum Boerhaave (Leiden); the Oriental Reading Room of the British Library; the Library of the School for Oriental and African Studies (London University); the Central Library and the Library of the "Institut für Geschichte der Medizin" of the University of Tübingen; the Library of l'Institut Dominicain des Etudes Orientales (Cairo); the "Bibliothèque Nationale" of Paris, and the Library of the "Institut du Monde Arabe" (Paris). To all these institutions, and to their staff-members, who always showed a great disponibility, I express my explicit thanks. However, I do not wish to ignore the assistance I received in the different Belgian Libraries, in which I have worked, and, I think I may

stress in this respect the tremendous efforts made by the personnel of the Central Library of my “own” Catholic University of Louvain (K.U. Leuven). Special feelings of gratitude are also going to the Centre De Wulf-Mansion of the Catholic University of Louvain (K.U. Leuven) for its important material support, and to its Director, Prof. W. Vanhamel for having accepted the inclusion of this volume in the Series of “Ancient and Medieval Philosophy”. A grant from the University Foundation, Belgium (Universitaire Stichting, België), and another grant from the Commission for Publications of the Catholic University of Louvain (K.U. Leuven, Commissie voor Publikaties) helped to cover the printing costs. I wish to express my warmest gratitude to both institutions.

I sincerely thank Mrs. I. Lombaerts, Mrs. L. Fletcher and Mr. Ph. Walford for their willingness to revise the English annotations – a difficult task, but which they have done with great accuracy!

Last, but not least, I thank my wife and my three children, Isabelle, Christophe and Ludovic for the many sacrifices they have made in order to permit me to complete this work.

## Introduction

Our annotated Bibliography on Ibn Sînâ, the renowned Genius of the East, intends to be nothing more than a particular guide of reference for students and scholars interested in his work and influence. We do hope that it will become a valuable supplement to the extremely meritorious and pioneering bibliographical work undertaken by G.C. Anawati. However, times have changed rapidly, and so have means, tools and methods of research. Nowadays computerization, Inter-Library-Loan services, etc. offer facilities, undreamt of two or three decades ago. Should we have elaborated this bibliography in the sixties a lot of material, now included, would not have been available and easy to obtain. However, even now we do not consider our work to be totally exhaustive. A bibliography is and can never be completely finished. Lacunae always do exist.

Since two new disciplines, i.e. the history of science and the history of medicine in the Arabic field have known a break-through during the last two decennia, their publications merit special and separate treatment, although one should keep in mind that for Ibn Sînâ, sciences and medicine were parts of one great system of knowledge. Hence, the introduction of the chapters on the sciences (XV) and on medicine (XVI) after what in a somewhat simplified way could be called the philosophical chapters (VI-XIV), is rather based on actual divisions than on a reflection of Ibn Sînâ's own systematization. Moreover, on many other occasions we had to deal with the clear tension existing between the medieval structuring of the parts of knowledge and the present-day division of the sciences. We have always tried to do justice to both structures, while at the same time keeping in mind the necessity for clarity and simplicity – which is essential for any kind of reference-work! It would take too much time to explain each of our choices in this respect, but we do hope that the actual division is satisfactory. In view of the fact that any division – whatever its merits (or demerits) may be – possesses serious limitations, we have tried to overcome this problem by elaborating cross-references. They include publications which in a relevant way deal with the heading under consideration – either why

that publication in an obvious, although somewhat secondary way deals with the heading under consideration, or why there is at least one important and/or striking idea present in the study referred to which treats the “new context”.

As to the actual presentation of the bibliography, it has to be indicated that titles of books are always given in their original language (although in transliteration as far as concerns Arabic, Persian, Turkish and Russian works – in which cases an English translation is always offered). The same rule applies also to all papers published in Western European languages, but to those written in other languages we have limited ourselves to the mentioning of the title in English translation (or to reproduce the already translated title – sometimes also in French or German – if such one was available). In this latter case, we always introduce in abbreviation in which language the original paper has been published.

Ph.D.-theses, unless published, have not been included in the present project.

The absence of any annotation for the Turkish and Russian publications has nothing to do with any kind of depreciation on our side, but it is the result of our unfamiliarity with both languages. In view of the many references we have found in both languages, we have to conclude that among them there certainly exist serious and/or stimulating studies. Therefore, we estimate it to be valuable to include them, even without any annotation, in the actual project.

Regarding the given annotations, we first wish to stress that they in no way intend to, or can replace the original publications. They at most constitute a source of information about the basic ideas, present in such and such publication. Hereby, particular attention is paid to innovative ideas – which often receive greater emphasis here than in the original writings! The brief critical evaluation which we always offer at the end in a supplementary way, is entirely personal – but at all times tries to remain as objective as possible. In this respect, it has to be noted that in several cases different critical reviews were consulted. (We even have thought about including references to critical reviews, but due to lack of time we had to abandon such a project.) However, any mistake or error which might be present in them, or in the annotations themselves, has to be considered as being made by present bibliographer.

Finally, as earlier already indicated, it is still possible, and even probable that, notwithstanding our great efforts, there may be lacunae,

especially in cases where Ibn Sîna's name is not explicitly mentioned in the title. We hope that we will be able to introduce them in the supplement, covering the years 1990-1994, which we intend to publish in the *Bulletin de Philosophie Médiévale* of 1995. Therefore, we are grateful for all supplementary information, whatever it may be. Moreover, we thank in advance all authors, who in the future will be so kind as to inform us about, or to provide us with their new publications on Ibn Sîna.

Ibn Sîna was undoubtedly one of the greatest masters of thought of all time. We hope that this bibliography may constitute a modest contribution to further research on this outstanding philosopher, scientist and physician.

Leuven, September 1990

Jules L. Janssens, Dr.  
De Wulf-Mansion Centre (Leuven)





## Abbreviations

### MILLENNARY PUBLICATIONS AND COLLECTIVE WORKS ON I.S.

- Al-shaykh al-ra'îs: see IV, A17  
Avicenna / Ibn Sînâ: see IV, A3  
Avicenne: see IV, A18  
27. Congr. Int. Hist. Med.: see IV, A16.  
Al-dhikr: see IV, A10  
Etudes sur Avicenne: see IV, A4  
Hazâra-i Ibn Sînâ: see IV, A7  
Ibn Sînâ and Sufism: see IV, A2  
Ibn Sînâ. Doğumunun: see IV, A10  
Ibn Sino: see IV, A14 (1. Ashurov)  
Ibn Sino. K-1000 letiju: see IV, A14 (2. Baratov)  
Ibn Sino ve ego epokhe: see IV, A14 (3. Negmatov)  
Kayseri-Kong.: see IV, C1  
Matematika: see IV, A14 (5. Shirazdinov)  
Milenario de Avicena: see IV, A15  
Pensée arabe: see IV, A11  
Proc. 1. Int. Conf. Isl. Med.: see IV, A9  
Proc. 16th. Int. Congr. Hist. Sciences: see IV, A13  
Ulusl. I.S. Semp.: see IV, C2

### WORKS

- AN.: ANAWATI G.C., *Mu'allafât Ibn Sînâ (Mahrajân Ibn Sînâ)*. Cairo, Dâr al-Ma'ârif, 1950.  
BADAWI, Histoire: A. BADAWI. *Histoire de la philosophie en Islam*. Paris, Vrin, 1972.  
GUTAS, Avicenna: D. GUTAS, *Avicenna and the Aristotelian Tradition. Introduction to Reading Avicenna's Philosophical Works (I.P.T., 4)*. Leiden, Brill, 1988.

- HAMEED, Avicenna's Tract: A. HAMEED (ed), *Avicenna's Tract on Cardiac Drugs, and Essays on Arab Cardiotherapy*. Karachi, Hamdard Found., 1983.
- M.: MAHDAVI Y., *Fihrist nuskhahâ-ye muşannafât-e Ibn-e-Sînâ*. Teheran, Tehran Univ. Press, 1954.
- MICHOT, Destinée: J. MICHOT, *La destinée de l'homme selon Avicenne. Le retour à Dieu (ma'âd) et l'imagination*. (Acad. Royale Belg., Classe des Lettres. Fonds Draguet, 5). Lovanii, Aed. Peeters, 1986.
- Medieval Political Philosophy: M. MAHDI and R. LERNER (eds), *Medieval Political Philosophy: A Source-book*. Glencoe, 1963; Toronto, 1967. Ithaca, New York, Cornell Univ. Press, 1972, <sup>5</sup>1986.
- Orientalische Kultur und Europäisches Mittelalter: A. ZIMMERMANN und I. CRAEMER-RUEGENBERG (eds), *Orientalische Kultur und Europäisches Mittelalter (Misc. Med., 17)*. Berlin, New York, W. de Gruyter, 1985.
- Philosophy in the Middle Ages: A. HYMAN and J. WALSH (eds), *Philosophy in the Middle Ages; The Christian, Islamic, and Jewish Traditions*. Indianapolis, Hackett, 1973.
- Actas V. Congr. Int. Filos. Med.: *Actas del 5° Congreso Internacional de Filosofía Medieval*. Madrid, Ed. Nacional, 1979.
- Enc. Ir.: Encyclopedia Iranica.
- Enc. Isl.: Encyclopedia Islamica.

#### GENERAL ABBREVIATIONS

A.: Author

S.: Summary

Acc. to: According to

(N.C.): Not Consulted

## List of Journals

- Abr Nahrain (Leiden)
- Académie Royale de Belgique. Bulletin de la Classe des Lettres et des Sciences Morales et Politiques (Bruxelles)
- Acta Ant. Ac. Sc. Hung.: Acta Antiqua Academiae Scientiarum Hungaricae (Budapest)
- Acta Orient.: Acta Orientalia, edit. societates orientales batava, danica, norvegica, sverica (Lugduni Batavorum)
- Acta Or. Ac. Sc. Hung.: Acta Orientalia Academiae Scientiarum Hungaricae (Budapest)
- Adyat Halab (Aleppo)
- Afghanistan Q.: Afghanistan Quarterly (Kabul)
- Age and Ageing (London)
- AHDLMA: Archives d'Histoire Doctrinale et Littéraire du Moyen Age (Paris)
- Alif. Journal of Comparative Poetics (Cairo)
- Am. J. Chin. Med.: American Journal of Chinese Medicine (New Haven)
- Am. J. Nephrol.: American Journal of Nephrology (Basel)
- Am. J. Psychiatry: American Journal of Psychiatry (New York)
- Angelicum (Roma)
- Ankara tip Bült.: Ankara tip Bülteni (Ankara)
- An. Sem. Hist. Filos.: Anales del Seminario de Historia de la filosofía (Madrid)
- Ann. Fac. Ling. Lett. Stran. Ca'Foscari (Ser. Or.): Annali della Facoltà di lingue e letteratura straniera di Ca'Foscari (Serie orientale) (Venezia)
- Ann. fr. Anesth. Réan.: Annales françaises d'anesthésie et de réanimation (Paris)
- Ann. Inst. Philos.: Annales de l'Institut de Philosophie et de Sciences Morales (Bruxelles)
- Ann. oto-laryng.: Annales d'oto-laryngologie et de chirurgie cervico-faciale (Paris)
- Anu. Filos.: Anuario Filosofico (Pamplona)

- Aquinas (Città del Vaticano)  
 Al-'arabî (Kuwait)  
 Arabica (Leiden)  
 The Arabist (Budapest)  
 Archiv Orient. : Archiv Orientalni (Prague)  
 Arkh. Anat. Gistol. Embryol. : Arkhiv anatomii, gistologii i embryologii (Leningrad)  
 Aryânâ (Kabul)  
 Asclepio (Madrid)  
 A.Û. Eđitim Fak. Dergisi : Ankara Ûniversitesi Eđitim Fakültesi Dergisi (Ankara)  
 Axboroti Akademia Fanhoi SSR Tojikistan (Tajikistan)  
 Ayandeh (Tehran)  
 Al-bâhith (Paris)  
 Al-baħth al-'ilmî (Rabat)
- Bilim ve Teknik (Ankara)  
 Bol. Ass. Esp. Orient. : Boletin de la Asociacion Española des Orientalistas (Madrid)  
 Bol. Soc. Esp. Hist. Farm. : Boletin de la Sociedad Española de Historia de la Farmacia (Madrid)  
 BSOAS : Bulletin of the School of Oriental and African Studies (London)  
 Bull. Cercle Benelux Hist. Pharm. : Bulletin. Cercle Benelux de l'Histoire de la Pharmacie (St. Andries-Brugge, Belgium)  
 Bull. Ind. Inst. Hist. Med. : Bulletin of the Indian Institute of the History of Medicine (Hayderabad)  
 Bull. Iran. Math. Soc. : Bulletin of the Iranian Mathematical Society (Tehran)  
 Bull. Philos. Méd. : Bulletin de philosophie médiévale (Louvain-la-Neuve)
- The Campaigner (New York)  
 Cas. Lec. Ces. : Casopis Lekarů Ceskyck (Prague)  
 Conf. Est. Hist. Org. Ciencia (Cuba) : Conferencia di Estudios di Historia y Organizacion de la Ciencia (Cuba)  
 La Ciudad de Dios (Escorial, Madrid)  
 Le Courier (UNESCO)

Cuad. Salm. Filos. : Cuadernos Salmantinos de Filosofía  
(Salamanca)  
Cultures (UNESCO)

Deutsches Dante Jahrbuch (Köln)  
Deutsche Z. Philos. : Deutsche Zeitschrift für Philosophie (Berlin)  
Doctor Communis (Città del Vaticano)

E. Sosyal Bilimler Fak. Dergisi : Ege Üniversitesi (Izmir). Sosyal  
Bilimler Dergisi (Izmir)

Est PP. de la Merced : Estudios. Padres de la Orden de la Merced  
(Madrid)

Falsafat (Tehran)  
Farhang-i Irân Zamîn (Tehran)  
Farmak. i Toksik. : Farmakologiya i Toksikologiya (Moscow)  
Fel'dsher Akush. : Fel'dsher i Akusherka (Moscow)  
Felsefe Arkivi (Istanbul)  
Al-fikr al-'arabî (Beirut)  
Fikrun wa-fann (Münich)  
Filos. Nauki : Filosofskie Nauki (Moscow)  
Fiziol. Zh. : Fiziologicheskii Zhurnal (Moscow)  
Fiziol. Zh. SSR. : Fiziologicheskii Zhurnal SSR. Imemi I.M. Sechenova  
(Moscow)  
Fragua (Madrid)

The Gerontologist (Washington)  
Gig. i san. : Gigiena i sanitariya (Moscow)  
Graeco-Arabica (Athens)  
The Greek Orthodox Theological Review (Brookline, Mass.)  
Gyogyszereszet (Budapest)

Hamdard Isl. : Hamdard Islamicus (Hamdard Foundation)  
Hamdard Med. : Hamdard Medicus (Karachi)  
Ḥauliyyât Kulliyât al-âdâb (Kuwait)  
Ḥauliyyât Kulliyât al-shari'a (Saudi Arabia)  
Hist. of Univ. : History of Universities (Amersham)  
Historia (Madrid)  
Honar va Mardon (Tehran)

- IBLA : IBLA. Revue de l'institut des belles lettres arabes (Tunis)  
 İlah. Fak. Dergisi (Univ. Ankara): Üniversitesi Ankara. İlahiyât  
 Fakültesi Dergisi (Ankara)
- Ind. J. Hist. Sc. : Indian Journal of History of Science (New Delhi)  
 Indo-Iranica (Calcutta)
- Int. J. Isl. Ar. Stud. : International Journal of Islamic and Arabic  
 Studies (Bloomington, Indiana)
- Int. Philos. Q. : International Philosophical Quarterly (Bronx, New  
 York)
- Iranzamin (Bonn)
- 'İrfân (al.) (Sion)
- Der Islam (Berlin)
- Islam. Storia e civiltà (Roma)
- Islam and the Modern Age (New Delhi)
- Isl. Cult. : Islamic Culture (Hayderabad)
- Isl. Q. : Islamic Quarterly (London)
- Isl. Rev. Arab Aff. : Islamic Review and Arab Affairs (Woking)
- Isl. Stud. : Islamic Studies (Islamabad)
- Isl. W. Med. J. : Islamic World Medical Journal (Jeddah)
- Israel Oriental Studies (Tel Aviv)
- Izv. Akad. Nauk Tadj. SSR. Otdel. Fiz.-Mat. i Geol.-Khim. :  
 Akademiya Nauk Tadjikistoi SSR. Izvestiya. Otdelenia Fiziko-  
 Matematicheskikh i Geologo-Khimicheskikh Nauk (Dushanbe)
- Izv. Ak. Nauk Tadj. SSR. Otdel. Obsch. Nauk : Akademiya Nauk  
 Tadjikistoi SSR. Izvestija. Otdelenia Obschestvannye Nauk  
 (Dushanbe)
- Jernal Undang Undang. Journal of Malaysian and Comparative Law  
 (Kuala Lumpur)
- JAOS : Journal of the American Oriental Society (Baltimore, Md.)
- JHAS : Journal for the History of Arabic Science (Aleppo)
- J. Hist. Med. : Journal for the History of Medicine, and Allied Sciences  
 (New Haven, Connecticut)
- J. Hist. Philos. : Journal of the History of Philosophy (St. Louis)
- J. Kansas Med. Soc. : Journal of the Kansas Medical Society (Topeka)
- J. Kuwait Med. Ass. : Journal of the Kuwait Medical Association  
 (Kuwait)

J. Pakistan Hist. Soc. : Journal of the Pakistan Historical Society  
(Karachi)

J. Philos : The Journal of Philosophy (New York)

Keletkutatás (Budapest)

Kardiologiya (Moscow)

Khirurgiya (Moscow)

Klin. Khir. : Klinicheskaya Khirurgiya (Kiev)

Klin. Med. : Klinicheskaya meditsina (Moscow)

Konevi (Ankara)

Koroth. A Bulletin Devoted to the History of Medicine and Science  
(Haifa)

KOS (Milano)

Al-majalla al-'arabiyya (Riadh)

Al-majalla al-'arabiyya lil-'ulûm al-insâniyyat (Kuwait)

Majallat al-baḥṭh al-'ilmî wa 'l-turâth al-islâmî (Mekka)

Majallat Kulliyyât al-adâb wa 'l-'ulûm al-insâniyya fî Fâs (Fez)

Majallat Kulliyyât al-'ulûm al-ijitimâ'iyya (Riadh)

Majallat ma'had al-makhtûfât al-'arabiyya (Cairo; New Series : Kuwait)

Majallat al-waḥda (Beirut)

Maktaba Sovieti (USSR)

Manuscripts of the Middle East (Leiden)

Al-ma'rifa (Damas)

Massachusetts Studies in English (Amherst)

Al-mawqif al-'arabî (Cairo)

Al-mawrid. Majalla turâthiyya faṣliyya (Al-mawrid. A Quaterly Journal  
of Culture and Heritage) (Baghdad)

Mayeuticá (Salamanca)

Mayyar Filozofiae Szemle (Budapest)

Med. Bull. Istanbul Med. Fac. : Medical Bulletin of Istanbul Medical  
Faculty (Istanbul)

Med. Esp. : Medicina española (Valencia)

Med.-Hist. J. : Medizinhistorisches Journal (Hildesheim)

Med. Ren. Stud. : Medieval and Renaissance Studies (Chapel Hill)

Med. Sestra : Meditsinskaya Sestra (Moscow)

Med. Stud. : Mediaeval Studies (Toronto)

Med. Times : Medical Times (Pakistan)

Med. Trad. : Medicina tradicional (Mexico)



- Med. Welt : Medizinische Welt (Stuttgart)  
 Médecine et Hygiène (Genève)  
 Mel. Univ. St. Joseph : Mélanges de l'Université St. Joseph de Beyrouth (Beirut)  
 MIDEO : Mélanges de l'Institut Dominicain des Etudes Orientales du Caire (Cairo)  
 Milla wa Milla. The Australian Bulletin of Comparative Religion (Australia)  
 Millî Kültür (Ankara)  
 The Modern Schoolman (St. Louis)  
 The Monist (La Salle)  
 Le Muséon (Louvain)  
 Musiki Mecmuasi (The Music Magazine) (Istanbul)  
 Muslim World (Hartford)  
 The Muslim World Book Review (London)  
 Al-mustaqbal al-'arabî (Beirut)  
 Muzyka. Narodov Azii i Afrikii (USSR)
- Naryzy Ist. Pryr. Tekhn. : Naryzy z Istorii Pryrodoznovestra i Tekhniky (Kiev)  
 New Scholast. : The New Scholasticism (Washington)  
 New Scientist (London)  
 N.T.M. (Leipzig) : NTM. Geschichte der Naturwissenschaften, Technik und Medizin (Leipzig)
- Or. Suec. : Orientalia Suecana (Stockholm)  
 ORITA : Orita. Ibadan Journal of Religious Studies (Ibadan, Nigeria)  
 Ortop. Travm. Prot. : Ortopediya, Travmatologiya i Protezirovaniye (Moscow)  
 Orv. Hetil : Orvosi Hetilap (Budapest)  
 Orvostört. Közl. : Orvostörténeti Közlemények. Communicationes de historia artis medicinae (Budapest)
- Paideuma (E. Pound Scholarship) (Neville Hall)  
 Pakistan J. Psych. : Pakistan Journal of Psychology (Karachi)  
 Pakistan Philos. J. : Pakistan Philosophical Journal (Lahore)  
 Palestra del Clero (Rovigo)  
 Pasto Q. : Pasto Quarterly (Peshawar, Pakistan)  
 Peditriya (Moscow)

Persica ('s Gravenhage)

Philos. Forum : The Philosophical Forum (Boston)

Philos. Res. Arch. : Philosophical Research Archives (Bowling Green, Ohio)

Priroda (Sofia)

Problemy Gig. i Organ. Zdravookh. Uzb. : Problemy Gigieny i Organisatorii Zdravookhanenia Uzbekistan (Tashkent)

Przegląd O. : Przegląd Orientalistyczny (Warszawa)

Qaḍâyâ 'arabiyya (Beirut)

Quaderni di Studi Arabi (Venezia)

RAA Damas : Revue de l'Académie Arabe de Damas (Damas)

Rassegna Sovietica (Roma)

Rev. Filos. : Revista di Filozofie (Bucharest)

Rev. Hist. Ecclés. : Revue d'Histoire Ecclésiastique (Louvain-la-Neuve-Leuven)

Rev. philos. Louvain : Revue Philosophique de Louvain (Louvain-la-Neuve)

Rev. Port. Filos. : Revista Portuguesa de Filosofia (Braga)

Rev. Théol. Philos. : Revue de Théologie et de Philosophie (Lausanne)

Review of Politics (Notre Dame, Ind.)

Revista de filosofia (Maracaibo)

Ris. al-khaleej al-'arabî : Risâlat al-khaleej al-'arabî (Riadh)

Riv. Filos. Neoscol. : Rivista di Filosofia Neoscolastica (Milano)

Roczn. Filoz. : Roczniki Filozoficzne (Lublin)

S. Afr. Med. J. : South African Medical Journal (Cape Town)

S.U. Selçuk Dergisi : Selçuk Üniversitesi. Selçuk Dergisi (Konya)

Sadoi Sharq (Dushanbe)

Sanat, Bilim ve Kültürde Orkun (Istanbul)

Sapientia (La Plata)

Sci. Cult. : Science and Culture (New Delhi)

Scripta Mediterranea (Toronto)

Scriptorium (Bruxelles)

Sihahli Kuvvetler Dergisi (Ankara)

Soc. Sciences Uzb. : Obschestvannye nauki v Uzbekistane (Social Sciences in Uzbekistan) (Tashkent)

Sophia. Rassegna critica di filosofia e storia della filosofia (Padova)

- Sophia Perennis. The Bulletin of the Imperial Iranian Academy of  
Philosophy (Tehran)
- Sov. Med. : Sovetskaya Meditsina (Moscow)
- Sov. Zdravookh. : Sovetskoe Zdravookhranenie (Moscow)
- Spektrum Iran. Zeitschrift für arabisch-iranische Kultur (Bonn)
- Stomatologiya (Moscow)
- Stromata. Ciencia y Fe (San Miguel, Argentina)
- Stud. Hist. Med. : Studies in History of Medicine (New Delhi)
- Stud. in Islam : Studies in Islam (New Delhi)
- Stud. Med. Thought : Studies in Medieval Thought (Nagoya)
- Stud. Philos. Christ. : Studia Philosophiae Christianae (Warszawa)
- Stud. Philos. Med. : Studies in Philosophy of Medicine (New Delhi)
- Studia Islamica (Paris)
- Südhooffs Archiv. Zeitschrift für Wissenschaftsgeschichte (Wiesbaden)
- Sümerbank Dergisi (Ankara)
- Al-ṭariq (Beirut)
- Ter. Arkh. : Terapevticheskii Arkhiv (Moscow)
- Al-thaqâfa al-islâmiyya (Damas)
- The Thomist (Washington)
- Toplum ve Hekim (Istanbul)
- TTKB : Turk Tarikh Kurumu Belleten (Ankara)
- Tunis méd. : Tunis médical (Tunis)
- Al-turâth al-'arabî (Damas)
- URAM: Ultimate Reality and Meaning. Interdisciplinary Studies in the  
Philosophy of Understanding (Toronto)
- Urol. Nefrol. : Urologiya i Nefrologiya (Moscow)
- Vestn. Ak. Nauk Kazakh. SSR : Akademiya Nauk Kazakshoi. Vestnik  
(Alma-Ata)
- Vestn. Ak. Nauk SSR : Akademiya Nauk SSR. Vestnik (Moscow)
- Vestn. Derm. Vener. : Vestnik Dermatologii i Venerologii (Moscow)
- Vestn. Khir. : Vestnik Khirurgii (Moscow)
- Vestn. Oto-rino-laryng. : Vestnik Oto-rino-laryngologii (Moscow)
- Vestn. Rentgen. Radiol. : Vestnik Rentgenologii i Radiologii  
(Moscow)
- Viaotor. Medieval and Renaissance Studies (Los Angeles)
- Vnitřni Léč. : Vnitřni Lékarstvi (Prague)

- Vopr. Filos. : Voprosy Filosofii (Moscow)  
Vopr. Ist. : Voprosy Istorii (Moscow)  
Vopr. Ist. Estest. Tekhn. : Voprosy Istorii Estestvozneniya i Tekhniki  
(Moscow)  
Vopr. Kurort. Fizioter. : Voprosy Kurtortologii, Fizioterapii i  
lechebnoi fizicheskoi Kultury (Moscow)  
Vopr. Onkol. : Voprosy Onkologii (Leningrad)  
Vrac. Delo : Vrachebnoe Delo (Kiev)
- West. J. Med. : The Western Journal of Medicine (San Francisco)  
Wiad. Lek. : Wiadomosci Lekarskie (Warszawa)  
Würzburger Medizinhist. Mitt. : Würzburger Medizinhistorische  
Mitteilungen (Pattensen, Han.)
- Yuval (Jerusalem)
- ZDMG : Zeitschrift der Deutschen Morgenländischen Gesellschaft  
(Leipzig)  
Z. Gesch. arab.-isl. Wiss. : Zeitschrift für Geschichte der arabisch-  
islamischen Wissenschaften (Frankfurt am Main)  
Zh. Mikrobiol. : Zhurnal Mikrobiologii, Epidemiologii i Immuno-  
biologii (Moscow)  
Zh. Nevrapat. Psikiatr. : Zhurnal Nevrapatologii i Psichiatrii  
(Moscow)  
Zvezda Vostoka (Tashkent)



## Chapter I

# Works-Editions and Translations (and Related Studies)

### A. MAJOR PHILOSOPHICAL WORKS

I. Collective Works

II. Shifâ

III. Other Major Philosophical Works

### B. MAJOR MEDICAL WORKS

### C. MINOR WORKS



## A. Major Philosophical Works

### I. COLLECTIVE WORKS

(1) ASIMOV M. (Ed), *Ibn Sina. Izbrannye filosofskia proizvedeniya (Ibn Sînâ. Selected Philosophical Writings)*. Moscow, Nauka, 1980, 551 pp.

contains the Russian translation of 3 major works, i.e. *Shifâ, De Anima; Ishârât wa-Tanbîhât* and *Dânesh-Nâme* as well as of the *Autobiography/Biography* complex. – Abbreviated: ASIMOV – *Selected Philos. Works*.

(2) DINORSHOEV M. (Ed), *Ibn Sina. Izbrannye proizvedeniya (Ibn Sînâ. Selected Works)*. Dushanbe, Donish, 1980, 420 pp.

contains the Russian translation of 2 major works, i.e. *Ishârât wa-Tanbîhât* and *Danesh-Nâme*, as well as of three minor works, i.e. the *Autobiography/Biography* complex; the *Correspondence with al-Bîrûnî* and the *Tr. on Resurrection*. – Abbreviated: DINORSHOEV – *Selected Works*.

(3) NADER A., *Al-nafs al-bashariyya 'inda Ibn Sînâ*. Beirut, Dâr al-Machreq, 1968, <sup>3</sup>1985, 116 pp. – Abbreviated: NADER, Al-nafs.

includes several fragments of major and minor works. – Abbreviated: NADER, *al-nafs*.

(4) IBN SINO. *Osori muntakhab (IBN SÎNÂ. Selected Works)*. Dushanbe, 1980.

A major project: the publications in 10 volumes of a complete Tadjikî translation of all works of I.S. Two volumes were already published in 1980 – see *Bibliography*, 11: Bečka, p. 244, N. 8.

### II. SHIFÂ (AN. 14; M. 84)

#### 1. Al-Manṭiq (Logic)

IBN SÎNÂ, *Al-shifâ, al-mantiq* (La logique), t. 3, *al-'ibâra* (De l'interprétation). Ed. M. KHODEIRY, Rev. and introd. I. MADKOUR.



Cairo, Al-hay'a al-misr. al-'amma lil-kitâb, 1970, 12 + 134 pp. (Ar); 18 pp. (Fr)

A valuable edition. The critical apparatus is well developed. Nevertheless, some further improvements are possible. For Madkour's introduction, see: *Logic*, A18.

## 2. Aṭ-Ṭabî'iyât (Physics)

IBN SÎNÂ, *Al-shifâ, aṭ-ṭabî'iyât*, t. 1. *Al-samâ' aṭ-ṭabî'î*. Ed. S. ZAYED. Pref. and rev. I. MADKOUR. Cairo, al-hay'a al-misr. al-'amma lil-kitâb, 1983, 333 pp. (Ar); 5 pp (Fr).

This volume completes the edition of the *Shifâ*, started in Cairo in 1949 under the direction of I. Madkour. Unfortunately, the present edition of this last volume is rather weak, and clearly in need of serious improvement. One gets the impression of a somewhat overhasty publication.

IBN SÎNÂ, *Al-shifâ, aṭ-ṭabî'iyât* (La Physique), t. 6: *Al-nafs* (De Anima). Eds. G.C. ANAWATI and S. ZAYED. Pref. and rev. I. MADKOUR. Cairo, al-hay'a al-misr. al-'amma lil-kitâb, 1975, 23 + 261 pp. (Ar), 22 pp. (Fr).

Anawati, in his introduction, offers a basic description of the existing editions of this part of the *Shifâ*, as well as of all the known manuscripts. Moreover, he gives a table of concordance between the present edition and these of Rahman (see *infra*) and of the *Avicenna Latinus* (edited by S. VAN RIET, see *infra*). This edition is valuable, although one would have expected a still greater progress with respect to the existing editions.

IBN SÎNÂ, *Al-shifâ, aṭ-ṭabî'iyât* (La Physique), t. 8: *Al-ḥayawân* (Les Animaux). Eds. A. MUNTAŞIR, S. ZAYED and 'A. İSMÂ'ÎL. Rev. and Introd. I. MADKOUR. Cairo, al-hay'a al-misr. al-'amma lil-kitâb, 1970 (In fact : 1980), 21 + 482 pp. (Ar), 21 pp. (Fr).

Madkour, in his introduction, shows that I.S. is a faithful disciple of Aristotle in his biological ideas (although I.S. sometimes corrects some of the Stagirite's views), and that the *K. al-ḥayawân, Book of Animals*, reveals a close relationship with Aristotle's biological works.

The edition is very meritorious, but authors seem not to have taken into account the very fact that parts of this work are directly derived from the *Canon*, see *Medicine*, A32.

### 3. Al-Riyâdiyyât (Mathematics)

IBN SÎNÂ, *Al-shifâ, al-riyâdiyyât* (Mathématiques), 1 : *Uṣûl al-handasa* (Géométrie). Eds. A. SABRA and A. LUṬṬÎ. Pref. and rev. I. MADKOUR. Cairo, Al-hay'a al-misr. al-'amma lil-kitâb, 1976, 448 pp. (Ar), 4 pp. (Fr).

A valuable edition. Regarding the introduction by A-SABRA, see *Sciences*, B1, 6.

IBN SÎNÂ, *Al-shifâ, al-riyâdiyyât*, (Mathématiques), 2 : *Al-ḥisâb* (Arithmétique). Ed. A. LUṬṬÎ. Pref. and rev. I. MADKOUR. Cairo, Al-hay'a al-misr. al-'amma lil-kitâb, 1975, 69 pp. (Ar).

Meritorious, although the critical apparatus is (too) limited).

IBN SÎNÂ, *Al-shifâ, al-riyâdiyyât* (Mathématiques), 4 : *Al-hay'a* (Astronomie). Eds. M. RIḌÂ MADWAR and I. AḤMAD. Pref. and rev. I. MADKOUR. Cairo, Al-hay'a al-misr. al-'amma lil-kitâb, 1980, 659 pp. (Ar); 12 pp. (Fr).

A valuable edition.

The Arabic text of the 22 volumes (Cairo 1952-1983) has been reprinted at Tehran, M.M. Ayât Allah al-Uẓmâ al-Mar'ashî al-Najjaffî, 1405 H. in 10 volumes (but French title-pages have sometimes been omitted as well as some French introductions, and lexica of the Avicenna Latinus have partly been included.

*Avicenna's De Anima, Being the Psychological Part of Kitâb al-Shifâ*'. Ed. F. RAHMAN. London, 1959. Repr. London, Oxford Univ. Press, 1970.

*Psychologie d'Ibn Sînâ (Avicenne), d'après son œuvre al-Shifâ*. Ed. and Transl. J. BAKOŠ. Prague, 1956. Repr. Paris, Ed. patrim. arabe et isl.; Beirut, M.A.J.D., 1982 (only the volume of the edition).

Note : NADER, *al-nafs*, contains the text of *De Anima*, I, 1 (partly) and I, 2. E. HOLMYARD's edition of parts of II, 5 (to know : Maq. I, ch. 1 and 5, acc. to the Cairo-ed.), in : *Avicennae De Congelatione et Conglutinatione Lapidum*. Paris, 1927, 69-86, was reprinted (together with the other parts of the work) at New York, AMS Press, 1982 (and perhaps at Manford, Santarasa, 1986).

Noteworthy is also the edition by M. MOHAGHEH of M. NARÂQÎ's (d. 1764)

*sharḥ al-Ilâhiyyât min Kitâb al-Shifâ* (*Wisdom of Persia*, 34). Tehran, Tehran Univ. Press, 1986 (A. clearly indicates the verbatim citations by Narâqî of I.S.'s text).

## Shifâ-Translations (and studies related to the text)

### I. Logic

(1) SHEHABY, N., *The Propositional Logic of Avicenna. A Translation from al-Shifâ : al-Qiyâs*, with Introd., Comm. and Glossary, (*SHL*). Dordrecht, Reidel, 1973, VII + 296 pp.

Unfortunately A. only provides a translation of b. 5-7, b. 8, ch. 1-2 and b. 9, ch. 1 of I.S.'s *Prior Analytics*. Although the translation has merit, it is in need of correction. The notes to the translation are (too?) limited, both in number and in scope. However, the introduction and the systematic comments (see *Logic*, A33) contribute to a better understanding of the text, and, at the same time, reveal A.'s own understanding of it. For some important corrections, see *Logic*, A11.

(2) DAHIYAT, I., *Avicenna's Commentary on the Poetics of Aristotle. A Critical Study with an Annotated Translation of the Text*. Leiden, Brill, 1974, 126 pp.

A. offers a very valuable translation, based on Badawi's edition (Cairo, 1966), but supplemented with the earlier edition of D. MARGOLIOUTH, *Analecta Orientalia ad Poeticam Aristotelicam*. London, 1887. In the many explanatory notes, A. clarifies the structure of the text, points to historical sources and discusses terminological or textual problems. For a more systematic account of the historical background and the basic ideas of I.S.'s Comment, A.'s substantial introduction (see *Logic*, A8) can serve as a valuable guide.

## Translations of particular chapters (Isagogè)

(1) AHRÂM, A., *Ibn Sinâ, Shifâ, Al-Mantiq, b. I, 1-5* (Transl. into Persian), in : *Sophia Perennis*, 1<sub>2</sub> (75), 23-27.

A. presents a good translation into Persian of the first book, chapters 1-5 of the *Isagogè* of I.S., but offers no comments or notes.

(2) MARMURA, M., Avicenna's Chapter on Universals in the *Isagogè* of his *Shifâ*, in : A. WELCH and E. CACHIA (Eds), *Islam : Past Influence and Present Challenge*, Edinburgh, Edinburgh Univ. Press, 1984, 34-56.

A. presents an excellent translation of chapter 12 of book 1 of the *Isagogè* – p. 47-52 – for A.'s analysis of this chapter, see : *Logic*, A20.

(3) ID., Avicenna on the Division of the Sciences in the *Isagogè* of his *Shifâ*, in : *JHAS*, 4<sub>2</sub> (80), 239-251.

A critical translation of chapter 2 of book 1 of the *Isagogè* is given in this paper – the text is divided into several parts, and each part receives special comments (see : *Logic*, C3).

NOTE : GUTAS, *Avicenna*, offers the English translation of the following introductory sections :

1. Introduction of the *Cure* by Juzjânî (Cairo-ed. *Al-madkhal*, 1-4). 38-43 (Latin edition in Birkenmajer (see : *Influences*, A III, 3), 95-98 - orig. 314-317);
2. Prologue to the *Cure* (Cairo-ed. *Al-madkhal*, 9-11) : 49-54;
3. Prologue (partly) and Epilogue of *Sophistics* (Cairo-ed. *Al-safsata*, 4-5, 110-115) : 34-43.

A. did a very good job translating these passages. He carefully brings together all the available materials at his disposal, and consults manuscripts whenever possible. The brief introductory sections, which always precede the translation, are rich in information. However, one may wonder whether A.'s translation is in some parts not too interpretative, and sometimes not too dependent upon Goichon's studies, esp. her *Lexiques* (certainly valuable in their time, but, in view of the many new materials available, clearly in need of revisions and corrections).

## II. Natural Sciences

(1) FARÛGHÎ, M., *Shifâ. Fann-i-samâ-i tabî'î*. Tehran, 1937. Repr. Tehran, A. Kabû, 1983 (Persian translation), 675 pp.

(2) DÂNÂSARESHT, A., *Ibn Sînâ-Kitâb rivanshinâsi Shifâ* (Persian transl. of K. *al-Nafs*) Tehran, 1929. <sup>5</sup>Tehran, Kabîr, 1985, 32 + 280 pp.

(3) XROMOV, L., *Book of the Soul* (Russ. transl.), in : ASIMOV, *Selected Philos. Works*, 383-522.

### Translations of particular chapters (Meteorology and Psychology)

(1) ANAWATI, G.C., Avicenne et l'Alchimie, in : *Oriente e Occidente nel Medioevo: Filosofia e Scienze (Atti dei Convegni, 13)*. Roma, ANDL, 1971, 285-341, 293-296 (French transl. of *Meteorology*, I, 5). Based on the Cairo-edition (reprinted here p. 290-292). A. provides a valuable French translation (A. hereby takes into account the English translation of Holmyard and Mandeville, see *infra*).

(2) HOLMYARD, E. and MANDEVILLE, D., *Avicennae ...* (see *supra*), 15-42 (English transl. of *Meteorology*, I, 1 and 5).

(3) HORTEN, M., Avicennas Lehre vom Regenbogen nach seinen Werk *al-Shifâ* (mit Bemerkungen von E. WIEDEMANN), in: E. WIEDEMANN, *Gesammelte Schriften zur arabisch-islamischen Wissenschaften*. Frankfurt am Main, Inst. Gesch. Arab.-Isl. Wiss., Goethe Univ., 1984, 733-744.

Repr. of this transl. of *Meteorology*, II, 2-3, originally published in: *Meteorologische Zeitschrift*, 30 (13), 533-544.

(4) BADAWI, A., translation of *K. al-nafs*, b. V, ch. 2 (first part), in : A. BADAWI, *Histoire*, II, 672-674, 678-679.

In many respects A. improves upon Bakoš' translation of this chapter (on several other occasions, he just quotes Bakoš' translation of other chapters, or parts thereof, without any significant changes). However, he seems not to have consulted Rahman's edition, nor that of the *Avicenna Latinus* in the preparation of his translation.

### Study

(1) GARCIA-JUNCEDA, J., Los "*Meteorologica*" de Aristoteles y el "*De Mineralibus*" de Avicena, in : *Milenario de Avicena*, 37-63.

After covering the problems surrounding b. IV of Aristotle's *Meteorologica* in the three classical Aristotelian corpora : the Greek, the Arabic and the Latin, in great detail, A. focuses on I.S. He examines I.S.'s scientific beliefs (pointing out I.S.'s categorical rejection of all kinds of para-science) and his complete reliance on Aristotle's principles (a reliance that I.S. admitted too). Further, A. points out that for I.S. the *De Mineralibus* forms a unity with the *Meteorologica*. Hereby, A. judiciously remarks that book IV of the *corpus Aristotelicum graecum* of Andronicus is given by I.S. as the separate tract : *On Actions and Passions*.

Finally, A. observes that I.S. innovates, when he links the meteorological and the geological phenomena together, although remaining faithful to the scientific principles of Aristotle.

It is worth mentioning that A. considers the Latin *De Mineralibus* to be a selection of fragments of I.S.'s *Meteorologica*, 1 and 5 instead of a proper translation. (Hereby, A. asks some pertinent questions!) A very valuable paper.

### III. *Metaphysics*

(1) ANAWATI, G.C., *La Métaphysique du Shifâ', Livres I à V. Traduction française du texte arabe de l'édition du Caire, introduction, notes et commentaires (Etudes mus., XXI)*. Paris, Vrin, 1978.

(2) ANAWATI, G.C., *La Métaphysique du Shifâ', Livres VI à X. Traduction française du texte arabe de l'édition du Caire, notes et commentaires (Etudes mus., XXVII)*. Paris, Vrin, 1985.

1-2 : After Horten's 1907-translation (*Die Metaphysik Avicennas: das Buch der Genesung der Seele*. Repr. Frankfurt am Main, Minerva, 1960), this is the first complete translation of the *Metaphysics* of the *Shifâ* into an Occidental language (A. had already elaborated a complete translation of the text in 1952 (in view of his lectures in Montréal), but, since A. himself was well aware of its temporal character, it was never officially published). It is worth mentioning that in preparing his translation A. not only takes into account the Cairo, 1960-ed., but also makes use of Horten's translation, the medieval Latin translation (acc. to the critical edition by Van Riet, see *infra*), Carame's 1926-Latin translation of the *Metaphysics* of the *Najât* (for all parallel passages), and of partial translations by Goichon and Cruz Hernandez. In general, A.'s translation is much more literal than Horten's, which in itself constitutes an important improvement. The explanatory notes, added at the end of each volume, are useful (the notes on book 1 and book 2, ch. 1 are mainly inspired by Mulla Sadrâ Shirâzî's *Asfâr al-arba'a, The Four Journeys*). Although on several occasions one may feel hesitant about the way in which A. renders the original, one cannot ignore A.'s extreme efforts in presenting the text as accurate as possible (and it is good to keep in mind these words of A. himself : "En arabe toute lecture est en quelque sorte une interprétation" (I, 30). A very meritorious work.

### Translations of particular chapters

(1) BADAWI, A., partial translations (and/or paraphrases) of *Shifâ, Met.*, VI, 1-2; VII, 2-3; IX, 4 and 9, in : *Histoire*, resp. II, 644-646, 622-629, 650-654, 658-661.

Although A. does not offer a complete translation of a whole chapter, his partial translations (accompanied by a paraphrase, or a summary of the other parts of the chapter) deserve attention, whenever they significantly differ from Anawati's (see *supra*) (and undoubtedly even constitute valuable alternatives to it), or from the Arabic text of the Cairo, 1960-ed. However, and unfortunately, A. never explicitly indicates when, and for what reason he differs from the printed Arabic text.

(2) HOURANI, G., Translation of *Shifâ, Met.*, I, 6, in: Ibn Sînâ on Necessary and Possible Existence, in: *Philos. Forum*, (72), 74-86, 82-84.

A. relies on Hyman's translation of this chapter (see 3). However, he at the same time improves it, especially by using a much more accurate vocabulary and by offering, now and again, a different reading; which seems more in agreement with the real Avicennian spirit.

(3) HYMAN, A., Translation of *Shifâ, Met.*, I, 6-7, VI, 1-2, in: A. HYMAN and J. WALSH (Eds), *Philosophy in the Middle Ages. The Christian, Islamic and Jewish Traditions*. Indianapolis, Hackett Publ., 1970, 240-254.

Although this translation may in general be qualified as accurate, it is obvious (in the light of 2) that it needs further improvement. One surely must regret the absence of any explanatory notes (besides the basic description of the different chapters, given by A. in an introductory section, 233-240, esp. 237-240).

(4) MARMURA, M., translation of *Shifâ, Met.*, I, 1 in: Avicenna on Primary Concepts..., in: *Logos Islamikos*, 219-239 (see X, 38); III, 10 in: Avicenna's Chapter on the Relative, in: *Essays on Islamic Philosophy and Science*, 83-99 (see X, 39); IV, 1, in: Avicenna on Causal Priority, in: *Islamic Philosophy and Mysticism*, 65-83, 73-79 (see X, 37); X, 2-5, in: *Medieval Political Philosophy*, 98-111.

A.'s translations are extremely accurate, and are supplemented with very significant comments (except for X, 2-5 – a translation dated much earlier than the other ones). One cannot but hope that A. will soon publish a complete English translation of the whole text of the *Metaphysics!*

### Shifâ-Avicenna Latinus

Since 1970, 6 volumes of the AVICENNA LATINUS have been published, i.e. :

*Liber de Anima seu Sextus de Naturalibus*, I-II-III. Ed. crit. de la trad.

latine méd. et Lexiques par S. VAN RIET. Introd. sur la doctrine psychologique par G. VERBEKE. Louvain, Peeters; Leiden, Brill, 1972, VI + 156\* + 472 pp.

*Liber de Philosophia prima sive Scientia divina*, I-IV. Ed. crit. de la trad. latine méd. par S. VAN RIET. Introd. doctrinale par G. VERBEKE. Louvain, Peeters; Leiden, Brill, 1977, VII + 168\* + 225 pp.

*Liber de Philosophia prima sive Scientia divina*, V-X. Ed. crit. de la trad. latine méd. par S. VAN RIET. Introd. doctrinale par G. VERBEKE. Louvain, Peeters; Leiden, Brill, 1980, VII + 117\* + 330 pp.

*Liber de Philosophia prima sive Scientia divina*, I-X. Lexiques, par S. VAN RIET. Louvain-la-Neuve, Peeters; Leiden, Brill, 1983, V + 15\* + 353 pp.

*Liber tertius naturalium de generatione et corruptione*. Ed. crit. de la trad. latine méd. et Lexiques, par S. VAN RIET. Introd. doctrinale par G. VERBEKE. Louvain-la-Neuve, Peeters; Leiden, Brill, 1987, VIII + 88\* + 336 pp.

*Liber quartus naturalium de actionibus et passionibus qualitatum primarum*. Ed. crit. de la trad. latine méd. et Lexiques, par S. VAN RIET. Introd. doctrinale par G. VERBEKE. Louvain-la-Neuve, Peeters; Leiden, Brill, 1989, 34\* + 230 pp.

All these six volumes fully deserve the qualification of critical edition. In the "technical introductions", the editor explains in detail her basic options (e.g. the choice of a basic manuscript; the problem(s) surrounding the authorship of the Latin translations – A.'s pronouncements in this respect are very qualified and prudent; the technical aspects of the three basic apparatus, i.e. : the critical Latin apparatus, the Arabo-Latin apparatus and the 'notes' (treating the cases where no word by word-correspondence exists between the medieval Latin text and the original Arabic text).

The final result is always a model of scholarly editing, regardless of the numbers of manuscripts A. had at her disposal (She had to deal with a wide variety of manuscripts when editing the *De Anima* and the *Metaphysics*, while she had to work on a *unicum* for the volumes on the natural sciences).

Moreover the Arabo-Latin and Latino-Arabic lexica are always of great significance. A. herself several times underlines the exact way how they have been constructed, and consequently how they have to be used.

For the doctrinal introductions by Verbeke, see *Psychology*, *Metaphysics* and *Sciences*. Very fine editions.

An excellent basic presentation of the edition of the *Metaphysics*, and its *lexica*, is presented by M.-C. LAMBRECHTS, Un fleuron de l'Avicenna Latinus. L'édition critique de la *Métaphysique* d'Avicenne et ses *Lexiques*, in : *Rev. Hist. Ecclés.*, 79 (84), 79-87. Compare also :



ID., Un instrument de travail indispensable: L'édition de la *Métaphysique* d'Avicenne et ses *Lexiques*, in: *Scriptorium*, 38 (84), 150-152; and: ID., Les "Lexiques" de la "Métaphysique" d'Avicenne, in: *Rev. philos. Louvain*, 81 (83), 634-637.

Regarding the *Lexica*, we may also mention: S. VAN RIET, Traductions arabo-latines et informatique, in: *Rev. philos. Louvain*, 68 (70), 521-535.

A. explains in which way she uses the computer in order to establish the *lexica* (only the *lexica* of the first volume published were still "hand-made"). Of some related interest to the *lexica* is also A.'s study, entitled: Influence de l'arabe sur la terminologie philosophique latine médiévale, in: *Actas V. Congr. Int. Philos. Med.*, 137-144. A. very precisely describes the different criteria one has to respect in order to be able to carry out a valid study of the arabo-Latin vocabulary, which really did influence medieval philosophy – All items are illustrated by concrete examples, mostly derived from the Avicenna Latinus.

VAN RIET, S., Le "De Generatione et Corruptione" d'Avicenne en traduction latine médiévale, in: *Philosophie im Mittelalter. Entwicklungslinien und Paradigmen*. Hamburg, F. Meiner, 1987, 131-139, contains, besides remarks about the particularities of that translation (i.e. its only being available in the single manuscript *Vat. Urb. Lat.*, 186), some judicious general remarks on the importance of the *Avicenna Latinus*, and on the way to use the critical edition.

We have to add that in an *appendix* to the edition of the *De Anima*, IV-V, A. publishes a fragment of *De Medicinis Cordialibus*, present in all Latin manuscripts (as an insertion between b. IV and b. V – Juzjânî had already inserted in the Arabic text, at the same place, 9 chapters of the treatise *Al-adwiya al-qalbiyya*, *Tract on Cardiac Drugs*). For a more detailed discussion on the authorship of this translation, see: S. VAN RIET, Trois traductions latines d'un texte d'Avicenne: "*Al-adwiya al-qalbiyya*", in: *Actas IV. Congr. de Estudios árabes e islâmicos* (Lisboa, 68). Leiden, Brill, 1971, 339-344

A. shows that it concerns a very old translation, much more literal than the later translations by Arnoldus of Villanova and Alpago. Moreover, she inclines to ascribe it to the same translator(s) as the one (or those) of the *De Anima*.

Two publications regarding the Avicenna Latinus, not included in this series of S. Van Riet, have to be mentioned:

– M. RENAUD, Le "*De celo et mundo*" d'Avicenne, in: *Bull. Philos. Méd.*, 15 (73), 92-130.

On request of S. Van Riet, A. provides a provisional transcription of the text of

this book from the unique Vat. Urb. lat. 186-manuscript. Very useful, until the final critical publication appears.

- E. HOLMYARD-D. MANDEVILLE, *Maximi philosophorum Aristotelis De Mineralibus*, in: ID., *Avicennae de Congelatione et Conglutinatione Lapidum*. Paris, 1927. Repr. New York, AMS, 1982, 45-55.

Offers the text of selections of I.S.'s *Meteorologica*, see: Garcia-Junceda, *supra*: Natural Sciences, study-1.

Moreover, we may mention that CL. FERNANDEZ, *Los Filósofos medievales; Selección de textos, I. Filosofía patristica. Filosofía árabe y judía (Bibl. Auct. Crist., 409)*. Madrid, Ed. Cat., 1979, 632-637 offers a translation of some extracts of the *De Anima*, acc. to the edition of Van Riet.

A preliminary study for an eventual edition of the *Isagogè* text is offered by A. CHEMIN, *La traduction latine médiévale de l'Isagogè d'Avicenne. Notes pour une édition critique*, in: *Proceedings of the World Congress on Aristotle*. 4 vol. Athens, Min. Cult. and Science, 1981-83, II, 304-307.

Of very limited value, many mistakes (printer's errors?).

Last but not least, we must mention the fundamental catalogue of the manuscripts of the *Avicenna Latinus*, prepared by M.-TH. D'ALVERNY, and published in 11 parts in the *Archives d'Histoire doctrinale et littéraire du Moyen Age*, between 1961 and 1972. Its last two volumes were published in *AHDLMA*, 37 (70), 327-361 and 39 (72), 321-341.

One cannot overemphasize the exceptional value of these parts, completing an unique catalogue, made according to the same principles as those of the *Aristoteles Latinus*. Its importance is stressed several times by S. Van Riet, the editor of the critical edition of the *Avicenna Latinus*. A. sometimes received help from other scholars and always generously acknowledged their contributions, as is shown in her: Richard Hunt and *Avicenna Latinus*, in: M. DE LA MARE and B. BARKER-BENFIELD (Eds), *Manuscripts at Oxford: An Exhibition in Memory of R.W. Hunt*. Oxford, Bodl. Libr., 1980, 51-53. Nevertheless, the main work is hers.

A brief, but important kind of supplement to the catalogue, is offered by A. in her: *Les traductions d'Avicenne. Quelques résultats d'une enquête*, in: *V. Congr. Int. d'Arabisans et d'Islamisants. (Corr. d'Orient, 11)*. Bruxelles, Publ. Centre et probl. du monde musulman cont., 1970, 151-158. In it, A. describes some movements of translation, and different ways of distributing the manuscripts, and indicates topics for further investigation.

### III. OTHER MAJOR PHILOSOPHICAL WORKS

*Note* : It is not an easy task to decide which works one considers to be important. GUTAS, *Avicenna*, 79 ff. has dealt with this question in a systematic and explicit manner. Although his method may be open to criticism, it is a reasonable one, and therefore it has been adopted here. However, the works are not classified according to their (supposed!) chronology, but simply in the alphabetical order of their usual title.

#### 1. *Aḥwāl al-nafs* (AN. 77; M. 121)

– Section 13 has been presented, and translated into French by J. MICHOT, *Prophétie et divination selon Avicenne*. Présentation, essai de traduction critique et index de *l'Épître de l'âme de la sphère*", in : *Rev. philos. Louvain*, 83 (85), 507-535 (many parts of it are also published in his *Destinée, passim*, where fragments of §§ 1 and 14 are also translated).

A very accurate translation, supplemented with a significant basic outline, and an index of the Arabic words, together with their French equivalents. In an appendix, A. moreover very precisely indicates the concordances between this text, and the *De Anima*-texts of the *Shifā*, resp. the *Najāt* – more complete than Gutas, *Avicenna*, 100.

– Section 16 (Epilogue) has been translated into English by GUTAS, *Avicenna*, 32-33, and a French translation of it can be found in MICHOT, *Destinée*, 3-4 (N. 14).

Gutas is unaware of Michot, whose translation, no doubt, remains more faithful to the letter (and spirit) of the original Arabic text.

*Note* : Important passages of the *Aḥwāl* are included in the *Ma'ārij* (see : *Ibn Sīnā and other Arabic Authors*, 42), inter alia the entire section 13 (for its importance : see MICHOT, *Prophétie* (cited *supra*), 511-512).

#### 2. *Al-birr wa 'l-ithm* (AN. 249; M. 40)

– SHAMS AL-DÎN, 'A., *Al-madhhab al-tarbawî...* (see: *Minor Works*, a 6), 353-368 presents the text of what seems to be the only conserved part of this major work.

Acc. to A.'s own affirmation, he reproduces Zayour's edition (see *infra*). However, in a few cases he seems to have emended the text.

– ZAYOUR 'A. has edited this text in: *Al-'irfân*, 1970<sub>2</sub>, 1212 and 1970<sub>3</sub>, 1427-1446. (N.C.)

### 3. Dânesh-Nâmeḥ (AN. 11, 13; M. 72)

– *Dânesh-Nâmeḥ Alâ'î*. Eds. M. MO'IN and M. MESHKAT. 3 vol. in 1. Tehran, Dehkhoda, 1975.

Reprint of the edition of 1952.

– AVICENNE, *Le Livre de Science*. I. *Logique, Métaphysique*. II. *Science naturelle, Mathématiques*. Traduit par M. ACHENA et H. MASSÉ. Deuxième édition revue et corrigée par M. ACHENA. Paris, Les Belles Lettres / Unesco, 1986, 280 + 260 pp.

It is quite evident that the corrections introduced by A. are significant and may be considered to be a serious improvement of the '55-'58-text, esp. as far as the metaphysical part is concerned. A. offers a real philosophical translation. Although A. did not have the English translation of Morewedge (see *infra*) at his disposal, he clearly translates according to the style of Morewedge, i.e. less literary, but more philosophical. The introduction of a philosophical outline of both the logical and the metaphysical elements also contributes to a better understanding of the text.

An excellent translation, although in several cases open to alternative readings, or even further corrections.

– MOREWEDGE, P., *The Metaphysica of Avicenna (Ibn Sînâ)*. A critical translation-commentary and analysis of the fundamental arguments in Avicenna's *Metaphysica in the Dânish Nâma-i 'alâ'î (The Book of Scientific Knowledge)*. (Persian Heritage Ser., 13). London, Routledge and Kegan, 1973, XXVII + 336 pp.

A. presents an English translation of the metaphysical part of the *Dânesh-Nâmeḥ*. He clearly opts for a philosophical approach as is shown by the presence of an extensive commentary (see *Metaphysics*, 47), and a glossary of key terms (293-325). However, A.'s translation appears to run according to A.'s own basic understanding of I.S.'s philosophy, and the specific place of the *Dânesh-Nâmeḥ* in I.S.'s life's work. In view of the parallels discovered by Janssens between a part of the *Metaphysics* of the *Dânesh-Nâmeḥ* and passages of the *Ta'liqât* (see *infra*, studies 2), the English translation becomes almost unacceptable in some parts. Nevertheless, there are also parts where the English translation is very

interesting, and very accurate (but one has to judge case by case).  
A very meritorious work, but some caution is required when used.

– *Avicenna's Treatise on Logic*. Part One of *Danesh Name Alai* (A Concise Philosophical Encyclopedia) and Autobiography. Ed. and Transl. from the original Persian by F. ZABEEH, The Hague, M. Nijhoff, 1971, 47 pp.

A.'s translation of the logical part of the *Dānesh-Nāmeḥ* is very imprecise and when the Persian original is not available it is often hard to understand the exact meaning of the text. In general, one gets the impression that his translation was undertaken without due care and precision as is shown in several serious misreadings. It has to be noted that no edition is offered.

Of very limited value.

– GUTAS, *Avicenna*, 19-21 offers an interesting translation of *Physics*, ch. 50 (penultimate chapter).

#### *Russian and Polish translations*

– BOGOUTDINOV, A. already translated the *Dānesh-Nāmeḥ* in 1957 into Russian. This translation is reprinted in: DINORSHOEV, *Selected Works*, 69-203; and also in: ASIMOV, *Selected Philos. Works*, 59-228.

– GOGACZ, M., translated the Metaphysical part of the *Dānesh-Nāmeḥ* into Polish in his: *Metafizyka ze zbiori pt. Księga wiedzy*. Warszawa, Ak. Teol. Kat., 1973, 77-181 (his translation is based on the French translation by Achena-Massé of 1955!).

– SKLADANEK, B., *Awicenna-Księga wiedzy (Ibn Sînâ-Dānesh-Nāmeḥ)*. Warszawa, P.W.N., 1974, XLVI + 272 pp. offers a translation of the complete text (without the mathematical parts), but it was not clear whether or not it is directly based on the Persian original.

#### *Studies*

(1) ACHENA, M., art. Avicenna. Persian Works, in: *Enc. Ir.*, 99-104.

Acc. to A., besides the medical Treatise *On the Science of the Pulse*, *Andar*

*dânesh-e rag*, the only authentic Persian work by I.S. is the *Dânesh-Nâme*, *Book of Science*. A. insists that both of them were intended as introductory manuals for uninitiated persons. Further, A. offers a very detailed survey of the contents of both works (presenting some comparisons with the *Canon*, resp. *Najât* and *Ishârât*). Finally A. remarks that I.S. breaks more frankly with the Aristotelian conceptions and tradition in the *Dânesh-Nâme* than in the *Shifâ*, and offers some concrete evidence for it. It may be noted that A. also mentions some Persian poems, ascribed to I.S. (but only a few appear to be authentic), as well as no less than 7 apocryphal treatises, usually ascribed to I.S. A very valuable basic presentation of I.S.'s Persian works.

(2) JANSSENS, J., *Le Dânesh-Nâme d'Ibn Sînâ : un texte à revoir?*, in : *Bull. Philos. Méd.*, 28 (86), 163-177.

In this study, A. first points out that a number of paragraphs of the metaphysical part of the *Dânesh-Nâme* have their exact Arabic counterpart in the *Ta'liqât*, which seems to indicate the existence of an original Arabic work by I.S. himself (it seems less probable that I.S. would have translated parts of his *Dânesh-Nâme* into Arabic).

In the second part of this study, A. describes in detail the close resemblance, which can be shown to exist between the *Dânesh-Nâme*, and Ghazzâlî's *Maqâsid al-falâsifa. Intentions of the Philosophers*. Since A. did not discover many important omissions and only found minor additions (most of the time concrete examples, which are clearly intended to render the text more accessible), A. concludes that the *Maqâsid* is a slightly interpretative translation of the *Dânesh-Nâme*. Moreover, in view of the much more logical order of Ghazzâlî's version, A. wonders whether the actual text of the *Dânesh-Nâme* (notwithstanding the manuscript evidence!) has been written as such by I.S. himself?.

*Note* : MOHAGHEGH, M. has published a *Faṣḥ min kalâm al-shaykh al-raîs fî fâ'idat al-manṭiq* in his Introduction to a *Treatise on the Art of Logic* by an unknown author (see : *Collected Papers on Logic and Language (Wisdom of Persia)*, 8). Tehran, Tehran Univ. Press, 1974, *yek-hasht, do-seh* (based on Leiden, Gol. 184). On closer examination, it appears to be the exact Arabic equivalent of the very first chapter of the logical part of the *Dânesh-Nâme*.

A. is preparing a publication on this new discovery.

#### 4. Al-Inṣâf (AN. 6; M. 35 alif, ba, jim)

The two extant parts of this work (I.S.'s Commentaries on book Lambda of Aristotle's *Metaphysics*, and on the *Theologia Aristotelis*), together with the Marginal Notes on the *De Anima* (for this distinction,

see GUTAS, *Avicenna*, 130 ff.), were edited by A. BADAWI in his: *Aristû 'inda al-'Arab*. Cairo, 1947, 22-116, now reprinted at Kuwait, Wakâlat al-Maḥbû'ât, 1978.

### 5. *Ishârât wa-Tanbîhât* (AN. 3; M. 27).

– *Al-Ishârât wa l-Tanbîhât li Ibn Sînâ, ma'a sharḥ Naṣîr al-dîn Tûsî*. Ed. S. DUNYA. 3 vol. Cairo, 1957-60. Repr. 4 vol. Cairo, Dâr al-ma'ârif, 1968-1971, 518, 467, 321, 176 pp.

– MEHREN's 1891 partial edition of the last section has been reprinted in: *Traités* (cf. *Infra*, Minor Works, a 5).

– NADER, *Al-nafs*, 45-46 offers a small part of *Ṭab.*, N. 3.

– MALIKSHÂHÎ, H., *Tarjama. va-sharḥ Ishârât va-Tanbîhât -e Ibn Sînâ*. Vol. 1: *Ṭabî'yyât, Ilâhiyyât, Irfân va-Tasavvuf*. Tehran, Soroush, <sup>1</sup>1984, <sup>2</sup>1989; Vol. 2: *Manṭiq*. Tehran, Soroush, 1988, 564, 704 pp (Arabic text, Persian translation and Comment).

It is unclear which Arabic text-edition A. uses for this edition, but one may reasonably suppose it to be M. SHEHABY's edition of Tehran, 1960. The translation is accurate, i.e. the search for meaning prevails over literality. Regarding the comments, it is quite obvious that their profound roots lie in Tûsî's classical comment, although one has to recognize A.'s great familiarity with the long tradition of comments on the *Ishârât*, esp. in Iran. The glossaries of technical terms, added to the 2 vol. (I, 495-530; II, 601-662) are well made, very relevant and extremely useful. The same high standard may be ascribed to A.'s excursus on the history of Salman and Absal (based on Râzî's and Tûsî's comments) (cf. I, 531-538); as well as to his Persian-English lexicon of logical terms (II, 663-671) (however, the proposed English terms are not always very "technical" terms). As to the two introductions (I, 1-36 (divided into three parts); II, 11-152), the former presents only the basic elements of the proper character and contents of this part of the *Ishârât* as well as of both commentaries of F. Râzî and N. Tûsî. But the introductory part of the logical volume is much more substantial (for a more detailed analysis, see *Logic*, A20).

Very meritorious, and, certainly, also valuable.

– N.N., *Ishârât wa-Tanbîhât*, together with the comments of N. ṬÛSÎ and QOṬB AL-DÛN RÂZÎ AL-TAḤTÂNÎ. 3 vol. Tehran, 1377-1379H.; <sup>2</sup>Tehran, Ârmân, 1403H, 352,459, 461 pp.

– *Note*: The comments of Ṭūsī and F. al-dīn Rāzī seem to have been published (in Arabic, or in Persian translation), at Qom, M. Ayât Allah Mar’ashi, 1985 (in one volume, or in 2 separate volumes?).

– An old Persian translation (probably 13th C.) of the second part (Natural Sciences and Metaphysics), published by A. ṬABASI, Tehran, 1937, has been republished at Tehran, K. Fârâbî, 1981, XXI + 200 pp.

– FERNÁNDEZ, CL., *Los Filósofos medievales*, 618-631 offers the Spanish translation, based on Goichon’s French 1951-translation, of some extracts of the *Ishârât*.

– GUTAS, *Avicenna*, 54-56 has provided an English translation of the prologues to the two parts (logic; physics-metaphysics), as well as of the epilogue.

Accurate, although slightly interpretative.

– INATI, SH., *Ibn Sînâ. Remarks and Admonitions. Part one: Logic. Translated from the original Arabic with an Introduction and Notes (Medieval Sources in Transl., 28)*. Toronto, Pont. Inst. of Med. Stud., 1984, XI + 165 pp.

This translation provokes ambiguous feelings. On the one hand, it is clear that A. does not take the same liberties with the text as Goichon’s 1951-translation. But, on the other hand, it is also clear that A. makes pertinent mistakes, due to obvious misreadings (on several occasions, Goichon’s translation appears to be more correct). A.’s introduction outlines quite well the basic structures and ideas of the logical part of the *Ishârât*.

Notwithstanding some evident merits, this translation deserves to be treated with caution.

– MICHOT, J., *De la joie et du bonheur. Essai de traduction critique de la section II, 8 des Ishârât d’Avicenne*, in : *Bull. Philos. Méd.*, 26 (83), 49-60.

An excellent translation of the eight *Namaṭ* – a considerable improvement – with respect to Goichon’s 1951-translation.

### *Note*

– DĪBĀJĪ S., *Ibn Sînâ riwâyat Ashkevârî va-Ardakânî (Ibn Sînâ, according to the Tradition of Ashkevârî and Ardakânî)*. Tehran, Int.



Amîr Kabîr, 1985, 61-109, offers the text of what seems to be A.'s slightly reworked version of Ardakânî's 18th C. Persian translation of Ashkevârî 17th C. Arabic comment on the N. 9 and 10 of the *Ishârât*.

*Russian translation*

DINORSHOEV, M., RAHMATULLAEV, N. and MORDONOV, T. give a Russian translation of the *Ishârât*, in : DINORSHOEV, *Selected Works*, 205-326; also in : ASIMOV, *Selected Philos. Works*, 229-382.

6. Al-mabda wa 'l-ma'âd (AN. 195; M. 106)

– *Al-mabda' wa al-ma'âd* (The Beginning and the End) by Ibn î Sînâ. Ed. A. NÛRÂNÎ (*Wisdom of Persia*, 36). Tehran. Mc. Gill Univ., Inst. of Isl. Stud., Tehran Univ., 1984, 121 pp.

A. offers the first printed edition of this early work of I.S. Acc. to the introduction, A. used three manuscripts in preparing his edition, but there is reason to believe that he may have used only one single manuscript (J. Michot who is preparing a critical French translation of the whole work thus orally informed me). If only one manuscript was used, it might explain why there is no critical apparatus. Moreover, A. overlooked that the first part has almost completely been reproduced in the *Najât*. Thus it is obvious that the edition is in need of serious improvement.

Very meritorious, but one cannot bypass the many deficiencies of the edition.

– GUTAS, *Avicenna*, 30-32, offers a translation of the Introduction. Accurate, but slightly interpretative.

– MICHOT, *Destinée, passim* (see *Index*, 232 – see also 237 for concordance with Nûrânî), presents the French translation of large extracts.

Very fine translation.

## 7. Al-majmû'. Al-ḥikma al-'Arûḍiyya (AN. 10; M. 62)

– SHAMS AL-DÎN 'A., *Al-madhhab al-tarbawî...* (see: *Minor Works*, a 6), 351-352 contains a small part of the *Book on Rhetorics*.

A. wrongly present this text as part of the *Book of Rhetorics* of the *Shifâ'*, although one has good reason to believe that he copies from the Cairo, 1950-ed. by S. SÂLEM of the *Book of Rhetorics* of the *Philosophy for 'Arûḍî* (in casu, pp. 36-42, without the notes).

## 8. Maqâla fi 'l-nafs (AN. 102; M. 120)

– *Maqâla fi 'l-nafs*. Repr. of the 1907-edition of E. VAN DYCK. Beirut, Dâr al-'ilm lil-jamî', 1982; also repr. in: *Rasâ'il* (see *Minor Works*, a7), 143-219.

– *Alpago* (see *Minor Works*, a1), 1r-39v gives the renaissance Latin translation.

– GUTAS, *Avicenna*, 16-19, offers a translation of a part of ch. 18. Valuable, but the question of an over-confidence in Goichon arises anew.

## 9. Mashriqiyyûn (AN. 12; M. 63)

– *Mantiq al-Mashriqiyyîn*. Cairo, 1910, has been reprinted at Beirut, Dâr al-hadîtha, 1982 (with an Introduction by Sh. al-Najjâr) and at Tehran, M. al-Ja'frî ai-Tabrîzî, 1973.

– GUTAS, *Avicenna*, 43-49, gives the complete translation of the introduction, in his usual way (see *supra*).

## 10. Mubâḥathât (AN. 19; M. 105)

– BADAWI, A. has edited this text in his *Aristû 'inda al-'Arab*. Cairo, 1947, 122-239, §§ 1-500, now reprinted at Kuwait, Wakâlat al-maṭbû'ât, 1978.

In view of GUTAS, *Notes* (see *Bibliography*, 17), this edition is in need of a serious revision.

– GUTAS, *Avicenna*, 56-60 provides the translation of a Letter to an Anonymous Disciple (corresponds to Bad. 245; 225-228, §458; 246. An accurate translation.

*Note*: GUTAS, *ibid.*, 64-72, translates what he calls: *Memoirs of a Disciple from Rayy* (not present in Bad., but only extant in the Oxford-recension of the *Mubâhathât, Discussions*).

Accurate, but slightly interpretative. However, it has to be mentioned that A. is the first who makes this text accessible (before him, S. PINES, La "Philosophie Orientale" d'Avicenne et sa polémique contre les Bagdadien, in: *AHDLMA*, 19 (52), 5-37, has only given a brief outline of this letter (35-37, *appendice*).

– MICHOT, J., *Destinée, passim* (see: *index*, 232), has translated into French the §§ 259, 252 (almost complete), 353, 355, 365, 366, 378, 464 and 468 (as well as some parts of §§ 274, 348, 364, 368, 383, 425, 427).

– ID., *Cultes* (see *Psychology*, 17), App. II, 230-233 contains the translation of § 457 and § 467.

A very fine translation – the equilibrium between literality and philosophical sense is striking.

– PINES, S., La conception de la conscience de soi chez Avicenna et chez Abu'l-Barakât al-Baghdâdî, in: *AHDLMA*, 21 (54), *passim*, provides the French translation of the §§ 55, 331, 332, 346, 358, 370, 376, 380, 381, 421-423, 426, 427 and has now been reprinted in: S. PINES, *Studies in Abu'l-Barakât al-Baghdâdî. Physics and Metaphysics* (*Coll. Works S. Pines*, I). Jerusalem, The Magnes Press; Leiden, Brill, 1979, 181-258.

*Note*: see also *Minor Works*, C 1.

## 11. Najât (AN. 23, 202; M. 118)

– IBN SÎNÂ, *Al-najât min al-gharq fi baḥr al-ḍalâlât* (*Salvation of the Immersion in the Sea of Errors*). Ed. and Introd. M. DÂNESH PAZHUH.

(*Int. Dân. Tehran*, 1863). Tehran, Dânesghah Tehran, 1985, 120 + 783 pp.

A. provides an entirely new edition of the *Najât*. For his edition, A. used 5 mss. (of different origin, but all present at Tehran on microfilm), of which Dânesghah Tehran, 1348 has functioned as the basic manuscript. Of the mathematical parts, reconstructed by Juzjânî after I.S.'s death, A. has only provided a facsimile-reproduction (not always very clear!) of the folio's of the *Dânesghah*-manuscript. For the edition of the other parts, A. has also taken into account the Cairo, 1913-edition (and moreover seems to have consulted the Cairo, 1938-edition, as well as the Rome, 1593-edition). In the long introduction (1-103), A. concentrates on the reception of Aristotle in the Arabic world, especially the problems surrounding the dialectical method, as well as the composition of the metaphysics (A. scarcely mentions I.S. in this context). In the last part of the introduction (70 ff.), A. presents a lot of bibliographical data and gives many indications about manuscripts in Iranian libraries. A. also discusses the relation between the *Najât* and other writings of I.S. (but compare in this respect GUTAS, *Avicenna*, 112-114).

A very important edition, insofar as it offers new perspectives for a better understanding of the *Najât* (at least, by presenting valuable alternative readings). As such, an important step in the direction of a fully critical edition.

– IBN SÎNÂ, *Kitâb an-Najât fi 'l-ḥikma l-mantiqiyya wa 'l-ṭabi'iyya wa 'l-ilâhiyya*. Ed. and Introd. M. FAKHRY. Beirut, Dâr al-afâq al-jadîda, 1985, 344 pp.

A. has collated the two Cairo-editions of 1913 and 1938. Hence, his edition brings nothing new to the fore.

– The Cairo, 1938-edition by M. AL-KURDÎ has been reprinted at Tehran, Mortazawî, s.d. (1985?), 312 pp.

*Note :*

– NADER, *Al-nafs*, 53-112, includes the complete text of the psychological part, as well as one chapter of the metaphysical part.

– ARBERRY, A., *Avicenna on Theology*. London, 1951. Repr. Westport, Conn., Hyperion Press, 1979, 42-49 and 64-76 offers the translation of the last and the third to the last chapter of the metaphysical part.

– BADAWI, A., *Histoire*, 675-692 includes the French translation of ch. 9, 12, 13, 14 and 16 of the psychological part.

The French translation seems directly based on the – excellent – English translation of Rahman, see *infra*.

– FERNANDEZ, CL., *Los Filósofos medievales* (see *supra*, *Av. lat.*), 595-618 presents the Spanish translation of fragments of the metaphysical part.

This translation is directly based on Caramé's 1926-Latin translation.

– HOURANI, G., Ibn Sînâ on Necessary and Possible Existence, in : *Philos. Forum*, 4<sub>1</sub> (72), 74-86, 78-82, offers the translation of a few metaphysical chapters.

A very fine translation.

– RAHMAN, F., *Avicenna's Psychology*. London, 1952, 81 pp. has been reprinted at Westport, Conn., Hyperion Press, 1981 and 1984.

*Note* : The chapters 9, 12 and 13 of this translation have also been reprinted in : *Philosophy in the Middle Ages*, 254-261.

– TARBIYAT, H. and AINI, K., *Ibn Sînâ-Tatimmat al-Najât*. Dushanbe, Irfon, 1980, 113 + 15 pp (N.C.).

Persian translation of the mathematical part by Juzjânî.

### *Polish translation*

– RADWANSKI, W., The Idea of Efficient Causality (see *Metaphysics*, 53), 279-299, reprints Caramé's 1926-Latin translation of T. 2, ch. 1-3, and offers thereafter the Polish translation of that Latin translation.

*Note* : MICHOT, J., L'eschatologie d'Avicenne selon F.D. Râzî (I). Présentation et traduction de la "Section du Retour" du "*Kitâb sharḥ al-najât*", in : *Rev. philos. Louvain*, 87 (89), 235-264.

A fine translation by A., although he does not translate the long fragments of I.S.'s *Najât*, cited by Râzî. Nevertheless, his translation of a still unedited text, constitutes an important contribution to the further study of the *Najât*.

## 12. Ta'liqât (AN. 8; M. 49)

– IBN SÎNÂ, Al-Ta'liqât. Ed. and Introd. A. BADAWI. Cairo, G.E.B.O., 1973; repr. Tehran, M. al-'alâm al-islâmî, 1985, 199 pp.

This is the first edition of this important work. Acc. to A., he based his edition on two manuscripts, but he does not provide the reader with any variant readings. In general, one gets the impression of having in front of oneself an

overhasty edition, albeit prepared by a great scholar. In view of Michot's study (see *infra*) and Janssens's "*Le Dânesh-Nâme*" (see *Supra*, *Dânesh-Nâme*, Stud. 2), the actual text appears to be in need of serious corrections, but remains satisfactory *in toto*.

– *Alpago* (see *Minor Works*, a1), 102v-121r includes the Latin translation of some fragments.

– MICHOT, J., *Destinée* (see *Index*, 233), gives a French translation of several fragments.

Very accurate translations.

### *Study*

– MICHOT, J., Tables de correspondance des *Ta'liqât* d'al-Fârâbî, des *Ta'liqât* d'Avicenne et du *Liber Aphorismorum* d'Andrea Alpago, in *MIDEO*, 15 (82), 231-250.

A. gives in a very precise manner the tables of concordance between Fârâbî's *Ta'liqât* and that of I.S., and between Alpago's *Liber Aphorismorum* and once again I.S.'s *Ta'liqât*.

A very precise study, extremely useful for further research.

## B. Major Medical Works

### I. AL-QÂNÛN FÎ 'L-ṬİBB (AN. 140; M. 98)

– The famous Bûlâq-1877 edition of the *Canon* has been reprinted several times, e.g. Beirut, Dâr al-Sâdar, 1970 (?); Bagdad, al-Muṭanna, 1975.

– IBN SÎNÂ, *Al-Qânûn fi 'l-ṭıbb*. Publ. with Comm. and Index by I. AL-QASHSH. Introd. by 'A. ZAYOUR. 5 vol. in 3, plus Index vol. Altogether 4 vol. Beirut, M. 'az al-dîn, 1987, Ak + 18 (Fr) + 2498, 285 pp.

A. copies the Bûlâq-text, but offers a much more readable text, insofar as he enlarges the characters of the Bûlâq-edition. Moreover, he adds some significant explanatory notes. But, above all, the index volume largely facilitates the accessibility of the text. It offers systematic lists of all named physicians, as well as of all mentioned single and composed drugs, metals, plants and animals. Moreover, it surveys all words, which have either a Persian or a Greek origin. Finally, it presents a basic bibliography.

A valuable work notwithstanding its offering no really new edition. For the three parts of the introduction (none of which is of a properly medical nature!), see: *General Studies*, B 8 and C 71; and *Politics and Ethics*, 17.

– Under the direction of A. HAMEED, the Institute of the History of Medicine and Medical Research of New Delhi, has undertaken a new critical edition of the *Canon*. The first volume, including the text of book I, has been published at New Delhi: AL-SHAikh AL-Ra'îs IBN SÎNÂ. *Al-Qânûn fi 'l-ṭıbb*. B. I. Critical Edition prep. under the auspices of Institute of History of Medicine and Medical Research in ass. with Vikas Publ. House. New Delhi, IHMMR, 1982, V + 334 pp.

This edition is based on four printed editions: Rome (1593), Bûlâq (1877); Tehran (1878) and Lucknow (1905), as well as on a manuscript of Aya Sofia (Istanbul), dated 618 H. It is quite evident that this edition offers a much more reliable text than previously printed editions, and therefore is an important contribution. It is certainly an important step towards a complete critical edition (which requires a systematic study of all known manuscripts and of the most important ancient comments on the *Canon* which is a tremendous task!).

An important new edition, and very meritorious indeed.

Note: Dr. Ansari told me at a Meeting in Paris (November 1989) that the second volume has also been published, but, unfortunately, I have been unable to obtain a copy of it.

– JABBÛR, J. presents book II of the *Canon*, based on the Rome 1593-edition in: *Al-Qânûn fi 'l-ṭibb li-Ibn Sînâ. Ṭabi'a rūmiyya itâliyyâ*, s. 1593 m. *Kitâb al-adwiya al-mufrada wa 'l-nabâtât (Canon of Medicine. Book of Simple Drugs and Plants)*. Comm. and Arr. J. JABBÛR. Pref. A. AL-SHATTÎ. Introd. KM. ABÛ KHALÎL. Beirut, M. al-Ṭullâb, 1972; Beirut, Mu'assasa al-Ma'ârif, 1986, 336 pp.

– A'SAM, 'A. has edited a list of simple drugs, based on *Canon*, II, 2, according to a hand-written original (extant in Baghdad) of an 18th C. author, S. IBN AḤMAD, in his: *Al-adwiya al-mufrada fi kitâb "Al-Qânûn fi 'l-ṭibb" li-ibn Sînâ*. Baghdad, Jâmi'at al-Baghdad, 1984, <sup>2</sup>1986, 214 pp.

At first sight, a very complete list of all simple drugs, mentioned in *Canon*, II. An essential description of the basic characteristics of each simple drug is given (A. clearly tries to respect as much as possible the specificity of I.S.'s approach). It may be noted that there is always a precise reference to the pagenumbers of the Bûlâq-edition.

Worth considering for the study (and edition) of b. II of the *Canon*.

## Comments-editions

(1) ISKANDER, A. has published large fragments of Ibn al-Tilmîdh's marginal commentary on I.S.'s *Canon*, in two papers, entitled: An Autograph of Ibn al-Tilmîdh's Marginal Commentary on Ibn Sînâ's *Canon of Medicine*, in: *Le Muséon*, 90 (77), 177-236; and: Another Fragment from the Autograph of Ibn al-Tilmîdh's Marginal Commentary on Ibn Sînâ's *Canon of Medicine*, in: *BSOAS*, 44 (81), 253-261.

A. made the important discovery of an autograph by Ibn al-Tilmîdh (d. 1165!). In the ms. Ar. 108 of the University of California, large fragments of b. IV-V are preserved, while in the Ms. Browne P. 5 (10) one finds some fragments of b. III. The latter manuscript strongly indicates that Ibn al-Tilmîdh directly copied from I.S.'s autograph. So, A. rightly insists on the importance of these fragments for a critical edition of the *Canon* – notwithstanding the fact that Ibn al-Tilmîdh's own copy of the *Canon* was transcribed not only by himself, but also by two of his collaborators. In the paper, published in *Le Muséon*, A. provides the



complete edition of the extant fragments of Ibn al-Tilmîdh's marginal notes (always accompanied by a critical English translation, and a comparison of Ibn al-Tilmîdh's version of the *Canon* with the printed editions of Rome and Bûlâq). Regarding the Browne Ms., A. presents its opening and closing passages (Arabic text, with English translation).

Very valuable, of great significance.

(2) KATAYE, S. has published the Commentary of Ibn al-Nafîs on the *Canon: Kitâb Sharḥ tashrîḥ al-qânûn li ... Ibn al-Nafîs*. Cairo, Egyptian Governmental Press, 1988, 455 pp.

(3) HADDAD, A., A Hitherto Unknown Eight-Century Commentary on Avicenna's *Kulliyât*, in: *JHAS*, 4<sub>2</sub> (80), 253-258, mentions a commentary on b. I by an unknown author, not present in the standard references. A. presents the first and the last page of each of the two manuscripts (Haddad, Cat. nr. 74; WMS Or. 175), as well as a composite table of contents. A. concentrates on some elements, which may help to identify its author.

Interesting, but rather preliminary.

### Qânûn-Hebraic tradition

In the Hebrew tradition of the *Canon*, an important comment has been written by A. BEDERŠI. The Hebrew text of its introduction, and its Italian translation have been published by G. TAMANI, *Il Commento di Yeda'yah Bederši al Canone di Avicenna*, in: *Ann. Fac. ling. Lett. Stran. Ca' Foscari (Ser. Or., 5)*, XIII<sub>3</sub> (74), 1-17. A. also shows the particular historical significance of Bederši.

A valuable edition and translation.

LEIBOWITZ, J., La préface de Nathan Ha-Meati à la traduction en hébreu (1279) du *Canon* d'Ibn Sînâ, in: *Koroth*, 7<sub>1-2</sub> (79), 1-7 (Hebr.), 1-7 (Engl.), gives (in the English part) a brief description and analysis of the introduction by Nathan Ha-meati to his famous Hebraic translation of the *Canon* (A. uses Ms. Ambros., cod. Hebr. 101).

A meritorious basic presentation.

SHILOAH, A., "En-Kol" – Commentaire hébraïque de Šem Tov ibn Šaprut sur le *Canon* d'Avicenne, in: *Yuval*, 3 (74), 267-287, offers the Hebraic text (based on Munich, BS, cod. Hebr. 8) together with a

French annotated translation of Ibn Šaprut's Commentary on the chapter on the musical nature of the pulse in I.S.'s *Canon* (I, 2, 3, 1, 2). In his introduction, A. highly concentrates on the problem of Ibn Šaprut's sources (Abû 'Amram, ibn Ya'iš and Levi hay-yisre'eli), and on the particular way in which ibn Šaprut did understand I.S.'s text. A fine case-study.

TRATNER, E., Trachetomy in the Hebrew Translation of Ibn-Sînâ; Inturbation Mentioned in the Talmud and by Jacob Ben Asher, in: *Koroth*, 8 (83), 333\*-338\* (Engl.), includes the English translation of a part of the 1491 printed edition of the Hebraic translation of *Canon*, III, 7, 9.

### Note

TAMANI, G., *Il Canon medicinae di Avicenna nella tradizione ebraica* (*Helios*, 1). Padova, Editoriale Programma, 1988, has a somewhat misleading title. It only deals with the Hebraic tradition of the *Canon* on pages 59-63. In the first two chapters (pp. 13-58) A. gives a general introduction to I.S.'s life, philosophy (following the line of interpretation of Corbin-Nasr), medical works, and the *Canon*. A. devotes the remaining part of ch. 3 to the description of the famous (Hebraic) illustrated ms. 2197 of Bologna (see *Bibliography*, 35 for a brief presentation, and evaluation).

Good, but rather introductory.

### Qânûn-Latin tradition

Avicenna. *Liber Canonis Medicinae*. Venetiis, 1527.  
Repr. Bruxelles, Ed. Culture et Civilisation, 1971.

*Avicennae Liber Canonis, De Medicinis Cordialibus, et Cantica*, iam G. Cremonensi ... conversa, postea ... A. Alpago. Basel, 1556. Repr. Tehran, The Pahlavi Comm. Repr. Ser., 1976.

## Studies

(1) HAMEED, A., Gerard's Latin Translation of Ibn Sînâ's *al-Qânûn*, in : *Stud. in Islam*, 8 (71), 1-7.

A. states that Gerard's translation was in fact the work of different persons (and such for the complete *Canon*). Further, A. shows that the Latin translation was rather defective. A. is inclined to believe that the Arabic text, used by the Latin translators, had no dotting, and was probably written in a style not very different from the Kufic. A. gives a few striking examples of errors in the Latin translation. However, in his final conclusion, A. also recognizes the merits of the Latin translators.

Valuable, but still somewhat preliminary.

(2) BARCÍA GOYANES, J., Dos nombres enigmaticos del trocanter major : Tharuca y Carchametra, in : *Med. Esp.* 80 (81), 1-11.

In various marginal notes on the Latin translation of I.S.'s *Canon*, there appear two enigmatic words : *tharuca* and *carchametra*. A. convincingly shows that both these terms derive from the Arabic *tharujantir*, which itself is a transliteration of the Greek *trojantèr*, and are due to a misreading by two different copyists (probably Arabic ones!). A. gives a list of the Arabic, Hebrew and Latin manuscripts, in which the mistake appears.

An interesting case-study.

## Modern translations

### *English*

CAMERON GRUNER, O., *A Treatise on the Canon of Medicine of Avicenna, incl. a Translation of the 1. Book*. Clifton, H. Kelley, 1970; New York, AMV, 1973, 613 pp.

Reprint of the London, 1930-edition.

ID., The Four Temperaments, in : *Avicenna's Tract on Cardiac Drugs*, 119-123, includes several paragraphs of the above mentioned translation.

ID., *Parts of B. I, F. 1* (modified and annotated by M. MCVAUGH), in : E. GRANT (Ed), *A Source Book in Medieval Science*. Cambridge, Mass., Harvard Univ. Press, 1974, 715-720.

The proposed corrections by McVaugh are based on the Venice, 1569-edition.

*French*

DE KONING, P., *Trois traités d'anatomie arabes*. Nachdruck der Ausg. Leiden, 1903. Hsg. F. SEZGIN (*Veröff. Inst. Gesch. Arab.-Isl. Wiss.*, Reihe B. Abt. *Med.*, B 1). Frankfurt am Main, Inst. Gesch. Arab.-Isl. Wiss., Goethe Univ., 1986 includes the French translation of the anatomical parts of the *Canon*.

*Persian*

IBN SÎNÂ. *Qânûn dar tibb*. K. I, II, III, 1 and 2. Transl. 'A. SHARAFKANDI; Notes by A. PÂKDÂMEN and M. GAFFÂRÎ. 4 vol. Tehran, Soroush, 1984, 1986, 1988-'89. (There seems to have been a previous publication of the translation of b. I - Tehran, 'Erfâni, 1978), XV-527; 382; 576 + 440 pp.

A good translation, although the translator seems to use too modern terms for rendering I.S.'s concepts (a tendency even more evident in the notes by A. Pâkdâmen and M. Gaffârî). So, when used, caution is required.

*Russian*

*Kanon vracebnoi nauki (Canon of Medicine)*. Tashkent, 1980.

A reprint of the 1954-60 Russian translation?

*Turkish*

IBN SÎNÂ. *Şifali bitkiler ve emraz. Al-kanun fi'l tibb isinli eserinden ilaç formülleri (Medicinal Plants and Diseases. Formulae of Treatment, Derived from the Work, called Canon)*. Ed. and transl. A. PAMUK. 2 vol. Istanbul, Ergin Offset, 1981, 293; 470 pp.

*Urdu*

KHVÂJAH RIDWÂN, A., Transl. and analysis of *Kulliyât-i Qânûn*. Karachi, Dâr al-Tâlifât, 1971 (N.C.).

*Note*

N.N., *Glimpses of Avicenna's Work*. New Delhi, IHMMR, 1981, may include (parts of) the translation into Urdu of book I of the *Canon*, made by Gh. Kantûrî in 1892. However precise information about the contents of this work was not located. (N.C.)

**Translations of Particular Chapters***Book I*

KAHLE, E., *Avicenna (Ibn Sînâ) über Kinderkrankheiten in Kinderregimen seines Qânûn*. Erlangen, Lüling, 1979, 53 pp. (Germ) + 9 pp. (Ar) + 5 pp. (Lat).

ID., *Das Ammenregimen des Avicenna (Ibn Sînâ) in seinem Qânûn*. Erlangen, Lüling, 1980, 45 pp. (Germ) + 8 pp (Ar) + 4 pp (Lat).

In both cases, A. offers a very precise German translation of a subchapter of *Canon*, I, 3, 1, respectively the subchapters 3 and 1-2. A. takes into account the Arabic text and he also provides a facsimile reproduction of the Arabic text (both Bûlâq and Rome), and of the Latin translation (reproduced according to the Basel, 1556-ed.), A. clearly avoids the use of a too modern terminology, and tries to respect as much as possible the original spirit of I.S.'s text. It has to be noted that A. also adds useful indices.

Very valuable translations.

ID., *Avicenna über das Schröpfen*, in: *Z. Gesch. arab-isl. Wiss.*, 4 (87-88), 195-204.

A very valuable translation of *Canon*, I, 4, 5. In the introductory section, A. summarizes I.S.'s doctrine on cutting, and places it in a historical perspective.

SHILOAH, E. presents a French translation of *Canon*, I, 2, 3, 1, 2, based on the Arabic text of the Bûlâq-ed. (I, 124-126), in his. "*En-Kol*" ... (see *supra*, Hebraic tradition), 272-273.

A valuable translation.

TAMANI, G. presents the Italian translation of *Canon*, I, 1, 4, 1 and I, 1, 6, 4 (partly) in his: *Il Canon medicinae...* (see *supra*, Hebraic tradition, Note), 36-42.

It is not clear whether this translation (which may be qualified as good, although sometimes in need of some refinement) is A.'s own, or has been copied by A. from L. SOSIO's Italian translation of S. NASR's *Science and Civilisation in Islam*, Milano, 1977, as suggested by notes 6 and 7 of p. 56.

### *Book III*

DE KONING, P., *Traité sur le calcul dans les reins et dans la vessie par A.B. al-Râzî* und weitere Texte zum gleichen Thema von al-Râzî, al Mağûsî, Ibn Hubal, Ibn Sînâ und al-Zahrâwî. Hsg. F. SEZGIN (*Veröff. Inst. Gesch. Arab.-Isl. Wiss., Reihe B. Abt. Med., B 2*), Leyde, 1896. Repr. Frankfurt am Main, Inst. Gesch. Arab.-Isl. Wiss., Goethe Univ., 1986, 228-267 offers the French translation of *Canon* III, 18-19.

FAROOQUI, A., Cardio-Vascular Diseases, as described by Ibn Sînâ in his *Al-Qânûn fi'l-ṭibb*, in: *Avicenna's Tract on Cardiac Drugs*, 130-163.

A. offers a rather paraphrastic translation of *Canon*, III, 11, 1-2.

HIRSCHBERG, J. and LIPPERT, J., *Die Augenheilkunde des Ibn Sînâ, aus dem Arabischem übersetzt und erläutert*. Leipzig, 1902. Repr. in: F. SEZGIN (Hsg.), *Augenheilkunde im Islam (Veröff. Inst. Gesch. Arab.-Isl. Wiss. Reihe B. Med., B. 3, 1-4)*. Frankfurt am Main, Inst. Gesch. Arab.-Isl. Wiss., Goethe Univ., 1986, I, 1-195.

### *Note :*

In volume 4 of the same work, four Ph.-D. theses are reprinted, all directed by J. Hirschberg and all presenting the translation of one tract of the third fenn of the *Canon* (These translations are based on the Latin edition), i.e. :

CUEVA, J., *Die Augenheilkunde des Avicenna. Nach der lateinischen Uebersetzung des Kanon, Venedig 1564 (Buch III, Fen 3), zum erstenmal ins Deutsche übertragen*. Berlin, 1899 (pp. 477-514, translates III, 3, 1).

USPENSKY, P., *Die Augenheilkunde des Avicenna. Nach dem "Liber*

*Canonis*” zum erstenmal ins Deutsche übertragen. Berlin, 1900 (pp. 515-562, translates III, 3, 2).

BERNIKOW, TH., *Die Augenheilkunde des Avicenna. Nach dem “Liber Canonis” zum erstenmal ins Deutsche übertragen (III. Teil)*. Berlin, 1900 (pp. 565-599, translates III, 3, 3 and V, 1, 2).

MICHAILOWSKY, E., *Die Augenheilkunde des Avicenna*. Berlin, 1900 (pp. 601-636, translates III, 3, 4).

JARCHO, S., *Avicenna’s Canon of Medicine*, in: S. JARCHO, *The Concept of Heart Failure. From Avicenna to Albertini*. Cambridge, Mass., Harvard Univ. Press, 1980, 1-16 (notes: 375-376).

A. has prepared an English translation of *Canon* III, 9, 1, 8-9; III, 11, 1, 2 and 5; III, 11, 2, 1-2 and 6-7 with great care. Besides to the Rome, 1593-edition, A. also paid attention to the Bûlâq-edition, the Russian and Urdu translations of these sections, and consulted the Latin translation in its Venice, 1608-ed. as well as in its Venice, 1507-ed. A. intersperses the textual excerpts translated from the Arabic with sections from the Latin translation which he labels: “Notes by Commentators”. A very clarifying analysis of the translated chapters is given by A. in a final comment (13-16). In his conclusion, A. states that I.S. was a systematic scholar who attempted to discuss medicine (as a whole), that Galen and Hippocrates were his main sources, and that one may find occasional flashes of clinical observation and sound judgment in his *Canon*.

A very valuable contribution!

#### *Book IV*

ELTORAI, I., *Avicenna’s View on Cancer from his Canon*, in: *Am. J. Chin. Med.*, 7 (79), 276-283.

A. offers a rather literal translation of *Canon*, IV, 3, 2 (the part regarding cancer, based on the Bûlâq-ed., III, 136-138, of which A. presents a handwritten copy).

A. also gives a list of the *Materia Medica* in this context.

Valuable, although some clarifications seem necessary.

#### **Studies**

ALI, S., *Problems in Translating Al-Qânûn fi’l Tibb*, in: *Stud. Hist. Med.*, 5 (81), 310-317; also in: *Isl. Q.*, 25 (81), 122-128.

A. presents the problems a translator of the *Canon* has to face in an enlightening way. He insists on the fact that the *Canon* has been written over several years, and probably was based on lectures given by I.S. (A. ascribes a lot of anomalies in the actual text to this very fact). Moreover, A. judiciously remarks that a great

familiarity with I.S.'s philosophical ideas is required in order to correctly understand his medical teaching. Finally, A. points out well known facts such as the imperfectness of the language of the *Canon*, the presence in it of many foreign words, proper names, and the creation of new meanings for common Arabic words by I.S.

An interesting paper, worth considering.

SIDDIQ(U), T., A New, Critical Edition of Ibn Sîna's *Al-Qânûn fi'l-Ṭibb* and its English Translation, in: *Stud. Hist. Med.*, 1 (77), 159-166.

After having indicated the shortcomings of the Latin translation of the *Canon*, as well as of the English translation of b. I by Grüner (and, to a lesser extent that by Shah), A. presents the basic options underlying the forthcoming critical edition (and translation) of the *Canon* by the Institute of the History of Medicine and Medical Research at New Delhi.

Of limited value.

### Note

Prof. M.S. Khan kindly informed me in a letter of 2 contributions in *Khuda Bakhsh Library Journal*, 47 (88) (in Urdu):

– HAKIM MD. HASAN NIGRAMI, *Al-Qânûn fi'l-Ṭibb*. A Survey of its Missing Volumes (161-164);

– DR. SALIMUDDIN AHMAD, *Al-Qânûn fi'l-Ṭibb*. Its Available Volumes (165-167).

## II. AL-ADWIYA AL-QALBIYYA (AN. 111; M. 14)

BÂBÂ (AL-), M., R. fi al-adwiya al-qalbiyya, in: M. AL-BÂBÂ, *Min mu'allafât Ibn Sîna at-ṭibbiyyat*. Aleppo, Ma'had al-turâth al-'ilmi al-'arabî, 1984, 207-292.

This edition is based on three manuscripts (2 European and an Indian!). Unfortunately, A. makes no use of the printed edition of 1937 by Bilge (in: *Büyük Türk Filozof ve Tib Ustadi Ibni Sina*. Istanbul, 1937. vol. III, separate tract). However, interesting variant readings are present.

A useful complement to the 1937-edition.



### Latin translation

The Venice, 1527-edition of the *Canon* (see *supra*, *Canon-Latin tradition*), also offers the *De Viribus Cordis* in the translation of Arnoldus of Villanova (p. 421-428).

See also *supra*, A II, *Av. Lat.* (app. *De Anima*, IV-V).

### English translation

HAMEED, A., Ibn Sînâ-Tract on Cardiac Drugs, in : *Avicenna's Tract on Cardiac Drugs*, New Delhi, IHMMR; Karachi, IHTR, 1981, 11-75.

In general, A.'s translation appears very reliable, but one has to regret the absence of any notes. (One is always confronted with ambiguities in this kind of texts!). So, for a serious study, access to the Arabic original remains necessary. However, it has to be recognized that this translation is infinitely better than that of Cameron Gruner (see *infra*), and deserves particular appreciation insofar as it is the first complete English translation of this medical tract of I.S.

CAMERON GRUNER, O. has given a paraphrastic translation of s. 1-11 in his *A Treatise* (see *supra*, *Canon-Mod. Tr.*), 123-125, 534-551. Parts of it are present in his : The four emotions, in : *Avicenna's Tract on Cardiac Drugs*, 105-118.

### Studies

(1) SIDDIQUI, H. and AZIZ, M., A Note on Ibn Sînâ's Tract on Cardiac Drugs, in : *Avicenna's Tract on Cardiac Drugs*, 79-85.

Reprint from *Planta Medica*, 11 (63), Heft 4).

(2) DURRANY, K. and SIDDIQUI, T., Al-Adwîyât al-qalbîya. Ibn Sînâ's *Treatise on Cardiac Drugs* : An Introduction, in : *Stud. Hist. Med.*, 4 (80), 29-38.

This paper appears to be a reworked version of 1. The systematic presentation of the treatise is almost *verbatim* the same. However, in their introductory section the authors pay more attention to the philosophical and psychological concepts, which underly I.S.'s medical system, and they thoroughly analyze I.S.'s concept of *pneuma* (acc. to them, this is the key-concept of the treatise, and comparable to the Yoga-notion of *prana*).

A valuable paper, although authors seem to have overestimated the psychological aspect of I.S.'s medical theory.

(3) SHAFQAT AZMI, K., HUSSAIN, S. and IQBAL, A., Avicenna's *Advia-i-Qalbia*, in : *Hamdard Med.*, 26<sub>4</sub> (83), 96-102.

A rather vague summary of I.S.'s tract, which is interpreted in very modern terms.

Of limited value, especially when compared to the two previous studies, which the authors seem to be unaware of.

### III. URJÛZA FÎ 'L-ṬĪBB (AN. 114; M. 15)

BÂBÂ (AL-), M., *Urjûza fî 'l-ṭĪbb*, in : M. AL-BÂBÂ, *Min Mu'allafât Ibn Sînâ* (see *supra*, II), 90-194.

Based on several mss., this edition appears very valuable. Ibn Rushd's *Comment* on this *Poem*, and the bilingual Arab-Latin-French edition of H. JAHIER and A. NOUREDDINE. Paris, Les Belles Lettres, 1956, have also been taken into consideration for this edition. In the (brief) introduction, A. surveys inter alia the different Arabic Comments on this *Poem*.

*Urjûza fî 'ṭ-ṭĪbb. Lehrgedicht zur Medizin. Neudruck nach der Handschrift MS. Orient. A. 2032 der Forschungsbibliothek Gotha.* Einf. S. BRENTJES u. S. CHALHOUB. Leipzig, Zentralantiquariat DDR, 1980, 17 + 86 pp. Reprint from a 18th C. (rather defective) manuscript.

#### Note:

THÂMARÎ D., *Poem on the Causes of Passions* by Ibn Sînâ, in: *Al-mawrid*, 14<sub>4</sub> (85), 243-268 (Ar) offers an annotated edition of a *Poem*, which he himself ascribes to I.S., but which is of 'Abd Allah Effendi, as is shown by M. MUHAMMAD, *Comment on the Case of an Edition (The Poem on the Causes of Passions by Ibn Sînâ)*, in: *Al-mawrid*, 15<sub>3</sub> (86), 221-226 (Ar).

#### Latin tradition

The Venice, 1527-edition (429-438) and the Basel, 1556-edition includes the Latin translation by Armegandus Blasii de Montepesulano (for precise ref. : see *supra*, *Canon-Latin tradition*).

TAMANI, G., *Il Canon medicinae* (see *supra*, *Canon-Hebraic tradition*, Note), 25-31 cites large fragments of the same Latin translation, acc. to its editors H. JAHIER and A. NOUREDDINE, *Avicenna-Poème de la Médecine*. Paris, Les Belles Lettres, 1956, 109-183 (which is based on the Basel, 1556-edition).

## Translations

BORRUSO, A., Ibn Sînâ-Dieta e igiene nel "*Poema della Medicina*" di Aviceno, in : *Islam. Storia e Civiltà*, 4 (85), 42-55.

Good Italian translation of part II, ch. 1, without commentary.

ZAISLAMOV, Z., has provided a Russian translation at Tashkent, 1972.

## Studies

(1) KAYYALI (AL-), T., The Poem of al-shaykh al-ra'îs Ibn Sînâ on Medicine, in : *Proc. I. Int. Symp. Hist. Ar. Science*. 2 vol. Aleppo, Inst. Hist. of Arabic Science, 1977-'78, t. I, 771-785.

After a rather general introduction (in which A. accuses some historians of having falsified the real impact of the Arabic-Islamic culture), A. briefly enumerates the editions and translations of the *Poem on Medicine*, as well as the basic classical comments on it. Hereafter, A. presents a summary of the *Poem*, large extracts are cited and supplemented by (rather obvious) comments. Good, but rather introductory.

(2) QASSEM, M., Mother and Child in Ibn Sînâ's *Poem*, in : *Al-'arabî*, Nr. 272 (81), 134-137.

A. has brought together all the verses of the *Poem* regarding the topic : mother and child - he always cites the number of the verses, together with their first and last words.

Of almost no value.

## C. Minor Works

Note : This material is arranged according to the classification, adopted by G.C. Anawati in his bibliography *Mu'allafât Ibn Sinâ*. Cairo, Dâr al-Ma'ârif, 1950. However, before proceeding with I.S.'s minor works, a few collective works are enumerated and special attention is paid to the autobiography/biography complex.

a. Collective Works (abbreviations, and general appreciation, for details, see *infra*)

(1) ALPAGO, A., *Avicennae philosophi praeclarissime ac medicorum principis... Venetiis*, 1546. Repr. Farnborough, Gregg Int., 1969, 145 folios (abbr. *Alpago*).

(2) ARBERRY, A., *Avicenna on Theology*. London, 1951. Repr. Westport, Conn., Hyperion Press, 1979, 81 pp. (abbr. *Arberry*).

(3) 'ÂŞÎ, H., *Al-tafsîr al-Qur'ânî wa 'l-lugha 'l-şuffiyya fî falsafat Ibn Sinâ (Qur'anic Exegesis and Mystical Language in Ibn Sinâ's Philosophy)*. Beirut, Al-mu'assasat al-jami'iyya lil-dirâsât wa-'l-nashr wa-'l-tawzî, 1983, 390 pp. (abbr. 'Âşî)

A. provides the very first publication of several of I.S.'s exegetical, or mystical texts, and offers a completely new edition of all the other texts of this kind. He makes use of the known manuscripts, although not in an exhaustive way. It has to be stated that the reason why he did choose some particular manuscripts is not always clear.

In general his editing appears valuable and is undoubtedly an important improvement compared to older editions of this material.

An important collection of texts, very meritorious and valuable.

(4) HUSEINZODA Š. and SAPIROV, A., *Pirûzinoma (Book of Victory)*. Dushanbe, Maorif, 1980, 84 pp. (abbr. *Pirûzinoma*).

Translation into Russian of five philosophical opuscula.

(5) MEHREN, M., *Traité Mystiques... d'Avicenne*. 4 vol. Leyde, 1889-1899. Repr. 4 vol in 1. Amsterdam, Philo Press, 1979 (abbr. *Traités*).

(6) SHAMS AL-DÎN, 'A., *Al-madhhab al-tarbawî 'inda Ibn Sînâ min khilâl falsatihi al-'amiliyya (The Paedagogical Doctrine of Ibn Sînâ, on the Basis of his Practical Philosophy) (Mausu'a al-tarbiyya wa 'l-ta'lim al-islâmiyya. q. al-Falâsifa)*. Beirut, Al-sharka al-'âlamîyya lil-kitâb, 1988, 448 pp. (abbr. *Shams al-dîn*).

No lesser than 23 texts by I.S. are edited (or reprinted) by A. in the second part of the work (pp. 231 sqq.). The material(s), on which a given text has been edited, is (are) specified by A. in the first part of his book, although not always in a very precise manner (several obvious mistakes are present in the references, offered by A.). Nonetheless, A.'s merits are great, not at least because of his editing some texts for the first time. Let us still mention that the first part of this work (esp. pp. 60-169) also includes a kind of commented gloss of I.S.'s *Treatise on Politics*, besides some basis remarks on I.S.'s political and moral ideas, as well as on I.S.'s life.

(7) N.N., *Rasâ'il shaykh al-ra'îs... Ibn Sînâ*. Qom, Intishârat Bîdâr, 1980, 519 pp. (abbr. *Rasâ'il*).

Reprint of a lot of minor works from several sources, but especially from *Majmû' rasâ'il al-shaykh al-ra'îs*. Hayderabad, 1354 H. (abbr. *Majmû'*), and from *Jâmi' al-Badâ'i*. Cairo, 1917 (abbr. *Jâmi'*).

(8) *Tis' rasâ'il fi 'l-hikma wa 'l-ṭabî'îyyât wa qissat Salâmân wa-Absâl lil-shaykh al-ra'îs Ibn Sînâ*. Ed. and Introd. H. 'ÂṢĪ. Beirut, Dâr al-Qâbus, 1986, 141 pp.

Although A. is aware of some recent critical editions of some of the involved texts, his edition does not really take them into account. In fact, it is almost a reprint of the Cairo, 1908-edition - there being offered only a few variant readings (based on one manuscript). The total absence of a critical apparatus is most significant!

Of very limited value. (abbr. *Tis'*).

## b. Autobiography/Biography complex

### *Editions*

GOHLMAN, W., *The Life of Ibn Sînâ. A Critical Edition and Annotated Translation*. New York, SUNY, 1974, 163 pp.

A. convincingly shows the existence of two traditions regarding the autobiography/biography of I.S., i.e. the well-known tradition of al-Qiftî-Ibn Abî Uṣaybi'a, and another tradition present in several manuscripts (which form the basis of this work), and presented i.a. by al-Kâshî. It is obvious that A. has prepared the Arabic text, and its English translation (as well as the many explanatory notes) with great care, and that his work may therefore be considered to be the first really critical edition of the autobiography/biography complex - notwithstanding the need for some obvious corrections (especially in the light of M. Ullmann's critical review of the work, in : *Der Islam*, 52 (75), 148-151, and also Gutas' translation of the autobiography, see *infra*).

An important work.

The Arabic text, as prepared by Gohlman has been published by M. FAKHRY in his edition of the *Najât* (see *supra*, *Nâjât*), 23-34 (together with what Gohlman calls the longer bibliography, 35-38).

JOHHÂ, F. and FÂKHÛRÎ, M., *Sîrat Ibn Sînâ (The Life of Ibn Sînâ)*. Damas, s.l., 1981, 87 pp. (Ar) + 36 pp. (Fr).

Authors (who did not have Gohlman's edition at their disposal during the preparation of their work, but came in touch with it afterwards) explicitly wanted to present a critical edition of the autobiography/biography complex in the tradition of al-Qiftî-Ibn Abî Uṣaybi'a (they clearly ignore the other tradition). For the most part, they have succeeded in their (specific) objective, at least as far as can be judged from a basic comparison with Gohlman (including Ullmann's C.R.), although the critical apparatus is rather limited. However, it is deplorable that the Arabic text has been presented in handwritten characters instead of the usual printed characters.

For Homsî's French translation, which accompanies this edition, see *infra*.

Valuable, a useful complement to Gohlman.

*Note*: JOHHÂ, F., Verification of Ibn Sînâ's Biography, and its Publication, in : *Al-turâth al-'arabî*, 2<sub>8</sub> (82), 235-236, briefly presents this material.

DĪBĀJĪ, S., *Ibn Sînâ ba riwâyat Ashkevârî va-Ardakânî (Ibn Sînâ according to the Tradition of Ashkevârî and Ardakânî)*. Tehran, Int. Amîr Kabîr, 1985, 111-122.

A good, but not really critical edition of the autobiography/biography complex.

## Translations

### English

Arberry, 9-24. GOHLMAN, W., see *supra*, editions.

GUTAS, *Avicenna*, 22-30.

A. offers a very critical translation of the autobiography alone, even though the proposed translation is in some cases open to serious discussion, due to A.'s particular interpretation of the autobiography (i.e. : the autobiography is a kind of imitation of the *Vita Aristotelis*).

Of great importance, notwithstanding some reservations.

ZABEEH, F., *Avicenna's Treatise* (see *supra*, A IV, 2), 4-11.

A rather uncritical translation of the autobiography/biography complex.

### French

ACHENA, A., *Avicenne* (see *supra*, *Dânesh-Nâme*), 11-30.

The translation of the autobiography is identical with the 1955-'58-edition. Regarding the biographical part, A. offers a kind of paraphrastic summary – mainly based on al-Qiftî, although some special references to Khând Mir and Bayhaqî are included.

Interesting, especially insofar as some lesser known materials (at least in the West) are given.

BADAWI, A., *Histoire*, 595-602 offers a translation of the autobiography, and a paraphrastic summary of the biography by al-Juzjânî.

A very readable translation.

HOMSI, H., *Avicenne. Autobiographie-Biographie*. Damas, s.e., 1981 (together with the edition of Johhâ and Fâkhûrî (see *supra*)).

A valuable translation, but entirely based on the al-Qiftî tradition and in need of more substantial explanatory notes than the ones given by A.

### *German*

BRENTJES, B., *Ibn Sînâ* (see *General Studies*, A 6), 30-47 offers a complete German translation.

An improved version of the translation by P. KRAUS, *Eine arabische Biographie Avicennas*, in: *Klin. Wochenschr.*, 11 (38), 1880-1884, repr. *Medizinhist. J.*, 1 (66), 261-274.

### *Persian*

DÎBÂJÎ, S., *Ibn Sînâ...* (see *supra*), 33-57, offers the Persian translation of the autobiography (provided with many significant annotations), and of the biography (A. hereby cites some observations of Shahrazûrî and Ashkevârî).

Valuable, especially since it brings to the fore some lesser known later Persian sources.

### *Russian*

DINORSHOEV, M. and MARDONOV, T. have provided a Russian translation, in: DINORSHOEV, *Selected Works*, 57-66; also in: ASIMOV, *Selected Philos. Works*, 40-58.

– *Pirûzinoma*, 11-34.

## c. General Works

1. *Ajwibat 'an sit 'ashrata masâ'il* (*Answers to 16 Questions*) (AN. 1; M. 105)

*Note*: Acc. to Mahdavî, p. 212 this text is an integral part of the *Mubâḥathât* at least in one of its transmitted redactions.



MUṬAHARRÎ, M., *Philosophical Questions of Abû Rîhân (Bîrûnî) in Exchange with Bû 'Alî (Ibn Sînâ)*, in : *Barrasîha dar bâra-i Abû Rîhân Bîrûnî (Essays on al-Bîrûnî)*. Tehran, High Council of Culture and Art, 1973, 54-163, 116-164, offers a Persian translation, and an analysis (also in Persian) of the questions 1-5, 6 (but in this case the answer is not translated nor discussed), 14 and 15.

A. provides valuable translations. In his analysis, he always pays attention to I.S.'s Greek sources. Whenever possible, he also points to later developments in Molla Sadrâ Shîrâzî. But A.'s main attention goes to the problem of the authenticity of these questions. In this respect, he makes several relevant remarks. He rightly wonders why these questions have been ascribed by some people to a correspondence between al-Bîrûnî and I.S.?

Very useful.

2. *Ajwibat 'an 'ashar masâ'il (Answers to 10 Questions)* (AN. 2; M. 6)

Ed. M. TÜRKER-KÜYEL, in : *Beyrunî'ye Armağan (TTKY-VII. Dizi-Sa. 68)*. Ankara, TTK Basimevi, 1974, 103-112, together with a Turkish translation, *ibid.*, 95-102 and two related studies : *Les Réponses à dix questions d'Avicenne sont-elles écrites pour al-Beyrunî?* (*ibid.*, Tu. 83-87; Fr. 89-93), and : *Les dix questions posées par Abû Rayhân al-Bîrûnî à Ibn Sînâ et les réponses qu'il a reçues de lui* (*ibid.*, Tu. 113-118; Fr. 119-125); also in : *The Commemoration Volume of Bîrûnî Intern. Congress*. Tehran, High Council of Culture and Art, 1976, 395-438.

A rather critical edition, based on a reasonable choice of 4 basic manuscripts (and 3 corroboratory ones) from among a dozen of İstanbul manuscripts (as explained in detail by A. in the first related study). A. also concentrates on the problem of the addressee of the treatise (the identification with al-Bîrûnî is due to an ambiguity in Aya Sofia 4853 – as shown by A. in both related studies). Finally, in the second related study, A. presents a brief outline of the ten questions, as well as a more detailed summary of three of them.

A.'s edition certainly constitutes a significant improvement when compared to Ulken's İstanbul, 1953-edition.

*Alpago*, 137v-139v, offers a partial Latin translation of the questions 2, 4, 5 and 6.

3. *R. fī aqsâm al-'ulûm al-'aqliyya* (Tr. *On the Division of the Intellectual Sciences*) (AN. 4; M. 32)

– *Tis'*, 83-94.

– *Shams al-dîn*, 261-272 (reprint of the Cairo, 1908-ed.).

– *Alpago*, 138v-145v offers the Renaissance Latin translation.

– ANAWATI, G.C., *Les divisions des sciences intellectuelles d'Avicenne*, in : *MIDEO*, 13 (77), 323-335.

A valuable basic translation, although in need of some refinement – see Michot.

– MAHDI, M., *Avicenna. On the Division of the Rational Sciences*, in : *Medieval Political Philosophy*, 95-97.

– MICHOT, J., *Les sciences physiques et métaphysiques selon la Risâla fī Aqsâm al-'Ulûm d'Avicenne*, in : *Bull. Philos. Méd.*, 22 (80), 64-71.

A very critical translation of a large part of the treatise. A. undoubtedly improves in several respects Anawati's earlier translation (although A. himself recognizes the merits of Anawati's work).

– MIMOUNE, R., *Epître sur les parties des sciences intellectuelles d'Abû 'Alî al-Husayn Ibn Sînâ*, in : *Études sur Avicenne*, 143-151.

This translation in no way improves upon Anawati's and Michot's work.

4. *Aqwâl al-shaykh fī 'l-ḥikma* (*Aphorisms of the Shaykh on Wisdom*) (AN. 5; M. 103)

– MICHOT, J., *Paroles d'Avicenne sur la sagesse*, in : *Bull. Philos. Méd.*, 19 (77), 45-49 has provided an edition (based on 2 mss.) and a (rather literal) French translation.

Very valuable.

5. *K. al-Ḥudūd (B. of Definitions)* (AN. 9; M. 57)

– A.-M. GOICHON's Cairo, 1963-edition of the Arabic text (without the French translation) has been reprinted in : *Rasâ'il*, 75-129.

– The same edition has also been reprinted, together with a Persian translation by M. FÛLÂDVAND, *Ibn Sînâ-Ḥudūd yâ ta'rîfât*. Tehran, <sup>1</sup>1979; <sup>2</sup>Tehran, Soroush, 1987.

The Persian translation is good, but clearly in need of a more detailed annotation. Of great significance is the four-language list of technical terms (Arabic-English-French-Greek), as well as the three-language list (Arabic-French-Greek) of common terms in I.S. and Aristotle, which was added by A. to his translation.

– *Tis'* 63-82.

– AL-A'SAM, 'A., *Al-muṣṭalaḥ al-falsafî 'inda al-'Arab (The Philosophical Technical Terminology according to the Arabs)*. Baghdad, 1985. <sup>2</sup>Cairo, al-Hay'a al-misr. al-'amma lil-kitâb, 1989, 229-263 offers a new edition, based on one ms. and the previous editions of *Tis' Rasâ'il* and Goichon. In the introduction, pp. 56-69, A. argues for an early datation of this work – anyway before the beginnings of the *Shifâ*.

Valuable.

– 'ABD AL-LATIF, M., *Al-Ḥudūd fi thalâth rasâ'il. Al-Fâkihî, Ikhwân aṣ-Ṣafâ wa-ibn Sînâ (Definitions of Three Treatises. Al-Fâkihî, Ikhwân aṣ-Ṣafâ and Ibn Sînâ)*. Cairo, Dâr al-naḥḍa al-'arab, 1978, 59-86 offers a rather uncritical version of the Arabic text (a reprint from the Cairo, 1908-edition?).

– *Alpago*, 121r-137v presents the classical Latin translation.

6. *'Uyûn al-ḥikma (Sources of Wisdom)* (AN. 15; M. 93)

– A. BADAWI's Cairo, 1954-edition has been reprinted at Kuwait, 1980, as well as in : *Rasâ'il*, 1-74.

– *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), *Mulḥaq* 5-50 offers a copy of a single manuscript.

– *Tis'*, 11-38 (Natural part).

– WIEDEMANN, E., *Ibn Sînâ's Anschauung vom Sehvorgang*, in : E. WIEDEMANN, *Gesammelte Schriften zur arabisch-islamischen Wissenschaften*. Frankfurt am Main, Inst. Gesch. Arab.-Isl. Wiss., Goethe Univ., 1984, II, 727-729 includes the translation of a part of the *Physics* in this work (originally published in : *Archiv Gesch. Naturw. u. Technik*, 4 (12-13), 239-241).

*Note*: FAHR AL-DÎN RÂZÎ, *Sharḥ Uyûn al-ḥikma*. Ed. A. AL-SAQÂ. 3 vol. Cairo, Anglo, 1986, 259, 303, 175 pp. includes Râzî's literal citations of I.S.'s *Uyûn*.

#### 7. *'Uyûn al-Masâ'il (Major Questions)* (AN. 16; M. 189)

*Note* : a serious examination would be required in order to finally settle the problem of its authorship (Fârâbî, I.S. or someone else?).

– HOURANI, G., *Ibn Sînâ on Necessary and Possible Existence*, in : *Philos. Forum*, 1 (72), 74-86, 75-76 offers the translation of one page of it.

Valuable.

#### 8. *K. al-Hidâya (Book of Guidance)* (AN. 24; M. 130)

– 'ABDUH, M., *Kitâb al-Hidâya li-Ibn Sînâ*, Cairo, M. al-Qâhirat al-ḥ adîtha, 1974, 335 p.

The very first edition of this work, based on two known manuscripts. A valuable pioneering work, although one may regret that A. did not undertake a more systematic comparison with other Avicennian texts in order to determine uncertain readings.

– MICHOT, J., *L'eschatologie dans le "Livre de la Guidance"* d'Avicenne, in : *Bull. Philos. Méd.*, 30 (88), 138-152.

A critical, and very valuable translation, of the last section of the *Book of Guidance*. It has to be mentioned that A. provides a complete Arabo-French lexicon of this section.

– MICHOT, *Destinée*, includes the translation of several passages, see *Index, Direction* (232).

*Note* : The major work of I.S.'s disciple Bahmanyâr ibn Marzbân, *K. al-Taḥṣîl, B. of "Summulae"* (AN. 7; M. 143), has been edited by M. MUTAHHARÎ at Tehran, Dâneshkade-i Ilâhiyyât, 1970.

NÛRÂNÎ, A. and DÂNESH PAZHUH, M. have moreover edited its (old?) Persian translation, entitled *Jâm-i Jahân Numây (Wisdom of Persia, XV)*. Tehran, Tehran Univ. Press, 1983, 52 + 610 pp.

#### d. Logical Works

##### 1. *Urvûza fî 'l-manṭiq (Poem on Logic)* (AN. 25; M. 22)

The Cairo, 1910-edition of this poem (in : *Manṭiq al-Mashriqiyyîn*) has been republished at Tehran, M. al-Ja'frî al-Tabrîzî, 1973.

##### 2. *Ta'aqqub al-mawdi' al-jadalî (Investigation of the Dialectical Topos)* (AN. 26; M. 48)

– DÂNESH PAZHUH, M., presents the edition of this text in : M. MOHAGHEGH and T. IZUTSU (Eds.), *Collected Texts and Papers on Logic and Language (Wisdom of Persia, VIII)*. Tehran, Tehran Univ. Press., 1974, 63-77.

A rather valuable edition, based on three manuscripts (see A.'s introduction), *ibid.*, *Muq.*, davâzdah-shanzdah.

##### 3. *Al-masâ'il al-gharbiyya (Occidental Questions)* (AN. 39; M. 8)

– DÂNESH PAZHUH, M., edites it in : *ibid.*, 80-105.

The very first edition of this text. Meritorious (although one regrets the absence of any critical apparatus) especially in view of A.'s affirmation of having used 3 mss.

## e. Linguistics

1. *Asbâb ḥudûth al-ḥurûf* (*Causes of the Production of Sounds, or: Tr. On Phonetics*) (AN. 47; M. 25)

– KHÂNLARÎ, P., *Makhârij al-ḥurûf*. Tehran, Univ. Press, 1954, 21970.

– SA'D, T., *Ibn Sînâ-Asbâb ḥudûth al-ḥurûf*. Cairo, M. al-kull. azhariyya, 1979, 29 pp.

Totally uncritical edition. A. completely ignores Khânlarî.

– ṬAYYÂN (AL-), M. and 'ALAM, Y., *R. asbâb ḥudûth al-ḥurûf*. Damas, M. Majmu' al-lughat al-'arabiyya, 1983, 168 pp.

Based on several manuscripts (reasonably well chosen), authors provide a critical edition of the two versions (there are significant differences with Khânlarî's edition of these two versions).

Of great importance, and very valuable.

– BAUSANI, A., *L'Enciclopedia dei Fratelli della Purity*. Napoli, Ist. Univ. Orient., 1978, 195-208, summarizes, and partly translates into Italian the first version of the Treatise.

Useful.

*Note*: RASHÂD, 'A., seems to have offered a translation (into Urdu?) with comment on (the first version?) of the treatise at Kabul, 1981.

2. *Al-Nîrûziyya* (*The New Year Treatise*) (AN. 49; M. 127)

– *Tis'*, 105-110.

## f. Poetry

1. *Ash'âr al-shaykh (Poems of the Shaykh)* (AN. 50; M. 29)

– The Cairo, 1910-edition of a collection of Arabic poems by (or ascribed to) I.S., in: *Mantiq al-Mashriqiyyîn* has been reprinted at Tehran, M. al-Ja'firî al-Tabrîzî, 1973.

– INAL-SAVI, S., Avicenna and his Persian Quatrains, in: *Ulusl. I.S. Semp.*, 455-460 (Tu), 461-454 (Pers. Quatrains); 466 (Engl S.).

The summary is not quite clear, but one gets the impression that A. has brought together as many Persian quatrains by I.S. as he could find (from various sources), and discusses in the Turkish introduction the spurious ones.

– ORMOS, I., An Unknown Poem by Ibn Sînâ, in: *The Arabist (Budapest Stud. in Ar., 1)*. Budapest, Eötvös Lorand Univ., 1988, 134-141.

In the Kaufmann Geniza Ms. 205, A. has discovered a poem, ascribed to I.S. (based on A.'s analysis of its contents, this attribution is deemed acceptable). A. provides the text of the poem, as originally written in Hebrew characters, its transliteration into Arabic, and an English translation.

Valuable, but of limited significance.

– HUSEINZODA, S., AINI, K. and SHARIFOV, KH., *Ibn Sînâ-Saturna Predel.* (Tadj. title: *Awj-i zuhal*) (*The Zenith of Saturn*). Dushanbe, Irfon, 1980, 109 pp.

This work includes Arabic and Persian poems of (or ascribed to) I.S., the translation into Tadjiki of the *Poem on the Soul* and the Russian translation by Y. KOLOVSKY and T. MARDONOV of all the poems. This information comes from secondary sources.

*Note:* ÜNVER, A., Concerning Aphorisms of Ibn Sînâ, in: *Ibn Sînâ. Doğumunun...*, 243-248 (Tu), brings together aphorisms of I.S. from various sources, and presents them in Turkish translation.

## g. Physics

1. *Al-ajrâm al-'ulwiyya (The Celestial Bodies)* (AN. 53; M. 53)

– *Tis'*, 39-54.

2. *Ajwibat masâ'il sa'ala 'anhâ Abû Rihân (Answers to Questions Asked by Abû Rihân; also known as: Correspondence with al-Bîrûnî)* (AN. 54; M. 5)

– NASR, S.H. and MOHAGHEGH, M., *Al-Bîrûnî and Ibn Sînâ. Al-As'ilah wa'l-Ajwibah (Questions and Answers). Including the Further Answers of al-Bîrûnî and al-Ma'sûmî's Defense of Ibn Sînâ*. Tehran, Univ. Press, 1973, 12, 91 pp. (Pers) + 14 pp (Fr).

This edition constitutes an important improvement compared to the Cairo, 1917-edition (*Jâmi'*, 119-151), for two major reasons: 1. In using two additional manuscripts, it offers an obviously more critical text of the ten questions pertaining to Aristotle's *De Caelo*, and of eight further questions posed by al-Bîrûnî himself (but cfr. Tancî, regarding the ten questions); 2. It provides more materials by adding to it the edition of the *replica* by al-Bîrûnî, and al-Ma'sûmî's reaction against them on behalf of I.S. (based on 2 other mss.).

Very meritorious, and, indeed, valuable, but in need of further refinement as is shown by Tancî (see *infra*).

– *Jâmi'*, 119-151 has been reprinted in *Rasâ'il*, 407-440, while *Rasâ'il*, 481-519, reproduces the second part of NASR-MOHAGHEGH, 51-87 (Further Answers of al-Bîrûnî and al-Ma'sûmî's defense of I.S.).

– MUMINOV, I., *Al-Bîrûnî and Ibn Sînâ. Peripiska*. Tashkent, Fan, 1973 presents the Russian translation of the *Correspondence*.

– MUṬAHHARÎ, M., *Philosophical Questions...* (see *supra*, Gen. Works, 1), 54-116, offers a Persian translation, and analysis of the q. 1-4.

A valuable translation. A., in his analysis, deals with I.S.'s (and al-Bîrûnî's) Greek sources and Arabic predecessors, while paying at the same time attention to some later reworkings and/or corrections by Molla Sadrâ Shîrâzî. Moreover, he accurately describes the central problems at issue. It has to be mentioned that A., in his introduction, stresses that whereas al-Bîrûnî's approach is rather



through abstraction and induction, I.S. clearly prefers the syllogistic method.  
Very valuable.

– TANCİ, M., Correspondence between al-Bîrûnî and Ibn Sînâ, in : *Beyrûnî'ye Armağan (TTKY, VII. Dizi, Sa. 68)*. Ankara, TTK Basmevi, 1974, 264-301.

A. first offers the Turkish translation of the discussion between al-Bîrûnî and I.S. (231-260). Then, after a brief introduction (261-263, in Arabic), he presents a new edition of the part, including the ten questions on the *De Caelo* (based on the different existing printed editions, as well as manuscript materials). A further improvement with respect to the Nasr-Mohaghegh-edition.

– ZAVADOVSKY, YU. also offers a Russian translation, in : DINORSHOEV, *Selected Works*, 365-390.

### 3. *Asbâb al-ra'd (Causes of Thunder)* (AN. 55; M. 26)

*Note* : SEZGIN, *GAS*, VII, 223 shows that this text is a fragment from Theophrast's *Meteorology*.

*Rasâ'il*, 231-236, includes the reprint of *Majmû'*, Tr. 2.

### 4. *R. al-wus'a (Tr. of Spaciousness)* (AN. 67; M. 129)

– PINES, S., Nouvelles études sur Awḥad al-Zamân Abu'l Barakât al-Baghdâdî, in : *Studies in Abu'l Barakât al-Baghdâdî (Coll. Works, I)*, Jerusalem, The Magness Press; Leiden, Brill, 1979, 96-173, 138-141.  
Reprint from : *Mémoires de la Société Juive*, I. Paris, 1955, 15-88, 51-54.

### 5. *R. fî ḥujaj al-muthbitîn lil-mâḍî mabda'an zamâniyyan (Tr. On the Proof of those who affirm that the Past has a Temporal Beginning)* (AN. 75; M. 64)

– PINES, S., An Arabic Summary of a Lost Work of Philoponus; App. : Notes on a Unpublished Treatise of Avicenna, in : *Israel Or. Stud.*, 2 (72), 347-352; also in : S. PINES, *Studies in Arabic Versions of Greek Texts and in Medieval Science (Coll. Works, II)*. Jerusalem, The Magness Press; Leiden, Brill, 1986, 321-326.

Brief analysis and summary of this still unedited treatise. It has to be mentioned

that A. had already paid some attention to this treatise (and offered a partial translation of it) in his: *La conception de soi chez Avicenne et chez Abû'l Barakât al-Baghdâdî*, in: *AHDLMA*, 21 (54), 21-98, esp. 22-23 and 96.

## h. Psychology

1. *R. fî 'l-nafs* (*Letter on the Soul*, also known as: *Letter on the Disappearance of the Vain Intelligible Forms after Death*) (AN. 81; M. 36)

– MICHOT, J., *L'épître sur la disparition des formes intelligibles vaines après la mort d'Avicenne*, in: *Bull. Philos. Méd.*, 29 (87), 152-170.

– ID., *Avicenna's "Letter on the Disappearance of the Vain Intelligible Forms after Death"*, in: *ibid.*, 27 (85), 94-103.

In the previous publication, A. provides a complete critical edition of this treatise (based on a very scientific collation of 12 mss. – more than the ones given by Anawati or Mahdavi!), followed by a critical French translation, and an Arabic-French index. As to the latter publication, it offers a critical English translation, as well as A.'s arguments for ascribing this letter to I.S. (at least, in a provisional way, acc. to A.'s own words). Extremely valuable. A's way of editing this text may be expected to become a model for the future.

2. *R. fî 'l-Sa'âda wa 'l-ḥujaj al-ashara* (*Tr. On Happiness, and the Ten Arguments*) (AN. 84; M. 43)

– *Rasâ'il*, 299-280 includes the reprint of *Majmû'*, Tr. 5.

– MICHOT, *Destinée* offers the translation of several passages, see *ibid.*, *Index*, 231: *Bonheur*.

3. *Al-'uqûl* (*The Intellects*) (AN. 90, 186; M. 186)

– *Shams al-dîn*, 414-418.

4. *Al-Qaṣīda al-'ayniyya (Poem on the Soul)* (AN. 93; M. 99)

*Note:* this poem has been printed (most of the time in a very uncritical way!) and reprinted so many times that it is almost impossible to enumerate all editions. Therefore, two (commented) editions are listed :

– KHOLEIF, F., *Ibn Sinâ wa madhhabuhu fî 'l-nafs* (see *Psychology*, 13), 129-131 (not really critical edition, but at least the commentary is significant);

– MILLA, M., *Al-qaṣīda al-'ayniyya...* (see *I.S. and Other Arabic Thinkers*, 25), 31-33 (almost of no significance).

– *Arberry*, 77-78.

A Russian translation has been published in: *Sadoi Sharq*, 1971<sub>g</sub>, 115-117, and another one in: HUSEINZODA, *Saturna Predel* (cfr. *supra*, Poetry).

5. *Mukhtasar Aristû fî 'l-nafs (Summary of Aristotle on the Soul)* (AN. 96; M. 124)

– GÄTJE, H., *Studien zur Überlieferung der aristotelischen Psychologie im Islam*, 114-129, offers the Arabic edition together with a German translation.

A. shows that this text is not by I.S., but by Gregorios Thaumaturgos (see also *ibid.*, 54-62).

6. *Ma'ârij al-quds fî madârij ma'rifat al-nafs (Stairs of Sanctity in the Degrees of Knowledge of the Soul)* (AN. 97; M. 222)

This work is not by I.S. (see Janssens' critical remark on *I.S. and Other Arabic Thinkers*, 42). There exist two recent editions, both ascribing the text to al-Ghazzâlî :

1. Edited by the Revival of Arabic Culture Committee at Beirut, *Dâr al-afâq al-jadîda*, <sup>5</sup>1982;

2. Edited by SHAMS AL-DÛN, 'A. at Beirut, *Dâr al-Kutub al-'alamiyya*, 1988.

The former edition is based on 2 mss.; the latter edition is almost identical with the former.

7. *Masâ'il 'an aḥwâl al-rûḥ* (*Questions on the State of the Spirit*) (AN. 98; M. 135)

– MICHOT, J., *Les Questions sur les états de l'esprit. Problèmes d'attribution et essai de traduction critique*, in : *Bull. Philos. Méd.*, 24 (82), 44-53.

A. convincingly shows that this treatise has to be ascribed either to Miskawayh, or to an author belonging to the circle of the Ikhwân aṣ-Ṣafâ. So, it is clearly non-Avicennian.

8. *R. fî ma'rifat al-nafs al-nâṭiqa wa-aḥwâlihâ* (*Tr. On the Knowledge of the Rational Soul, and its States*) (AN. 103; M. 238)

– NADER, *Al-nafs* (see A, I, 3), 19-38 offers a reprint of the Cairo, 1934-edition by Al-Fandî.

– MICHOT, J., “L'épître sur la connaissance de l'âme rationnelle et de ses états” attribuée à Avicenne, in : *Rev. philos. Louvain*, 82 (84), 479-499.

A very valuable translation. Moreover, A. expresses some serious doubts regarding its attribution to I.S. A. instead opts for a post-Avicennian origin.

*Note: R. fî kalâm 'alâ 'l-nafs al-nâṭiqa* (*Tr. On the Theory of the Rational Soul*) (AN. 103-Leiden Ms.; M. 122).

– *Shams al-dîn*, 425-429 (repr. of Ehwany's ed. in his: *Aḥwâl al-nafs*. Cairo, 1952, 195-199).

## i. Medicine

1. *Urjûza fî 'l-tashrîḥ* (*Poem on Anatomy*) (AN. 112; M. 18)

– SCRIMIERY, G., *Testimonianze medievali e pensiero moderno*. Bari, Levante, 1970, P. II - *Sulla Medicina di Ibn Sînâ*, 99-157, includes the Arabic text of the Poem (156-137); its Italian translation (118-135) and an Introduction (101-118).

*Note* : Acc. to A. (see p. 118, N. 46) the Arabic text has previously been published at Cairo, Dâr al-kâtib al-'arabî, 1969.

Both the edition (based on the three actually known manuscripts) and the translation appear valuable. A. indicates the correspondent passages between the *Poem* and *Canon*, b. I. The introduction consists of a general presentation of I.S.'s famous *Poem on Medicine*, and of *Canon*, I).

2. *Urjûza fi 'l-fuṣūl al-arba'a (Poem on the Four Seasons)* (AN. 118, 115; M. 17)

Edited by BÂBÂ (AL-), M. in his *Min mu'allafât Ibn Sinâ at-ṭibbiyyat*. Aleppo, Ma'had al-turâth al-'ilmî al-'arabî, 1984, 195-206, under the heading : *Urjûza mansûb ilâ Ibn Sînâ fi tadbîr aṣ-ṣiḥḥa*.

This edition is based on the same manuscripts as that of the *Poem of Medicine* (see *supra*, *Major Medical Works*, III). Regarding the final part of the poem, different readings are given by the different mss. Valuable.

3. *Urjûza laṭîfa fi qadâyâ Ibuqrât al-khams wa 'l-'ishrîn (Elegant Poem on 25 Sentences of Hippocrates)* (AN. 120; M. 19)

– KUHNE, B., *La Uryûza laṭîfa fi qadâyâ Ibuqrât al-jams wa-l-'ishrîn* de Avicenna, in : *Homenaje al Prof. D. Cabanelas Rodriguez*. Granada, Dept. Est. Semit., 1987, vol. II, 343-366 includes the edition of the Arabic text (358-366), a Spanish transl. (352-357) and an Introduction (344-357).

The very first edition (based on 3 mss.) and translation of this Poem. In the Introduction, A. presents some technical remarks regarding the manuscripts he uses for this edition as well as some stylistic particularities of the Poem. He also offers a doctrinal outline.

Valuable, although A. seems to ignore some manuscripts, referred to by Anawati in his *Mu'allafât*. Moreover, one may wonder whether the attribution of the Poem of I.S. does not deserve more rigorous investigation?

4. *Daf' al-madâr al-kulliyat 'an al-abdân al-insaniyya (Repulsion of General Harms from Human Bodies)* (AN. 130; M. 75)

– BÂBÂ (AL-), M., *Mu'allafât...* (see 2), 1-73.

Based on 4 mss., this edition is the first (semi-) critical edition of this medical treatise by I.S.

Valuable, although open to further refinement.

A rather uncritical edition was published at Beirut, Dâr Ihyâ al-'ulûm, 1982 (author unknown), while a reprint of the Cairo, 1888-edition (together with a treatise by Abû Bakr al-Râzî), was issued at Beirut, Dâr al-Sâdar, 1975.

– TALABOVA, E., *Traktat Ibn Siny po Gigiene*. Tashkent, TTK Uzbekistan, 1978, <sup>2</sup>1982, provides a Russian translation.

5. *Siyâsat al-badan wa faḍ â'il al-sharab (The Conduct of the Body, and the Qualities of Wine)* (AN. 133; M. 83)

– *Shams al-dîn*, 281-284.

6. *R. fî 'l-tîb (Tr. on Perfume)* (AN. 135; M. 87)

– MICHOT, J., L'épître d'Avicenne sur le Parfum, in: *Bull. Philos. Méd.*, 20 (78), 53-57, presents the edition (based on the only known manuscript) as well as a French translation.

Valuable.

7. *Al-Qûlanj (Colic)* (AN. 142; M. 101)

– HAMMÂMÎ M., has edited the second part of this treatise in: M. HAMMÂMÎ, *Kitâb al-qûlanj li A.B. al-Râzî, ma'a dirâsa muqâbala li-risâlat Ibn Sînâ fî 'l-qûlanj* (Orig. Fr. title: AL-RÂZÎ, *Kitâb al-qulanğ (Le Livre de la Colique)*). Aleppo, Inst. Hist. Ar. Sc.; Alesco, Inst. Ar. Mss., 1983, 144-175.

Meritorious insofar as it offers the first (partial) edition of this important treatise.

– THÂMARIÎ, D. has edited this treatise in: *Majallat ma'had al-makh-tûât al-'arabiyya* (New Ser.-Kuwait), 30 (86), 9-17 and 441-501.

In the first part (9-17) A. offers a brief general introduction to I.S.'s life and thought, and gives a basic description of the three manuscripts he has consulted for his edition. Unfortunately, no single variant reading is offered in the actual edition (441-493). Moreover, A. is unaware of Hammâmî's partial edition.

8. *Al-Nabẓ (The Pulse)* (AN. 149; M. 117)

– SCRIMIERY, G., *Degli Studi su Ibn Sînâ. I. Teoresi Fisica*. Bari, Levante, 1973, 212-232, offers the Italian translation of this Persian treatise by I.S.

The very first translation into a modern European language of this treatise. A. has taken into account the parallel passages in the *Canon*. Very valuable, although one may regret the absence of a systematic basic commentary.

9. *R. al-alwâhîyya (Tr. in the Shape of Tables)* (?)

*Note*: This treatise is neither mentioned in Anawati, nor in Mahdavî.

– IBN SÎNÂ, *Al-risâla al-alwâhiyya*. Ed. M. SWÎSÎ. Tunis, Tunis Univ., 1975, 245 pp.

A. has edited the book on the basis of a unique manuscript, dated 650 H (which, by chance, he bought in Paris in 1954). A. also provides a systematic list of all drugs mentioned in the treatise and gives their French and/or English counterpart, and, whenever possible, their description in I.S.'s *Canon*, in Ibn al-Hashâ' or in Greek Antiquity.

Valuable, but is this text really I.S.'s?

j. Chemistry - Magics - Oniromancy

1. *Al-Iksîr (Elixir)* (AN. 154; M. 33)

– ANAWATI, G.C., *Avicenne et l'alchimie*, in: *Oriente e Occidente nel Medioevo: Filosofia e Scienze (Atti dei Convegna, 13)*. Roma, ANDL, 1971, 286-341 includes the reprint of Atesh's 1952-edition (*Turkiyat Mecmuasi, 27-54*), however without the variant reading (302-312); a rather literal French translation (313-326); the Renaissance Latin text acc. to the editions of Zetzner and Manget (327-339), and a brief discussion of its authenticity (339-341).

A.'s French translation is very valuable, although it probably needs further refinements. A's arguments in favour of its attribution to I.S. are rather convincing.

2. *R. al-manâmiyya (Tr. concerning Dreams)* (AN. 156; 101; M. 47)

– *Shams al-dîn*, 310-350 (offers the text of ch. 1-13; repr. from M. KHAN's edition in: *Avicenna Commemoration Volume*. Calcutta, 1956, 261-307).

– PINES, S., The Arabic Recension of *Parva Naturalia* and the Philosophical Doctrine Concerning Veridical Dreams according to *al-Risâla al-manâmiyya* and other Sources, in: *Israel Or. Stud.*, 4 (74), 104-153; also in *Coll. Works*, II, see *supra*, g4), 96-145 includes the translation of the chapters 6-9, 15, 25 and 39. Moreover, A. offers a paraphrasing summary of ch. 1-5.

A.'s translation is clearly superior to that of M. MUID KHAN (ch. 1-12 in: *Indo-Iranica*, 9<sub>3</sub> (56), 15-30). For A., this text is directly based on a Greek source, since it presents several ideas by no means characteristic of the Arabic *falâsifa* (but A. insists that this very fact does not exclude I.S.'s authorship – which he even judges 'probable'), and, moreover, includes a quotation from *De sensu et Sensato*, which is definitely Greek in spirit, as is convincingly shown by A. Presenting still other materials, A. concludes that there existed an Arabic version of Aristotle's *De Divinatione per Somnum*, different from the Greek version, which had its origin most probably in a Hellenistic or perhaps Stoic milieu.

3. *R. ilâ al-Barqî (Letter to al-Barqî)* (AN. 158; M. 86)

– IHSANOĞLU, E., Ibn Sînâ, in: *Ulusl. I.S. Semp.*, 105-116, 112-114 offers the edition of the Arabic text.

Based on three Istanbul mss., A.'s edition is rather valuable.

k. Mathematics - Music - Astronomy

1. *Al-âlât al-raşdiyya (Astronomical Instruments)* (AN. 164; M. 1)

– WIEDEMANN, E., *Ges. Werke* (see *supra*, c.5), II, 1117-1203, offers the reprint of E. WIEDEMANN and T. JUYNBOLL, *Avicennas Schrift über ein von ihm ersonnenes Beobachtungsinstrument*, in: *Acta Or.*, 5 (27), 81-167 (The Arabic text; together with a German translation is given at pp. 1122-1154, resp. 86-118).



*Note* : E. WIEDEMANN, Über ein von Ibn Sînâ (Avicenna) hergestelltes Beobachtungsinstrument, in : *Z.f. Instrumentkunde*, 45 (25), 269-275 has been included as part III in the previous study. It has nevertheless been reprinted separately in the *Ges. Werke*, II, 1110-1116.

2. *'Ilm şinâ'at al-mûsiqî (Science of the Art of Music)* (AN. 165; M. 232)

– *Rasâ'il*, 285-296 offers the reprint of *Majmû'*, Tr. 7.

3. *Bayân 'illat qiyâm al-arḍ fî wasaṭ al-samâ (Demonstration of the Cause of the Earth's Position in the Midst of the Heaven)* (AN. 168; M. 91)

– *Rasâ'il*, 441-454 reproduces *Jâmî'*, 152-164.

4. *R. fî 'l-hay'a (Tr. On Astronomy)*

*Note* : Neither Anawati, nor Mahdavî mention this treatise, but it is given by F. SAYYID, *Ibn Sînâ. Mu'allafâtuhu wa-shurûhuhâ al-mahfûzat bi-dâr al-Kutub al-misriyya (Ibn Sînâ. His Works, and Comments on them, Extant in the National Library of Cairo)*. Cairo, 1950, p. 29.

– SCRIMIERY, G., *Epistola sulla Astronomia*, in : G. SCRIMIERY, *Testimonanze medievali e pensiero moderno*. Bari, Levante, 1970, 171-192.

Partial Italian translation (starting with the introduction through the very beginnings of § 14), based on a unique manuscript (A. stopped his translation, because of inextricable problems of decipherment, see p. 189, n. 62). At first sight, the translation appears rather valuable (but a definitive judgment cannot be given without a comparison with the original manuscript).

Interesting, but a separate examination seems required in order to demonstrate the authenticity of I.S.'s authorship (which is possible, but not evident).

## I. Metaphysics - Theodicy

### 1. *R. al-tamjîd (Tr. of Glorification)* (AN. 177, 194; M. 70)

– S. NAFICY's *Bû Sînâ...* (see *General Studies*, A17) offers the Arabic text (260-262) as well as the text of an old Persian translation, ascribed to U. Khayyâm (263-265).

### 2. *Sirr al-qadar (Secret of Destiny)* (AN. 181; M. 4 H)

– 'Aṣî, 300-305 offers the edition of the Arabic text.

Based on one single manuscript, and 2 printed editions, i.e. Tehran, 1895 and Hyderabad, 1934.

Good, but A. unfortunately ignores Hourani's edition (see *infra*).

– *Rasâ'il*, 237-240 offers the reprint of *Majmu'*, tr. 3.

– HOURANI, G., *Ibn Sînâ's Essay on the Secret of Destiny*, in: G. HOURANI, *Reason and Tradition in Islamic Ethics*. Cambridge, Cambridge Univ. Press, 1985, 227-248.

Reprint of *BSOAS*, 29 (66), 25-48, including a rather critical edition (27-31) (unfortunately these pages have not been reprinted for economical reasons), a critical translation (31-33, repr. 229-231), and a significant comment (33-48, repr. 231-248).

– *Arberry*, 38-41.

### 3. *R. al-'arshiyya (Tr. of the Throne)* (AN. 183; 197; M. 61)

– HILÂL, I., *Al-risâlat al-'arshiyya fî ḥaqâ'iq al-tawḥîd wa-ithbât al-nubuwwa lil-shaykh al-ra'îs Ibn Sînâ (Dir. fî 'l-Islâm, 2)*. Cairo, Al-Azhar, 1982 (?), 42 pp.; also in: *Majallat ma'had al-makḥṭûât al-'arabiyya*, 26 (80), 65-106.

This edition shows a slight improvement on the Hyderabad, 1934-edition, since one more manuscript has been taken into account. Good, but in need of further refinement.

- *Rasâ'il*, 241-258 reprints *Majmû'*, Tr. 4.
- *Arberry*, 25-37 offers a partial translation.
- HOURANI, G., *Ibn Sînâ on Necessary and Possible Existence*, in : *Philos. Forum*, 4<sub>1</sub> (72), 74-86, 76-78 offers a critical translation of two passages.
- A. clearly improves Arberry's translation.

- MEYER, E., *Philosophischer Gottesglaube : Ibn Sînâ's Thronschrift*, in : *ZDMG*, 130 (80), 226-278.
- A. presents a very fine analysis of the treatise, partly inspired by later Persian commentators on I.S., esp. Ṭûsî and Qoṭb al-dîn Râzî, A. makes important references to other writings of I.S. Finally, A., in view of the actual state of affairs, offers a very valuable translation of many passages, while paraphrasing in a significant way the remaining ones.
- A very important and indeed very fine study.

4. *R. fi 'l-af'âl wa 'l-infi'âlât* (Tr. *On Actions and Passions*) (AN. 190; M. 97)

- *Rasâ'il*, 221-230 reprints *Majmû'*, Tr. 1.
- MICHOT, J., *Cultes...* (see *Psychology*, 17), App. I, 228-230 offers a translation of a large fragment.
- ID., *Destinée*, includes translations of several passages, see *ibid.*, *Index*, 231 : *Actions et passions*.
- All these translations are valuable.

5. *Al-Qaḍâ wa 'l-qadar* (*Divine Decree and Predestination*) (AN. 193; M. 100)

- MEHREN's Leyde, 1899-edition has been reprinted (together with a French paraphrastic summary), in : *Traités*.
- *Rasâ'il*, 347-372 reproduces *Jâmi'*, 43-67.

– DÂNESH PAZHUH, M., Qazâ va-qadar Ibn Sînâ, in : *Farhang-i Iran Zamîn*, 24 (79), 4. contrib. (separately numbered 1-85).

This is the first edition of this old Persian translation (based on two known manuscripts).

Very interesting, and valuable.

6. *R. al-mabda wa 'l-ma'âd (Tr. On the Origin and the Return)* (AN. 196; M. 106 B)

– MICHOT, J., L'épître sur la genèse et le retour, attribuée à Avicenne, in : *Bull. Philos. Méd.*, 26 (84), 104-118.

Based on doctrinal grounds, A. convincingly shows that this treatise is not by I.S. himself.

7. *R. al-aḍḥawiyya fî 'l-ma'âd (Tr. On Return)* (AN. 200; M. 30)

– ÂŞÎ, H., *Al-aḍḥawiyya fî 'l-ma'âd li-Ibn Sînâ*. Beirut, Al-mu'assasat al-jâmi'iyya lil-dirâsât wa 'l-nashr wa 'l-tawzî', 1984, 205 pp.

This edition takes besides the Cairo, 1949-edition three more manuscripts into consideration, although A. clearly ignores the Renaissance Latin translation by Alpage.

Useful, but one has to regret that this edition does not provide any real progress with respect to LUCCHETTA's Padova, 1969-edition (and translation). For the introduction, see *Religious Themes and Mysticism*, B II, 3).

– KHADÎVAJAM, H. has edited the anonymous ancient Persian translation of this treatise at Tehran, 1972, 2nd ed. Tehran, Intishârât Ittilâ'ât, 1985, XXX-136 pp.

A rather valuable edition.

– FIRDAWSI, B. also published an edition of this ancient Persian translation at Dushanbe, Irfon, 1980, 124 pp. (N.C.).

– *Alpage*, 40r-102r.

– OLIMOVA, K. offers a Russian translation in : DINORSHOEV, *Selected Works*, 329-362.

8. *Al-Malâ'ika (The Angels)* (AN. 203; M. 113)

– ‘*Âṣî*, 289-294 offers what seems to be the first edition of this text (based on 4 mss.).

Rather valuable.

9. *R. ba'dû al-afâdil (Tr. of Some Learned Men)* (M. 78)

*Note*: This treatise is not mentioned by Anawati.

– *Rasâ'il*, 455-480 offers the Arabic text, together with a Persian introduction (most probably a reprint of an earlier edition, but it was not identified).

*Notes*:

1. PUIG, J., El tratado de Zenon el Mayor. Un comentario atribuido a al-Farabi, in: *La Ciudad de Dios*, 201 (88), 287-321, shows that this treatise is probably by a disciple of I.S., and contains some *verbatim* citations of I.S.'s treatise *al-Urûsh* (AN. 184; M. 89). It has to be noted that A. offers a Spanish translation of the *Treatise of Zenon* (pp. 214-221).

2. SA'DÂNÎ (AL-) 'A. has provided an Arabic translation of the spurious *Ḥaḳîqa va-kayfiyyat silsila-i mawjûdât va tasulsul adâb va-musabbabât* (M. 159), in: *Pensée arabe...*, 225-246.

m. Qur'anic exegesis

The totality of the extant fragments of Qur'anic exegesis by I.S. (AN. 207-212; M. 50) has been edited by 'Âṣî, 89-125, together with a comment on the Verse of the Light (Q. 35 : 24) (not mentioned in Anawati, nor Mahdavi): *ibid.*, 84-88.

Valuable, but, above all, very meritorious! – although one may wonder whether the *Comment on the Verse of the Light* is really Avicennian – a basic comparison with his comment on the same verse in the *Ishârât*, and in his *Proof of Prophecies* imposes itself in this respect.

– *Rasâ'il*, 311-334 reprints the comments on *al-ikhlâş* (AN. 208; M. 50A), *al-falaq* (AN. 210; M. 50 B<sub>1</sub>) and *al-nâs* (AN. 211; M. 50 B<sub>2</sub>) from *Jâmi'*, 15-32.

– MICHOT, J., Le commentaire avicennien du verset: "Puis Il se tourna vers le ciel...", in: *MIDEO*, 14 (80), 317-328 (AN. 207; M. 50D).

Based on 4 mss., A. offers the edition of the Arabic text (slightly different from 'Âşî, who used 3 mss. (2 of them in common with Michot). Further, A. presents a very valuable French translation. Finally, A. points to the influence on F.D. Râzî of I.S.'s exegetical comment on this verse (very interesting!).

## n. Mystics

*Note :*

In order to avoid unnecessary repetition, here is a general evaluation of all editions by 'Âşî. One cannot but stress the very great merits of A. He succeeds in making several texts accessible for the first time (he hereby has sometimes to work on a unicum!). Moreover, he tries to take into account, whenever possible, the existing printed edition(s), always collating them with manuscripts that had not been consulted up till then. However, A. never seems to carry out an exhaustive study of all the known manuscripts with respect to each particular text.

1. *Ijâbat al-du'â wa kayfiyyat al-ziyâra (Fulfilment of Prayer, and how to visit Tombs)* (AN. 213; M. 4D)

– 'Âşî, 281-288.

– *Rasâ'il*, 335-338 reprints *Jâmi'*, 32-36.

– *Shams al-dîn*, 388-391 (Reprints the Tehran, 1313 H.-ed.)

– MEHREN's 1894-edition, together with a French paraphrastic translation has been reprinted in *Traités*.

2. *Al-dhikr (Invocation of God)* (AN. 216, 221; M. 54)

– ‘*Āṣī*, 310-313.

– *Rasâ’il*, 281-284 reprints *Majmû’*, Tr. 6.

3. *Fî mâhiyyat al-ḥuzn (On the Nature of Sorrow)* (AN. 217; M. 59)

– ‘*Āṣī*, 314-317.

– *Al-fikr al-islâmî*, 1974<sub>10</sub>, 74-76 (N.C.).

– *Shams al-dîn*, 386-387.

4. *Ḥayy ibn Yaqzân* (AN. 219; M. 65)

– ‘*Āṣī*, 321-335.

– *Rasâ’il*, 131-142 reprints *Jâmî’*, 91-113.

– MEHREN’s 1889-edition has been reprinted in *Traités*.

– CORBIN’s 1954-edition of the old Persian translation (with comments) of Ḥayy, ascribed to al-Jûzjânî, has been reprinted at Tehran, Presses Universitaires, 1987 (together with a Persian translation) of ch. 3 of his *Avicenne et le récit visionnaire*.

– LEVIN, I. has published an (old?) Hebrew translation in: *Ibn Ezra-Igeret Hay ben Mekitz*. Tel Aviv, Tel Aviv Univ., 1983, 89-99.

– *Pirûzinoma*, 45-62.

5. *Al-du’â (Prayer of Supplication)* (AN. 222; M. 74)

– ‘*Āṣī*, 295-299.

– *Shams al-dîn*, 392-395.

6. *Daf' al-hamm 'inda wuqû'i al-mawt (Delivrance of Death-fear)* (AN. 224; M. 168)

*Note* : This text is not by I.S., but part of Miskawayh's *Tahhîb al-akhlâq* (see MICHOT, *Destinée*, XXX).

– 'Âşî, 270-280.

– *Rasâ'il*, 339-346 reprints *Jâmî'*, 36-43.

– *Shams al-dîn*, 378-385 (probably a reprint of Cheiko's edition).

– MEHREN's 1894-edition, together with a French paraphrasis, has been reprinted in *Traités*.

– CHEIKHO, L., *Traités inédits d'anciens philosophes arabes musulmans et chrétiens*. Beirut, 1911. Repr. Frankfurt am Main, Minerva, 1974, 65-70 also offers this text.

– BOLAY, M., *Ibn-i-Sina*. Ankara, B. Matbaasi, 1988, 101-120 offers a Turkish translation.

7. *Mâhiyyat al-şalât (The Quiddity of Prayer)* (AN. 227; M. 85)

– 'Âşî, 203-222.

– *Rasâ'il*, 297-310 reprints *Jâmî'*, 2-14.

– MEHREN's 1894-edition, together with a French paraphrastic summary, has been reprinted in *Traités*.

– *Arberry*, 50-63.

– BOLAY, M., *Ibn-i-Sina*. Ankara, B. Matbaasi, 1988, 90-100 offers a Turkish translation.



8. *Al-Tayr (The Bird)* (AN. 229; M. 88)

– ‘*Āṣī*, 336-343.

– *Rasâ’il*, 399-406 reprints *Jâmi’*, 114-119.

– MEHREN’s 1891-edition, together with a French translation (somewhat paraphrastic) has been reprinted in *Traités*.

– CHEIKHO, L., *Traités inédits...*, 65-70 (reprint, cfr. *supra*, 6).

– CORBIN, H., *Avicenne et le récit visionnaire*, 215-222 (see *Religious Themes and Mysticism*, C7), includes a French translation.

– *Pirûzinoma*, 35-44.

9. *R. fî ‘l-‘ishq (Tr. On Love)* (AN. 230; M. 90)

– ‘*Āṣī*, 241-269.

– *Rasâ’il*, 373-397 reprints *Jâmi’*, 68-91.

– MEHREN’s 1894-edition has been reprinted in *Traités* (together with a French paraphrastic summary).

This same edition has also been reprinted, together with a Russian translation in SEREBRYAKOV, S., *Traktat Ibn Siny o lyubvi*. Tiflis, 1976.

– A. ATESH’s Istanbul, 1953-edition has been reprinted, together with a Persian translation by A. SAMANDAR GHURYANI (and a Persian translation of the introduction by I. FARHAD), in: *Ibn-Sina and Sufism*. Kabul, Afghanistan Ac. Sciences, 1980 (separately numbered, except for the Introd.: 46-58, and for the brief introduction by Ghuryani to his Persian translation: 59-62).

The Persian translation is good, but very dependent upon Atesh’ edition.

– RUNDGREN, FR., Avicenna on Love. Studies in the “*Risâla fî mâhîyat al-‘ishq*”, I, in : *Or. Suec.*, 27-28 (78-79), 42-61.

After a general introduction, in which A. states that I.S.’s treatise is a typical scholastic product, A. makes some pertinent observations on the different classical editions, resp. Atesh’s (A. hereby leans on M. SORETH, Text- und Quellenkritische Bemerkungen zu Ibn Sînâ’s *Risâla fî l-‘iṣq*, in : *Oriens*, 17 (64), 118-131). Hereafter, A. shows I.S.’s sources, chapter by chapter in a summary fashion (based on E. FACKENHEIM’s indications in his famous 1945-translation (*Medieval Stud.*, 7 (45), 211-228)). Then A. offers an English translation of ch. 1 (p. 52-55). Finally, A. discusses in detail some aspects of the translation – paying special attention to basic concepts (esp. in the fields of emanation, perfection and love).

Very innovative, and interesting, although some of A.’s opinions are quite questionable.

The second part of this study (announced by A.) has not been located and perhaps never published.

#### 10. *Al-‘ilm al-ladunî (Mystic Knowledge)* (AN. 231; M. 187)

*Note* : The attribution of this work to I.S. is very doubtful. Mahdavî ascribes it to al-Ghazzâlî, but that attribution also has been attacked by several authors who instead believe it to be written by an unknown later author.

– *‘Āṣî*, 182-202.

#### 11. *Al-‘ahd (The Pact)* (AN. 232, 82; M. 92)

– *Tis’*, 111-114.

– *Shams al-dîn*, 419-420 (reprints the Tehran, 1313 H.-ed., which is substantially different from that of *tis’*).

#### 12. *Al-firdaws fî mâhiyya al-insân (Paradise with Respect to the Human Nature)* (AN. 233, 95; M. 192)

*Note* : This work is identical with the *Fuṣûṣ al-ḥikma (Gemstones of Wisdom)*, traditionally attributed to al-Fârâbî, but PINES, S., Ibn Sînâ et l’auteur de la *Risâlat al-Fuṣûṣ fî’l Ḥikma*, in : *Revue des Etudes*

*Islamiques*, 19 (51), 121-124 has presented some arguments in favour of its attribution to I.S. However, a more extensive and systematic research on this important, but very delicate topic is required. It has to be noted that AN. 95 does not give the complete text, but that AN. 95 has circulated in an independent manner.

– ‘*Āṣī*, 126-147.

– *Tis’*, 55-62 (only the text of AN. 95).

13. *Salâmân wa-Absâl (Salmân and Absâl)* (AN. 235; M. 204)

– *Tis’*, 125-139.

– *Pirûzinoma*, 63-72.

14. *Kalimât aṣ-ṣufiyya (Sufistic Sayings)* (AN. 236; M. 209)

*Note* : This text is by Sohravardî.

– ‘*Āṣī*, 148-181.

– ‘*ĀṢĪ*, H., The Treatise “*Kalimât aṣ-ṣufiyya*” between Ibn Sînâ and Suhrawardî, in : *Majallat Ma’had al-makhtûât al-‘arabiyya* (New Ser. Kuwait), 27 (83), 139-186.

Having at his disposal one more manuscript (i.e. Raghîb, 1480), A. provides an improved edition. At the same time, A. recognizes in the introduction (139-145) that this work has to be ascribed to Sohravardî (a fact, already stated by Mahdavi!).

15. *Al-mu’jizât wa ’l-karâmât (Miracles and Prodigies)* (AN. 238, 157; M. 172, 226)

*Note* : This text is by Ibn Sahlân al-Sâwajî.

– ‘*Āṣī*, 223-240.

- *Shams al-dîn*, 401-413.

16. *Al-mawâ'iz (Exhortations)* (AN. 240, 243; M. 102)

- 'Âşî, 306-309.

- *Shams al-dîn*, 396-397.

17. *Al-wird al-a'zam (The Most Important Prayer)* (AN. 244; M. 128)

- 'Âşî, 318-320.

*Note* : 'Âşî, *Mulḥaq*, 345-354 offers a treatise by an unknown author, entitled : *Sharḥ al-kalimât aṣ-ṣa'ba (Analysis of the Difficult Words)*. The analysis concerns an answer by I.S. to Abû 'l-Khayr.

#### o. Ethics - Politics - Prophecy

1. *Ithbât al-nubuwwa (Proof of Prophecies)* (AN. 245; M. 3)

- *Tis'*, 95-104.

- *Shams al-dîn*, 298-309 (reprints the Cairo, 1908-ed).

- MARMURA, M. has published an English translation, in : *Medieval Political Philosophy*, 112-121.

2. *Al-Akhlâq (Ethics)* (AN. 246; M. 13)

- *Tis'*, 115-124.

- *Shams al-dîn*, 369-377 (mainly based on the Tehran, 1313 H.-ed.).

3. *Tadbîr al-musâfirîn (Directory for Travellers)* (AN. 251; M. 45)

– *Shams al-dîn*, 281-294.

The first edition of this text (based on a unicum). A. stresses that the contents of this treatise is of a medical nature.

4. *Tadbîr manzil al-'askar (Preparation of the Camp Site of the Army)*  
(AN. 252; M. 46)

– *Shams al-dîn*, 280 (first edition, based on 2 mss.).

5. *Al-siyâsa (Politics)* (AN. 253; M. 82)

– AḤMAD, F., *Majmû' fi 'l-siyâsa*. Alexandria, Mu'assasa shabâb al-jâmi', 1982, 61-111 offers the Arabic text (together with an introduction).

The introduction is of a very general nature. Regarding the edition, one gets the impression that it is a slightly improved version of P. MA'LOUF's, in: *Al-Machreq*, 9 (1906), 2-17.

– *Shams al-dîn*, 232-260.

A valuable edition, although open to further refinement.

6. *Naşâ'ih al-ḥukamâ'i lil-Iskandar (Advices of the Sages to Alexander)*  
(AN. 255; M. 119)

– *Shams al-dîn*, 295-297.

The contents of this treatise is of an outspoken medical nature, as is indicated by A.

**p. Personal Letters**

1. *R. ilâ J. al-Kiyâ (Letter to al-Kiyâ)* (AN. 259, 108, 78; M. 12)

*Note* : For the relationship between the different numbers of Anawati, see MICHOT, *Destinée*, XXI.

– A. BADAWI's edition in his *Aristû 'inda l-'Arab*. Cairo, 1947, 119-122 has been reprinted at Kuwait, Wakâlat al-matbû'ât, 1978.

– GUTAS, *Avicenna*, 60-64, offers an English translation.

A valuable translation, especially in view of the lack of a really critical edition.

2. *R. ilâ ibn Kâkawayh (Letter to ibn Kâkawayh)* (AN. 265; M. 79 D)

– *Shams al-dîn*, 399-400.

#### q. Varia

1. *Mi'raj Nâmeh (The Book of Ascent)* (AN. 275; M. 227)

*Note* : Mahdavi shows that this work is surely not by I.S.

– HERAVÎ, N., *Mi'raj Nama-Abû Alî Sînâ, with a rev. text by Sh. I. Aḥarqûhî*. Mashhad, Isl. Res. Found. A. Quds Razavî, 1984, 97-119.

The edition is good (based on 4 mss.). The long introduction (11-76) is of a rather general nature.

2. *Zafar Nâmeh (Book of Victory)* (AN. 275; M. 183)

*Note* : Both Anawati and Mahdavi indicate that it is not by I.S.

– *Pirûzinoma*, 73-84.

3. *Majmû' Ibn Sînâ al-kubrâ (Compendium of Ibn Sînâ "The Older")*  
(M. 127)

*Note* : This work is not mentioned by Anawati. Mahdavî is inclined to ascribe it to Sohrovardî.

– N.N., *Kitâb al-kanz al-madfûn...* Cairo, al-Azhar, (ca. 1972), offers this text (uncritical edition).

## Chapter II

# Bibliography

See also :

I, A II, Av. Lat. (d'Alverny);

I A-III, 3 St. 1;

I. A-III, 11 (Dânesh-Pazhuh);

I, B-III, St. 1

III, 25

IV-B, 4, 6

V-A, 13

VII, 2

XI, B II, 11

XII, 6

XIII, 8

XIV, A 1

XV, A 1, 16

XVI, A 48, 56; XVI, R 4; XVI, S 16, 25





(1) S.N., *Gosudarstvennaya biblioteka USSR im A. Navoi. Avitsenna v zarubezhnykh izdaniyakh (ukazatel literaturui). (Ibn Sîna in Foreign Languages. A Bibliography of Works Present in the Gosudarstvennaya Library in A. Navoi).* Tashkent, Fan, 1980, 31 pp.

(2) S.N., *Ibn Sina bibliografyasi (A Bibliography of (or : on) Ibn Sîna).* Ankara, Bibliogr. Enstitüsü, 1983.

(3) AKMAL AYYUBI, N., Some Unknown Scientific Works of Avicenna Preserved in Turkey, in *Indo-Iranica*, 35<sub>3-4</sub> (82), 64-68.

A. presents a few minor treatises of I.S. (AN. 172, 162, 51, 154 and 133), which, according to his view, are not well known to scholars, and for which the manuscript evidence seems to be limited to Istanbul libraries. But A. neither deals with these manuscripts, nor does he examine the authenticity of the attribution of these works to I.S. He only offers a very rough presentation of their contents.

Of almost no value.

(4) ALLAN, N., Un manuscritto arabo: al-Qânûn di Ibn Sîna (Wellcome Orient. Ms. 155), in : *KOS*, 1<sub>9</sub> (84), 21-22.

Acc. to A., the WMS. Or. 155 (17th C.) is one of the most beautiful manuscripts of the *Canon*. In this respect, A. briefly describes one illustration (reproduced on p. 23). A. also offers general information on I.S.

Of very limited value.

(5) ANAWATI, G.C., Bibliographie de la philosophie médiévale en terre d'Islam pour les années 1959-1969, in : *Bull. Philos. Méd.*, 10-12 (68-70), 316-369 : Avicenne, 343-349.

A. offers a very significant list of the text-editions of Avicennian works, as well as of studies on Ibn Sîna published during the period. Notwithstanding a few (almost inevitable!) omissions, or faults, A. has delivered a remarkable piece of work, which has certainly contributed to the progress of the Avicennian studies.

(6) ID., Bilan des études sur la philosophie médiévale en terre d'Islam, 1982-1987, in : *Bull. Philos. Méd.*, 29 (87), 24-47; Avicenne, 30-31.

A useful, but incomplete (both in view of Butterworth (see *infra*, 13) and the present bibliography) list, somehow complementing 5 and 7.

(7) ID., Chronique avicennienne, 1951-1960, in : G.C. ANAWATI, *Etudes de philosophie musulmane (Et. mus.*, 15). Paris, Vrin, 1974, 306-324.

Reprint of *Revue Thomiste*, 60 (60), 614-632.

(8) ID., La tradition manuscrite orientale de l'œuvre d'Avicenne, in : *Etudes de philosophie musulmane* (see *supra*, 7), 229-262.

Reprint of *Revue Thomiste*, 51 (51), 407-440.

(9) BARI, A., see : HAMEED, A.

(10) BEČKA, I., Avicenna in Czech and Slovak Science and Literature, in : *Axboroti AK. Fanhoi SSR Tojikistan*, 98<sub>4</sub> (79), 28-36 (Ru).

(11) ID., Central Asia to Her Son 'Alī ibn Sīnā, in : *Archiv Orientalni*, 50 (82), 242-247.

A. surveys the 1980 Millenary celebrations of I.S. in Tajikstan, as well as in Uzbekistan. But above all he points to a great number of publications (both books and papers), published at this occasion. However, one wonders whether all the mentioned publications deserve scholarly attention? Moreover, A.'s references are not always very precise (for many papers, no exact number of pages is given).

Good, useful as a primary survey of the incredibly high number of publications in the mentioned area and period.

(12) BRENTJES, S., Über Avicenna-Handschriften im Bestand der Bibliothek der Karl Marx-Universität, in : *Avicenna/Ibn Sīnā*, II, 69-78.

A. briefly presents 25 manuscripts, extant in K. Marx University at Leipzig, and containing works by I.S., or commentaries on them. The majority of these manuscripts are taken from Latin manuscripts of the 14th-15th centuries, which deal with medical topics (esp. the *Canon*, extracts of it, or commentaries on it by Italian physicians). In view of the large use made of the *Canon* in the medical teaching at the Leipzig University in the 16th C. (A. indicates that there already existed lectures on the *Canon* in the first half of the 15th C.), this prevalence of medical manuscripts is not a surprise. However, the special preoccupation with b. III of the *Canon* in that period, can neither be deduced from, nor explained by the actual collection. Therefore, A. supposes that a manuscript, containing the text of book III of the *Canon* was lost (a loss, which may have occurred a long time ago).

Valuable, at least as far as it concerns the medical manuscripts.

(13) BUTTERWORTH, CH., The Study of Arabic Philosophy Today, in : TH.-A. DRUART (Ed.), *Arabic Philosophy and the West. Continuity and Interaction*. Washington, Georgetown Univ., Center for Cont. Arab Stud., 1988, 55-116 (Appendix, 1983-1987; 117-140) : Ibn

Sînâ : 67-73 (notes, 111-113); App. : 122-128; also (slightly altered, and without the appendix) in : *Middle East Studies Ass. Bull.*, 17 (83), 9-24 and 161-177 (I.S. : 14-17, notes 23-24), and in : *Al-mustaqbal al-'arabî*, 58<sub>12</sub> (83), 78-112.

A. offers a very fundamental survey of recent studies, text-editions and translations regarding I.S. The selection of items that A. presents in his paper, is very relevant, at least as far as it concerns studies on I.S. However, with respect to recent editions of Avicennian texts, several important publications seem to have escaped A.'s attention, e.g. the *Physics* of the *Shifâ*. It has to be mentioned that A. classifies the studies according to their subject, and sometimes offers brief, but significant critical evaluations.

A very valuable paper, which formed an important basis for the present annotated Avicenna-bibliography.

(14) DUMAN, H., Ibn Sînâ and his Works, in : *Musiki Mecmuasi*, 33 (80), 9-19 (Tu).

A. gives a list of printed Turkish books (covering the period 1932-1976) and off-prints of papers (covering the same period), actually present in the Beyazîd-Library at Istanbul. He also mentions a number of manuscripts, dealing with I.S.'s own works, or commentaries on them. Finally, he seems to list several studies on I.S., written in various languages, and present in different libraries in Istanbul.

(15) EBIED, R., *Bibliography of Mediaeval Arabic and Jewish Medicine and Allied Sciences* (Wellcome Publ., Occ. Ser., 2). London, Wellcome Inst., 1971 (I.S. : 95-101).

A useful list of mainly secondary studies on Ibn Sînâ's medical ideas (and related topics), published between 1845 and 1968.

(16) GONZALES CASTRILLO, R., *Rhazes y Avicena en la Biblioteca de la Facultad de Medicina de la Universidad Complutense. Descripción de su obra impresa y comentarios*. Madrid, Un. Compl., 1984, 337 pp.

The second part of the work (pp. 135-334) deals exclusively with I.S. No less than 95 old printed editions (among them some incunabilia) of medical, or alchemical works by I.S., or Comments on them, are described in great detail by A. It has to be noted that all these items belong to the Latin tradition, except for one exemplar of the *Canon*. It is also worth mentioning that one item concerns the Latin translation of I.S.'s *Autobiography*.

A well documented study.

(17) GUTAS, D., Notes and Texts from Cairo Manuscripts, II : Texts from Avicenna's Library in a Copy by 'Abd-al-Razzâq aṣ-Şiġnâhî, in : *Manuscripts of the Middle East*, 2 (87), 8-17.

A. describes in detail the collective manuscript Hikma 6M of the Muṣṭafa Fâdil-

collection of the Dâr al-Kutub in Cairo. This manuscript was copied by a third generation student of I.S., 'Abd-al-Razzâq aṣ-Ṣighnâkhî from texts originally present in I.S.'s library. So, the manuscript is very old, and it probably has to be dated in the first half of the 12th C. With respect to its scribe, 'Abd-al-Razzâq, A. carefully examines Bayhaqî's information about him. A. also provides minute details about the manuscript itself, more specifically about its codological and palaeographical characteristics, its orthographic peculiarities, its owners and its copies (A. limits himself to a description of the (rather recent) copies made in the Khedival Library itself). As to the proper contents of the manuscript, A. carefully identifies its different parts, and gives its publication record (which he most critically evaluates).

A very fine study, of great importance for further editions of Avicennian texts, as well as for a critical evaluation of already existing editions.

(18) HAMEED, A. and BARI, A., Impact of Ibn Sînâ's Medical Works in India, in : *Stud. Hist. Med.*, 8<sub>1-2</sub> (84), 1-12.

The authors present several lists, dealing with the medical works of I.S. (esp. *Canon* and *Tract on Cardiac Drugs*), their translations (into Urdu, Persian or English), and commentaries (or super-commentaries) on them (and their translations), provided that they either have been edited in India (or, at least, by a scholar who had some links with India), or are actually extant in India in manuscript-form, at least as far as public collections are concerned.

A well-documented pioneering study, but one cannot but regret that the majority of the references are rather vague (the precise location, i.e. number of a book or a manuscript in a well-defined library, is never given).

(19) KHAIRULLA(Y)EV, M., Some Treatises and Epistles of Ibn Sînâ, in : *Ind. J. Hist. Sc.*, 21 (86), 244-250.

A. describes the contents of a few manuscripts, extant in the Institute of Oriental Studies of the Uzbek Academy. Among them, A. mentions a *Treatise on the Classification of the Existing Objects* (not mentioned in the current bibliographies-acc. to A., this manuscript is the only one known which contains this treatise).

Interesting, but regrettable that A. does not give the precise location of the manuscripts.

(20) KHAN, M.S., Soviet Publications on Ibn Sînâ. A Select Bibliography (1953-1973), in : *The Muslim World Book Review*, 3<sub>3</sub> (83), 57-68.

A. offers an almost exhaustive overview of twenty years of Russian scholarship on I.S.

A valuable piece of information for those, who want to deal with the Russian publications on I.S.

(21) KHÎMÎ (AL-), S., Manuscripts of Avicennian Works in the National Library al-Zâhiriyya, in: *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), *Appendix*, 91-112 (Ar).

A. offers a basic description of 56 manuscripts (or parts of manuscripts), extant in the National Library at Damas, which contain (medical or philosophical) texts by I.S. (or Comments on them). Anawati, in his famous *Mu'allafât Ibn Sînâ*. Cairo, 1950, App. 2, 430-431, had already identified some of them, but without any precise description. A. not only fills this lacuna, but also presents new materials.

This paper seems to constitute a valuable complement to the 'classical' I.S.-bibliographies of Anawati, Mahdavî and Ergin.

(22) KOTTEK, S., METZGER, M. and METZGER, TH., Manuscripts décorés ou illustrés du *Canon* d'Avicenne, in: *27. Congr. Int. Hist. Med.*, II, 739-745.

Authors present in detail 5 decorated manuscripts, which are part of the Hebraic translation of the *Canon*, with special attention to the famous Ms. Bologna 2197 (authors present an interesting interpretation of some of its major illustrations). In an *addendum*, authors mention four more illustrated Hebrew mss. of the *Canon*.

Very valuable.

(23) LEBEDEV, V., Ibn Sînâ's Works, and their Use in the Manuscript-Funds Gosudarstvennoj of the State Library M.E. Saltykov-Shedrina, in: *Ibn Sînâ. k-1000 letiju...*, 243-248 (Ru).

A. presents the contents of a few manuscripts which concern I.S., available in the Gosudarstvennoj-collection.

(24) LUNIN, B., Life and Works of Ibn Sînâ in Soviet Scholarship, in: *Ibn Sîna. k-1000 letiju...*, 212-243 (Ru).

A. gives an overview of Soviet publications on I.S. published between 1950 and 1980, classified according to their topics.

(25) MÂRZA, I., see: PORA, A.

(26) MEMÛNÎ (AL-), M., Two Periods of Avicennian Writings in the Inoculation of Medieval Teaching in the Medieval "Maghreb", in: *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 130-159; also in: *Pensée arabe...*, 451-483 (Ar).

A. points out the existence of a lively interest in I.S.'s medical ideas in the Maghreb (i.e. Andalusia and the African Maghreb) in the 12th-15th centuries. He cites both direct and indirect testimonies and provides precise manuscript evidence for the most important ones. In the 16th-18th C. African Maghreb, he

identifies a second wave of interest in I.S.'s medical teachings, pointing once more to the major testimonies, and available manuscript evidence. In the appendix, A. presents four text-fragments of these "medieval Maghrebin medical writers", i.e. : ibn Muhannâ (2 fragments), Abû 'l-Qassem al-'Azafî and Aḥmad ibn 'Alî al-Tusûlî.

A valuable study, both with respect to the history of I.S.'s medical influence (clarifying a rather unknown part of it) and with respect to the presentation of a good number of manuscripts, containing (direct or indirect) comments on I.S.'s medical texts (esp. *Canon* and *Poem of Medicine*).

(27) METZGER, M., see : KOTTEK, S.

(28) METZGER, TH., see : KOTTEK, S.

(29) NESHÂVÎ, N., Periodical Papers on Ibn Sînâ, in : *Al-Turâth al-'arabî*, 2<sub>7</sub> (82), 227-228 (Ar).

A. offers a very brief list of 9 papers on I.S. in Arabic, published on the occasion of the 1980-Millenary festivities.

Of almost no value.

(30) PERWAZ, R., Ibn Sînâ's Medical Works, in : *Stud. Hist. Med.*, 5<sub>4</sub> (81), 243-277; also in : *Ind. J. Hist. Sc.*, 21 (86), 297-314.

A. gives a rather detailed list of editions, translations, or abridgments of the *Canon*, as well as comments, or super-comments on it. He also presents a lot of information about the other medical works of I.S. (but one discovers a few mistakes, e.g. his placing *al-'Ishq, On Love* among I.S.'s medical works (?), or important omissions, e.g. Alpago's translation of the *Canon*).

Useful in some respects, but to be handled with caution.

(31) PORA, A. and MÂRZA, I., Avicenne dans quelques anciennes bibliothèques de Transylvanie, in : *Al-turâth al-'arabî*, 2<sub>7</sub> (82), 221-222 (Ar); also in : *Proc. 16. Int. Congr. Hist. Sc.*, 389 (Fr S.).

Authors briefly describe four 16th C. printed editions of medical writings by I.S., edited by Venice Presses, and extant in libraries in Transylvania.

Good, but of no great significance.

(32) RICHLER, B., Manuscripts of Avicenna's *Canon* in Hebrew Translation : A revised and up-to-date List, in : *Koroth*, 8<sub>3-4</sub> (82), 145-168 (Engl), 137-143 (Hebr).

A. has spared no effort in trying to establish as complete a list as possible of all of the existing manuscripts of Hebrew translations of the *Canon*, or parts of it, presenting their basic descriptions.

A significant paper with respect to the Hebraic tradition of the *Canon*, although Tamani (*infra*), 88-89, N. 20 indicates an omission.

(33) ROCKHAR, H.-J., Avicenna und seine Bearbeiter in Handschriften der Forschungsbibliothek Gotha, in : *Avicenna / Ibn Sînâ*, II, 79-94.

In the Oriental (Arabic) collection of the Gotha Library, one finds 38 codices, including texts of I.S. (24 works), or comments on his writings (23 works). They are part of what one may call the Seetzen-collection. Most of them were acquired by Seetzen in Aleppo, or in Cairo, as shown by A. They deal with medical, philosophical and theological topics. A. gives a more or less basic description of all of them (concentrating on contents and dating). Of course, A. relies on W. Pertsch's famous 5-volume catalogue, published between 1877 and 1892, but he does not hesitate to propose a few relevant corrections, or to indicate some doubtful cases, which deserve further research.

A valuable paper, although one may regret that A. only refers to Brockelmann, when he tries to identify a disputed work.

(34) SABRI, F., Bibliography of Ibn Sînâ, in : *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), *Append.* 51-90 (Ar).

A. lists all the works by I.S. (with reference to Brockelmann, Anawati and Mahdavî), and tries to distinguish between the authentic works and the *spuria* (in this respect, A. seems to be in complete agreement with Mahdavî, the only relevant, but also highly questionable exception being: *The Soul and Resurrection* (AN. 205)). A. also mentions some printed editions, but her references are very incomplete.

Good, but not really innovative.

(35) TAMAMI, G., Il ms. 2197 della Biblioteca Universitaria di Bologna, in : G. TAMANI, *Il Canon medicinae di Avicenna nella tradizione ebraica*. Padova, Ed. Programma, 1988, 63-92.

A. offers a very detailed description of this famous manuscript (many coloured illustrations). A. observes that the origin of the illustrations cannot be traced exactly. It is worth mentioning that A. presents a very detailed analysis of the studies on this manuscript (but that he overlooks the study by Kottek and Metzger M. and T., see 22).

Although quite complete somewhat superficial in its analysis.

(36) TÖTH, A., An Avicenna Volume in the Helikon Library of Keszthely (Venetian Publication, 1564), in : *Orv. Hetil*, 121 (80), 3212-3213 (Hung).

(37) VACHABOVA, B., *Rukopisi proizvedenij Ibn Siny v sobranii Institute Vostokovedenija AN Uzbekistan SSR (Manuscripts of Works of I.S. in the Oriental Institutes of Uzbekistan)*. Tashkent, Fan, 1982.

A revised edition of the 1955-work of S. MIRZAEV, published under the same title.



(38) WILK, D., One Thousandth Anniversary of the Birth of Ibn Sînâ, in : *Koroth*, 8<sub>1-2</sub> (81), 91-95.

A. concentrates on an early printing of a Hebrew translation of I.S.'s *Canon*, as well as two old Hebrew into Latin translations.

Useful, but (too?) brief, especially as far as the Hebraic tradition of the *Canon* is concerned.

### Notes

(1) DAIBER, H., New Manuscript Findings from Indian Libraries, in : *Manuscripts of the Middle East*, 1 (86), 26-48, gives several important references to I.S.

A. shows the importance of the Arabic (and Persian) manuscript collection in Indian libraries. Regarding I.S., he offers a valuable complement to the bibliographies of Anawati, Mahdavi and Ergin.

(2) *Khuda Baksh Library Journal* (ns. 29-31) deals exclusively with all Arabic and Persian medical manuscripts extant in the libraries of India and Pakistan (communicated to the author by M.S. Khan).

According to HAMEED, A. and BARI, A., Impact of Ibn Sînâ's Medical Works in India, in : *Stud. Hist. Med.*, 7 (84), 1-12, p. 12, N. 13 and 14, a paper specifically on the manuscripts regarding I.S. exists in the *Khuda Baksh Library Journal*, 1982, i.e. : W. AZMI, Ibn Sînâ's Manuscripts in Khuda Baksh Library (approximately pp. 127-130; the number of the volume is not specified).

(3) SEZGIN, F., *Geschichte des arabischen Schrifttums*. Leiden, Brill, 1967 ff. (already 9 volumes published) contains some bibliographical information on I.S.

For the major information on I.S., one has to await the publication of the volume on Philosophy. However, in the already published volumes, one finds several remarks on I.S., most of the time of a bibliographical nature. See esp. vol. VI, 276-280 (on I.S.'s astronomical works) and vol. VII, 292-302 (on I.S.'s meteorological writings). Regarding the doctrinal analysis, see *Sciences*, C 11 and E 6.

(4) The State Library of Firdousi (Dushanbe-USSR) has published a handbook for librarians, i.e. *Abûalî ibn Sîno. Maslihatoî metodi ba erii kitobchonahoi ommavi ba munosibati 1000-solagii zodruzash (Ibn Sînâ. Methodological Materials to Assist General Libraries on the Occasion of the Millenary of his Birth)*. Dushanbe, Firdousi Libr., 1980, 13 pp.

(5) ISKANDAR, A., *A Descriptive List of Arabic Manuscripts on Medicine and Science at the University of California, Los Angeles*. Leiden, Brill, 1984, includes a few references to I.S. (pp. 37, 40, 65-67, 74).



## Chapter III

# Biography

See also :  
V, C 32  
XVII, 25



(1) AKHMEDOV, B., The Epoch of Ibn Sînâ, in : *Ibn Sino. K-1000 Letiju*, 6-26 (Ru).

(2) BRENTJES, B., Ibn Sînâ - Avicenna - Zum Problem seiner geistigen Heimat, in : *Avicenna/Ibn Sînâ*, I, 9-16.

A. presents I.S. as a real "encyclopaedist", whose work splendidly reflects the cosmopolitan character of the Samanide-civilisation (I.S. clearly defended the Samanides, despite their obvious loss of power). Central Asia in I.S.'s time was far from being purely Islamic (hence, the interest of I.S.'s family (and of himself?) in the Brethern of Purity and in the Ismailite movement). In fact, Central Asia was open to many influences, not the least of which were Indian and Chinese (Herein, A. agrees with Lüling (see *infra*, 12) regarding a possible Chinese origin for I.S.).

One looks in vain for substantial justification of each of A.'s claims.

(3) GAWHARÎN, Ş., *Hujjat al-ḥaqq Abû 'Alî Sînâ (The Proof of Truth, Ibn Sînâ)*. Tehran, <sup>1</sup>1952, <sup>2</sup>1967, <sup>3</sup>Tehran, Intishârat Tûs, 1978, 12 + 723 pp.

(4) GHORBÂNÎ, A. and HAMADÂNIZÂDEH, J., A Brief Biography of Abû 'Alî ibn Sînâ, in : *Bull. Iran. Math. Soc.*, 8<sub>1</sub> (80-81), 33-34 (N.C.).

(5) GUTAS, D., art. Avicenna-Biography, in : *Enc. Ir.*, 67-70.

The sources, dealing with I.S.'s biography, are classified by A. into four categories : 1. The autobiography/biography complex by Juzjânî, and its recensions and derivatives; 2. Private writings by I.S. and his disciples; 3. Historical works; and 4. Legendary and hagiographic stories. A. emphasizes that the autobiography presents above all a concrete illustration of I.S.'s epistemological theory, especially his theory of *ḥads*, i.e. the capacity to arrive spontaneously upon the middle terms of syllogisms, hence to establish truth by independent verification. Therefore, it appears a model *curriculum vitae* in the Peripatetic program. A. also points out such facts as the uncertainty of I.S.'s date of birth, the probably political circumstances which led I.S. to move to other places and the almost total conflation of I.S., the person, and I.S., the brilliant mind.

A very stimulating contribution, no doubt, of great importance.

(6) ID., Avicenna's *Madhhab*, with an Appendix on the Question of his Date of Birth, in : *Quaderni di Studi Arabi*, 5-6 (87), 323-336.

Having evoked two major historical distortions regarding the question of I.S.'s *madhhab*, or formal affiliation with an Islamic legal rite, i.e. : Baihaqî's linking I.S. with the Brethern of Purity and Shushtarî's claim that I.S. was in fact a duodeciman shi'ite, A. convincingly demonstrates that I.S. was a sunni-Ḥanafî.

He points *inter alia* to the fact that Ismâ'îl al-Zâhid, I.S.'s teacher of fiqh, was a prominent Ḥanafî scholar (as testified by the standard Ḥanafî biographical dictionaries) as also was Abû Bakr al-Baraqî, to whom I.S. devoted two of his earlier works (and who most probably was I.S.'s own teacher). The very fact that I.S., when he was staying in Gurgânj at the court of 'Alî ibn Ma'nûn, practiced law in order to earn his living, offers further evidence of his being a sunnî-Ḥanafî. In the appendix, A. raises a serious question about I.S.'s date of birth (based on I.S.'s remarks about Abû Bakr al-Baraqî, A. inclines to place it as early as 964).

A very valuable complement to 5, compare also to 13, which A. seems to be unaware of.

(7) JAWÂD, M., The Epoch of I.S. - (A Cultural Approach), in : *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 212-226 (Ar).

Reprint of *Le Livre du Millénaire d'Avicenne*. Téhéran, Univ. de Téhéran, 1956. 4 volumes. Vol. III, 248-280.

(8) KAYYALÎ (AL-), T., D'où vient le nom d'Ibn Sînâ?, in : *Proc. 16th. Int. Congr. Hist. of Sciences*, 388.

A French Abstract of A.'s lecture. The Abstract only affirms that the name : *Ibn Sînâ* is of Persian origin, and that the name : *Avicenna* is derived from I.S.'s place of birth, Afshanah (sic!).

(9) KHADÎVAJAM, H., Biography of Ibn Sînâ, in : *Honar Mardom*, 114 (72), 39-47 (Pers) (N.C.).

(10) KUZGUN, Ş, Lifetime and Nationality of Ibn Sînâ, in : *Kayseri Kongr.*, 17-32 (Tu).

(11) LARÛDÎ, N., *Nâbighah-i sharq-i... A.A. Sînâ (A Magnificent Man of the East... Ibn Sînâ)*. Tehran, Parvan, <sup>1</sup>1959, <sup>2</sup>1961, <sup>3</sup>1973, <sup>6</sup>1985, 338 pp.

(12) LÜLING, G., Ein anderer Avicenna. Kritik seiner Autobiographie und ihrer bisherigen Behandlung, in : *XIX. Deutscher Orientalistentag. ZDMG*, 1977, *Suppl.* III, 1, pp. 496-513; also published as (almost unchanged): Avicenna und seine buddhistische Herkunft, in : G. LÜLING, *Zwei Aufsätze zur Religions- und Geistesgeschichte*. Erlangen, H. Lüling, 1977, 23-45.

Based on R. Sellheim's famous C.R. of Ergin's Avicenna-Bibliography (Published in : *Oriens*, 11 (52), 231-239), A. examines a few critical questions regarding I.S.'s biography. He first concentrates on I.S.'s "flights". A. indicates political circumstances as their basic motive, i.e. : I.S.'s unconditional fidelity to

al-Muntasir, the last prince of the Samanides until his final fall. It has to be noted that A. critically refers to Nizâmi's *Chahâr Maqâla, Four Treatises*. Further on, A. almost exclusively deals with the problem of I.S.'s origin. He states that I.S.'s father was governor of Kharmitan. A. judiciously points out the fact that this city was a regional 'capital' and had been a Buddhist centre. Moreover, it is quite conceivable that I.S.'s name as such signifies: "Son of a Buddhist Sage". Finally, A. detects in the Samanide dynasty an outspoken adherence to the Buddhist tradition (A. identifies Samân with the royal Chinese city of Sûmân).

In some respects a very perspicacious study, but in other respects open to question.

(13) MASUMÎ, M., Fresh Light on Ibn Sînâ's 'Sarguzasht', in: *Indo-Iranica*, 34 (81), 20-40.

Having presented the reader with some wrong formulations of I.S.'s name, A. indicates the different possible origins one may attribute to the name 'Sina'. A. himself believes that the word 'Sina' is linked with one of the two ancient branches of the Aryan language, and, more specifically, A. seems to be inclined to accept an Indian-Buddhist origin. Further, after a few minor remarks, A. concentrates on the adherence of I.S.'s father (as well as I.S.'s younger brother) to the Ismailite claim, not adhered to by I.S. himself. For A., I.S.'s steadfastness in his resistance to the Ismailite missionaries was due to the excellent religious training he received from his Hanafi Jurist-teachers, as e.g. Ismâ'îl al-Zâhid (for the latter's identification as a Hanafi-scholar, A. explicitly relies on the same sources as those of 6), or Abû Bakr al-Baraqî. Finally, A. poses the problem of I.S.'s date of birth (in view of the unquestionable date of death of Abû Bakr al-Baraqî, i.e. 986), and proposes a date as early as 353 A.H. (based on a verse by an unknown Persian poet).

A very valuable paper, offering an excellent basis for further investigation.

(14) NEGMATOV, N., The Epoch of Ibn Sînâ. A Fundamental Historical Process, in: *Avicenna / Ibn Sînâ*, I, 38-50 (Ru); also in Arabic transl. in: *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 252-262 (with app. by YAFÎ (AL-) A. and ZAKRIYÂ, SH.: 263-271) (Ar).

A. claims a Tadjikî-origin for I.S. He praises the accomplishments of the Tadjikî people of I.S.'s time (in this respect, A. mentions major developments in the sciences of that period).

In the appendix of the Arabic version, the two authors stress that fundamentally I.S. belongs to the Arabo-Islamic tradition (I.S.'s being a Tadjikî is only a secondary determination).

Both paper and appendix are highly questionable in their basic assumptions.

(15) PANDITA, K., Central Asian Society in Ibn Sînâ's Time, in: *Ind. J. Hist. Sc.*, 21 (86), 251-256.



A. concentrates on the Samanide kingdom of Bukhara. Acc. to him, it imitates the Sasanian system. It may be noted that A. gives a vivid picture on the teaching system of that period. A basically Marxist analysis.

(16) REZA, H., *Mard hazâr-sâla. Farâz-haye-i az zindagî Ibn Sînâ (A Man of Thousand Years. Events from the Life-time of Ibn Sînâ)*. Tehran, Int. Ittilâ'ât, 1989, 276 pp.

A. presents I.S.'s life in the form of a novel, while taking into account different old sources. However, A. gives the same credibility to these older sources, which inevitably leads to serious distortions.

Somewhat similar to 20, although less "romantic".

(17) SARBÂZÎ, M., *Zindagî-e Abû 'Alî Sînâ (The Life of Ibn Sînâ)*. Tehran, Sharkat Tûsî'a Kitâbkhânehaye Iran, 1989.

A. adopts a rather unusual style for the presentation of I.S.'s life, e.g. by giving poetical titles to the different chapters. Regarding I.S.'s youth, his outline is conventional, but with respect to I.S.'s later life, he shows a clear tendency to introduce tales (the historical value of which is very questionable) in order to emphasize the extraordinary genius of I.S.

Good, but not really critical.

(18) SELLHEIM, R., *Al-Bîrûnî and Ibn Sînâ*, in: *Yâdnâma-i Bîrûnî*. Tehran, High Council of Culture and Art, 1974, 245-253 (Pers).

A. points out the difficulties being present in the classical "*Ṭabaqât*", i.e. Biographical Literature. In view of illustrating these difficulties, A. refers to the problem of a possible meeting between al-Bîrûnî and I.S., and of al-Bîrûnî's calling I.S. his "youngster". Acc. to A., the earliest acceptable date of birth for I.S. is 363 H., so, that I.S. is anyhow younger than al-Bîrûnî's (hereby A. summarizes the main arguments of his famous CR. of Ergin's Bibliography on I.S., published in: *Oriens*, 11 (58), 232-239). Regarding a possible meeting between al-Bîrûnî and I.S., A. convincingly shows that, if it took place at all, it has to be situated in the cavalry of Nûḥ ibn Maṣṣûr (before I.S.'s move to Gurgânj).

Useful, but limited in scope.

(19) SIMON, R., *Ibn Sînâ, al-Gazâlî and Ibn Ḥaldûn. A Contribution to the Typology of a Muslim "Intelligentsia"*, in: *Acta Orient. Ac. Sc. Hung.*, 35 (81), 181-200.

Only three autobiographies by classical Islamic thinkers seem to have survived, i.e. those of I.S., al-Ghazzâlî and ibn Khaldûn. Acc. to A., a basic comparison shows the almost complete absence of subjective elements, although A. sees an element of a rather childish pride in I.S.'s character. Moreover, for A., I.S.'s status, and his activity in the public sphere, were based on his being a practising physician (a strong conclusion, exclusively based on the *autobiography!*). Finally,

A. believes that I.S.'s evolution from Aristotelianism to a belief in Oriental wisdom had no other than socio-political grounds, more specifically the decline of the dynastic power (which implied that statehood became the protector of orthodoxy, and hence pushed the Muslim intelligentsia towards sufism as the *tertium datur*).

A Marxist-inspired, but, above all, oversimplified interpretation of I.S.'s autobiography.

(20) SINOUE, G., *Avicenne ou la route d'Ispahan*. Paris, Denoël, 1989, 382 pp.

A. brings together several historical accounts of I.S.'s life (many without a scientific value). The result is a kind of novel, which may amuse the reader, but which is almost of no significance for a critical approach of I.S.'s life.

(21) SIRAZHDINOV, S. and AKHMEDOV, A., From the Biography of Ibn Sînâ, in: *Matematika*, 3-15 (Ru).

(22) SULTONOV, M., *Ahamiyati 'Risolai sarguzasht' dar omuzishi ahvol va osori Ibni-Sino (The Significance of the 'Risâla Sarguzasht' in the Study of the Life and Works of Ibn Sînâ)*. Dushanbe, (Irfon?), 1980, 76 pp.

(23) TÂBATÂBÂ'Î, M., The Language of Ibn Sînâ, in: *Hazâra-i Ibn Sînâ*, 117-127, and: *Ayandeh*, 7 (82), 655-660 (Pers); also in German transl.: *Die Sprache Ebn Sînâs*, in: *Spektrum Iran*, 1<sub>3</sub> (88), 51-58.

A. insists that Dârî was the colloquial language in the area of Bukhara, at least at the time of I.S.'s birth. Acc. to A., the names of I.S.'s parents are Farsî forms of Middle Persian terms. Moreover, A. points out that Farsî was already a literary language in the century before I.S. However, I.S. was the very first author to write a philosophical work of great significance in Persian.

A classical defense of I.S.'s Persian origin, and of the importance of the modern Persian language in his time. Of limited value.

(24) VAN RIET, S., Données biographiques pour l'histoire du *Shifâ* d'Avicenne, in: *Académie Royale de Belgique, Bulletin de la Classe des Lettres et des Sciences Morales et Politiques*, 5. série, LXVI<sub>10</sub> (80), 314-329.

A. first focuses on Juzjânî's *Introduction* to the *Shifâ*, the *Cure*, both in its original version and in its medieval Latin translation (A. also brings to the fore the particular significance of the "*Avicenna Latinus*" as an independent testimony for the plausibility of Juzjânî's affirmations). In the second part of her paper, A. briefly outlines the autobiography/biography-complex, and concentrates on its remarks about the *Shifâ*. A. concludes that this latter version

probably constitutes a “doublet”, and, therefore, has been written after the *Introduction* to the *Cure*. However, A. also remarks that the critical biography of I.S. is still to be made (A. formulates interesting suggestions in this respect). A limited, but valuable piece of information for further research on I.S.’s biography.

(25) ZAKÂD, S., *The Epoch of Ibn Sînâ : (A) Political (Approach)*, in : *Al-turâth al-‘arabî*, 2<sub>5-6</sub> (81), 227-251 (Ar).

A. depicts a broad outline of the major political movements, which more or less conditioned the specific framework of I.S.’s lifetime (A. starts with the decline of the Abbasides, and further focuses on the Samanides, the Ghaznavides and the Buyids, but without almost any specific reference to I.S.). In view of the few curt notes, it is almost impossible to determine A.’s sources.

Of no great value.

(26) ZAVADOVSKY, YU., *A. Ali ibn Sina. Zizn i tvorčestvo (Ibn Sînâ. Life and Work)*. Dushanbe, Irfon, 1980, 204 + 98 pp.

The first part of this work is clearly devoted to I.S.’s biography, while the second part contains a bibliographical list of I.S.’s works, as well as lists of both Russian and non-Russian studies on I.S.

## Chapter IV

# Unesco-Millenary

- A. MONOGRAPHS AND  
SPECIAL ISSUES OF JOURNALS
- B. PAPERS
- C. COLLECTIVE WORKS  
(Other than Millenary Publications)



## A. Monographs and Special Issues of Journals

*Note:* By declaration in 1978, UNESCO invited all countries to celebrate the onethousandth anniversary of Ibn Sînâ's birth in 1980 (according to the Christian calendar). Consequently, many celebrations took place that year. The following concentrates exclusively on the official publications, arranged by country. No critical evaluation is given here.

### (1) UNESCO

The October-issue of *Unesco Courier* (80) was devoted to Avicenna.

### (2) AFGHANISTAN

A collection of a few papers, together with the *Treatise on Love* (both Arabic text and Persian translation), was edited by G. FARMAND under the heading: *Ibn-Sina and Sufism*. Kabul, Afghanistan Ac. of Sciences, 1980 (Persian), 62 + 30 pp.

The journal *Kabul*, 1980<sub>6</sub>, seems to have been specially devoted to I.S.

Not consulted by Janssens, but see Bečka, *Bibliography*, 11, 247, N. 26.

### (3) (EAST)-GERMANY

A major meeting took place at Halle-Wittemberg in February 1980 (see Brentjes' report in: *Persica*, (81), 234-235). Its proceedings were published:

BRENTJES, B. (Hsg), *Avicenna/Ibn Sînâ. 2 vol. : 1. Probleme der Philosophie; 2. Wissenschaftsgeschichte*. Halle, Wittemberg, M. Luther Univ., 1980, 94 + 94 pp.

GH. HANNA, Commemoration at Berlin East (sic!) in 1980, in: *Al-turâth al-'arabî*, 27 (82), 222-225 presents the table of contents in Arabic.

A special pamphlet seems to have been edited by E. WEHLER: *Avicenna. Ibn Sînâ. Zur 1000. Wiederkehr des Tages seiner Geburt*. Berlin, Gesellschaft d. Deutsch.-Sowj. Freundschaft, 1980 (N.C.).

#### (4) FRANCE

JOLIVET, J. and RASHED, R. (Eds.), *Études sur Avicenne (Coll. Sciences et Philosophie)*. Paris, Les Belles Lettres, 1984, 151 pp., may be considered as a late fruit of the Millenary celebrations, although it did not result from any particular meeting on that occasion.

#### (5) HUNGARY

*Acta Antiqua Academiae Scientiarum Hungaricae*, 29 (81), 1-80 contains a large number of contributions on I.S. (resulting from a meeting at Budapest).

#### (6) INDIA

A major celebration was held at New Delhi in November 1981. The papers, presented there, have been published (five years later!) in: *Ind. J. Hist. Sc.*, 21 (86), 207-282 and 297-382.

A regional seminar was held at Hyderabad in September 1981 (for its planning, organisation and program, see: *Bulletin of the Indian Institute of History of Medicine*, 11 (81), 49-58). Part of it, i.e. those papers which concern I.S. as a physician, were published in the *Bulletin of the Indian Institute of History of Medicine*, 11 (81), 59-160.

Another meeting seems to have been held in October 1981 (organized by the Indian National Science Academy in conjunction with the Asiatic Society) (see NARAYAN SARKAR, *Gen. Stud.*, C-51, p. 41, note). No comprehensive publication has been discovered.

Two journals paid special attention to I.S.:

1. *Indo-Iranica*, 34 (81) (almost totally devoted to I.S.);
2. *Studies in the History of Medicine*, 5 (81), 243-317.

## (7) IRAN

Iranian scholars met at Tehran in Isfand 1359 H.S. (1980). The contributions to this meeting were published in: *Majmû'a-i maqâlât wa sukhanrânî-hâyi hazâra-i Ibn-i Sînâ (Collections of the Discourses and Elocutions of Ibn Sînâ's Millenary Celebration)*. Tehran, UNESCO, 1981, 16 + 398 pp.

## (8) ISRAEL

A symposium was held in November 1980 at the School of Medicine of the Hebrew University (in collaboration with the Van Leer Foundation).

The eighth volume of *Koroth* (81-82) includes 4 studies on I.S.

## (9) KUWAIT

During the *First International Conference on Islamic Medicine (Proceedings, 127-162)* a special seminar on I.S. was organised.

## (10) LEBANON

A colloquium was held at Beirut in December 1980. Its lectures appeared in: *Al-dhikr al-alfiyya li-mawlid al-shaykh al-ra'îs... Ibn Sînâ* (Fr title: *Millénaire d'Avicenne*). Beirut, Naufal Group, 1981, VIII + 174 pp.

Attention to this colloquium is paid by M. SHARÎH. The Lebanese UNESCO and the Remembrance of the Millenary of Birth of Ibn Sînâ, in: *Shu'ûn 'arab.*, 22 (81), 302-305 (Ar).



## (11) MOROCCO

A colloquium on I.S. and on Aristotle was held at the University of Rabat. Its lectures appeared in: *A'mâl nadwat al-fikr al-'arabî wa 'l-thaqâfa al-yûnâniyya, bi-munâsabat murûr alf sana 'alâ milâd Ibn Sînâ wa thalâtha wa-'ishrân qarnan 'alâ wafât Aristû* (May 1980) (Original French title: *Actes du colloque: Pensée arabe et culture grecque*). Rabat, Univ. Mohammed V, 1985, 583 pp.

## (12) POLAND

A book was published on the Occasion of the Millenary, i.e. *Awicenna i sredniowieczna filozofia arabska (Ibn Sînâ and Medieval Arabic Philosophy)*. Warszawa, AK. Teol. Kat., 1982, <sup>2</sup>1983, 367 pp. (only the 2nd part is devoted to I.S., pp. 191ff.).

## (13) ROMANIA

On the occasion of the 16th Int. Congress for the History of Sciences, a special session was organized for the celebration of I.S.'s millenary (Bucharest, July 1981). All papers presented (in complete or abstract version) are included in: *Proceedings of the 16th Int. Congr. Hist. of Sciences*. Bucharest, Acad. Soc. Rep. Romania, 1981, C-D, 353-392. YAFÎ (AL-), A., The 16th Congress for the History of the Sciences, and the Millenary Commemoration of Ibn Sînâ, in: *Al-turâth al-'arabî*, 2<sub>7</sub> (82), 225-226, also in: *RAA Damas*, 56 (81), 873-880 (Ar) enumerates all contributions, but offers no real analysis.

## (14) RUSSIA

The major celebration of I.S.'s millenary took place at Dushanbe in September 1980. It was directly followed by another meeting at Bucharâ. At least six collective works were published:

1. ASHUROV, G., *Ibn Sino i srednevekovaya filosofiya (Ibn Sînâ and the Philosophy of the Middle Ages)*. Dushanbe, Donish, 1981, 219 pp.

2. BARATOV, M., BULGAKOV, P. and KARIMOV, U., *Abû 'Alî ibn Sînâ. K 1000-letiju so dnja rozdeniya (Ibn Sînâ. On the Millenary Anniversary of his Birth)*. Tashkent, Fan, 1980, 248 pp.
3. NEGMATOV, N., *Ibn Sino i ego epokhe (Ibn Sînâ and his Time)*. Dushanbe, Ak. Nauk Tadj., 1980, 215 pp.
4. HUSEINZODA, Š., *Mushkiloti Ibni Siny (Ambiguities of Ibn Sînâ)*. Dushanbe, 1980 (N.C.).
5. SIRAZHDINOV, S., *Matematika i astronomia v trudakh Ibn Siny, ego sovenmenikov i posledovatelei (Mathematics and Astronomy in Ibn Sînâ's Works. His Contemporaries and Disciples)*. Tashkent, Fan, 1981, 159 pp.
6. *Abû 'Alî ibn Sînâ : estestvennye nauki : materialy iüubileinoi nauchnoi sessii (Buchara, 1980) (Ibn Sînâ : Natural Sciences : Materials of a Scientific Session of the Millenary Celebration)*. Tashkent, Fan, 1981, 249 pp. (N.C.).

The Firdousi-Library published a booklet, prepared for librarians: *Abuali ibn Sino. Maslikhatoi metodi ba erii kitobzonahoi ommavî ba nunosibati 1000 solagii zodràzash (Methodological Materials to assist General Libraries, on the Occ. of his (= I.S.) Birth)*. Dushanbe, Firdousi Libr., 1980.

Many Journals dedicated special issues to I.S., *inter alia* : *Izvestija Ak. Nauk Tadj.*, 1980<sub>3</sub>; *Obscestvennye Nauki v Uzbekistan*, 1980<sub>8,9</sub>; *Sadoi Sharq*, 1980<sub>8</sub>; *Voprosy Filosofii*, 1980<sub>7</sub>.

## (15) SOUTH-EAST ASIA (MALAYSIA)

A millenary celebration was held at Kuala Lumpur in June-July 1981. No comprehensive publication of the lectures of this symposium exists. However, a non-official collection does exist, see Khan (*Gen. Stud.*, C-44, p. 122, N. 19 and 22).

## (16) SPAIN

A colloquium was held at Madrid in March 1980. Its lectures were published in : *Milenario de Avicena (Cuad. semin. Estudios filos. y pens. islamicos, 2)*. Madrid, Inst. Hispano-Arabe de Cultura, 1981, 99 pp.

The 27th International Congress of the History of Medicine was held at Barcelona in August-September 1980. It devoted a special session to I.S., which is published in : 27. *Congreso Internacional de Historia de la Medicina. Actas.* 2 vol. Barcelona, Ac. Ciències Mèdiques de Catalunya i Balears, 1981, II, 709-770.

#### (17) SYRIA

Ibn Sînâ's Millenary was celebrated at Damas in 1980 with the organisation of an international meeting. Its contributions were published in : *Al-shayk al-ra'îs... Ibn Sînâ bi-munâibat al-dhikra 'l-alfiyya li-mawliidihi (Ibn Sînâ in Connection with the Commemoration of the Thousandth Anniversary of his Birth)*. Damas, M. al-Kâtib al-'arabî, 1981, 268 pp. The majority of these contributions have been published (together with a few other papers) in a special I.S.-issue of *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81) (together with an *appendix*).

The *Journal for the History of Arabic Science*, 4<sub>2</sub> (80) also honoured I.S. by offering two English and two Arabic contributions.

#### (18) TUNISIA

'AMMAR, S., *Avicenne. Plaquette commémorative éditée par la Faculté de Médecine à l'occasion du Millénaire de la naissance du 'Prince de la Médecine'*. Tunis, Imprim. Off. de la République, 1980, 62 pp (Fr) + 54 pp (Ar) results from a celebration at the Medical Faculty of Tunis-Univ.

A colloquium seems to have been held in Hammamat : *Colloque International Ibn Sînâ-Collomb (Hammamat, Tunisie). Le Corps en psychiatrie*. Paris, New York, Masson, 1982. (N.C.)

#### (19) TURKEY

An international meeting was held at Istanbul in June 1980 (see : *International Avicenna Congress at Istanbul on his 1000th Birthday. Scientific Session Program and Abstracts*. Istanbul, Univ. Tip. Fak., 1980, brochure). A major publication based on this meeting (over 800

pages!) was published four years later : A. SAYILI (Ed.), *Ibn Sînâ. Doğumunun bininci yili armağani (Ibn Sînâ. Commemoration Volume of the Thousandth Anniversary of His Day of Birth) (TTKY, VII.D.-Sa 80)*. Ankara, Türk Tarih Kurumu Basimevi, 1984, 838 pp.

The journal *Musiki Mecmuasi*, 33 (80), Nr. 369 offers a special I.S.-issue.

## B. Papers

- (1) N.N., Thousandth Anniversary of the Birth of Ibn Sînâ, in : *Zh. Nevropat. psikiatr.*, 80 (80), 1221-1228 (Ru).
- (2) ASIMOV, M., On the Thousandth Anniversary of Ibn Sînâ, in : *Vopr. Istor. Estet. Tekhn.*, 1980<sub>4</sub>, 69-76 (Ru).
- (3) BOGOLJUBOV, A., Millenary of the Birth of Ibn Sînâ, in : *Narysy Ist. Prirodoznev. Tekhn.*, 29 (83), 35-38 (Ukrain).
- (4) BRENTJES, B., Das Tausendjahrjubiläum Avicennas in der USSR, in : *Persica*, 10 (82), 297-299.  
A. describes succinctly some major meetings in the USSR on the occasion of the 1980-millenary festivities, A. also gives a brief list of Russian publications which appeared that year.
- (5) CHUŠKINA, E., see : GRIBANOV, E.
- (6) EGGERMONT, P., Further Notes on Avicenna's Millenary, in : *Persica*, 10 (82), 300-301.  
A. points out the contribution of East-Germany to I.S.'s millenary. Moreover, he mentions the *Avicenna Latinus*-project in Belgium. (He mistakingly states that its lexica are prepared by M.-Th. d'Alverny. In fact, M.-Cl. Lambrechts, in collaboration with S. Van Riet, prepared them.)
- (7) EGRI, B., An Eastern Genius. Remembering Ibn Sînâ on the Thousandth Anniversary of his Birth, in : *Orv. Hetil*, 121 (80), 3207-3212 (Hung).
- (8) GRIBANOV, E. and CHUŠKINA, E., Ibn Sînâ (Avicenna) : On the Millenium of his Birth, in : *Fel'dsher Akush.*, 45<sub>1</sub> (80), 54-57 (Ru).
- (9) KINIKLI, O., Ibn Sînâ. On the Occasion of the Thousandth Anniversary of his Birth and the 944th Anniversary of his Death, in : *Sanat Bilim ve Kültürde Orkun*, 1 (81), 14-17 (Tu).

- (10) ONGAN, A., A Speech in Remembrance of the Thousandth Anniversary of the Birth of Ibn Sînâ, in : *Toplum ve Hekim*, 28 (80), 12-13 (Tu).
- (11) PULATOV, A., Abû 'Alî Ibn Sînâ. On the Millenium of his Birth, in : *Vestn. Khir.*, 124<sub>1</sub> (80), 142-146 (Ru).
- (12) SARDAR, Z., East-West Discord over the Prince of Physicians (Avicenna), in : *New Scientist*, 91 (81), 395.  
A. reports the severe disputes, which took place between Russian and Western scholars at the Millenary meeting of Paris in 1980.
- (13) SARTON, G. (?), Milenario del nacimiento de Avicena, in : *Med. Trad. (Mexico)*, 2<sub>8</sub> (80), 5-8 (N.C.).
- (14) SEN, S., Birth Millenary of Avicenna, in : *Sci. Cult. (Ind.)*, 47<sub>6</sub> (81), 193-196. (N.C.).
- (15) VAKHIDOV, V., Thousandth Anniversary of the Birth of Ibn Sînâ, in : *Khirurgiya*, 1980, 110-114 (Ru).
- (16) VANDEWIELE, L., Duizend jaar geleden werd Avicenna geboren (980-1037), in : *Bull. Cercle Benelux Hist. Pharm.*, 62 (82), 31-35.
- (17) WONDRÂK, E., On the Thousandth Anniversary of the Birth of Ibn Sînâ (Avicenna), in : *Vnitřni Lék.*, 26 (80), 512-515 (Tchech).

## C. Collective Works (Other than Millenary Publications)

(1) *Ibni Sina (980-1037) (Ibni Sina Kongresi Kayseri 1984)*. Kayseri, Erciges Univ. Matbaasi, s.d. (Tu), XV + 395 pp.

(2) *Ibni Sina (980-1037): anma ve tanıtma toplantilari 1984-1985-1986, Ankara (Ibn Sînâ : Notes and Documents of the Ankara, 1984-'86 Meetings)*. Ankara, İl Kültür ve Turizm Müdürlüğü, 1987 (Tu), 160 pp. (N.C.).

(3) *Uluslurasi Ibnî Sînâ Sempozyumu. Bildirileri (17-20 Ağustos 1983: Millî Kütüphane-Ankara) ("Proceedings" International Symposium on Ibn Sînâ. August 17-20, 1983. National Library-Ankara) (Kültür ve Turizm Bak. Millî Küt. Yay. Topl. Bild. Dizisi, 1)*. Ankara, Başbakanlık Basimevi, 1984 (Tu), XX + 612 pp.

See also : M. CUMBUR, The International Symposium on Ibn Sînâ, in : *T.T.K. Belleten*, 47 (83), 889-892, and M. ÜÇER, The International Symposium on Ibn Sînâ, and a few Observations, in : *Eflâatun*, 15 (Dec. 83), 22-25 (Both Tu).

**Chapter V**

**General Studies  
(Philosophy)**

**A. MONOGRAPHS**

**B. PHILOSOPHICAL  
ENCYCLOPAEDICAL ARTICLES,  
OR CONTRIBUTIONS IN HISTO-  
RIES OF ARABIC PHILOSOPHY**

**C. PAPERS**





## A. Monographs

(1) AFNAN, S., *Avicenna. His Life and Works*. London, 1958, 298 pp. Repr. Westport (Conn.), Greenwood Press, 1980; also in Italian translation : *Avicenna. Vita e opere*. Trad. G. COLOMBI. Bologna, Patron, 1969; and in Spanish translation : *El Pensamiento de Avicenna*. Mexico, Fondo de Cultura, 1978.

(2) 'AQQÂD (AL-), A., *Shayk al-ra'îs. Ibn Sînâ (Iqrâ, 46)*. Cairo, 1946. Repr. Cairo, Dâr al-ma'ârif, s.d. ( $\pm$  1970), 144 pp.

(3) BLOCH, E., *Avicenna und die aristotelische Linke*, in : E. BLOCH, *Das Materialismusproblem, seine Geschichte und Substanz (Gesamtausg., VII)*. Frankfurt am Main, Suhrkamp, 1972, <sup>2</sup>1974, <sup>3</sup>1977, <sup>4</sup>(paperback) 1985, *Anhang*, pp. 479-546.

Reprint of the Frankfurt, 1963-edition. It has to be noted that the 1963-edition was a reworked version of the Berlin, 1952-edition.

(4) BOGDANOV, I., *Avitsena : Istor. Orcherk. (Avicenna : An Historical Essay)*. Sofia, Meditsina i Fizkultur, 1974.

(5) BOLAY, N., *Ibn-i Sina (Türk Büyükleri Dizisi, 82)*. Ankara, Sevinç Matbaasi, 1988, 126 pp.

(6) BOLTAEV, M., *Abû 'Alî Ibn Sînâ - Velikii myslitel ucenyi enciclopedist srednevekovoya vostoken (Ibn Sînâ - Great Thinker, Scholar and Encyclopaedist of the Medieval East)*. Tashkent, Fan, 1980, 166 pp.

(7) BRENTJES, B. and S., *Ibn Sînâ (Avicenna). Der fürstliche Meister aus Buchara (Biographien hervorragender Naturwissenschaftler, Techniker u. Mediziner, 40)*. Leipzig, Teubner Verl., 1979, 100 pp.

A very brief presentation of I.S.'s life (supported by a critical German translation of the autobiography/biography-complex), thought and influence, based on a

Marxist-materialistic interpretation. For the parts on I.S. as scientist, and as physician, see *Sciences*, A 7 and *Medicine*, A 9.

(8) CARRA DE VAUX, B., *Avicenne, 980-1037 (Ibn Sînâ)*. Paris, 1900, 302 pp. + Index. Repr. Amsterdam, Philo Press, 1974; also in Arabic translation : *Ibn Sînâ*. Beirut, 1970.

(9) FIRDOUSI LIBRARY, *Olim va mutafakkiri barjastai Šarq (An Outstanding Eastern Scholar and Thinker)*. Dushanbe, 1980.

(10) GHALÎB, M., *Ibn Sînâ*. Beirut, al-Hilâl, 1979, <sup>2</sup>1981, 160 pp.  
A rather general, and almost conventional exposé of I.S.'s major ideas, mainly based on secondary sources. The work offers no new ideas. Nevertheless, it may be used as an introduction to the "classical" interpretation of I.S.

(11) GOICHON, A.-M., *La philosophie d'Avicenne, et son influence en Europe médiévale*. Paris, 1944, 137 pp., 2nd. rev. ed. Paris, Maisonneuve, 1979, also in English translation : *The Philosophy of Avicenna, and its Influence on Medieval Europe*, with notes, ann. and pref. by M.S. KHAN. Delhi, Motilal Banarsidass, 1969, 119 pp.

(12) HASAN, M., *Ibn Sînâ : abqarî al-falsafa wa 'l-ṭibb wa-'ilm al-nafs wa 'l-shi'r wa 'l-mûsîqa (Ibn Sînâ. A Genius of Philosophy, Medicine, Psychology, Poetry and Music)*. Beirut, M. al-'alamî, <sup>2</sup>1977, 221 pp.  
A general introduction to the various aspects of I.S.'s thought. Of almost no value.

(13) HOŠIM, R., *Ibn Sino. Muchtasare dar borai davroni zindagi, sharhi hol va osoraš (Ibn Sînâ. A Concise Treatise on the Time of his Life, his Life Events and his Works)*. Dushanbe, Irfon, 1977, 96 pp.

(14) JIBLADZE, G., *Systemy Avitsenny (The Avicennian System)*. Tbilisi, Metsniereba, 1986.

(15) JUNAYDÎ, F., *Kâr-Nâme-h-i Ibn-i Sînâ (A Portrait of Ibn Sînâ)*. Tehran, Intishârat Balkh, 1981, 184 pp.

A. presents a general introduction to the various aspects of I.S.'s life and thought, although the usual major topics, such as metaphysics, psychology and (to a lesser degree) medicine are almost absent. Instead, mystics receives heavy emphasis, and A. discusses I.S.'s views on Physics, Poetry, Linguistics and Music. However, A. limits himself by citing fragments of Avicennian texts

dealing with a particular topic (in so doing, A. always uses existing (old or new) Persian translations). Moreover, A. (over-)emphasizes the Iranian environment, in which I.S. lived. It has to be noted that a well-documented bibliography of Iranian publications, on I.S. (editions of his Persian texts, Persian translations of his Arabic texts, and studies on him) is given at the end.

Very introductory. However, the bibliography is of great use.

(16) MAS'UDÎ, M., *Ibn Sînâ*. Tunis, Dâr sirâs al-nashr, 1981, 190 pp. (Ar).

After a rather long introduction about I.S.'s time and life, A. focuses on I.S.'s main doctrines. Each topic is followed by a limited choice of text-fragments. Sometimes, A. is very (too?) dependent upon secondary sources especially in the chapter on the natural sciences. Moreover, he clearly adopts a (moderate) Marxist-materialist interpretation (which particularly guides his analysis of I.S.'s metaphysics and politics). Finally, he overrates I.S.'s originality, in all fields, he attributes almost all contemporary insights to I.S.!

At most introductory (even if one accepts a materialistic interpretation of I.S.).

(17) MUHÂMÎ (AL-), M., *Ibn Sînâ*. Beirut, Mukht. 'Âlamî, 1977 (Ar).

Of no value. A.'s presentation is very superficial, and sometimes imprecise.

(18) NAFICY, S., *Bû Sînâ. Zindagî, va-kâr, va-andishah, va-rûzgâr (Avicenna: His Life, Works, Thought and Time)*. Tehran, 1954, <sup>2</sup>1976, <sup>3</sup>Tehran, Dânesht, 1980, 271 pp.

(19) PETROV, B., *Ibn Sînâ (Avicenna), 980-1037*. Moscou, Meditsina, 1980 (Ru); also: Budapest, Medicine, 1982 (Hung Transl.), 171 pp.

(20) QUMAYR, Y., *Ibn Sînâ (Falâsifat al-'Arab) (Ibn Sînâ (The Philosophers of the Arabs))*. Beirut, Dâr al-Machreq, 1982, 93 pp.

This edition seems to be an abbreviated version of A.'s original publication, issued in 2 vol. at Beirut in 1955-'56 (same title, same series).

(21) RAHMATULLAEV, N., *Filofskie vzglyady Ibn Sino v knige "Ukazaniya i nosstavleniya" (The Philosophical Opinion of Ibn Sînâ in his work "Remarks and Admonitions")*. Dushanbe, Donish, 1980, 92 pp.

(22) SABÂNÛ, A., *Ibn Sînâ fî dawâ'ir al-ma'ârif al-'arabiyya wa 'l-'âlamîyya (Ibn Sînâ in Islamic and Mundial Encyclopaedias)*. Damas, Beirut, Dâr Ibn Kathîr, 1984, 167 pp.

A. presents a selection of the classical Arabic biographical sources on I.S., together with an amalgam of contemporary Occidental encyclopaedical articles, also on I.S. (translated by A. into Arabic). A.'s choices seem to have been determined by the sources which were available to him, but which are not always relevant to conducting research on I.S., esp. in the West. One also wonders why A. adds an appendix on the history of medicine in Andalusia?

(23) SCRIMIERY, G., *Degli Studi su Avicenna (Ibn Sînâ). I. Teoresi Fisica*. Bari, Levante, 1973, 331 pp.

The title of the book suggests only a part of its contents: beside physical problems, A. also discusses psychological, physiological and medical items. With respect to pure physics, A. summarizes I.S.'s theories of movement, causality and time. Acc. to A., these theories prefigure modern dynamics. In the psychological field, A. largely deals with the idea of psychosomatics, which he considers to be a key-concept in I.S. (For A., the origin of this idea lies in the old Iranian religion). Moreover, A. pays attention to some of I.S.'s particular physiological and medical ideas (A. offers a few basic elements for a medical bibliography on I.S.). Finally, it has to be noted that A. often makes use of manuscripts when citing (or paraphrasing) fragments of I.S.'s work in Italian translation (for his complete translation of the *Tr. on the Pulse*, see *Works*, C-18).

Valuable, especially insofar as A. uses lesser known materials, but some of his interpretations are rather open to question.

(24) SEGADEEV, A., *Ibn Sînâ-Avitsenna*. Moscou, Muisl, <sup>1</sup>1980, <sup>2</sup>1985.

As far as can be derived from the Arabic summary of this book, presented by T. SALÛM, On the Vastness of the Avicennian Thought, in: *Al-tariq*, 40<sub>5</sub> (81), 108-129, A. mainly discusses philosophical topics, esp. metaphysics. Although A. admits the existence of idealistic elements in I.S.'s system, he seems to adhere to a pantheistic-materialistic interpretation of I.S.

(25) ŠIDFAR, B., *Ibn Sînâ (Avicenna)*. Moscou, Nauka, 1981, 184 pp. (Ru).

(26) ULUGHZODA, S., *Piri hakimoni, mashriqzamin (A Wise Man, Linked with the East)*. Dushanbe, Maorif, 1980, 200 pp.

(27) WEINFELD, S., *Awicenna (Avicenna)*. Warszawa, Krajowa Ag. Wydawnicza, 1985, 116 pp.

(28) YAPP, M., *Ibn Sînâ and the Muslim World*. St. Paul, Greenhaven Press, 1980, 32 pp.

Of no value.

(29) ĀL-YĀSĪN, J., *Faylasūf 'âlîm. Dirâsat taḥlîliyyat li-ḥayat Ibn Sînâ wa fikrihi 'l-falsafî (An Erudite Philosopher. Analytical Studies on Ibn Sînâ's Life, and on his Philosophical Thought)*. Beirut, Dâr al-Andalus, 1981, 328 pp.

The book appears to be the direct result of oral lectures. From among some of A.'s most striking observations, let us cite the following ones :

- A.'s characterisation of I.S.'s dispute with the Baghdadian philosophers as a simple "tension" between two schools (not having been caused by the latter's being 'Peripateticians');
- For A., I.S. expresses his basic opinion on resurrection in the *Shifâ*. (For A., I.S.'s limited affirmation of the resurrection of the soul found only in the treatise *On Resurrection* is due to the exclusive philosophical concern, consciously taken by I.S. in it);
- A.'s inclination to accept that I.S. really bestows a knowledge of particulars to God (based on I.S.'s insistence on the very particular nature of God's knowledge, but A. recognizes that there remain serious difficulties inside the Avicennian system in order to accept this affirmation unconditionally);
- Acc. to A., I.S. (being hereby a disciple of al-Fârâbî) derives his emanative system from the Sabaeans of Harran, and only in a secondary way from Plotinus (However, contrary to al-Fârâbî, I.S. affirms that the intelligible forms exist in act, and he also attributes sensation and imagination to the celestial souls.).

It has to be added that the exposé on logic contains the litteral reproduction of large extracts of A.'s specific work on this topic (see *Logic*, A34).

No doubt, an innovative and interesting study (in spite of some controversial ideas!).

## B. Philosophical Encyclopaedical Articles, or Contributions in Histories of Arabic Philosophy

*Note* : Limited to publications in Western European languages.

(1) ARNALDEZ, R., art. Avicenne, in: D. HUISMAN (Ed.), *Dictionnaire des Philosophes*. 2 vol., Paris, PUF, 1984, I, 167-175.

A. starts with a rather conventional bio-bibliographical survey. However, he stresses that I.S. always interprets the data of experience by theoretical means both in his function as a physician and as a scientist. But A. is above all concerned with I.S.'s metaphysical ideas. He states that for I.S., contrary to Ibn Rushd, one can talk about Being without referring to the ten categories. Moreover, substance does not appear in I.S. as the first 'analogué' of Being, and, notwithstanding the negation of an analogy of attribution, one finds in I.S. an analogy of Being (characterized by A. as an analogy of proportionality). Further, A. insists that there is no real distinction in I.S. between essence and existence, *insofar* as there is no existence of the essences as such. Finally, A. detects in I.S.'s notion of *jûd*, liberality, the expression of the scholastic *bonum diffisivum sui* (A. hereby categorically rejects a pantheistic-emanationistic interpretation of I.S.'s theory of creation). As to I.S.'s psychological doctrines, A. states that I.S. opens the door to a theory of the resurrection of the body by emphasizing the dependence of each soul upon a particular body, and that I.S.'s flying man-argument is original, while he borrows the rest of his theory of the intellect from al-Kindî and al-Fârâbî. In his general conclusion, A. brings to the fore that I.S.'s philosophy is always related to religion.

Very valuable, especially in the metaphysical field, one finds some original and stimulating ideas.

(2) BADAWI, A., Avicenne (Ibn Sînâ), in: BADAWI, *Histoire*, II, 595-695.

A.'s work is primarily an analysis of translations of large extracts from I.S.'s major philosophical works, i.e.: *Shifâ* (*The Cure*); *Najât* (*Salvation*); *Ishârât* (*Remarks and Admonitions*) and *Dânesh-Nâme* (*Book of Science*) (some of the translations A. prepared, but he also makes extensive use of existing translations). From a doctrinal point of view, A. stresses that I.S. always remained a Peripatetic philosopher (his so-called Oriental philosophy was in no way intended as a new kind of philosophy). Acc. to A., I.S. introduced no innovation whatsoever in the logical field. I.S.'s metaphysical and psychological doctrines, on the contrary, seem to be judged to be worthy of closer attention by

A. In the metaphysical domain, A. develops the following items : I.S.'s theory of Being (A. relies heavily on Goichon in his interpretation of this topic), his critique of the Platonic Ideas (main source : *Shifâ, Met.*, VII, 2-3), his concept of God (based on citations from the four mentioned major works), his proofs for God's existence (A. detects a kind of ontological argument in the *Ishârât*), his theory of emanation (major source : *Shifâ, Met.*, IX, 4), his idea of divine providence (A. does correct Goichon's translation of I.S.'s definition of divine providence in the *Najât*, but does accept her translation of this definition in the *Ishârât*, although this translation seems to be even more questionable) and his treatment of evil and future life (main source : *Shifâ, Met.*, IX, 6-7). A. adds a brief consideration on I.S.'s mysticism, which he qualifies as intellectualistic, and which he estimates to be in contradiction with the in his opinion main rationalistic current of I.S.'s thought. With respect to I.S.'s psychological doctrines, A. discusses the usual topics : the proof for the existence of the soul ("the flying man"-argument); the soul's substantiality, unicity and spirituality; the origin and the immortality of the soul; and, the theory of the intellect, and its divisions (A.'s major basic text for this psychological part is very obviously the *De Anima* of the *Najât*). In his conclusion, A. presents I.S. as a rationalistic thinker, who above all was a synthesizer of earlier major philosophical currents.

A. brings together important basic texts, but one looks in vain for a real synthesis.

(3) ID., Avicenna (985-1036), in : *Iranzamin*, 1<sub>1</sub> (81), 45-48.

This paper is the translation into German of A.'s contribution to F. CHÂTELET (Ed.), *Histoire de la Philosophie*. T. II. *La philosophie médiévale*. Paris, Hachette, 1972, 133-140. In such a general history of philosophy, it is normal that only a brief account of a few basic ideas is given.

(4) CORBIN, H., Avicenne et l'Avicennisme, in : *Histoire de la philosophie islamique*. Paris, 1964. Repr. Paris, Gallimard, 1986, 238-247.

(5) CRUZ HERNANDEZ, M., Ibn Sînâ (Avicena), in : *Historia del pensamiento en el mundo islámico*. 2 vol. (AU-T, 28-29). Madrid, Alianza Ed., 1981, I, 205-249.

A. starts with a brief, but significant bio-bibliographical survey on I.S. Then he concentrates on the question of I.S.'s authentic philosophy (he judiciously remarks that the solution of this question is mainly influenced by each interpretator's own ideology). A. seriously examines I.S.'s statements about his Oriental philosophy, and concludes that there is no single reason to accept a fundamental difference between I.S.'s major philosophical encyclopaedias and his so-called esoteric writings. Hereafter, A. presents a serious basic outline of I.S.'s major philosophical ideas in the different fields of logic (A. believes that I.S.'s logic brings no real innovation) and psychology (A. presents a very clear



basic description of I.S.'s concepts of the soul and the intellect, morality and politics (these latter two presented by A. in a rather conventional way), but A.'s major contribution lies in his analysis of I.S.'s metaphysical ideas, e.g. :

1. The acceptance by I.S. of an analogy of Being, although I.S. himself never specified which kind of analogy he defended (but for A. it is obvious that one has to exclude a purely logical or essentialistic interpretation);
2. The absence of a real distinction between essence and existence in I.S., at least in its usual scholastic form, since existence has no constitutive function in I.S., and is therefore comparable to an accident (although no identification with an accident is allowed!);
3. I.S.'s proof for God's existence in the *Ishârât, Remarks and Admonitions*, is not really a version of the ontological proof, but may be characterized as a proof *a simultaneo* (whoever understands the notion of necessary Being, has to accept the necessary existence of such a Being);
4. The idea of a *creatio ex nihilo sui* is really present in I.S., but one may seriously doubt whether the *idea of creatio ex nihilo subjecti* is also defended by him.

A very fine, and interesting (esp. in the metaphysical domain!) contribution.

(6) FAKHRY, M., Ibn Sînâ, in : *A History of Islamic Philosophy*. New York, 1970. 2nd edition. New York, Columbia Univ. Press; London, Longman, 1983 (paperback-edition : New York, Columbia Univ. Press, 1987), 128-162; Fr Transl. : *Histoire de la philosophie islamique*. Paris, Cerf, 1989, 150-184.

A. considers I.S. to be a major figure of Arab Neo-Platonism. In fact, I.S. was much indebted to al-Fârâbî, who inaugurated that current of thought (the Epistles of the Brethren of Purity were another important source of interpretation for I.S.). Basically, A. defends the homogeneity of I.S.'s thought, and categorically rejects any kind of alleged bipolarity in I.S.'s works. With respect to the proper development of I.S.'s main philosophical theories, A. most of the time only summarizes one of I.S.'s texts (while sometimes adding a few remarks about I.S.'s relationship with Greek philosophy, or with al-Fârâbî). So, he exclusively uses the *Najât, Salvation* for his description of I.S.'s logic, physics and psychology, the *Ahwâl al-nafs, States of the soul*, ch. 13-15, for the presentation of I.S.'s theories of prophecy and resurrection, and *Shifâ, Metaphysics* for his basic outline of I.S.'s metaphysics. In the final part of his work, A. concentrates on the mystical strain, which reveals itself in the *Ishârât, Remarks and Admonitions*, and in I.S.'s mystical treatises A. stresses the sudden change in idiom which occurs in comparison with I.S.'s "classical writings". For A., this very fact reveals I.S.'s obvious preoccupation with the problem of philosophical expression (as was already the case in Plato).

A valuable basic outline of I.S.'s philosophical ideas, although one may regret that A. does not present a more synthetic approach, based on a wider range of works.

(7) GOHLMAN, W., art. Ibn Sînâ, in : *The Encyclopedia of Religion*, 1982, 568-571.

A very basic description of I.S.'s life, thought (esp. his cosmological ideas, and the involved problems of the relationship between God and man, and of the higher intelligences), and his influence both on the East and the West. A. basically characterizes I.S.'s philosophy as a synthesis between Aristotle's philosophy, Neo-Platonism, Islamic religion and some Zoroastrian concepts (A. appears to be highly dependent on Morewedge's interpretation. See: *Metaphysics*, 42).

Good. Some valuable ideas, but too limited in scope, some of A.'s statements (e.g. I.S.'s principle of the primacy of existence) are open to question.

(8) GOICHON, A.-M., art. Ibn Sînâ, in: *Enc. Isl.* (2. ed.), vol. III (1971), 965-972.

A., one of the leading I.S.-scholars in the West of this century, presents a slightly reworked version of her article, entitled: Avicenna e Avicennismo, originally published in: *Encyclopedia Filosofica*, 1957, T. I, 525-535; <sup>2</sup>1967, T. I, 666-678. There occurs no fundamental change in A.'s basic interpretation of I.S.'s thought. She always presents I.S. as a rational-scientific thinker.

*Note:* IBN SÎNÂ, *Al-Qânûn...*, Beirut, 1987 (see: *Works*, B 1), I, pp. thak, offers the translation into Arabic (by 'A. ZAYOUR) of part 3 of this article (pp. 969-970), i.e. the part regarding I.S.'s influence on the West, and of: A.-M. GOICHON, Avicenne et son influence en Occident, in: *Encyclopédie mensuelle de la France d'Outre-Mer*, sept. 1952, 257-261.

(9) JANSSENS, J., Ibn Sînâ's Ideas of Ultimate Reality and Meaning. Neoplatonism and the Qur'ân as Problem-Solving Paradigms in the Avicennian System, in : *URAM*, 10<sub>4</sub> (87), 252-271.

A. first offers a brief, rather conventional bio-bibliographical outline. Then, he discusses the major influences on I.S.'s thought. Acc. to A., I.S. appears as a proto-scholasticus, although he, like his predecessor al-Fârâbî, clearly rejected the idea of philosophy as *ancilla theologiae*. (However, on the relation between philosophy and religion, A. points out a significant difference between I.S. and al-Fârâbî). In the main part of the paper, A. concerns himself with two ultimate ideas in I.S. : the ultimate 'humanity' of the human Beings, and the ultimacy of God. Concerning humanity, A. presents a basic outline of I.S.'s theory of the soul. A. stresses that man *is* his soul, hence, the presence of an irreducible dualism in I.S.'s concept of man, as well as man's need for the Agent Intellect, and A. generally deals with I.S.'s theory on the eternal survival of each human soul. A. accepts the possibility of a resurrection of the body, but interpreted by I.S. as taking place on the imaginary (or better : imaginally - as Corbin interprets it) level. Moreover, A. insists that I.S. never neglects the requirements of practical life, although he gives absolute priority to the intellectual life.

Concerning the ultimacy of God, A. analyzes some of the most important names, which I.S. attributes to God, i.e.: *al-wâjib al-wujûd*, the *Necessary Being* (probably the result of a fusion between the notions of *ontoos on* and *ên*); Allah (a religious notion, but which carries with it a philosophical reinterpretation); *al-'illa al-ûlâ*, *The First Cause* (probably derived from I.S.'s Arabic Proclus-source, where it means a monotheistic and creationistic correction of the original Neo-Platonic view); *Musabbib al-asbâb*, *Causing causes* (a term derived from Islamic mysticism, and by which I.S. combines God's transcendence with His imminence); *Mubdi'*, *Creator out of Nothing* (once more in the line of the Proclus Arabus); *al-Hâqq*, *The Truth* (Qur'anic, although I.S. resorts to a more Neo-Platonic usage).

A. received the URAM Award for Excellence in Creative Scholarly Writing in 1989 for this paper.

(10) LEAMAN, O., *An Introduction to Medieval Islamic Philosophy*. Cambridge, Cambridge Univ. Press, 1985 (for Ibn Sînâ, see esp. p. 28-37; 78-83; 92-98 and 110-119).

A. deals with a few Avicennian doctrines, i.e. possibility-necessity; causality; the Active Intellect and the soul; God's knowledge of particulars. A. then offers a few remarkable, or rather: surprising ideas, such as:

1. Contingent things are obliged to wait before they come into existence in a kind of metaphysical limbo which is entirely independent of God's will;
2. Aristotle's 'principle of plenitude' (J. Hintikka) lies at the heart of I.S.'s theory of possibility as 'necessity through another';
3. Action is logically entailed by something's nature;
4. Prime matter is brought about by the Active Intellect;
5. God's knowledge is in fact all-encompassing, because His knowledge is the cause of the universe being one way rather than another.

These ideas are not necessarily wrong, but neither are they evident. Therefore, textual evidence is required in order to prove their correctness!

(11) MUNK, S., Ibn-Sîna, in: *Mélanges de philosophie juive et arabe*. Paris, 1859. Repr. Paris, Vrin-Reprise, 1980, 1988, 352-366; repr. also in: *Des principaux philosophes arabes et de leurs doctrines* (Part III of the *Mélanges*). Paris, Vrin-Reprise, 1982, *ibid*.

(12) NASR, S., Avicenna (Ibn Sînâ) and the Philosopher-Scientists, in: *Three Muslim Sages*. Cambridge, Mass., 1964, <sup>2</sup>1969. Repr. New York, Caravan Books, 1976, 9-51 (this book has been published in Arabic: Beirut, Dâr an-Nahâr li 'l-Nashr, 1971, and also in Persian: Tabriz, 1966, <sup>3</sup>Tehran, K. Jûbî, 1975).

(13) ID., Ibn Sînâ, in: *An Introduction to Islamic Cosmological Doctrines*. Cambridge, Mass., 1964. Rev. ed. London, Thames and Hudson, 1978, 175-274.

No fundamental changes seem to have effected the section on I.S. in this revised edition, when compared to the first edition. However, a relevant supplement to the previous bibliography has been added.

(14) ID., Ibn Sînâ and his Scientific and Philosophical Importance, in : *Iranzamin*, 1<sub>1</sub> (81), 51-64 (Pers).

This paper offers the translation into Persian of 13, p. 177-185.

(15) RAMÓN GUERRERO, R., Avicena, in : *El pensamiento filosofico arabe*. Madrid, Cincel, 1985, 110-129.

A. offers a very basic outline of some of I.S.'s doctrines (logic - metaphysics - psychology), after a brief discussion of I.S.'s "Oriental philosophy" (on the whole, A. seems to rely on Cruz Hernandez, see *supra*, 5).

Good, but introductory.

(16) SAEED SHEIKH, M., Ibn Sînâ, in : *Islamic Philosophy*. Lahore, 1962; <sup>2</sup>London, The Octagon Press, 1982, 67-84.

## C. Papers

*Note* : Since these are general-introductory papers the annotation is brief.

(1) ADUSZKIEWICZ, A., Life and Work of I.S., in : *Awicenna...* (see IV, A 12), 191-195 (Pol).

(2) AINTABI, F., Ibn Sîna. Genius of Arab-Islamic Civilization, in : *Ind. J. Hist. Sc.*, 21 (86), 217-219.

Very laudatory, of almost no value.

(3) AKA, I., The Historical Importance of Ibn Sîna, in : *Kayseri Kongr.*, 10-16 (Tu).

(4) AKHMEDOV, B., The Time and Thought of Ibn Sîna, in : *Pasto Q.*, 3<sub>4</sub> (80), 41-77 (Ru).

(5) 'ALÂ AL-DÎN, M., Thousand Years after the Birthday of A.A. Ibn Sîna, in : *Al-turâth al-'arabî*, 3<sub>10</sub> (83), 127-134 (Ar).

General, A. deals with various aspects of I.S.'s thought, paying special attention to a few elements of Soviet investigations on I.S.

(6) 'AMMAR, S., Ibn Sîna, le plus grand savant musulman et l'un des plus grands de l'humanité, in: *Avicenne*, 17-27 (Ar).

Introductory, but A. pays some special attention to I.S.'s medical works and ideas.

(7) ID., Life and Works of Ibn Sîna, in : *Al-shaykh al-ra'îs...*, 171-182 (Ar).

Good - Introductory.

(8) ID., The Importance of the Life of Ibn Sîna, and of his Cultivation, in : *Maj. 'arab. lil-thaqâfa*, 2<sub>1</sub> (82), 213-225 (Ar).

A. adheres the thesis of a major evolution in I.S.'s thought. For him, I.S. was an outspoken scientific spirit, who gave abstraction an important place in his thought.

(9) ARSLAN, A., The Philosophy of Ibn Sînâ and its Place in the History of Thought, in : *E. Sosyal Bilimler Fak. Dergisi*, 2 (81), 253-261 (Tu).

(10) ASHUROV, G., Ibn Sînâ, A Distinguished Medieval Scholar, in : *Ibn Sino...*, 5-9 (Ru).

(11) ÂŞIK, M., The Great Turkish Scholar Ibn Sînâ, in : *Konevî*, Sept. 83, 16-17 (Tu).

(11) ASIMOV, M., Avicenna in the History of World Culture, in : *Sov. Stud. in Philos.*, 19<sub>4</sub> (81), 54-69; also in : *Vopr. Filos.*, 1980<sub>7</sub>, 45-54 (Ru), 187 (Engl S.).

A. adheres to a Marxist-inspired interpretation, but recognizes the presence of idealistic elements in I.S.

(13) ID., Ibn Sînâ and World Civilization, in : *NAA*, 1980<sub>5</sub>, 77-88 (Ru); also in : *Proc. 16th. Int. Congr....*, 357-360 (Ru).

(14) ID., Ibn Sînâ-Avicenne, un génie universel, in : *Le Courier de l'Unesco*, 1980<sub>10</sub>, 4-8.

Very laudatory, rather uncritical.

(15) ID., The Greatness of Ibn Sînâ, in : *Vopr. Ist.*, 1980<sub>8</sub>, 98-112 (Ru).

(16) ID., Poetic and Socio-ethic Views of Ibn Sînâ, in : *Ind. J. Hist. Sc.*, 21 (86), 257-260.

Almost *verbatim* the same as the last part of 17. A. states that I.S. is a humanist.

(17) ID., The Life and Teachings of Ibn Sînâ, in : *Ind. J. Hist. Sc.*, 21 (86), 220-243.

A brief presentation of I.S.'s bio-bibliography (for the biography A. makes largely use of old Persian sources), and a basic outline of I.S.'s philosophical and medical ideas, A. states that I.S.'s ontology is idealistic in its principles, but that materialistic tendencies prevail in his epistemology. Regarding medicine, A.

stresses the presence of many novelties in I.S.'s *Canon*, based on experience and observation.

Some interesting ideas, but overemphasizing I.S.'s innovations. Basically Marxist in inspiration.

(18) ID. and DINORSHOEV, M., Ibn Sînâ's Contribution to World Civilization, in : *Ibn Sino...*, 10-32 (Ru).

(19) BARATOV, M., Ibn Sînâ, the Great Philosopher-Encyclopaedist, in : *Ibn Sîno. K-1000 letiju*, 26-47 (Ru).

(20) ID., *Veliky muislitel A.A.i. Sinui (The Great Thinker Ibn Sînâ)*. Tashkent, Fan, 1980 (brochure), 38 pp.

The same as, or an extended version of 19?

(21) BIN HASAN, E., The Genius of Avicenna, in : *Indo-Iranica*, 34 (81-82), 60-65.

A. pays some special attention to I.S.'s political ideas.

(22) CARGEV, G., Avicenna (for the Millenary on his Birth), in : *Filos. Nauki*, 1980<sub>4</sub>, 93-99 (Ru).

(23) CRUZ HERNANDEZ, M., Avicena, jefe de los sabios, in : *Historia* (Madrid), 6 (81), nr. 62, 95-102.

Valuable, although written for a large public.

(24) ÇUBUKÇU, I., Ibn Sînâ, in : *Sümerbank*, 15 (76), 33-36 (Tu); also (or another version?) in : *Bilim ve Teknik*, 14 (June 81), 11-13, and : *Silahli Kuvvetler Dergisi*, 102 (Dec. 83), 81-84 (Tu).

(25) ID., La philosophie d'Ibn Sînâ, in : *Ulusl. I.S. Semp.*, 93-98 (Tu), 99-100 (Fr S.); also (?) in : *Kayseri Kongr.*, 231-234 (Tu).

Acc. to S., very superficial.

(26) ID., The Place of Ibn Sînâ in the Philosophy of Islam, in : *Ibn Sînâ. Doğumunun...*, 13-20 (Tu).

(27) CUMBUR, M., Some Important Notes on Ibn Sînâ, in : *Millî Kültür*, 41 (83), 5-6 (Tu).

(28) DAVARI, R., Une pensée novatrice, in : *Le Courier de l'Unesco*, 1980<sub>10</sub>, 29-31.

A somewhat confused paper. A tries to explain I.S.'s originality by the latter's doctrine that prophecy is the ultimate of human perfection. But, at the same time, A. affirms that I.S. is a religious philosopher in the very same way as al-Fârâbî!

(29) DINDAR, B., Ibnî Sînâ, in : *Ulusl. I.S. Semp.*, 603-610 (Tu).

(30) DOĞRAMICI, İ., Ibn Sînâ. Some Facets of his Life and Work, in : *Ulusl. I.S. Semp.*, 77-84 (Tu); 85-92 (Engl); also in : *Proc. 1. Int. Conf. Isl. Med.*, 137-137 (Engl).

A rather confused paper, presenting various aspects of I.S.'s thought, but without any cohesion, of no great value.

(31) ESIN, E., Ibn Sînâ and Turkish Culture, in : *Ulusl. I.S. Semp.*, 531-552 (Tu), 552 (Engl S.); 553-562 (plates).

Acc. to S., A. tries to demonstrate that there existed elements of Turkish culture in Bukhârâ at the time of I.S.'s birth. Therefore I.S. underwent Turkish influences.

(32) FAHHÂN (AL-), SH., Remembrance of Ibn Sînâ. Commemorating the Millenary of his Birthday, in : *RAA DAMAS*, 56<sub>1</sub> (81), 35-65 (Ar).

A. evokes in some detail the life, and life-circumstances of I.S. according to the ancient Arabic sources, especially al-Qiftî. Moreover, A. presents I.S. as a *homo universalis*, and a main representative of Islamic philosophy and medicine (in rather general terms), stressing I.S.'s genius. A. also insists on the specificity of I.S.'s "Oriental philosophy".

The paper contains valuable information, especially from the biographical point of view.

(33) FEDOSEEV, P., Avicenna : uno scienziato enciclopedico, in : *Rassegna Sovietica*, 3 (81), 199-201. (N.C.)

(34) GHASSEM, M., Ibn Sînâ's Way of Life : between Science and Philosophy, in : *M. al-'arab. lil-'ulûm al-insân.*, 4 (nr. 15) (84), 163-171 (Ar).

A. offers a classical outline of I.S.'s life, and presents I.S. as an extraordinary genius both in the medical and in the philosophical fields. A.'s choice of items in both areas is rather arbitrary, and, in some cases, even questionable (e.g. in the case of I.S.'s so-called psychosomatic healings).



(35) HADŽIOLOV, A., Ibn Sînâ. A Distinguished Physician, Scientist, Philosopher and Humanist, in : *Priroda*, 30<sub>1</sub> (81), 86-89 (Bulg).

(36) HEGENBERG, L., Avicena (980-1037). Mil años despoís, in : *Rev. Portug. Filos.*, 36 (80), 121-130.

At most, a very introductory paper. A. shows a clear tendency to approach I.S.'s thought exclusively from the point of view of the Latin Middle Ages.

(37) JOHHÂ, F., Ibn Sînâ in the Commemoration of the Millenary, in : *Al-mawqif al-'arabî*, nr. 119 (81), 144-160 (Ar).

A good, but rather conventional description of I.S.'s life, works (with some special attention to his major works) and influence, both in the East and the West (philosophical and medical!). A. also deals with elements of the Unesco-Millenary.

(38) ID., The Place of Ibn Sînâ in the Actual History of the Arabs and of Humanity, in : *Al-ma'rifa*, 19 (nr. 228) (81), 184-186 (Ar).

After a brief survey of some major contemporary publications on I.S., A. mentions the classical sources for I.S.'s biography (in a rather conventional way), and enumerates a few remarkable scientific and philosophical ideas of I.S. (clearly based on secondary sources).

(39) KACHANI, M., La science d'Ibn Sînâ en dehors de la Médecine, in: *Avicenne*, 45-47 (Ar).

Very introductory.

(40) KAHYÂ, E., Ibni Sînâ, in : *Milli Kultur*, 41<sub>8</sub> (83), 2-4 (Tu).

(41) KAUR, M., Avicenna : His Life, Works and Impact, in : *Stud. Hist. Med.*, 7 (83), 216-235.

Introductory, mainly based on secondary sources, A. himself affirms that the paper does not claim any new findings on I.S.'s life or works.

(42) KEKLIK, N., Avicenna as a Doctor and a Judge, in : *Kayseri Kongr.*, 313-333 (Tu).

(43) ID., The Turkish-Muslim Philosopher Ibn Sînâ, his Life and his Works, in : *Felsefe Arkivi*, 22/23 (81), 1-53 (Tu).

(44) KHAN, M., Ibn Sînâ and Rationalism, in : *Islam and the Modern Age*, 15<sub>2</sub> (84), 115-127.

A. characterizes I.S. as a rationalistic philosopher, who while adopting the

rationalism and the scientific method of the Greeks, also attempted to bring about a reconciliation between reason and revelation. A. hereby briefly mentions I.S.'s relationship with Aristotle and with Greek logic, I.S.'s rejection of alchemy and astrology, I.S.'s attitude as a physician, and I.S.'s opinions on creation and resurrection.

(45) ID., Ibn Sînâ : Philosopher, Physician and Scientist, in : *Isl. Cult.*, 56 (82), 249-264.

A good introductory study, based on a wide range of secondary sources, although sometimes somewhat outdated.

(46) LEY, H., Avicennas militanter Humanismus, in : *Avicenna / Ibn Sînâ*, I, 17-37.

An "orthodox" Marxist-materialistic analysis of the significance of I.S.'s thought, which is characterized as materialistic, humanistic, and even democratic (sic!). Nevertheless, one may find some interesting ideas, e.g. the observation that I.S. clearly distinguished between the concept, solely existing in the soul and the concept, which corresponds to something in outer reality.

(47) ID., Ibn Sînâ (Avicenna, 980-1037), Gründe für 1000 Jahre Rückerinnerung, in : *Deutsch Z. Philos.*, 28 (80), 1309-1323.

The same basic Marxist approach as in 46, but now emphasizing the naturalistic foundation of I.S.'s philosophical and scientific system.

(48) MARTIN, M., Abû 'Alî al-Ḥusayn bin 'Abdallah bin Sînâ (Avicenna), in : J. HAYES (Ed.), *The Genius of Arab Civilization : Source of Renaissance*. 2nd ed. London, Eurabia, 1983, 196-197.

A very brief description of some of I.S.'s major ideas, rather questionable at times in his use of language (e.g. I.S. was eager for practical knowledge of the illnesses he had studied).

(49) MAULA, E., Un médiateur entre trois cultures, in : *Cultures*, 7<sub>4</sub> (80), 188-193.

A popularized account portraying I.S. as a mediator between the Greek, Islamic and Christian cultures.

(50) MONTEIL, V., Ibn Sînâ et l'avicennisme, in : *Cultures*, 7<sub>4</sub> (80), 194-207.

A. discusses the 'Peripateticism' of I.S. as well as his "Oriental philosophy", mainly on the basis of such classical authorities as Gardet, Corbin, Massignon, etc. Moreover, A. gives primary consideration to I.S.'s *Canon*.

(51) NARAYAN SARKAR, J., A Layman's Homage to Avicenna, in : *Indo-Iranica*, 34 (81-82), 41-56.

A very general survey of I.S.'s life and works, his sources, his original ideas and his historical influence. A. pays special attention to the Indian contributions.

(52) NASR, S., Avicenna, Prince of Science and Philosophy, in : *Ur* (London), 1979 (Jan-Febr), 32-35 (N.C.).

This journal was not identified.

(53) ID., Une philosophie prophétique, in : *Cultures*, 7<sub>4</sub> (80), 171-187.

A. first stresses that I.S. underwent influences of almost all the currents of thought of his time, including those he severely criticized, e.g. the *kalam*. Then, he distinguishes between I.S.'s "Peripatetic" works and his "Oriental" works, but he insists that there is no real evolution in I.S.'s thought. The Oriental philosophy constitutes rather another intellectual dimension of his Peripatetic philosophy. Hereafter, A. describes the basic ideas of I.S.'s ontology, cosmology and theory of knowledge. A. categorically rejects the interpretation that for I.S. existence is an accident. He also briefly, but significantly mentions I.S.'s influence, both in the East and in the West.

A valuable paper, notwithstanding its introductory character.

(54) PAYZÎN, S., The less known Ideas of Ibn-i Sina (Avicenna), in : *Ususl. I.S. Semp.*, 467-474 (Tu); 475-477 (Engl S.).

Acc. to S., A. enumerates and discusses what he considers to be I.S.'s most original ideas in different domains, e.g. geology, physics, physiology, medicine, etc., as well as in philosophy.

(55) PETROV, B., Ibn Sînâ (In the Millenium of his Birth), in : *Med. Sestra*, 39<sub>8</sub> (80), 45-51 (Ru).

(56) RAHMAN, A., On Relevance of Ibn Sînâ Today, in : *Ind. J. Hist. Sc.*, 21 (86), 207-216.

A. accuses the West of having neglected the scientific tradition of Asia, as e.g. in the case of I.S. (sic!). Of almost no value.

(57) REDL, K., Ibn Sînâ, in : *Mayyar Filozof Szemle*, 1981, 398-402 (Hung).

(58) SAID, M. and RASHID, S., Avicenna : Physician, Philosopher and Scientist, in : *Proc. I. Int. Conf. Isl. Med.*, 138-147.

Introductory, special attention to I.S.'s medical ideas.

- (59) SAYILI, A., Ibn Sînâ..., in : *Doğumunun*, 1-11 (Tu).
- (60) SHARMUHHAMEDOV, SH., Abû 'Alî ibn Sînâ - Poet and Humanist, in : *Zvezda Vostoka*, 1981<sub>3</sub>, 114-117 (Ru).
- (61) SURÛJÎ (AL-), A., A Scientific Meeting with Ibn Sînâ, in : *Al-majalla al-'arabiyya* (Riadh), 4<sub>3</sub> (80), 74-77 (Ar).  
Very general, laudatory. No single citation is specified!
- (62) TERZIOĞLU, A., Ibn Sînâ, in : *Bilim ve Teknik*, 16 (March 1983), 32-33; also in : *Millî Kultûr*, 41<sub>8</sub> (83), 13-14 (Tu).
- (63) TULEPBAEV, B., The Scholar-Encyclopaedist of the Medieval Orient : Abû 'Alî ibn Sînâ, in : *Vestn. Ak. Nauk Kazakh. SSR*, 1980<sub>11</sub>, 10-13 (Ru).
- (64) TUNÇ, C., Ibn Sînâ, in : *Kayseri Kongr.*, 181-182 (Tu).
- (65) TURGUT, İ., Understanding Ibn Sînâ (A Methodic Approach), in : *Ulusl. I.S. Semp.*, 415-420 (Tu); 421-423 (Engl S.).  
Acc. to S., A. defends an analytical (in the sense of the Anglo-Saxon "analytical philosophy") approach of I.S.'s thought, and therefore requires a translation of all I.S.'s works into Turkish.
- (66) TURSUMOV, A., The Philosophy of Ibn Sînâ : its Origins, its Problems and its Historical Destiny, in : *Filos. Nauki*, 1981<sub>1</sub>, 80-92 (Ru).
- (67) ÜLKEN, H., The Philosophy of Ibn Sînâ, in : *Felsefe Arkivi*, 22/23 (81), 55-82 (Tu).
- (68) ÜNGÖR, E., Life, Works, and Ideas of the Master of Music Ibn Sînâ, in : *Musiki Mecmuasi*, 33 (80), 5-8 (Tu).
- (69) VILAŞECA FORMÉ, S., Avicenna, in : *Conf. Est. Hist. Org. Ciencia (Cuba)*, 28 (82), 1-29.  
A. discusses I.S.'s biography, the general historical context, and a summary analysis of I.S.'s major works (based on secondary sources, mainly of Marxist origin). Of almost no value.

(70) YUSUF, K., Avicenna: His Life and Works, in: *Indo-Iranica*, 25<sub>3-4</sub> (72), 158-170.

Of no value, includes many errors!

(71) ZAYOUR, 'A., Sketch of Ibn Sînâ's Everlasting Teachings, in: IBN SÎNÂ, *Al-Qânûn...* Beirut, 1987 (see: *Works*, B 1), I, pp. mim-shin (Ar).

A basic outline of some of I.S.'s philosophical, political and religious ideas.

(72) ZOAKOS, C., Ibn Sînâ and the Dawn of the Humanist Heritage, in: *The Campaigner*, 10<sub>3</sub> (77), 10-47.

A. presents I.S. as the founder of the humanist tradition, i.e. the tradition of unified thought and action, and even as the first thinker, who put forward a systematically elaborated "voluntarist" world outlook (sic!) and a precursor of modern natural science. (Moreover, for A., I.S. solved Kant's antinomies (seven centuries before their formulation, as he himself stresses!) by declaring that human mentation transforms the laws of the universe.) A. places I.S.'s rejection of the Aristotelian split between *vita activa* and *vita contemplativa* at the basis of this "progressive Avicennian attitude". In the main part of the paper A. discusses I.S.'s (auto-)biography, his metaphysics of the *Dânesh-Nâmeh*, and his influence on the West. (A. always makes use of the existing English translations of I.S.'s texts, i.e. Gohlman (autobiography) and Morewedge (*Dânesh-Nâmeh, Book of Science*.)

This phantogorial interpretation is more significant regarding A.'s personal convictions than for an historical understanding of I.S.

## Chapter VI

# Logic and Epistemology

A. LOGIC

B. NOETICS

C. DIVISION OF THE SCIENCES

See also :

III, 5

V, C 16, 17, 44, 46

IX, 9

XI, B-I, 3; XI, C 11

XII, 6

XIII, 9, 15, 28, 43

XIV, A-I, 10, 19; XIV, A-II, 12;

XIV, A-III, 1, 6, 13; XIV, A-IV, 3

XV, A 3

XVI, A 1, XVI, P 12, 21; XVI, R 6



## A. Logic

(1) ABED, SH., art. Avicenna-Logic, in : *Enc. Ir.*, 70-73.

Acc. to A., the question whether logic is a part of philosophy, or only an introduction to and a tool for philosophy, was meaningless for I.S. - who was convinced of its utility for all of the sciences. As to the proper subject matter of logic, it is formed by the secondary intelligibles. A. notes that the very distinction between primary intelligibles and secondary intelligibles is not original in I.S., but occurs in several writings prior to his. He declares this distinction to be a factual extension and development of the Aristotelian theme concerning the three modes of discourse (written, spoken and mental) - to which I.S. added the dimension of the external thing. Then A. indicates some ambiguity in I.S.'s position with respect to the relationship between logic and language, insofar as I.S. seems to posit that language is not an integral part of logic, but at the same time he seems to defend the particular view that secondary concepts are generated by language. Whatever I.S.'s final position was, one must acknowledge that he paid much attention to the problem of this relationship in his logical inquiry, as becomes clear in his theory of utterances. A. concludes that I.S.'s logical theory is mainly Aristotelian (and Stoic, where it concerns the theory of conditionals), and that it offers a coherent and systematic encyclopaedia of Arabic logic.

A clarifying introduction to some basic ideas and problems of I.S.'s logic.

(2) AKDOĞAN, C., The Theory of Species in Avicenna, in : *Ulusl. I.S. Semp.*, 223-226 (Tu), 226 (Engl S.).

Acc. to S., Aristotle's theory of perception was converted by I.S. into a special theory of *species*.

(3) BLACK, D., The 'Imaginative Syllogism' in Arabic Philosophy. A Medieval Contribution to the Philosophical Study of Metaphor, in : *Med. Stud.*, 51 (89), 242-267.

Having remarked that the Islamic philosophers have developed the poetical syllogism as a response to the claim that all logical disciplines partake in some way in the syllogistic method, A. first observes that for both al-Fârâbî and I.S. poetic syllogisms are composed out of imaginative (in its broadest sense) premisses. Not assent, but the arousal of various emotions constitute the proper end of the poetic syllogism. However, for I.S. (contrary to al-Fârâbî) no scheme of the modalities of the propositions, with which the logical arts are dealing is needed in order to delineate these arts, since both assent and imagination are



forms of acceptance. Acc. to A., I.S.'s rejection of such a modal distinction is based on a kind of metalogical distinction between two possible perspectives from which one can then distinguish simple assertoric propositions, i.e. one ontological, and another epistemological. So, both the knower's mode of accepting the conclusion *and* the epistemological intention of the logician are equally important. But I.S. agrees with al-Fârâbî that the basic device by which the imaginative motive is produced in the audience is imitation. A. concludes that the proper poetical syllogism is a species of practical syllogism (based on Aristotle's *De Anima*, 3, 10, and the Stagirite's *akrasia*-theory in the *Nich. Eth.*).

A scholarly paper, worth of consideration.

(4) BOLAY, M., La théorie de la quantification du prédicat et les dispositions à prédicat quantifié dans la logique d'Avicenne, in : *Ulusl. I.S. Semp.*, 587-600 (Tu), 601 (Fr S.).

Acc. to S., A. defends the thesis that I.S. did discover the quantification of predicates (long before Hamilton!).

(5) ID., Les propositions modales dans la logique d'Avicenne et l'application de ces propositions au droit Islamique par Ibn Ḥazm, in: *Ulusl. I.S. Semp.*, 587-600 (Tu), 601 (Fr S.).

Acc. to S., the five legal categories in Ibn Ḥazm would correspond to the five basic logical modalities recognized by I.S.

(6) ID., see : GRÜNSBERG, T.

(7) CRUZ HERNANDEZ, M., Posibles novedades en la logica de Ibn Sînâ, in : *Cuad. Salm. Filos.*, 9 (82), 237-245.

A. starts with a brief, but relevant presentation of the most important studies (in Western European languages) on I.S.'s logic. Hereafter, he examines the different *possible* non-Aristotelian sources, which might have influenced I.S.'s logic in one way or another (I.S.'s basic inspiration being without discussion Aristotelian). In this respect, A. detects a most significant example in I.S.'s theory of the exceptive syllogism (of which A. provides a detailed analysis). A. concludes that I.S. does not introduce many logical innovations, but nevertheless sometimes departs from the pure Aristotelian point of view - using instead of it Stoic ideas (esp. based on Chrissipus), although he adapts these ideas in an original way. A very fine paper, especially as to the historical sources of I.S.'s logic.

(8) DAHIYAT, I., *Avicenna's Commentary on the Poetics of Aristotle*. Leiden, Brill, 1974, Introduction : 1-58.

In the first part of his introduction, A. describes in some detail the Arabic reception and transmission of the *Poetics*. In the second part, A. deals more specifically with I.S.'s commentary. A. stresses that I.S.'s perspective is very

affective, and audience-oriented. A. observes that I.S. maintains a strong dichotomy between form and content in the first part of his work, although he modifies it later. In this very same context, A. also points out the existence of a double concept of *mimèsis* in I.S. For A., the second vital aspect of I.S.'s approach to the *Poetics* consists of his use of (Aristotle's) Rhetoric in order to understand some essential issues of the *Poetics* (I.S. explains the distinction between these two arts in teleological terms). A. concludes that one may detect in I.S. a shift in emphasis from the imaginative and teleological discussion of poetry (al-Fârâbî) to the ethical and social aims of Greek poetry. A significant introduction, a serious basis for further investigation.

(9) DÂNESH PAZHUH, M., The Logic of Ibn Sînâ, in : *Hazâra-i Ibn Sînâ*, 143-159 (Pers).

A. offers a classical description of the outline of I.S.'s logic, as well as of its historical background. He also mentions those authors (mostly theologians), who rejected the Avicennian (-Aristotelian) concept of logic. Honest, but conventional.

(10) FURHÂN, M., Lessons on a Logical Project for a Language in Ibn Sînâ, in : *Al-bâhith*, 4 (81), 85-101 (Ar).

After a brief historical sketch of the development of logic prior to I.S., A. presents the main lines of thought of I.S.'s logical theory in the *Ishârât wa-Tanbîhât, Remarks and Admonitions*. In discussing the subject of logic, he rejects the thesis that I.S. considers logic to be a purely instrumental science, and attempts to show in much detail that I.S. makes language into a basic part of logic. A. presents I.S. hereby as a precursor of some contemporary logical theories.

A meritorious paper, but see 1 for a potentially better and more correct view on this matter.

(11) GÄTJE, H., Zur Lehre von der Voraussetzungsschlüssen bei Avicenna, in : *Z Gesch. arab.-isl. Wiss.*, 2 (85), 140-204.

Having indicated the special significance of I.S.'s *Shifâ, K. al-Qiyâs (The Cure, Book of Syllogism)* as the first systematical discussion on logic in Arabic philosophy (A. judiciously adds : in the absence of a complete edition of al-Fârâbî's works), A. pays special attention to Shehaby's partial translation of I.S.'s text (see *Works*, A II), and proposes a list of corrections with respect to the latter (in fact, this paper can be considered as a kind of critical supplement to Shehaby's book). Then A. presents a few characteristics of I.S.'s approach to syllogisms, e.g. the placing of the *propositio maior* before the *propositio minor*, the introduction by I.S. of a temporal quantifier for complete statements with respect to hypothetical and disjunctive propositions, etc... Hereafter, A. enters the heart of the matter, and discusses such topics as :

- the division of the syllogistic system (A. pays special attention to al-Fârâbî Chryssipus and Theophrastus as possible sources of I.S.);

- hypothetical propositions (A. stresses its great similarity with Boethius' doctrine, both probably based on a common - to us unknown - Greek source);
- disjunctive propositions (A. indicates that I.S. distinguished three modes of disjunction, corresponding to the Greek *diezeugmenon* or *dihairetikon*, *paraplésion diezeugmenon* and *paradiezeugmenon*, and observes that some confusion exists in I.S. between the latter two);
- exceptive syllogisms (A. presents conclusions very similar to 7 which he is unfortunately not acquainted with as becomes evident in the selective, but significant, bibliography!);
- connective-conditional propositions (A. overviews and critically evaluates some of I.S.'s most important figures in this respect, and presents at the same time some important corrections to Shehaby's interpretation).

In his conclusion, A. concentrates on the dihairetic (Shehaby: divided) syllogism. He convincingly shows that it is a part of the connective-conditional propositions, and that it represents an original development in I.S.'s system, which is based on a predominantly Aristotelian concept of logic (although this has direct foundation in tradition).

A most fundamental paper, an essential companion to Shehaby's translation.

(12) GARASÎ, A., The Influence of Logic on the Science of Fundamentals, in: *Hazâra-i Ibn Sînâ*, 185-223 (Pers).

'Science of Fundamentals' means in this context a branch of Islamic *fiqh*, jurisprudence. A. discusses the influence of logic on this science in much detail, without almost any attention to I.S.'s possible contribution to it. Such fundamental questions as, to what extent, and in which manner did I.S.'s logic influence legal matters, are not treated.

(13) GRÜNSBERG, T. and BOLAY, N., An Examination of Ibn Sînâ's Modalities from the Point of View of Modern Formal Logic, in: *Ulusl. I.S. Semp.*, 341-351 (Tu), 352 (Engl S.).

Acc. to S., a discussion of I.S.'s theory of modalities in the light of modern symbolic logic.

(14) HADDAVY, H., Avicenna on Style, in: *Alif. J. Comp. Poetics (Cairo)*, 1 (81), 21-37 (Ar S., 21-22).

A. first indicates the existence of two basic polarizations in I.S., i.e. 1. between logic (and its demonstrative nature, destined to the élite) and rhetoric (being the way to truth for the masses); and 2. between poetry (expression without reflection!) and, once more, rhetoric (expression in search of meaning). A. remarks, moreover, that I.S.'s *Book of Rhetorics* (book 8 of the logical part of the *Shifâ*), while being a commentary on Aristotle differs from Aristotle in organization, idea and emphasis. A. evokes *inter alia* the very fact that I.S. attributes to style a middle position between the rational proof of demonstration and the irrational imaginative response. He remarks also that I.S.'s tract is much

more confused than Aristotle's, partly due to material reasons, and also partly due to his wish to develop an original view. Out of an analysis of the first three chapters of part five, A. brings to the fore I.S.'s rather reserved attitude towards the use of metaphors in rhetoric; his conception of metaphor as juxtaposition; his interpretation of the classical Arabic ornaments of style in terms of strict Aristotelian functionalism; and, finally, his reducing rhetoric to a tool, albeit a powerful one!, for philosophy.

A most valuable study, although one may wonder whether a detailed study of the whole *Book of Rhetorics* is not necessary in order to establish the precise relation between I.S.'s text and Aristotle's?

(15) INATI, SH., Avicenna on Single Expressions, in : M. MARMURA (Ed.), *Islamic Theology and Philosophy*, Albany, New York, SUNY, 1984, 148-159.

I.S.'s theory of single expressions is studied by A. on the basis of its exposition in the *Shifâ, Al-'ibâra (De Interpretatione)*. A single expression is in I.S.'s framework a single or a separate utterance which has an independent signification, being either a verb or a noun (adjectives are considered by I.S. as nouns). Single (or simple) expressions lie at the very roots of logic, since they represent the basic components of explanatory phrases or proofs, covering the two essential domains of logic : conception and assent. They moreover 'mirror' or 'signify' single concepts. Now, the logician is concerned with the essential signification or signification by correspondence of single concepts. A. shows by a concrete example how I.S. understands this, and indicates some ambiguity in the latter with respect to expressions having a negative particle as one of their components. A. concludes with a major difficulty in I.S.'s thought : the signification of an expression is sometimes made dependent upon the speaker's intention, but on other occasions it is posited as conventional. Moreover I.S. does not respond to the question as to how the hearer can determine the speaker's intention.

A well-documented study of a specific topic in I.S.'s logic-although the (rightly) observed major difficulty calls for further investigation.

(16) KEMAL, S., Ibn Sînâ's Intersubjective Aesthetics, in : *BSMES Proc. 1986 Int. Conf.* Oxford, BSMES, 1986, 27-36.

Presents some of the basic ideas of 17.

(17) ID., Medieval Arabic Poetics : Poetic Syllogism and Community in Avicenna's Commentary on Aristotle's *Poetics*, in : *Philos. Res. Arch.*, 14 (88-89), Microfiche Suppl., 20-122.

Acc. to A.'s own abstract, the paper is divided into two parts, the first of which examines I.S.'s opinion about poetic imagination and the use he makes of this concept in justifying a 'poetic syllogism' which accounts for aesthetic validity. The second part develops his account of the poetic syllogism in order to show that the completeness of the syllogistic argument requires the reader to allow for

the kind of community and moral validity sustained by poetic validity. It is almost impossible to give a complete survey of the rich content of this paper, but, by way of illustration, we mention a few ideas :

- The images of poetic imagination are grasped by reference to the relationships among the parts of the utterance and by reference to the subjects (poet and audience), who create and understand these compositions;
- The imagined proposition is tested by a comparison within the proposition (a subversion of the traditional poetic *wasf*);
- All meaningful figurative language is constructed out of the five poetic forms;
- In the poetic syllogism, in spite of the absence of principles and axioms, the pleasure evoked by harmony guards against incompleteness by showing that the forms and terms must be finite;
- The relational and intentional components make pleasure in poetry intersubjective;
- The constructive aspect of poetry (although not explicitly discussed by I.S. himself) proves the completeness of the poetic syllogism;
- I.S.'s concern deals with general arguments about poetry rather than with particular analysis of poetic works.

A very substantial paper, although some of A.'s interpretations (esp. those based on extrapolations) are open to discussion.

(18) MADKOUR, I., Avicenniana. Le Livre de l'interprétation du *Shifâ*, in : *MIDEO*, 10 (1970), 749-258.

Reprint of A.'s introduction to the edition of *Shifâ, al-'Ibâra* (see *Works*, AII). A. offers a brief, but significant description of the historical background, as well as a basic outline of the work, paying special attention to the most important deviations from Aristotle.

A valuable basic introduction to the text.

(19) MALIKSHÂHÎ, H., Ibn Sînâ and the Modification of Aristotle's Logic, and : Râzî's Criticism of the Logic of the *Ishârât*, and Ṭūsî's Answers, in : H. MALIKSHÂHÎ (Transl. and Comm.), *Ibn Sînâ-Ishârât wa-Tanbîhât*. Tehran, Soroush, 1988, vol. 2, 11-115 and 117-152.

A. states that in his later works I.S. develops a new logic, which is clearly linked to his project for an Eastern philosophy. Then A. enumerates, and discusses the specificities of I.S.'s logic. We may cite :

- I.S.'s opinion that the discussion of the primary categories belongs to metaphysics;
- I.S.'s limitation of the proper subject of logic to definition and demonstrative reasoning (except in the *Shifâ!*);
- I.S.'s acceptance of a close link between logic and grammar;
- The accidentality of existence, but, acc. to A., the question of an eventual priority of essence over existence (or vice-versa) did not arise in I.S. (it only occurred in later philosophy);
- I.S.'s many additions to Aristotle's logic of propositions, e.g. regarding

modalities;

– I.S.'s exigence that the quality required for the qualification of the subject by the predicate in affirmative propositions has to reside *in actu*, not *in potentia* (as in al-Fârâbî);

– The introduction by I.S. of the connective hypothetical syllogism, as well as of the exclusive syllogism.

A. also presents in detail the great influence I.S.'s logic had on later Persian thinkers. Finally, regarding Râzî's criticism of I.S.'s logical ideas, and Tûsî's response, A. gives no fewer than 13 particular items.

A well-documented, and very interesting introduction, although A.'s acceptance of a specific "Oriental philosophy" in the late I.S. is questionable, see *Religious Themes and Mysticism*, C 11.

(20) MARMURA, M., Avicenna's Chapter on Universals in the *Isagogè* of his *Shifâ*, in : A. WELCH and P. CACHIA (Eds), *Islam : Past Influence and Present Challenge*. Edinburgh, Edinburgh Univ. Press., 1979, 34-56.

Based on a critical translation of *Shifâ, al-Madkhal (Isagogè)*, b. I, ch. 12 (see *Works*, A II), A. views I.S.'s theory of the universal as a variation on Aristotle's realism. He explains why the inclusion of metaphysical considerations in this context, should not be seen as the result of a fundamental confusion between metaphysical and logical investigation on the part of I.S. Finally, A. suggests that the distinction between what a thing is and that it exists in the mind probably underlies the I.S.'s all-theory on predicables. It has to be noted that A. pays much attention to the basic terminology, and its underlying difficulties.

A very fine analysis of a significant text-fragment.

(21) MARÓTH, M., Die Topik Avicennas und ihre Rolle in den arabischen Wissenschaften, in : *Acta Ant. Ac. Sci. Hung.*, 29 (81), 33-41.

The main part of the paper is devoted to the study of the difference between Aristotle's definition of topics and that of Theophrastus (A. also develops this topic, later, for authors such as Cicero, Boethius and Cassiodorus). In the final part, completely devoted to I.S., A. indicates three sources for I.S.'s theory of topics : Aristotle, Theophrastus and an unknown Oriental source. A. emphasizes that I.S. opts for a deductive model of science (induction just being a dialectical method, and, as such, belonging to the field of topics).

A good paper, containing elements essential to a basic understanding of I.S.'s *Topics*.

(22) ID., *Ibn Sînâ und die peripatetische "Aussagenlogik"* (*Isl. Philos. and Theol.*, 6). Leiden, Brill, 1989, 259 pp.

The title does not cover the contents. In fact, A. deals in a comprehensive way with the overall development of the Peripatetic propositional logic. I.S. is only treated as one of the great representatives of this tradition (such as

Theophrastus, Galen or Boethius). Nevertheless, A.'s (scattered) remarks on I.S.'s propositional logic are worth considering. Let us cite :

- I.S.'s twofold division of conjunctive conditional statements into absolute and real (similar to Boethius);
- The reducibility of disjunction to subjunction (in agreement with Galen);
- I.S.'s synthesis between two Peripatetic traditions: one dealing with propositions which have no perfect consequents, the other dealing with propositions which have perfect consequents;
- I.S.'s acceptance of the soundness of Theophrastus' idea of *metalanbomenon*, notwithstanding the fact that I.S.'s accentuation of the relation between propositions has no counterpart in Theophrastus;
- The belief that connectives expressing complete implication allow the deduction of the antecedent from the consequent (contrary to Galen);
- The development of the conjunctive composed syllogism of composed consequents from simple facts (contrary to the Stoics, but similar to Boethius);
- I.S.'s adherence to the "Eastern school", while al-Fârâbî and Ibn Rushd represent the "Occidental school" (which showed less interest in propositional logic than the former).

But, above all, there is A.'s major thesis that I.S.'s propositional logic is not the result of a Stoic influence, but remains faithful to the Peripatetic tradition (Shehaby (cfr. *infra*, 33) already defended this view). Moreover, A. believes that I.S. had at his disposal Peripatetic works, which are no longer in existence.

Certainly, a very stimulating study, although A. introduces a lot of (unwarranted?) extrapolations.

(23) MÛNINÎ (AL-), Q., The Doctrine of Poetry in Ibn Sînâ, in: *Al-Mawrid*, 10<sub>2</sub> (81), 9-25 (Ar).

After a rather conventional introduction on I.S.'s theory of the inner senses, A. states that for I.S. the poetical imagination works with the images of the formative power - poetical imagination being directly linked with dramatic art. The poet is not searching for any verification of his sayings - he just wants to impress his audience. However, I.S. stresses that the poet should guide the behaviour of his audience in a positive direction, and that the subject of the poetical imitation should be identifiable in reality (contrary to Aristotle). Moreover, A. concentrates on poetical utterances (having stimulative principles *and* sensitive principles). While paying special attention to the characteristics, through which they differ from rhetorical utterances. A. concludes that although I.S.'s theory has a historical precedent in several respects, it is at the same time very innovative, especially insofar as it systematizes all the various elements in a very critical fashion.

Valuable, a serious basic outline of I.S.'s theory of poetry.

(24) PARMAKSZOĞLU, I., The Great Philosopher Ibn Sînâ and his *Treatise on Logic (mantik risalesi)*, in: *Millî Kültür*, 41<sub>8</sub> (83), 21-27 (Tu).

(25) SABRA, A., Avicenna on the Subject Matter of Logic, in: *J. Philos.*, 77 (80), 746-764.

Acc. to A., the question whether logic is an instrument for philosophy, or a part of philosophy is for I.S. both false and futile. I.S. defined logic as an inquiry into concepts, and into their properties, insofar as they may lead to the knowledge of the unknown. So, the secondary intelligibles are the proper object of logic for I.S. (A. sets this doctrine in its historical context - evoking such names as Porphyrius, al-Fârâbî, ibn Suwâr and ibn al-Ṭayyib). Moreover, logic, being concerned with the appropriate means of acquiring knowledge, was divided by I.S. into two parts: a theory of definition and a theory of proof (A. hereby examines in some detail the famous distinction between *taṣawwur*, conception, and *taṣdîq*, assertion, or judgment). Finally, A. observes that I.S. seems to consider logic to be an inquiry primarily concerned with language - I.S. stating that conceptual modifications are brought about by modifications in the utterance. It has to be noted that A.'s analysis is primarily based on *Shifâ, al-Madkhal*, b. I, ch. 2-4. A very fine paper, very precisely delineating I.S.'s opinion by contrasting it with both prior and posterior theories.

(26) ŞAHİN, H., Logic in Ibn Sînâ's View, in: *Kayseri-Kongr.*, 235-240 (Tu).

(27) SA'ÎDÎ, G., Ibn Sînâ, in: Innovations and Changes vis-à-vis Aristotle's Logic, in: *Hazâra-i Ibn Sînâ*, 161-183 (Pers).

Having outlined I.S.'s general concept of logic, and its specific place in the history of Arabic logic, A. points to some of I.S.'s logical doctrines: those which deviated from Aristotle, and those which may be considered innovations with respect to the Stagirite. A. points to such items as the conditional syllogism, the two types of absolute propositions, the contradiction between absolute propositions, the conversion of necessary propositions, and the introduction of a temporal quantifier with respect to propositions (A. relies heavily on the *Ishârât, Remarks and Admonitions* - most of the time paraphrasing the text of Tûsî's *Comment*). A. concludes with a comment about the Logic of Orientals.

Mainly introductory, offering a basic list of possible logical innovations in I.S.

(28) SAIFULLAEV, N., Some Logical Problems in Avicenna, in: *Izv. Ak. Nauk Tadj., Otdel. Obshch. Nauk.*, 1979<sub>2</sub>, 48-58 (Ru).

(29) ID., The Logic of Ibn Sînâ, in: G. ASHUROV (Ed.), *Ibn Sino...*, 59-83 (Ru).

(30) SCHOELER, GR., Avicenna über Ziel und Anliegen der Dichtung, and: "Kunstgriffe" in Dichtung und Rhetorik, in: GR. SCHOELER, *Einige Grundprobleme der autochtonen und der aristotelischen*



*arabischen Literaturtheorie (Abh. Kunde Morgenl., XLI, 4). Wiesbaden, F. Steiner, 1975, 15-25 and 57-84.*

Acc. to A., there are 2 definitions of poetry in I.S.: one which combines utility and pleasure (of Greek inspiration), and another indicating pleasure as its unique goal (based on Arabic poetry, as already present in al-Fârâbî). Moreover, I.S. gives an ethical interpretation of Aristotle's concept of *katharsis* (a tendency already present in late Antiquity), and for I.S. the arousing of admiration is not only set in motion by imitation, but also by play acting, i.e. vivid linguistic expression and artifices (A. presents a scheme of these artifices). In addition, A. states that in his interpretation of Aristotle's theory of poetry I.S. was misled by the fact that the Arabic translation of the Stagirite's *Poetics* was very deficient, and that I.S. failed in combining the heterogeneous elements, on which he based his concept of admiration.

A. presents interesting and valuable ideas.

(31) ID., *Der poetische Syllogismus. Ein Beitrag zum Verständnis der logischen Poetik der Araber*, in: *ZDMG*, 133 (83), 43-92.

After a general introduction, A. concentrates on I.S.'s and al-Fârâbî's theories of the poetical syllogism. Inter alia, A. notes that for I.S. the poetical premisses are more important than the poetical syllogism itself; that I.S. links evocation of an image in the listener directly with the arousing of admiration (a fact unknown to al-Fârâbî); that for I.S. not all poetical premisses are "imitations" (contrary to al-Fârâbî); and that I.S. always claims that poetical statements may be true or not. A. concludes that the Arabic theory of the poetical syllogism is basically Aristotelian, although Aristotle himself did not explicitly mention such kind of syllogism.

A valuable and very interesting study. For a somewhat different interpretation, see *supra*, 3 and 17.

(32) SHAPIROV, A., *Ibn Sînâ on the Relation between Logic and Poetry*, in: *Machmuai Filologii, Makholakhoi Aspirantkhoi Fak. Fil. Tadj.* Dushanbe, Ak.Tadj., 1971, 3-7 (Tadj., or Ru?).

(33) SHEHABY, N., *The Propositional Logic of Avicenna*. Dordrecht, Reidel, 1973, *Introduction and Commentary*, 1-28; 213-281.

A. stresses I.S.'s literary style, which is characterized by the objection-answer form of his writing. Regarding I.S.'s sources, A. points to the later Peripateticians (rather than the Stoics). Notwithstanding the great similarity in vocabulary with al-Fârâbî, contentwise there exist important divergences between I.S. and his immediate predecessor. Hereafter, A. presents a basic outline of I.S.'s theory of conditional propositions and syllogisms. A. remarks that I.S.'s logic is concerned with facts rather than with words. In the commentary, A. provides some interesting clarifications, e.g. regarding many *termini technici*.

Valuable, but compare also 11 and 22.

(34) ʿĀL-YĀSĪN, J., *Al-mantiq as-sināwī. 'Arḍ<sup>un</sup> wa dirāsāt<sup>un</sup> lil-naẓariyya al-mantiqiyya 'inda Ibn Sīnā (The Avicennian Logic. A Presentation and an Examination of the Logical Theory of Ibn Sīnā)*. Beirut, Dār al-Afāq al-jadīda, 1983, 193 pp.

A. presents a basic summary of all the parts of logic, as distinguished by I.S. Although the nine books of the logical part of the *Shifā* constitute the basic source for his exposé, A. also makes use of I.S.'s other logical works (however for a few smaller treatises (still unpublished), he had to consult some mss.). A. always carefully indicates what may be new in I.S., without exaggerating I.S.'s contributions, or value. Among A.'s many observations, we may cite :

1. I.S.'s *logical* analysis of the manner of division by way of *genus, species* or *differentia specifica*;
2. I.S.'s recognition of six ways to characterize a thing;
3. I.S.'s insistence that the setting of the number of categories is not the role of the logician, but the responsibility of the metaphysician;
4. The positing by I.S. of some kind of connection between logical and linguistic concepts;
5. The introduction by I.S. of a clear distinction between simple and complex categorical syllogisms;
6. I.S.'s (rather surprising) opinion that induction does not necessitate true science;
7. I.S.'s final reduction of demonstration into two basic types : existential and explicative;
8. I.S.'s consideration of sophistics as a logical art, similar to inverted syllogisms (an innovative idea with respect to his source Aristotle);
9. The special place conscience, or the human mind, occupies in I.S.'s rhetorics;
10. I.S.'s fundamental dependence upon Greek thought and literature in his poetics and the possibilities Arabic poetry might have offered, if I.S. had studied them instead.

At the end of his study, A. adds a useful English-Arabic lexicon of logical terms.

A valuable pioneering work.

## B. Noetics

(1) 'AUWN, F., *Nazariyyat al-ma'rifa 'inda Ibn Sînâ (Ibn Sînâ's Theory of Knowledge)*. Cairo, J. 'Ain Shams, 1978, 7 + 408 pp.

A. deals in detail with the various aspects of I.S.'s theory of knowledge. He starts from a basic distinction between three kinds of knowledge : sensitive, intellectual and mystical. As far as sensory perception is concerned, A. presents a rather classical outline of the external and the internal senses. Nevertheless, he stresses that I.S.'s *common sense* somehow replaces Aristotle's *phantasia*, and pays attention to Râzî's criticism of various aspects of I.S.'s doctrine of the internal senses. But of utmost importance is his opinion that I.S. is neither a materialistic nor an idealistic thinker (sensory perception being for him the starting point of the process of abstraction). Regarding intellectual knowledge A. deals, once more in a rather conventional manner, with such items as the substantiality of the soul (but A. multiplies its proofs in a somewhat artificial way!), the universal form, or the Agent Intellect. For A., the basic perspective remains Aristotelian, notwithstanding the introduction of many Neo-Platonic elements. Worth mentioning is A.'s remark that I.S. defines the role of the intellect in very similar terms to 'Abd al-Jabbâr as the verification of the sensible data. As to mystical knowledge, A. detects an intellectual mysticism in I.S. (in the same way as Gardet). It may be indicated that in this part A. especially stresses I.S.'s notion of *hads*, intuition. In a final chapter A. discusses the influence of I.S.'s theory of knowledge both in the East and the West (however mainly based on secondary sources). A.'s use of some of the lesser known I.S.'s texts does deserve special attention.

Very meritorious, probably the first really encompassing study on this particular topic, although it is not profoundly innovative, and, above all, does not really resolve the obvious difficulties in I.S.'s theory of knowledge.

(2) BAFFIONI, C., *Gnoseologia e mistica nell'interpretazione dell'intelletto agente*, in : *Annali. Ist. Or. di Napoli*, 41 (81), 597-622.

After a brief discussion of Aristotle's theory of the Agent Intellect, A. presents I.S.'s theory on this topic as basically Aristotelian (but Aristotle's epistemology is interpreted in a rather strong Platonic way, no doubt influenced by the Neo-Platonic commentators). Acc. to A., I.S. unequivocally accepted abstraction. As to the need for the conjunction with the Agent Intellect, it is interpreted by A. in the pure Platonic perspective of 'reminiscence'. Such a Platonic interpretation was facilitated by Aristotle himself, insofar as he offered no precise characterization of the intellect and the act of intellection, and, moreover, as he explained them in terms of light and vision. This metaphor even contributed to a

progressive deification of the Agent Intellect. A. insists that I.S.'s ideas are evolutionary in this respect, due to the fact that he considers the growth of ability to abstract 'ideas' to be analogous to the growth of ability to receive the 'forms' of the Agent Intellect! I.S. moreover had no eye whatsoever for the secularizing tendency inherent in Aristotle's epistemology, but simply adopts the Platonic 'way' of *diairèsis*, hence defending a contemplative, non-discursive conception of knowledge, as well as the existence of separated ideas that are not reflected by sensible objects. This becomes very evident in I.S.'s so-called mystical writings - but A. stresses that this 'mysticism' can at most signify the kind of mysticism one may also ascribe to Plato.

A good paper, but does A. not interpret I.S.'s theory too exclusively in the light of Greek thought?

(3) BAZAN, B., La noética de Avicena, in: *Revista de Filosofia (Maracaibo)*, 3 (80), 115-138.

Having briefly outlined the metaphysical content of I.S.'s noetics, A. analyzes (in much more detail) its psychological outlook (based on the *De Anima*, IV-V), according to the critical edition of the *Avicenna Latinus* (Leiden, Brill; Louvain, Ed. Orient., 1968). A. hereby relies heavily on Verbeke's doctrinal introduction. A. concentrates on such topics as the spirituality and the substantiality of the soul; soul and body; the immortality of the soul; and the states of the human intellect or the act of intellection.

Good, but introductory and not original.

(4) BERTOLA, E., La noetica di Avicenna, in: *Riv. Filos. Neoscol.*, 64 (72), 169-212.

A. first enumerates the major difficulties involved in I.S.'s (and already Aristotle's!) noetics. Then, he starts a proper examination of I.S.'s noetics on the metaphysical plane. He deals in conventional terms with God being pure Intellect, His emanating by thought the first Intelligence, and, further on, the triadic emanative structure. Once arrived at the *reditus*-movement, A. feels obliged to turn his attention to I.S.'s psychology, and more particularly to the part concerning the human intellect. Its functioning, and its multiple divisions, are described in great detail. A. develops significant historical considerations with respect to I.S.'s theory, or parts of it (they concern its sources and its influences, especially in the Latin Middle Ages). Special emphasis is laid by A. on the fact that I.S. did not consider human knowledge to be purely illuminative. A.'s observations that the 'holy intellect' with respect to prophecy implies rather an ethical perfection, and with respect to wisdom implies rather a cognitive perfection, and that the *intellectus adeptus* has to be identified with the *intellectus acquisitus*, both reflecting Alexander of Aphrodisia's *nous thuratèn*, qualify the general outlook of the final part of this paper.

A scholarly paper, esp. on psychological matters, which offers an extensive range of valuable details.

(5) JABRE, F., *Le sens de l'abstraction chez Avicenne*, in: *Mél. Univ. St. Joseph (Beirut)*, 50 (84), vol. I, 281-310.

The Arabic philosophers were faced with a serious problem in translating the Greek word *aphairêsis* (there existed no standard Arabic equivalent for it - comparable to e.g. *istiqrâ* for the Greek *epapogê*). Al-Fârâbî, and also I.S., rendered it mostly by words derived from the root J R D which was not without some ambiguity, since they also meant the Greek *choristos*, and, as such, were synonymous with Arabic (M) F R Q. Acc. to A., it is rather doubtful whether I.S. understood abstraction in the usual Western sense, because of his wide-ranging terminology in this respect. This suspicion is only strengthened by two passages in the *Shifâ, K.al-Burhân (Cure, Anal. Post.)*, in which I.S. discusses Aristotle (*Anal. Post.*, I, 74a35-b4 and 81b1-9). Having carefully studied the basic materials (the original Greek text (in Tricot's French version) slightly revised); the Arabic translation of this Greek original (according to the edition of Ibn Suwâr), and I.S.'s paraphrase (in critical French translation by A. himself), A. convincingly demonstrates that induction in I.S. is no longer an integral part of abstraction as it was in Aristotle. For I.S. the intelligible reality of an object is perceived at the occurrence of its perception by the senses, but is nowhere directly derived from the sensible! Sure, the intellect 'divests' the essentially sensible things from their material accidents in order to arrive at the *ma'nâ, intentio*. Nevertheless there exists no more than an accidental link between the acquisition of the intelligible, on the one hand, and the presence of sensible or imaginary facts, on the other. Induction is no longer the principle of the universal. Acc. to A., I.S. somehow prefigures modern empiricism (I.S.'s primary concern being not the problem of abstraction as such, but the problem of the immortality of the soul).

A very fine paper!

(6) ID., *The Agent Intellect in Ibn Sînâ*, in: *Al-dhikr...*, 13-40 (Ar).

In some sense, this paper may be considered to be a primary basis for 5. A. offers a general outline, as well as the basic principles of I.S.'s theory of the human intellect (based on *Ishârât, Remarks and Admonitions; Najât, Salvation*, and *R. fi 'l-'ishq, Tr. On Love*). Then, he concentrates on the theory of intellection. A. presents a rather detailed analysis of *Shifâ, De Anima*, V, 5 and 6. He points *inter alia* to the grasp by the intellect of the 'intention' of the particulars in the imagination, to the fact that intellection is the search for the middle term in a syllogism, to the '*aql basî*', simple intellect, which may bring the soul to the state of intellect *in actu*, namely when the soul has the truth in itself; and to the acquired intellect and the act of the *dhihn, ratio*, by which the middle term is rigorously captured. A. stresses also the central place that the notion of intuition, *hads*, occupies in I.S.'s theory of knowledge, especially on the level of the acquired intellect. Finally, A. wonders whether one may find in I.S.'s system an act of intuition without any direct contact with the Agent Intellect. His answer is positive, because there is a way leading from the material intellect, together with intellection and intuition, to abstraction, and hence not to the Agent Intellect.

An interesting, somewhat provocative paper. It receives important supplementation and clarification in 5.

(7) NUSEIBEH, S., *Al-'aql al-qudsî*: Avicenna's Subjective Theory of Knowledge, in: *Studia Islamica*, 69 (89), 39-54.

A. tries to show that I.S. did not hold knowledge to be empirically or objectively verifiable (based on *Shifâ*, *De Anima* and *Analytica Posteriora*). A. observes that I.S.'s theory of knowledge is fundamentally based on the intuition of middle terms, since it excludes the existence of quiddities / intelligibles in the external world (contrary to al-Fârâbî!). Quiddities or essences, considered in themselves, subsist rather than exist. Specificities and accidents only come to appertain to quiddities *in existence*, while unity (and all descriptions and relations following up unity) do not appertain to quiddities in subsistence. Therefore, there exists no means to verify one's knowledge. A. concludes that there is a striking similarity between I.S. and al-Ghazzâlî in this respect.

Interesting, but such a far-reaching conclusion is no doubt in need of further textual support.

## C. Divisions of the sciences

(1) 'ABDUH, M., *Wisdom, and its Relation with Logic in Ibn Sînâ*, in : M. 'ABDUH, *Ibn Sînâ - K. al-Hidâya*. Cairo, M. al-Qâhirat al-hadîtha, 1974, 25-50.

A. states that the precise meaning of *ḥikma*, *wisdom*, always depends on which division of science it is used in. Therefore, A. examines the question whether I.S. considers logic to be a part of wisdom or to be just an instrument for it. From an analysis of I.S.'s different works, A. concludes that logic is both instrument for and part of wisdom. A. also pays special attention to the division of the sciences in the *K. al-Hidâya-Book of Guidance*.

Valuable, especially as introduction to the edition of the *Book of Guidance*.

(2) KHAIRULLAEV, M., *The Problem of the Classification of the Scientific Knowledge in the Near and Middle East during the Middle Ages (Fârâbî - Khwarezmî - Ibn Sînâ)*, in : *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 193-203 (Ar).

After a long introduction on the new developments in science in the Near and Middle East during the 7th-10th centuries, A. concentrates on some essays of classification of the (old and new) sciences in the same period (especially those of al-Fârâbî, al-Khwarezmî and I.S.). A long citation of Ibn Khaldûn's *Prolegomena* precedes the proper, but very summary analysis of (and comparison between) these classifications.

Introductory.

(3) MARMURA, M., *Avicenna and the Division of Sciences in the Isagogè of his Shifâ*, in : *JHAS*, 4<sub>2</sub> (80), 239-251.

A. points out that I.S.'s *Isagogè* largely goes beyond its historical source, especially in offering a foundation for metaphysics. In this very same vein an ontological criterion for ascertaining the place of logic within the sciences is developed in the *Isagogè*. One does not find one in I.S.'s other expositions on the classification of the sciences. Commenting on b. I, ch. 2 (of which A. offers a critical translation, see *Works*, III), A. *inter alia* stresses the modal aspects of theoretical philosophy, and the independence of logic from ontology, its proper concern being predicates inasmuch as they are subjects, predicates etc.

A profound and accurate analysis of a significant chapter taken from one of the books of the *Shifâ*.

(4) MARÓTH, M., Das System der Wissenschaften bei Ibn Sînâ, in : *Avicenna - Ibn Sînâ*, II, 27-32.

A. indicates that I.S.'s hierarchical structure of the sciences deviates from Aristotle, and Philoponus - albeit I.S. accepts with the latter the primacy of metaphysics. Hence, acc. to A. the *Tabula Porphyriana* and the *Liber de Causis* are the real sources for I.S.'s structure. Finally, A. remarks that the same rules dominate I.S.'s theory of sciences and his Neo-Platonic concept of the Universe.

A brief, but interesting paper.

(5) SHAYKH AL-ARD, T., The Concept of Science in Ibn Sînâ, in : *Al-turâth al-'arabi*, 2<sub>5-6</sub> (81), 160-178; also in : *Al-shaykh al-ra'is*, 235-258 (Ar).

For A. a strong parallel exists in I.S. between metaphysics (as distinguished from Divine science) as the basis for all theoretical sciences, on the one hand, and prophecy as the basis for all practical sciences, on the other. Moreover, I.S. considered logic to be a pure instrumental science, and derived the contents of the theoretical sciences mainly from Aristotle, while he derived the contents of the practical sciences mainly from Islamic religion. To conclude, A. compares I.S.'s concept of scientific investigation with his contemporaries. A. observes fundamental differences, but also points out possible similarities.

A rather general and superficial exposition of I.S.'s concept of science, mainly concentrated on the division of the sciences.

(6) UĞUR, A., Ibn Sînâ's Classification of Sciences, in : *Ulusl. I.S. Semp.*, 443-444 (Tu); 445 (Engl S.).

Acc. to S., a very general paper, almost without value.

(7) ÜNAL, H., Scientific Classification in Avicenna's Mind, in : *Kayseri Kongr.*, 42-49 (Tu).





## Chapter VII

# Linguistics, Terminology, Poetry

See also :

I, A-II, Av. Lat. (Van Riet);

I, B-I, Lat. Tr., St. 2

III, 23

VI, A-I, 25



(1) ABADANI, F., Avicenna and the Persian Language, in: *Indo-Iranica*, 26 (73), 27-30; also in: *Milla wa-milla*, 7 (67), 49-52.

A. points to the 'great performances' of I.S. in the domains of philosophy, medicine and poetry, both in his Arabic and Persian works.

Of no real value.

(2) AHMAD, N., Ibn Sînâ's Contribution to Persian Language and Literature (A Study based on the *Dânesht-Nama-i-Alai*), in: *Indo-Iranica*, 34 (81), 1-17.

Of the Persian works ascribed to I.S. only two are certainly authentic; the *Dânesht-Nâmeh*, *Book of Science*, and the *R-i-rag shinâsi*, *Tr. on the Explanation of the Pulse*. Moreover, the title of the first is problematic. After his introductory remarks, A. analyzes I.S.'s Persian vocabulary, much in the same way as Mo'în, however showing that words Mo'în believed to be original in I.S. were used by earlier authors. The style, both with respect to its qualities and its defects, as well as the grammatical peculiarities are discussed with great clarity. A. discovers no less than eleven peculiarities in I.S.'s Persian writings. A fundamental paper, important for the study of I.S.'s Persian works.

(3) AHVLEDIANI, V., The Linguistic Heritage of Ibn Sînâ, in: *Ibn Sînâ. K.-1000 letiju*, 201-212 (Ru).

(4) 'AMMAR, A., Efforts of Ibn Sînâ with Respect to Language and Sounds, in: *M. al-baḥṡ al-'ilmî wa 'l-turâṡ al-islâmî (Mekka)*, 5 (1402-1403 H.), 115-132 (Ar).

A. first concentrates on the two works, written by I.S. on the subject of language: *Asbâb hudûṡ al-hurûf*, *On Phonetics*, and the *R. Nayrûzîya*, *The New Year Treatise* offering some details of editions, translations and manuscripts. Hereafter, he elaborates a rather systematic exposition of I.S.'s theory of sounds (*Shifâ*, *Canon* and *On Phonetics* are the sources of A.'s analysis). I.S.'s most important sentences on this matter are brought together by A., his comments here are very succinct. However, I.S.'s classification of the Arabic sounds is discussed in detail. A. presents a comparison with some major ancient Arabic grammarians (and stresses the many differences). A. offers no personal judgment on the difficulties surrounding some anatomical aspects of I.S.'s theory of voice and speech.

A rather introductory paper, but offering valuable information as to the classification of sounds, both in I.S. and his contemporary Arabic grammarians.

(5) 'AYÂN, R., Ibn Sînâ, Who wrote Persian Tetrastichs out of an Intellectual Aim, in: *Indo-Iranica*, 34<sub>1-4</sub> (81), 44-50 (Pers).

A. says that I.S. was as great a poet as he was a philosopher or a physician! He discovers a philosophical-intellectualistic input in I.S.'s tetrastichs (as to the

problem of their authenticity, A. refers to H. ETHÉ, Avicenna als persischen Lyriker, *Nachrichten Ges. Wiss. Univ. Göttingen*, 21 (1875!), 555-567).

Of no value.

(6) BADÎ', M., *Wâzhah-nâmeḥ basî madî mi'yâr al-'uqûl Ibn Sînâ (Linguistic Science is much indebted to the Standard of Ibn Sînâ's Judgments) (Int. Farh. zabân Irân, 6)*. 2. Ed. Tehran, Farhang Zabân Irân, 1974 (N.C.).

(7) DÂNESH PAZHUH, M., Die philosophische Terminologie Avicennas und ihr Äquivalent im Lateinischen, in : *Spektrum Iran*, 2<sub>1</sub> (89), 15-21.

The title of the paper is not really descriptive of the contents. In fact, A. deals with the basic requirements (i.e. the establishment of a lexicon, and of an exhaustive index of philosophical concepts) one has to fulfill in order to begin to make a serious contribution to the study of I.S. In this respect, A. points to some works, which have already been undertaken in this direction (i.e. by Goichon, d'Alverny and Van Riet).

(8) DIRIÖZ, M., Literary Personality of Ibn Sînâ, in : *Kayseri Kongr.*, 363-384 (Tu).

(9) GARDET, L., De la terminologie à la problématique (Quelques exemples à propos de l'Avicenne Latin), in : *Actas V. Congr. Int. Philos. Med.*, I, 155-162.

A. distinguishes two fundamental approaches to the study of I.S. in the Latin Middle Ages. The first approach is characterized by a great fidelity to the technical vocabulary of I.S., although critical of it due to religious considerations. William of Auvergne, Henry of Ghent and Duns Scotus are its main representatives. In contrast, the second approach as shown by Thomas Aquinas 'rethought' the new vocabulary. A., then, gives concrete examples in order to prove the validity of his hypothesis (e.g. Ar. *wujûd*, Latin : both *ens* and *esse*, even *existere* and sometimes, mistakingly, *essentia*).

A very interesting paper opening a most valuable perspective for further investigation.

(10) HASAN PÛR, M., *Wâzhah-nâmeḥ basâ madî risâla'i jaudî-i Ibn Sînâ (The Science of Linguistics is much indebted to the Excellent Tracts of Ibn Sînâ) (Int. Farh. zabân Irân, 11)*. Tehran, Farhang Zabân Irân, 1975 (N.C.).

(11) KIPADŠÈ, M., Some Philosophical Terms in Ibn Sînâ, Ibn Rushd and the Gregorian Thinker Johannes Petrus, in: *Ibn Sino...*, 139-145 (Ru).

(12) LIVŠITZ, V. and SMIRNOVA, L., Principal Characteristics of the Philosophical Terminology in the Perso-Tadjik Works of Ibn Sînâ, in: *Avicenna / Ibn Sînâ*, II 17-26 (Ru).

(13) MAJEWSKA, B., The Poetic Art of Ibn Sînâ, in: *Przeglad O.*, 116 (80), 299-306 (Pol).

(14) MASADÎ (AL-), 'A., Regarding the Linguistical Meanings in the Heritage of Ibn Sînâ, in: *Pensée arabe...*, 27-46 (Ar).

A. deals with various aspects of I.S.'s opinions on language, and related topics (mainly based on the logical parts of the *Shifâ*, and on the *Treatise on Phonetics*). A. pays special attention to I.S.'s theory of signification, and presents some basic materials in this respect.

Valuable, although A. sometimes ascribes too modern views to I.S.

(15) ORMOS, I., Observations on Avicenna's Treatise on Phonetics, in: *Acta Or. Ac. Sc. Hung.*, 39<sub>1</sub> (85), 45-84.

(16) ID., A Key Factor in Avicenna's Theory of Phonation, in: *Acta Or. Ac. Sc. Hung.*, 40<sub>2-3</sub> (86), 283-292.

(15-16: Although I.S.'s *Treatise on Phonetics* forms the principal object of investigation, A. also makes use of many other Avicennian texts. He does not intend a complete analysis of the Treatise, but limits himself to some significant items. He first examines the problem of (physical) sound (and ondulation), observing in I.S. a growing dissatisfaction with 'sudden separation' as a source for sounds, comparing it to the thoughts of al-Fârâbî. Then A. investigates the phenomenon of the voice and of phonation. He pays particular attention to I.S.'s description of the larynx, and tries to find a plausible explanation for the use of 'body that resembles the tongue of a pipe' (and which plays an essential role in phonation). He indicates Galen as the most probable source of the famous phrase, but remarks that I.S. no more than any of his Arabic predecessors understood the exact structure of the larynx (I.S.'s different descriptions of the larynx as well as of the tongue turn out to be excerpts from Galen - albeit less precise than the original!). I.S. seems to have been the first Arabic author who systematically examines the exact mechanism of the production of sounds. In the second paper, A. concentrates on still another important factor of I.S.'s theory of phonation, *rutûba*. A. convincingly shows that I.S. in this particular context uses it in the sense of *saliva* (taking into account I.S.'s total system, A. prefers moisture, although in a qualified way, in order to render *rutûba*). The

astonishing fact that I.S.'s attributes to *saliva* so paramount an importance, is explained by A. as the probable result of entirely theoretical considerations, which may have been inspired by some passage in Galen. On the whole, A. clearly believes that I.S.'s originality consists in having developed a treatise on the topic of phonetics - Galen being his major source, a source which sometimes remains superior to I.S.'s own ideas.

Utmost enlightening papers!

(17) RUSHP, P., Ibn Sînâ on Speech Articulation, in : *Ind. J. Hist. Sc.*, 21 (86), 368-372.

For A., it is evident that I.S.'s approach to speech phenoma is positively empirical, and that its presentation is revealingly functional. After a brief summary on the *Tr. on Phonetics*, A. deals with some particular ideas, e.g. the description of the immediate cause of sound, the formation of speech sounds, etc.

Some interesting ideas, although A. overemphasizes I.S.'s originality.

(18) SEPENTA, S., A Verificatory Investigation on the Linguistic Developments of Ibn Sînâ, in : *Hazâra-i Ibn Sînâ*, 129-142 (Pers); also in : *Ayandeh*, 5 (79), 14-26.

A. offers a rather detailed survey of the main topics of the *Treatise on Phonetics*. A. stresses that I.S. sets up his theory based on his own scientific and medical investigations, as well as on his practical observations. He also does not hesitate to state that some of I.S.'s views are almost in agreement with contemporary linguistical theories!

Rather introductory, clearly exaggerating I.S.'s own input, see 15-16.

(19) SHAWISH, B., Ibn Sînâ's *Treatise on Phonetics* and the Supposed Influence of the Ancient Greeks and Indians, in : *Int. J. Isl. Ar. Stud.*, 1<sub>1</sub> (84), 113-126.

Having said that there exists no evidence that during the translation movement Greek or Indian grammatical works were made accessible to the Arabs but admitting that there might have been an indirect knowledge of Greek or Indian grammatical ideas, A. offers a brief summary of I.S.'s *Makhârij al-hurûf*, *Tr. On Phonetics*. Hereafter, he also briefly mentions Greek (esp. Thrax) and Indian phonetics, and then proceeds to a comparison with I.S.'s theory, noticing that there is almost nothing in common between them. A. points out *inter alia* that I.S. ignores the syllable and the diphthongs (contrary to Thrax), and also ignores the function of the glottis in speech, and hence the distinction between voiced and voiceless sounds (contrary to Indian phonetics). A. considers I.S.'s anatomical descriptions of the larynx and the tongue to be highly original contributions (but see 15-16).

From the pure grammatical point of view, the paper contains some interesting observations, although the complexity of the problem involved no doubt requires much more investigation.

(20) SMIRNOVA, L., see : LIVŠITZ, V.

(21) ID., The Formation of the Persano-Tadjik Terminology in Ibn Sînâ, in : *Ibn Sino...*, 139-146 (Ru).

(22) SULTONOV, U., Ibn Sînâ and Linguistics, in : *Maktabi Sovieti*, 1973<sub>12</sub>, 21-24 (Ru).





## Chapter VIII

# Psychology and Paedagogics

See also :

I, B-II, St. 2

VI, B 4, 6

XI, B-II, 8, 10, 11

XIII, 15, 24

XIV, A-II, 2, 13, 15, 16;

XIV, A-IV, 1, 3, 9, 10-12

(and the totality of XVI, C-I: psychosomatics)



(1) AKYÜZ, Y., Les contributions d'Ibn Sînâ à la science de l'éducation et sa place dans l'histoire de l'éducation turque et dans celle de l'éducation mondiale, in : *Ulusl. I.S. Semp.*, 227-237 (Tu); 238-239 (Fr S.).

Acc. to S., A. considers I.S. as one of the greatest paedagogical scientists, in world history up to now!

(2) ALTINTAŞ, H., La théorie de l'âme chez Avicenne, in : *Ulusl. I.S. Semp.*, 241-253 (Tu); 254-255 (Fr S.).

Acc. to S., A. offers a correct, but rather general description of I.S.'s theory on the soul.

(3) ARAQSÛSÎ, M. and UTHMÂN, H., *Ibn Sînâ wa 'l-nafs al-insâniyya (Ibn Sînâ and the Human Soul)*. Beirut, Mu'assasat al-Risâla, 1982, 207 pp.

The work is divided into two major parts. In the first part, a general evaluation of the role of psychology in the Islamic world is given together with a classical survey of I.S.'s life and works. The second part is devoted to the study of I.S.'s psychological and paedagogical ideas. It contains many long citations of well-known Avicennian texts - but no substantial analysis is presented.

The book may be considered at most as a basic, and even then rather superficial introduction to I.S.'s major psychological and paedagogical doctrines.

(4) ARMANER, N., The Comparison of the Psychology of Ibn Sînâ and Contemporary Psychology, in : *Ulusl. I.S. Semp.*, 191-199 (Tu); 200 (Engl S.).

Acc. to S., A. compares I.S. with Bergson, with respect to some psychological ideas.

(5) CRUZ HERNANDEZ, M., Révision de la théorie avicennienne de l'âme, in : *Pensée arabe...*, 561-548.

This paper offers fragments from A.'s *Historia* (see *General Studies*, B 5) regarding I.S.'s concepts of the soul and the intellect (*Historia*, I 234-239) as well as Ibn Rushd's criticism of I.S.'s psychological doctrine (*Historia*, II, 187-188). These fragments are given in Spanish, while the introduction and the conclusion of the paper are given in French (one wonders whether this "lecture" was intended by A. to be published as such?).

Valuable, although introductory.

(6) DAĞ, M., The Psychology of Ibn Sînâ, in : *Ibn Sînâ. Doğumunun...*, 319-404 (Tu).

(7) DURRANY, K., Ibn Sîna's Concept of Man, in : *Stud. Hist. Med.*, 6<sub>3</sub> (82), 161-194.

A. stresses the importance I.S. attributed to convenient philosophical as well as psychological insights into the fundamental nature of man in order to ensure human health. Then he offers a concise, almost classical description of I.S.'s view on man, from the psychological, metaphysical and medical points of view. However, the problem of the soul is analyzed in a much more detailed way. When discussing the ultimate goal of human life, A. begins to develop an original solution to the problem of freedom and determinism in I.S. A. suggests that the yearning of the soul for perfection (as expressed in I.S.'s so-called 'esoteric writings') could mediate between the determinism of men's lives resulting from their being created, and man's ability to choose the "right path".

On the whole, a rather introductory paper, although a more profound view is expressed concerning the determinism-freedom tension in I.S.

(8) GÄTJE, H., Gedächtnis und Erinnerung bei Avicenna und Averroes, in : *Acta Orientalia (Copenhagen)*, 48 (88), 7-36.

Acc. to A., both I.S. and Ibn Rushd agree with Aristotle that the objects of memory and remembrance are of a particular, individual nature. But they both deviate from the Stagirite by introducing a new key-concept, i.e. that of *ma'nâ*, *intentio* (A. hereby refers to I.S.'s notion of *wahm*, *vis aestimativa*, or *existimatio*). However, A. is not unaware of the differences, which exist between I.S.'s and Ibn Rushd's respective theories. Therefore, he offers a separate account of each of them (although his major attention is going to Ibn Rushd's theory). In the appendix, he offers a partial German translation of Ibn Rushd's *Epitome of Aristotle's Parva Naturalia*.

A valuable paper, but in need of further development.

(9) HALL, R., A Decisive Example of the Influence of Psychological Doctrine in Islamic Science and Culture : Some Relationships between Ibn Sîna's Psychology, other Branches of his Thought and Islamic Teachings, in : *JHAS*, 3<sub>1</sub> (79), 46-84.

A. argues that I.S. has effectuated, or at least prepared, a radical transformation of the Islamic philosophical tradition by abandoning pure Aristotelianism. Instead, I.S. offered a propaedeutic for a highly illuminative system of knowledge, one which was much more adopted to the Islamic milieu. As to the driving force behind that transformation, A. indicates I.S.'s psychological doctrine of the soul, and the related topics of the right knowledge and the right belief. Now, in order to demonstrate this general statement, A. analyzes some particular doctrinal points: the ensoulment of the human embryo, and the question of the empirical basis of knowledge - both being closely linked with I.S.'s theory of individual immortality. We cannot enter into the many details of A.'s analysis of these points, but we may evoke a few particularly interesting features among them :

1. I.S.'s replacement of Aristotle's *nous thurâtèn* by two entities from without,

the rational soul (as an intellect *in potentia*), and the Agent Intellect;

2. I.S.'s extreme efforts to save empiricism;

3. the very special attention paid by I.S. to the *wahm, aestimatio* and its object, the *ma'âni, intentiones*, I.S. elaborating a whole system of mediation between sensation and intellection;

4. the complexity of the process of *tajriba*, abstraction (A. offering in this respect a most significant analysis of *Shifâ, K.al-Burhân*, esp. III, 5 and IV, 10), which plays a very useful role in the acquisition of knowledge, in spite of not being an original source for *'ilm*, knowledge.

A. concludes that I.S.'s illuminationist theory of knowledge diminishes the desirability of natural philosophy and mathematized sciences. It has also to be noted that A. makes some pertinent remarks concerning the proper reading of I.S. Aside more obvious remarks A. points judiciously to the inevitability of serious lexicological analysis, requiring extreme care in equating unqualifiedly Avicennian terms with their so-called Greek counterparts.

A very significant paper, which deserves due attention.

(10) ẖULW (AL-), 'A., *Ibn Sînâ, faylaṣūf al-naḥs al-bashariyya (Ibn Sînâ, The Philosopher of the Human Soul)*. Beirut, 1967; 3rd. ed. Beirut, Bayt al-ḥikma, 1978, 109 pp.

(11) KAZI A. KADIR, *Ibn Sînâ (Avicenna): Physician-Psychologist*, in: *Pak. J. Psych.*, 1970 (June), 37-47 (N.C.).

(12) KHÂLIDÎ (AL-), S., *Ibn Sînâ and the Care of Motherhood and Childhood*, in: *Al-turâth al-'arabî*, 2<sub>4</sub> (81), 66-75; also in: *Al-shaykh al-ra'îs*, 157-170 (Ar).

After a general introduction, A. proceeds to a brief presentation of *Canon*, b. I, F. 3, T. 1, ch. 1-4 (presenting long citations from ch. 1-2, and summarizing ch. 3-4). Hereafter, A. offers a more systematic analysis of I.S.'s paedagogical doctrine, presenting the well-known basic ideas (e.g. the 'good example', etc.) in the conventional way. In the final part of his paper, A. emphasizes the proper evolution of the science of paedagogics from the Islamic perspective, and evaluates I.S.'s contribution in this respect.

Introductory.

(13) KHOLEIF, F., *Ibn Sînâ wa madhhabuhu fî 'l-naḥs. Dirâsat fî al-qaṣîda al-'ayniyya*. (Orig. Engl. title: *Avicenna on Psychology. A Study of his Poem on the Soul*). Beirut, Beirut Arab Univ., 1974, 186 pp. + Foreword.

A. sharply distinguishes between I.S.'s "Occidental" and his "Oriental" philosophy. He points out that the formulation of I.S.'s division of the sciences in the *Oriental Logic* is quite different from that of the famous Treatise, entitled *On the Division of Sciences*. A. characterizes the difference as one between

idealistic and realistic. Thereafter, A. deals in a rather classical way with I.S.'s theory of the soul. However, A. brings some original interpretation to the fore by stressing the definite Islamic (and Platonic) character of I.S.'s famous "flying man" argument, at least in its *Ishârât*-version. A. finishes his work with a very detailed, and well presented analysis of the *Poem on the Soul* (using several older commentaries). It has to be noted that after examination A. does not doubt I.S.'s authorship of the *Poem*.

Although A.'s extreme Islamic (-Platonic) interpretation of I.S. is open to question, his study is worth considering.

(14) MADADÎ, P., The Psychology of Ibn Sînâ, in: *Aryânâ*, 40<sub>3-4</sub> (82-83), 30-50 (Pers).

A. surveys the major elements of I.S.'s psychological doctrine (i.e. the proof for the existence of the soul; the soul's unity and immortality; the intellectual powers of the soul, etc.). However, he limits himself to I.S.'s major works, and, at the same time, gives the impression that he is the very first to investigate this topic. Unfortunately, his personal interpretations lack serious foundation.

Almost of no value.

(15) MARMURA, M., Avicenna's "Flying Man" in Context, in: *The Monist*, 69 (86), 383-395.

A. argues that I.S.'s "flying man"-argument is not intended to be an absolute basis on which one may build a metaphysical system. One of the points involved is the fact that we have constant, intimate knowledge of our individual selves, which was also part of the soul-conception of the theologians. However, I.S. disagreed with them on the question of the nature of the self positing, in contrast to their mainly materialistic-atomistic concept of the soul, a pronounced spiritual concept. In order to substantiate these basic ideas, A. critically examines the three known versions of the "flying man"-argument (two in the *De Anima* of the *Shifâ* and one in the *Ishârât*). A. concludes that the argument was not intended by I.S. as a rigorous proof of the immateriality of the soul; but that it was considered by him as a mean of "alerting or reminding" those, who really know, of the existence of their immaterial soul, and thus of their 'I' as being totally different from their body.

A very fine study.

(16) MESBÂHÎ (AL-), M., The Role of the Concept of 'Perfect' in the Characterization of the Soul between Aristotle and Ibn Sînâ, in: *M. Kull. al-adâb wa 'l-'ulûm al-insan. fi-Fâs*, 4-5 (80-81), 121-147; also in: *Pensée arabe...*, 427-450 (Ar).

A. first offers a classical summary of Aristotle's doctrine on the perfection of the soul. Then he points out that I.S., in order to be able to explain the soul's immortality, introduced the new notion of 'separate perfection'. Acc. to A., I.S. distinguished between a passive perfection, linked with the practical intellection of the soul, and an active perfection, linked with the theoretical face of the soul.

As to the vegetative and animal soul, their perfection is defined by I.S. as natural, and therefore, linked with the body. Nevertheless, I.S. declares them to be immortal (A. finds no satisfactory explanation for this affirmation). Finally, A. stresses the strong dualism which characterizes I.S.'s doctrine of the soul (it having a definite Platonic stamp, despite an Aristotelian vocabulary). Good, but in need of further development.

(17) MICHOT, J., Cultes, Magie et intellection: l'homme et sa corporéité selon Avicenne, in: *L'homme et son univers au moyen âge (VII. Congr. Int. de Philos. Méd.) (Misc. Med., XXVI)*. 2 vol. Louvain-la-Neuve, Inst. Sup. de Philos., 1986, I, 220-233.

A. establishes the existence of a remarkable parallel between I.S.'s comprehension of cultish and magical acts, on the one hand, and the role I.S. attributes to the imaginary faculty in the act of intellection, on the other hand. In both cases, the major significance of these acts is of a negative, preparatory kind. But this in no way implies that one can simply annihilate them. Although purely preparatory, this type of action remains necessary. Out of this fact, it becomes clear that notwithstanding his full adherence to a spiritual vision of man, I.S. values to some extent, man's bodily aspects. This may reflect I.S.'s general cosmological perception.

An innovative, and extremely interesting paper.

(18) MUJTABAŪ, J., The Substantiality of the Soul in Ibn Sînâ's View, in: *Hazâra-i Ibn Sînâ*, 45-66 (Pers).

A. points out some striking differences between I.S.'s and Aristotle's concept of the soul, before he offers a basic description of what he considers to be I.S.'s arguments for the substantiality of the soul. In fact, A. hereby gives an introduction to L. GOODMAN's paper: A Note on Avicenna's Theory of the Substantiality of the Soul, in: *Philos. Forum*, 1 (69), 547-554 (app. 555-562), of which he presents a Persian translation (pp. 56-66).

Good, but as far as concerns A.'s own introduction not really innovative.

(19) NAJÂTÎ, M., *Al-idrâk al-hissî 'inda Ibn Sînâ. Baḥth fî 'ilm al-nafs 'inda al-'Arab (Sensitive Perception according to Ibn Sînâ. An Inquiry on the Science of the Soul along the Arabs)*. Cairo, 1948, <sup>2</sup>1961, 3rd. rev. ed.: Cairo, Dâr al-Shurûq, 1980, 243 pp.

This third revised edition contains only two minor additions with respect to the previous edition. They consist in offering more elements of comparison with present-day psychology.

(20) NAQÎB, A., *Falsafat al-tarbiya 'inda Ibn Sînâ (Paedagogical Philosophy according to Ibn Sînâ)*. Introd. I. 'ALÎ (*Makt. al-'arab. lil-dir. al-tarb.*, 5). Cairo, Dâr al-thaqâfa, 1984, 200 pp.

A. characterizes I.S.'s paedagogical doctrine as 'philosophic-Islamic'. In the first



part of his study, he offers a classical survey of I.S.'s life and times, and of some central issues of I.S.'s psychological, political and moral theories. The second part of the study, addresses I.S.'s paedagogical insights, as well as I.S.'s theory on the division of the sciences. As to paedagogics, A. concentrates on the way in which I.S. defines its goal, and consequently spells out the different methods of education required by the different age groups. In this respect, A. cites some contemporary paedagogical doctrines, declaring most of the time that I.S. was the first to prescribe them. A. offers a very general introduction to I.S.'s paedagogical theory.

(21) NASHÂBAT, H., Education and Teaching according to Ibn Sînâ, in : *Al-dhikr*, 157-174 (Ar).

For A., there are some elements of paedagogical doctrine in I.S. In order to clarify them, he first concentrates on what I.S. tells us about his own education (in his *autobiography*). Then, he examines I.S.'s particular emphasis on the necessity of logic in the formation of the mind, paying attention to I.S.'s notions of remembrance and intuition. Finally, he discusses I.S.'s doctrine of the acquisition of good education as well as its impact.

An honest, but primarily introductory study.

(22) NAŞŞÂR, M., Soul according to Ibn Sînâ : in *Hâuliyyât Kulliyyât al-shari'a*, 1 (80), 79-99 (Ar) (N.C.).

(23) PINES, S., La conception de la conscience de soi chez Avicenne et chez Abu 'l-Barakât al-Baghdâdî, in : *Studies in Abu 'l-Barakât al-Baghdâdî. Physics and Metaphysics. (Coll. Works Shl. Pines, 1)*. Jerusalem, The Magnes Press; Leiden, Brill, 1979, 181-258.

Reprint of *AHDLMA*, 21 (54), 21-98.

(24) PORTELLI, J., The 'Myth' that Avicenna reproduced Aristotle's "Concept of Imagination" in *De Anima*, in : *Scripta Mediterranea*, 3 (82), 122-134.

A. compares I.S.'s concept of imagination with Aristotle's. Acc. to A., I.S. declares imagination to be an independent internal sense, which has in its own right the power to combine and separate images. For A., Aristotle believes that imagination occupies a mediative function between sensation and thinking, but having no creative power whatsoever. Because of this basic perspective, A. rejects Rahman's and Wolfson's interpretations of the Avicennian theory of imagination as too Aristotelian.

A.'s thesis looks defensible, but is clearly in need of stronger textual evidence.

(25) RAHMAN, F., art. Avicenna. Psychology, in : *Enc. Ir.*, 83-84.

A. basically characterizes I.S.'s doctrine of the soul as Aristotelian-based,

notwithstanding the presence of a strong Neo-Platonic superstructure. Hereafter, he briefly reviews the central issues of I.S.'s psychological doctrine, i.e. the substantiality of the soul; the internal senses; the theories of abstraction and of intellection; the survival of the soul and prophethood.

A valuable, albeit classical, survey of I.S.'s main psychological ideas.

(26) STOLNICI, C., The Problem of the Soul and its Place in Ibn Sînâ, in : *al-baḥṭh al-'ilmî*, 18 (82), 197-203 (Ar); 292-293 (Engl S.).

Acc. to A., I.S. located the pneuma between the heart and the brain cellules, to which he linked a direct cognitive function. As to mystical experience, he, in accord with Orphic sources, based it on a corpore-sized illumination. So, I.S. established a perfect mediation between thought and matter, the human body being a matter animated by vital forces.

A highly compressed paper, including some interesting features, but highly questionable as to its basic assumption of a unified view of spirit and matter in I.S.

(27) TÜRKER-KÜYEL, M., Le problème de (la) personnalité chez Ibn Sînâ, in : *Ulusl. I.S. Semp.*, 53-73 (Tu); 74-75 (Fr S.).

Acc. to S., I.S. has anticipated the pantheistic philosophical systems of Fichte and Hegel, insofar as he destroyed the very personality of the individual subject by letting it be absorbed into the world-soul.

(28) UTHMÂN, H., The Psychological Ideas of Ibn Sînâ, in : *Majallat Kulliyyât al-'ulûm al-ijtimâ'iyya*, 5 (81), 259-283 (Ar).

A. deals with some major issues of I.S.'s psychology, e.g. the proofs for the existence of the soul; the external and the internal senses; perception and intellection (A.'s account is based on various works of I.S., and on secondary Arabic sources).

A valuable, but introductory study.

(29) VERBEKE, G., *Science de l'âme et perception sensible*, in : AVICENNA LATINUS, *Liber de Anima seu Sextus de Naturalibus*, I-III, Louvain, Peeters; Leiden, Brill, 1972, *Introd. doctr.*, 1\*-90\*.

A. structures the text under consideration very well. By way of illustration, we may select the following items :

- The presence in I.S. of a real grasp of the human 'ego', although he considers it to be more of a contemplative than of a creative kind;
- The absence in I.S. of a critical discussion of the exact nature of each of the soul's faculties. I.S. merely fixing a criterion (i.e. the distinction between primary and secondary activity) in order to decide whether a particular activity justifies the acceptance of a separate faculty;
- For I.S., sensation includes some abstraction of matter, but never of material accidents; moreover, abstraction never leads to real intellection, which in fact can only be reached by an illumination of the separate Agent Intellect.

A very fine introduction.

(30) YAKIT, Í., L'évolution de l'âme humaine chez Avicenne (Ibn Sînâ) et sa contribution à la pensée biologique moderne, in : *Ulusl. I.S. Semp.*, 287-295 (Tu); 296-305 (Fr).

From the (very bad) French translation, one gets the impression that A. distinguishes between two kinds of psychologies in I.S.: an empirical psychology, related to the natural sciences, and a rational psychology, related more specifically to metaphysics. A. concentrates in his paper on the former. He illustrates it by analyzing the different faculties I.S. attributes to the soul. He also tries to show that I.S. is a predecessor of contemporary evolutionary biology. As far as the French version concerns, a very confused, and in many details, incorrect work.

(31) ZAHIDOV, V., Some Aspects of the Philosophy of Life of Ibn Sînâ, in : *Ibn Sino. K-100-letiju*, 47-61 (Ru).

(32) ZEDLER, B., The Prince of Physicians on the Nature of Man, in : *The Modern Schoolman*, 55 (77-78), 165-177.

A. wonders whether I.S. presents a coherent view of man both in his philosophical and in his medical works? In order to settle this question, A. first develops a very succinct, but significant synthesis of I.S.'s philosophical, and medical concepts of the nature of man. At first sight, a contradiction seems to exist between them. As a matter of fact, I.S., the philosopher, posits a spiritualistic human *ego*, while I.S., the physician, conceives of man as a fundamental part of the natural world. However, acc. to I.S.'s own view, philosophy and medicine cannot contradict each other, in view of their both belonging to the natural sciences. And indeed, as soon as one takes into account I.S.'s theory of the two 'faces' of the soul, the above-mentioned (apparent) contradiction clearly disappears.

A very valuable paper, sketching a first, but fundamental orientation for a thorough study of I.S.'s conception of man.

## Chapter IX

# Politics and Ethics

See also :  
I, C - ab  
XIV, A-III, 9



(1) AHMAD, I., Ibn Sînâ and the Philosophy of Law and the State, in : *Jernal Undang-Undang*, 7 (80), 175-199.

A. believes that I.S., in his political philosophy, links the ideal state of Islam with the ideal state of Plato's philosopher-king (with references to both the *Republic* and the *Laws*). However, A. observes that I.S. shows more reliance on the law than Plato, who had stressed above all the influence of morals. A. also offers a brief analysis of I.S.'s theories on the intellect (based on *De Anima*, V, 6), on prophecy (in its intellectual and law-giving functions), and on different aspects of proper politics. A. presents many basic text-fragments concerning I.S.'s political theory but his exegesis of them is very limited in scope as well as in contents.

(2) ANAWATI, G.C., Aristote et Avicenne. La conception avicennienne de la cité, in : TH. ZARCONI (Ed.), *Individu et Société. L'influence d'Aristote dans le monde méditerranéen (Actes du Coll. d'Istanbul, 1986)*. Istanbul, Paris, Rome, Trieste, Ed. Isis, 1988, 143-157.

After a brief survey of I.S.'s *autobiography*, A. concentrates on I.S.'s theory of the division of the sciences, especially that of the practical sciences. For I.S. politics is one of the practical sciences. From a basic analysis of the final chapters of the *Metaphysics* of the *Shifâ*, A. concludes that I.S.'s political theory is Islamically inspired, and reveals no direct Aristotelian influence (except for a few details, e.g. the topic of slavery). It may be noted that A. rejects the idea of a "esoteric Oriental philosophy" in I.S.

Useful, but in need of further development.

(3) AYDIN, M., Ibn Sînâ's Ethics, in : *Ulusl. I.S. Semp.*, 117-128 (Tu); 129-130 (Engl S.).

Acc. to S., a general, but accurate analysis of the major themes of I.S.'s ethics.

(4) ID., Morality and Human Prosperity in Avicenna's View, in : *Kayseri-Kongr.*, 241-253 (Tu).

(5) BARDAKOĞLU, A., Understanding Morality according to Avicenna, in : *Kayseri-Kongr.*, 254-258 (Tu).

(6) BUTTERWORTH, CH., Medieval Islamic Philosophy and the Virtue of Ethics, in : *Arabica*, 34 (87), 221-250.

A. first outlines Plato's and Aristotle's theories of ethics - stressing that both agreed about the subordination of ethics to virtue, but that they differed about the kind of opinion or knowledge needed for right conduct. Then A. examines the ethical theories of the two major representatives of medieval Islamic

philosophy: al-Fârâbî and I.S. The former unconditionally adheres the idea of the subordination of ethics to virtue, while his affirmations (and silences) suggest that virtue must ultimately be considered to be knowledge or correct opinion. As to I.S., he clearly deviates from his Arabic predecessor in several respects, i.e.:

1. By subordinating politics to prophecy;
2. By not perceiving all the virtues to be intellectual or to be grounded in sound intellectual understanding;
3. By starting from human need, when dealing with the subject of law-giving;
4. By accepting the possibility of the acquisition of the virtues of temperance, courage, and practical wisdom without theoretical wisdom, even if it is superior to them!

So, I.S. seems not to accept the subordination of ethics to virtue (in this point also deviating from his Greek predecessors). A. also affirms that there exists in I.S. a deep-rooted, and never resolved tension between the demands of political life and the lure of the life to come. Let us finally note that A.'s analysis of I.S.'s thought is mainly based on *Shifâ. Met.*, X, but that A. also refers to a few other texts, among them the *R. fi 'l-Akhlâq, On Morals* (but he does not examine the *R. fi 'l-'Ahd, On the Pact*, which might constitute the second part of the very same treatise! If this is true, then some of A.'s secondary remarks are in need of revision, but his basic thesis is not directly threatened).

A very valuable paper, a useful complement to 7, which A. seems to be unaware of.

(7) GALSTON, M., Realism and Idealism in Avicenna's Political Philosophy, in: *Review of Politics*, 41 (79), 561-577.

Based on a close inspection of *Metaphysics*, X, c. 2-5 of the *Shifâ*, A. ascribes to I.S. a realistic theory of politics. It represents a fundamental departure from Plato (esp. the Plato of the *Republic*, as usually understood in the Middle Ages), and, at the same time, from his immediate predecessor al-Fârâbî, who defended a political utopianism. In order to prove her interpretation of I.S.'s political realism, A. evokes the following:

1. The virtuous individual (and not city!) functions in I.S. as the highest goal of practical philosophy;
2. The just city replaces the virtuous city as the ultimate concern of political science;
3. Political action has to assure above all physical survival (hence I.S.'s particular attention to codified law, and the legal caliphate, and, in general to practical wisdom).

A profound, and most interesting paper, not in the least for its offering clear evidence of a radical departure by I.S. from his famous predecessor al-Fârâbî).

(8) ISMÂ'ÎL, M., Philosophy according to I.S., in: *Al-fîkr al-'arabî*, 7<sub>10-11</sub> (82-83), 152-159 (Ar).

A. tries to specify I.S.'s political and social ideas by establishing a more or less

systematic comparison with the thought-systems of ibn Khaldûn, E. Durkheim and K. Marx. Significant for A.'s (extreme) Marxist interpretation is his view that the link which I.S. defends between the political, social and economic dimensions (sic!), sometimes prefigures the procedures of historical-materialistic dialectics. In this very same spirit A. states that I.S.'s interest for the *shari'a* comes from his involvement in the study of the unity of the community. An utterly Marxist analysis.

(9) MAHDI, M., art. Avicenna. Practical Science, in : *Enc. Ir.*, 84-88.

A. states that I.S.'s account of practical science is laconic. I.S. offers two (at first sight incompatible!) views of practical science. The first view emphasizes ethics, and subordinates practical life to theoretical life; the second view has as its point of departure "human governance" (divided into the single individual, the household and the city). So, what the philosophers meant by *nomos* in political philosophy is precisely the *shari'a*, in other words political science can justify some of the characteristics of the Law and of prophethood. Alongside the practical science proper, one also finds many practical things inside the theoretical sciences. Moreover, the subsidiary divisions of the theoretical sciences can be seen as applied for practical arts, e.g. the science of return, a subdivision of the divine science, shows that true divine Law complements what reason cannot know, i.e. the resurrection of the body, and the existence of bodily rewards and punishments in the hereafter. A. concludes that I.S. abandoned the Platonic and Farabian theories of political science as *the* architectonic practical science (if not the architectonic science simply!). Instead, I.S. revived the Aristotelian division of wisdom into theoretical and practical science. Moreover, I.S., contrary to his predecessors, placed the main accent on private perfection, subordinating practical science to theoretical knowledge.

A somewhat provocative, but, no doubt, stimulating and most valuable contribution.

(10) MESHKAT AD-DÎNÎ, A., The Shaping of Religious Sovereignty in Ibn Sînâ's Philosophy, in : *Hazâra-i Ibn Sînâ*, 83-104 (Pers).

A. observes a great similarity between I.S. and shi'ite kalam as far as it concerns the concept of divine sovereignty, although there exist two important points of divergence : I.S. accepts that the leading imâm may have some vices, provided he satisfies the basic requirements, and he also makes the choice of the imâm dependent upon philosophical principles. But on many points, they both agree. A. evokes *inter alia* the following necessary characteristics of the imâm in both's view : an ability to let people live together in peace; renunciation of personal desires; unconditional adherence to a code which secures equality and justice. Moreover, A. pays special attention to the relationship between politics and religion in both systems - in this respect, he stresses that I.S.'s theory on the revolt against the corrupt imâm is utterly shi'ite, and that for I.S. politics is comprehended in religion - a point of view which comes close to the shi'ite opinion.

A. may be right when he claims a shi'ite counterpart for some of I.S.'s political



ideas, but a qualified judgment in this respect requires a proper analysis of I.S.'s texts in their own right!

(11) NÂHÎ (EN-), S., Ibn Sînâ's Ideas on the Philosophy of Religion and of Legislation, in *Ulusl. I.S. Semp.*, 179-182 (Tu), 183 (Engl S.), 184-190 (Ar).

A. declares justice the very foundation of I.S.'s theory of legislation, but I.S. derives this theory from divine Providence, not from the *sensus communis* as in Mu'tazilism. Moreover, A. observes a clear-cut distinction in I.S. between legislation and morality. Furthermore, he points to I.S.'s defense of prophecy as an expression of universal, not specifically Islamic religiosity, and as a *conditio sine qua non* for the education of the masses. Finally, he discusses the influence of I.S.'s ideas on later thought.

It has to be noted that the English summary is a confused translation of A.'s conclusion, taken from the original Arabic text.

A valuable paper, containing interesting insights.

(12) POLAT, S., Education, especially that of Religious Morals, in Avicenna's View, in : *Kayseri-Kongr.*, 291-298 (Tu).

(13) SAID (AL-), R., Ibn Sînâ as Political and Social Thinker, in : *Al-dhîkr*, 131-155; also in : *Al-fîkr al-'arabî*, 1981, nr. 22, 331-323; and in : *M. al-Wahda* (Beirut), 6 (80), 52-66 (Ar).

Having noted that the expression that the human subject is "social by nature", A. emphasizes that for I.S. the Law is necessary in order to keep the human community together. Hence, I.S. accepts that the Law (*shari'a*) is *sunna*, tradition or norm. But he seems not to have considered it as a kind of structural Law in Plato's sense. Moreover the lawgiver is identified by him with the prophet of the Islamic-Arabic tradition - although I.S.'s understanding of prophecy is not genuinely Islamic (acc. to A., most probably under Farabian influences). Nevertheless, he admits, and even stresses that I.S. clearly splits with Greek thought, when he follows up al-Amîrî and rejects the existence of universal rules needed to control the city. Finally, with respect to the problem of the *imâmat*, A. places it generally in a pure Islamic context, and more particularly points to some shi'ite influence. In his conclusion, A. stresses the fact that the scope of I.S.'s political views is fundamentally Islamic.

A. enumerates the different possible sources of I.S.'s main political ideas very well. But one may wonder whether he does not underestimate the involved rupture with Plato (and al-Fârâbî), esp. in the light of 6 and 7.

(14) SIRODJIEV, A., The Old Problem of Peace in Ibn Sînâ's Philosophy, in : G. ASHUROV (Ed.), *Ibn Sino...*, 104-119 (Ru).

(15) SULTONOV, U., *Akidahoi falsafi, igtimoî va achlokii Abuali ibni Sino* (Philosophical, Political and Moral Conceptions of Ibn Sînâ). Dushanbe, Donish, 1975.

(16) ID., Social, Political and Moral Conceptions of Ibn Sînâ, in : *Vopr. Filos.*, 1980<sub>9</sub>, 99-105 (Ru).

(17) ZAYOUR, 'A., Activités et œuvres socio-politiques d'Avicenne, in: IBN SÎNÂ, *Al-Qânûn...* Beirut, 1987 (see: *Works*, B 1), I, *Introd.*, 1-18 (Fr).

A. first deals with I.S.'s personality (A. stresses I.S.'s great vanity). Then he concentrates on I.S.'s political theory, which he rightly presents as an integral part of I.S.'s comprehensive system of thought. Acc. to A., I.S.'s ideal of the political state well reflects the actual state of his time.

Finally, A. pays some attention to I.S.'s socio-political writings.

It has to be noted that the order of the pages has been inverted!

Rather introductory.

(18) ID., Introduction to the Study of the Political Thought of Ibn Sînâ, in : *Al-bâhith*, 1<sub>2</sub> (78), 50-69 (Ar).

A. first recalls I.S.'s political achievements, and points to the fact that they were of a practical rather than of a theoretical kind (contrary to Plato!). Nevertheless, I.S. did elaborate a political doctrine, especially in the last chapters of the *Metaphysics* of the *Shifâ* and the *Najât*, of which A. offers a rather detailed survey. In this special attention is paid to the explanation of the structure and the origin of the state, and also to social ethics. As to I.S.'s sources, A. indicates Greek philosophy as well as Islamic religion, and even mentions the possibility of some Persian influences. A. concludes that I.S.'s political theory has to be characterized in the final analysis as 'theocratic'.

A. offers a comprehensive, and well prepared introduction to I.S.'s political theory.



## Chapter X

# Metaphysics

See also :

I, C-1, 3 (Meyer)

V, B 1, 2, 5, 6, 9, 10

VI, A 20; VI, C 3

XI, B-II, 11

XII, 1, 2, 5, 6, 12

XIII, 7, 11, 14, 20, 27, 28, 29, 35

XIV, A-I, 11, 16, 17;

XIV, A-II, 1, 3, 4, 5, 6, 7, 8, 9, 10, 17

XIV, A-III, 10, 11; XIV, A-IV, 13



(1) ADUSZKIEWICZ, A., The Problem of Existence in the Metaphysics of the *Dânesh-Nâme* d'Ibn Sînâ, in : A. ADUSZKIEWICZ and M. GOGACZ (Eds.), *Avicenna i sredniowieczna filozofia arabska*. Warszawa, Ak. Teol. Kat., 1983, 302-358 (Pol); 364-367 (Fr S.).

Acc. to S., A. considers existence as an accident in I.S.'s theory of being. A. feels it a necessity to introduce a distinction between an essential and an existential perspective in order to understand I.S.'s metaphysics of the modes of being. A. categorically rejects the essentialistic interpretations of Gilson and Goichon - stressing e.g. that the participation of the individual beings in God must be explained in the existential perspective, more precisely in terms of love as an existential goal. A. concludes that the existential perspective superposes itself upon the essential one.

The French summary is not always clear. Therefore, a critical judgment cannot be made on this basis alone.

(2) ALTINTAŞ, H., *Ibn Sînâ metafizigi (The Metaphysics of Ibn Sînâ)* (Ankara İlâh. Fak. Y., 177). Ankara, Univ. İlâh. Fak., 1985, VI + 159 pp.

(3) ANAWATI, G.C., Introduction historique à une nouvelle traduction de la *Métaphysique* d'Avicenne, in : *Avicenne. La Métaphysique du Shifâ*, I-V. Introd., Trad. et Notes : G.C. ANAWATI (*Et. mus.*, 21). Paris, Vrin, 1978, 11-79; also in : *MIDEO*, 13 (77), 171-252.

Having outlined a structural overview of the different books of the *Metaphysics* of the *Shifâ*, *The Cure*. A. makes some critical remarks about its contemporary editions, the medieval Latin translation as well as Horten's German translation. Moreover, A. offers some particular observations concerning his own translation - promising an index of technical terms at the end of the second volume (but, in fact, such an index is not present). Finally, A. points to I.S.'s major influence in the domain of metaphysics both upon authors in the East (e.g. al-Ghazzâlî, Sohrawardî, Mir Dâmâd and Mulla Sadra Shirâzi) and in the West (esp. Thomas Aquinas).

This introduction offers valuable insights, but one misses a detailed analysis of I.S.'s own metaphysics.

(4) APARÍCIO SUÁREZ, M., Avicena : circunstancia y base ontológica de su filosofía, in : *Mayeuticá*, 13 (87), nr. 35, 73-93.

After a very general introduction, A. concentrates on a few basic ideas of I.S.'s metaphysics, i.e. the necessary-possible and essence-existence distinctions, the theory of emanation and the existence of God. A. also outlines I.S.'s influence on the West.

Introductory-mainly based on secondary sources.

(5) ATAY, H., *Ibn Sina da varlik nazariyesi (The Theory of Existence according to Ibn Sînâ)*. Ankara, Gelism Matbaasi, 1983, VIII + 236 pp.

(6) ID., The Distinction of Essence and Existence, in : *Usl. I.S. Semp.*, 139-166 (Tu).

(7) ID., The Evidence of Being Obligatory Existence (sic!) in Avicenna's Mind, in : *Kayseri-Kongr.*, 209-230 (Tu).

(8) BACK, A., Avicenna on Existence, in : *J. Hist. Philos.*, 25 (87), 351-367.

A. first points out that some Aristotelian texts seem to understand the copula "is" inside a categorical proposition in an existential way - a fact naturally stressed in Arabic, where the copula, which was mostly omitted, was used explicitly, by *mawjûd* - meaning existent or present. Notwithstanding this fundamental fact, al-Fârâbî held the common predicational interpretation of Aristotle, as I.S. sometimes does (e.g. in the *Shifâ*). But I.S. seems to contradict this point of view in some other places (some of these are also part of the *Shifâ*). According to them, the copula refers somehow to existence, either *in re* or *in intellectu*. By this interpretation, I.S. points to the distinction essence-existence, and, moreover makes clear that the metaphysical investigation has first to concern itself with the focal meaning of the copula.

Very valuable. A. shows the reader I.S.'s historical dependences and personal contributions regarding the fundamental matter of the copula.

(9) BAYRAKDAR, M., Existence in Ibn Sînâ, and Love as a Cause of the Coming into Existence and as a Proof of Existence, in : *Ilâh. Fak. Dergisi (Univ. Ankara)*, 27 (84), 294-306 (Tu).

(10) BUSCHMANN, E., *Untersuchungen zum Problem der Materie bei Avicenna (Eur. Hochschulschr., R. XX, Philos. 38)*. Frankfurt am Main, P. Lang, 1979, 124 pp.

After a few remarks on I.S.'s life and his influence on the Latin Middle Ages, A. develops a general framework for the interpretation of I.S.'s concept of matter, formulating a harsh criticism of the orthodox Marxist materialistic approach of I.S.'s theory. A. highlights I.S.'s definition of prime matter as substance (excluding any identification with pure possibility). Further, A. affirms that I.S.'s system is basically monistic, and enumerates the causes, which are responsible for the becoming of bodies in the sublunar world (A. rejects any "Prinzipiendualismus", dualism of principles). Moreover, A. offers a classical analysis of matter as (source of) evil and of the human soul as directed towards two worlds.

Valuable, but not really innovative. One regrets that A. uses the 1495-ed. of the *Avicenna Latinus* instead of the critical edition (which she knows).

(11) CAMPANINI, M., *Essenza ed esistenza de Dio in Ibn Sînâ*, in : *Islam. Storia e civiltà*, 3 (84), 173-179.

For A., I.S.'s "Oriental philosophy" is his real philosophy. So, A. does not hesitate to ascribe to I.S. an extremely negative theology (which he would have derived from the mu'tazilites). A. concludes that I.S.'s concept of God corresponds nicely to the Qur'anic one.

Interesting, but this problem has to be settled in a much more qualified way. Moreover, A.'s interpretation of I.S.'s Oriental philosophy is highly questionable, see *Religious Themes and Mysticism*, C 11.

(12) CANEVI, F., *The Conception of Possible Existence in the Philosophy of Ibn Sînâ*, in : *Ulusl. I.S. Semp.*, 279-284 (Tu); 285 (Engl S.).

Acc. to S., I.S., like Aristotle, holds that generation must be referred to a self-caused entity. This enables him to derive all possible Beings from that entity, and at the same time to consider them different from it as well as from all other possible Beings.

(13) CRAIG, W., *Ibn Sînâ*, in : W. CRAIG, *The Cosmological Argument from Plato to Leibniz*. London, McMillan Press, 1980, 86-98.

Acc. to A., I.S. brought al-Fârâbî's Neo-Platonism to full bloom. A. believes that two distinctions lie at the basis of I.S.'s proof for God's existence :

1. Between essence and existence (A. offers a rather complete survey of the main theses which have been expressed hitherto on the accidentality of existence);
2. Between necessity and possibility (A. notes that I.S. anticipates the ontological argument, insofar as he defines the necessity of Being also as a logical necessity).

This basic assumption is exemplified by a concrete case, i.e. I.S.'s proof for God in his *R. al-'arshiyya, Tr. on the Throne*. A. concludes that I.S.'s argument proves the need for an efficient cause of the existence of contingent Beings (as proposed by Afnan), rather than the Leibnizian idea of God as the sufficient reason for the world (as claimed by Rahman).

Very valuable, but limited to I.S.'s proof for God from contingency.

(14) DAVIDSON, H., *Avicenna's Proof of the Existence of God as a Necessarily Existent Being*, in : P. MOREWEDGE (Ed.), *Islamic Philosophical Theology*. Albany, New York, SUNY, 1979, 165-187.

A. starts with a succinct survey of ontological and cosmological proofs for God in Modern philosophy. He then concentrates on the difficult *Ishârât*-fragment, where I.S. states that the consideration of the "nature of Being" suffices to prove God. In sharp contradistinction to Badawi (see : *General Stud.*, B 2) A. detects in



it a cosmological proof - although a genuine one. A. does not deny that I.S. himself conceives of it as a purely metaphysical proof, and an attempt to surpass Aristotle's physical proof from motion. But here I.S. did at most develop some suggestions of the Stagirite.

A. presents solid grounds for his interpretation, but his argument has only convincing force if one accepts that the *Ishârât*-proof is of the very same nature as the one offered in the *Najât*.

(15) ID., Avicenna's Proof of the Existence of a Being Necessarily Existent by Virtue of Itself, and : Averroes' Critique of Avicenna's Proof, in : H. DAVIDSON, *Proofs for Eternity, Creation and the Existence of God in Medieval Islamic and Jewish Philosophy*. New York, Oxford, Oxford Univ. Press, 1987, ch. IX and X, 281-335.

By way of preliminaries, A. states that for I.S. Aristotle's proof for God from motion does not in itself suffice to establish the first cause of existence (see also 14), and that a 'proof' (not demonstration, since God has no cause) for God belongs to the proper discipline of metaphysics. Therefore, I.S. elaborated his own proof, which requires at least one datum from the external world, i.e. the very fact that "there is no doubt that something exists" (A. points out that this proof includes Aristotelian, Proclean and Farabian elements). I.S.'s well-known proof is analyzed in great detail by A. Among A.'s many observations, we may cite :

1. I.S.'s distinction that only two categories of actual existence are conceivable, i.e. the necessary existent by virtue of itself, and the necessary existent by virtue of another (but possible existent by virtue of itself);
  2. The existence of a close resemblance between I.S.'s analysis of the concept of the necessary existent by virtue of itself and al-Fârâbî's analysis of the First (the element of necessary playing no significant role whatsoever);
  3. The certitude that I.S. in his cosmological proof could have dispensed with the impossibility of an infinite regress (but, in fact, I.S. did not realize he was able to do so);
  4. The necessity to understand I.S.'s procedure in his proof as working from a definition (otherwise there is no way to defend the proof);
  5. I.S.'s failure to consider that the totality of possible Beings might exist not by reason of a single component but by reason of all the components together.
- Regarding Ibn Rushd's criticism of I.S.'s proof, A. notes that the former did not have at his disposal all the works of I.S. Moreover, Ibn Rushd obviously misunderstood I.S.'s proof, not at least because he mistakenly supposed that "possibly existent" designated a category of actual existence for I.S. (and hence took I.S.'s twofold division of actual existence to be a threefold division). Finally, the one serious and pertinent objection that Ibn Rushd did raise, i.e. there being an incompatibility between possible existence and eternal existence, lead him through a chain of puzzles back to the position of I.S. himself! One cannot construe - as I.S. did - the celestial realm as eternal, yet in itself only possibly existent. So, the failure of Ibn Rushd's critique is striking. A very fine study-although one again may wonder whether I.S. in his *Ishârât*, *Remarks and*

*Admonitions*, does not elaborate a completely new proof?

(16) DINORSHOEV, M., Ibn Sînâ's Ontology, in : *Avicenna/Ibn Sînâ*, I, 61-77 (Ru); also in : *Rev. Filoz.*, 27 (80), 769-778 (Roum transl.?).

(17) FAKHRY, M., The Object of Metaphysics in Ibn Sînâ and in his Forerunners, in : *Al-dhikr*, 103-129 (Ar).

A. stresses the genuine Aristotelian (and Farabian) character of I.S.'s definition of metaphysics as the study of being qua being. However, A. estimates that I.S.'s conception of causality (the second main theme of his metaphysics) is largely indebted to Plotinus (and al-Kindî). A. also discovers some totally non-Aristotelian elements, such as I.S.'s theories of providence, evil and resurrection. Finally, A. points out that some aspects of I.S.'s metaphysical doctrine, e.g. the statement that an accident may subsist in a subject, are closely linked with theological doctrines of his time.

Very valuable. A. opens interesting perspectives for further investigation.

(18) FARUQ, A. (JOHNSON ST.), A Fourth Ontological Argument in Ibn Sînâ's Metaphysics, in : *Hamdard Isl.*, 7 (84), 3-16; also in : *Islam and the Modern Age*, 15 (84), 115-122, and, almost unmodified, but differently entitled : Ibn Sînâ's Fourth Ontological Argument for God's Existence, in : *Muslim World*, 74<sub>3-4</sub> (84), 161-171.

A. uses the 'transcendental Thomistic methodology' in order to illuminate a fourth ontological argument. Morewedge (see *infra*, 43) having described the third version of the ontological argument. This fourth argument is couched within a cosmological argument, which resembles Aristotle's argument of the Unmoved Mover. However, I.S.'s mystical doctrine of the intuition of Beings enabled him to construct a coherent, not naïve proof - an epistemological progression being also implicit in it, whereby I.S. moves from finitude to the Infinite and offers an existential validation of Leibniz' premises of the ontological argument.

This paper includes some interesting features, but is A. not developing a personal ontological argument rather than giving an analysis of I.S.'s argument?

(19) FILIPPANI-RONCONI, P., I concetti di 'quiddità' et 'esistenza' in al-Fârâbî ed Avicenna, in : R. TRAINI (Ed.), *Studi in onore di F. Gabrieli nel suo ottantesimo compleanno*. 2 vol., Roma, Univ. La Sapienza, 1984, I, 315-321.

From I.S.'s distinction between existence in se and existence in mind (based on the *Ishârât*, *Remarks and Admonitions*, with reference to Ṭūsî), and from I.S.'s acceptance of the notion of existence as being primary, A. (in agreement with the common interpretation of I.S. in the *ḥikma*-school) arrives at the affirmation of the metaphysical primacy of existence over essence, and, conversely, of the logical primacy of essence over existence. Moreover, A. believes that al-Fârâbî

understands the ‘accidentality’ of existence both in a mental-subjective *and* in an extra-mental real sense - using the theological paradigm of God-Creator (but A. refers to the spurious *Fuṣūṣ, Gemstones of Wisdom*). Acc. to A., I.S. holds a very similar view, but he explicitly distinguishes between three gnoseological levels on which one may consider “essence”.

Some interesting ideas, but A.’s analysis highly leans on later Iranian thought.

(20) FINIANOS, GH., *Les grandes divisions de l’être “mawjūd” selon Ibn Sînâ*. Fribourg (Suisse), Ed. Univ., 1976, 303 pp.

A. considers I.S. to be a fundamentally Aristotelian thinker, notwithstanding his Qur’anic belief and his Neo-Platonic attachments. Among the most striking features of I.S.’s doctrine of Being, A. advocates :

- I.S.’s acceptance of a ‘superior’ science, divided into three branches : metaphysics, universal science and divine science;
- The twofold division of *mawjūd, Being* : one according to form (expressed in the division between substance and accident); another according to *finis* (exemplified in the binaries essence-existence, one-multiple, etc.);
- The predominancy of the doctrine of potency and act in I.S.’s construction;
- The absence of any confusion in I.S. between metaphysical and logical order;
- I.S.’s special understanding of the “accidentality” of existence (in this respect A. heavily leans on Ṭūsī’s Commentary on the *Ishârât, Remarks and Admonitions*).

Other items, such as causality, substantiality, possibility, etc., are discussed by A. in a conventional way (mainly based on the *Shifâ, The Cure*, although A. also makes use of other writings, esp. the *Mantiq al-Mashriqiyyîn, Logic of Orientals*). It is noteworthy that A. (over-?)schematizes many doctrinal points.

The work includes interesting insights, but A.’s interpretation seems to be based on an unclear distinction between ‘to be’ and ‘Being’, on the one hand, and ‘existence’ and ‘existent’, on the other.

(21) ID., Philosophy of Being in Ibn Sînâ, in : *Qadâya ‘arabiyya*, 9<sub>1</sub> (82), 79-105; also in : *Al-turâth al-‘arabî*, 2<sub>5-6</sub> (81), 60-99 (Ar).

Almost a summary in Arabic of 20.

(22) GAMARRA, D., Esencia, Posibilidad y Predicacion : a proposito de una distincion aviceniiana, in : *Sapientia*, 41 (86), 101-120.

A classical development on I.S.’s doctrines of the distinction between necessary and possible, and of his famous “*triplex respectus essentiae*”. A. charges I.S. with totally confusing logical and ontological order. A. also discusses I.S.’s influence on Thomas Aquinas.

A.’s analysis still reflects in some essential points the “Thomistic” spirit of the beginnings of this century.

(23) GARDET, L., Avicenne, commentateur de Plotin, in : L. GARDET, *Etudes de philosophie et de mystique comparées*. Paris, Vrin, 1972, 135-146.

In fact, a reprint of A.'s well known paper, entitled : En l'honneur du millénaire d'Avicenne. L'importance d'un texte nouvellement traduit: les gloses d'Avicenne sur la pseudo-Théologie d'Aristote, in : *Revue Thomiste*, 51 (51), 333-345.

(24) GOGACZ, M., Avicenne et les plus importantes interprétations de sa théorie de l'existence, in : *Stud. Philos. christ.*, 18 (82), 129-150 (Pol); 150-151 (Fr S.).

Acc. to S., A. seriously criticizes Goichon's and Gilson's interpretations of I.S.'s theory of existence. In his view, the concrete existence of creatures is understood by I.S. out of God as final cause - science having to be replaced by love.

(25) ID., *Awicenna. Metafizyka ze zbiora pt. Ksiega wiedzy (Ibn Sînâ. Metaphysics in the Work Dânesh-Nâme)*. Warszawa, Ak. Theol. Kat., 1973, 206 pp.

Includes pp. 5-58 a general outline in Polish of I.S.'s metaphysics.

(26) GÜRISOY, K., The Avicennian Conception of Existence and Existentialism, in : *Ulusl. I.S. Semp.*, 523-529 (Tu).

(27) HYMAN, A., Aristotle, Algazali and Avicenna on Necessity, Potentiality and Possibility, in : K.-L. SELIG and B. SOMMERVILLE (Eds.), *Florilegium Columbianum. Essays in Hon. of P. Kristeller*. New York, Italica Press, 1987, 73-88.

A. points out the existence of three major positions in Islamic, Jewish and Christian medieval thought regarding the possibility-necessity problematic :

1. The theological point of view, which affirms a radical contingency of the world;
2. An attempt to harmonize Scripture with philosophy, which states that God is the cause of the necessary laws governing the worlds;
3. The acceptance of Aristotle's position, i.e. that the world is governed by necessary laws.

Only in the last (minor) part of the paper, A. concentrates on I.S., who for him illustrates the harmony model. A. stresses I.S.'s metaphysical approach in these matters, and briefly deals with I.S.'s distinctions between essence and existence, and possible and necessary. Moreover, A. summarizes I.S.'s theory of causality.

Valuable, although not really innovative.

(28) INATI, SH., An Examination of Ibn Sînâ's Theodicy-Dissolving

the Problem of Evil, in : *New Scholast.*, 58 (84), 170-186.

A. ascribes to I.S. the thesis that God does not concern Himself with anything outside Himself. From it, A. concludes that I.S.'s God is incapacitated by his very nature to deal with evil, and is therefore free from blame.

Interesting, but is the Avicennian context not more complex than suggested?

(29) IVRY, A., *Destiny Revisited. Avicenna's Concept of Determinism*, in : M. MARMURA (Ed.), *Islamic Theology and Philosophy*. Albany, New York, SUNY, 1984, 160-171.

A. points out two models of matter in I.S. :

1. Matter as a mere receptacle of forms;
2. Matter as principle of Being.

Only the former kind is knowable, but the latter kind has the advantage of making possible the location of a peculiar form of human freedom.

A very original paper. A.'s interpretation deserves a close analysis.

(30) JOLIVET, J., *Aux origines de l'ontologie d'Ibn Sînâ*, in : *Études sur Avicenne*, 19-28; also in : *Pensée arabe...*, 581-562.

A. takes into consideration I.S.'s concept of essential structures (conceived in a non-Platonic way!), by discussing I.S.'s notions of *shay'*, *thing* and *mawjûd*, *existent*, and also by analyzing I.S.'s theory of the relationship between the universal and the particular. Although not contradicting Aristotle, the ontology presented by I.S. in this context is clearly non-Aristotelian, insofar as it introduces a logic-based problematic, i.e. the *focus imaginarius* of an existence-free essence. Having shown this in a very convincing way, A. points to the fact that no such theory was present in Arabic philosophy before I.S. He then demonstrates that in mu'tazilite theology, on the contrary, some similar considerations had been developed (a fact, which Shahrastâni and F.D. Râzî had already pointed out). Moreover, the relationship between thing and existence also functioned in the sunni theology of I.S.'s time as a central issue of debate.

A very fine paper. Compare also : *Annuaire. Ecole pratique des Hautes Etudes. (V. Section-Sc. Rel.)*, Vol. 88 (Comptes rendus 79-80), 401-405.

(31) KHWÂNSÂRI, M., *Metaphysics in the View of Ibn Sînâ*, in : *Falsafat (Tehran)*, 3 (77), 1-17 (Pers) (N.C.).

(32) KORLAELÇI, M., *Metaphysics in Avicenna's Mind*, in : *Kayseri-Kongr.*, 270-290 (Tu).

(33) MACIEROWSKI, E., *Does God have a Quiddity according to Avicenna?*, in : *The Thomist*, 50 (88), 79-87.

Acc. to A., there exist two opposite views about whether or not I.S. ascribes a quiddity to God. The one (present in Verbeke, see 65-66) states that the

Necessary Being does not have an essence that is distinct from its existence. The other (adopted by Judy (see *Influences*, A II, 10) and Gilson) holds that God has no quiddity. Correcting some fragments, and translations of Judy, A. concludes that, at least, in a preliminary way, one may accept with Verbeke that for I.S. the essence of God is the same as His being in the sense of *anity*. However, A. notes that Gilson's position can be rescued, insofar as I.S. adheres to the principle that everything which has a quiddity other than *anity* is caused. From this principle, and from the fact that the First has a quiddity - namely, to be necessary of Being - I.S. concludes that God has no quiddity. It is worth mentioning that A. in an appendix gives an English translation of a few passages of the *Isagoghè* of the *Shifâ*.

Very interesting, but in need of further elaboration (especially regarding the involved notion of *anity*).

(34) MADKOUR, I., Introduction à la *Métaphysique* du *Shifâ*, transl. into Turkish by M. TÜRKER-KÜYEL, in: *Ibn Sînâ. Doğumunun...*, 405-432.

Turkish translation of A.'s famous introduction to the Arabic edition of the *Metaphysics* of the *Shifâ*.

(35) MARMURA, M., art. Avicenna-Metaphysics, in: *Enc. Ir.*, 73-79. A. generally characterizes I.S.'s system as a climatic development of medieval Islamic Aristotelian and Neo-Platonic thought (closely related to al-Fârâbî), being in parts also a response to doctrines encountered in Islamic theology. Moreover, A. brings to the fore not only I.S.'s acute sense for analytical distinctions, but also his rationalist spirit. Finally, A. presents in a very clear way some basic ideas of I.S.'s metaphysics, i.e. the proper subject matter of metaphysics (I.S. heavily leans on Aristotle's *Posterior Analytics*); the essence-existence distinction (A. shows its importance both on the logical and on the metaphysical level); God's existence and the world's emanation (with some special attention to I.S.'s proof for God's existence); divine knowledge and providence. Since I.S. devotes the last section of his metaphysics to political philosophy, A. also deals with it.

Valuable, a serious basic outline of I.S.'s major metaphysical ideas, although one may wonder whether A. does not overestimate the relationship between I.S. and al-Fârâbî?

(36) ID., Avicenna on Causal Priority, in: P. MOREWEDGE (Ed.), *Islamic Philosophy and Mysticism*. Delmar, New York, Caravan Books, 1981, 65-83.

A. provides a detailed analysis of ch. 1 of B. IV of the *Metaphysics* of the *Shifâ* (for the offered translation, see *Works*, A II). This chapter deals mainly with ontological priority. Aristotle's *Categories* is the main source for the two types of ontological priority that one finds in I.S., although I.S. derives his doctrine of the essential efficient cause from Aristotle's *Metaphysics*. For. A., I.S.'s theory

emerges as a counterposition against Ash'arite criticisms of (Aristotelian) causality.

Very valuable, a clarifying analysis of a complex basic text.

(37) ID., Avicenna on Primary Concepts in the *Metaphysics* of his *al-Shifâ*, in : *Logos Islamikos (Papers in Med. St., 6)*. Toronto, Pont. Inst. Med. Stud., 1984, 219-239.

As in 36, an analysis of a particular chapter, it being now ch. 5 of B. I. Having given a summary outline of the chapter, A. offers a critical translation (see *Works*, A II), intertwined with brief, but significant comments. Among others, A. discusses the problem of the impression of primary concepts, the relationship of I.S.'s doctrine of thing and existence to Mu'tazilism and Ash'arism; and I.S.'s belief that what has ceased to exist can be brought back into existence. In general, A. detects an ultra-rationalism in I.S.'s positing of primary concepts, and hereby points to its mu'tazilite undertone.

Very significant, although one may wonder whether the qualification of I.S.'s rationalism as an "ultra"-rationalism is totally justified?

(38) ID., Avicenna's Chapter "On the Relative" in the *Metaphysics* of his *Shifâ*, in : G. HOURANI (Ed.), *Essays in Islamic Philosophy and Science*. Albany, New York, SUNY, 1975, 83-99.

This time A. concentrates on ch. 10 of B. III (for its translation, see once more *Works*, A II). A. stresses that I.S.'s theory of relation is basically Aristotelian (notwithstanding the presence of some Neo-Platonic and Stoic elements). In fact, I.S. commits himself explicitly to a substance-accident ontology. Of particular significance is A.'s observation that a fundamental ambiguity is involved in I.S.'s position, on the question whether relations exist in objective reality, or whether they exist only in the mind?

A serious basic outline.

(39) ID., Avicenna's Proof from Contingency for God's Existence in the *Metaphysics* of his *Shifâ*, in : *Med. Stud.*, 42 (80), 337-352.

A. states that one is able to detect I.S.'s famous proof from contingency for the existence of God in the *Shifâ*. Acc. to A., the *Shifâ*-formulation has even some advantages over similar versions of the proof in the *Najât*, *The Salvation*, the *R. al-arshiyâ*, *Tr. on the Throne* and the *Ishârât*, *Remarks and Admonitions* (A. accepts Goichon's interpretation of the *Ishârât*-proof). Acc. to A., three points are presented better in the *Shifâ*, i.e.: the a priori nature of the proof; the necessitation of the effect of the essential efficient cause, and the finitude of a series of causally connected contingent existents.

A. certainly gives a correct analysis of I.S.'s proof from contingency, but one may wonder why I.S. himself did not formulate it in a more systematic way in the *Shifâ*?

(40) ID., Divine Omniscience in Alfarabi and Avicenna, in: P. RUDAVSKY (Ed.), *Divine Omniscience and Omnipotence in Medieval Philosophy (SHL, 25)*. Dordrecht, Reidel, 1985, 81-94.

A. shows how al-Fârâbî, in his *Commentary on Aristotle's De Interpretatione*, arrives at defending God's foreknowledge without eliminating human freedom. But al-Fârâbî makes no reference whatsoever to God's causality. Hence, he evades the crux of the problem, especially since he seems to sustain an emanative doctrine of creation. Contrary to al-Fârâbî, I.S. makes such an explicit reference in the very same context. Now, whichever interpretation one offers of I.S.'s theory of the divine knowledge of particulars, a (pre-)determinism, always seems to be present, which is difficult to reconcile with the affirmation of man's freedom of will.

At the least, a solid paper. A. indicates the real crux of the problem: God's causality.

(41) ID., The Metaphysics of Efficient Causality in Avicenna, in: M. MARMURA (Ed.), *Islamic Theology and Philosophy*. Albany, New York, SUNY, 1984, 172-187.

A. remarks that I.S.'s theory of efficient causality, notwithstanding its basic Aristotelian character, has characteristics all of its own. This is best shown by I.S.'s strong emphasis on the otherness of cause and effect in his physical and metaphysical writings. In so doing, I.S. probably tried to avoid pantheism. A. also confronts I.S.'s theory of causality with the occasionalism of the Ash'arite school, esp. that of al-Bâqillânî, one of I.S.'s younger contemporaries (compare in this respect, 37).

A very fine paper-clarifying in a significant way I.S.'s historical sources as well as his own input in his philosophical system.

(42) MÂZANDARÂNÎ, M. HÂ-IRÎ, *Hikmat-i Bû 'Alî Sînâ (The Wisdom of Ibn Sînâ)*. 1st ed. (2 vol.) Tehran, 1956-1957; 2nd ed. (5 vol.) Tehran, Int. Husayn 'Ilmî, 1983, 412; 401 + 3; 349; 381; 418 pp.

(43) MOREWEDGE, P., A Third Version of the Ontological Argument in the Ibn Sinian Metaphysics, in: P. MOREWEDGE (Ed.), *Islamic Philosophical Theology*. Albany, New York, SUNY, 1979, 188-222.

This paper completes 44. Having developed the two versions of the ontological argument as presented by Malcolm (and the most important arguments against them), A. presents what he considers to be I.S.'s specific formulation of Malcolm's second version - which is so special that it deserves to be called a third version. Its point of departure lies in the 'self'. A. refers to I.S.'s famous "flying man" argument (however, A. himself affirms that I.S. does not make any allusion to the existence of God in this argument). Adopting with Zaehner and Houben a (natural) mystical interpretation of I.S., A. states that for I.S. man's main task consists in uniting himself with nature i.e. God, and that the



conception of all actual existent realities in the world is included in the conception of the Necessary Existent.

Undoubtedly, a very personal interpretation of I.S.'s thought. A. uses the tools of analytical philosophy (there is no objective a priori objection against doing so but no scholar will doubt that such a procedure requires extreme care in its application).

(44) ID., Ibn Sînâ (Avicenna) and Malcolm and the Ontological Argument, in : *The Monist*, 54 (70), 234-249.

A. demonstrates those features of I.S.'s essence-existence distinction which preclude the formulation of the first version of the ontological argument. Hereafter, A. states that I.S. offers a second version of the ontological argument, as distinguished by Malcolm, but arrives at a concept of God, which is quite different from Malcolm's. While for the latter the Necessary Existent is the God of ordinary language, He is for I.S. the principle of sufficient reason.

The same evaluation as used in 43 suggests itself. Compare also 13, which opposes the interpretation that I.S.'s God is the principle of sufficient reason.

(45) ID., Ibn Sînâ's Concept of the Self, in : *Philos. Forum*, 4 (73), 49-73.

Based on the *Dânesh-Nâmeh, Book of Science*, A. discovers two paradoxes in I.S.'s metaphysical system :

1. Although for I.S. all actual entities are either substances or accidents, the Necessary Existent, albeit an actual entity, is neither a substance nor an accident;

2. No substance can be united with any other entity, but there exists a union between the self-person and the Necessary Existent in the so-called mystical state.

Further, A. repeats some basic elements of his 47.

It has to be noted that A. adheres to a process-language type interpretation of I.S.'s concept of God.

Very interesting. There are indeed serious problems involved in I.S.'s denial of God as a substance, whichever interpretation one defends!

(46) ID., Philosophical Analysis and Ibn Sînâ's "Essence-Existence" Distinction, in : *JAOS*, 92 (72), 425-435.

A. agrees with Rahman that existence is not an accident of essence in I.S.'s system. In order to demonstrate this, A. develops an empirical interpretation of I.S.'s theory of the distinction between essence and existence, and calls for special attention to be paid to I.S.'s concept of Being-*hastî* (based on the *Dânesh-Nâmeh, Book of Science*).

Very valuable, insofar as A. shows that I.S. in his Persian terminology clearly distinguished between existence and being (the Arabic offering him no such opportunity), but A.'s empirical approach seems questionable.

(47) ID., *The Metaphysica of Avicenna (Ibn Sînâ)*. (Pers. Her. Ser., 13). London, Routledge and Kegan, 1973, *Comm.* : 145-291.

A. first observes that there are several basic similarities between I.S.'s and Aristotle's metaphysical theories. But, as far as I.S.'s cosmology is concerned, its anti-Aristotelian, and, at the same time, rather anti-Islamic bias cannot be dismissed. However, A. stresses that I.S. is well aware of the difference between logical possibility and ontological contingency, and hence does not confuse logical and ontological order in the elaboration of his Neo-Platonic-based theory of emanation. Acc. to A., I.S. did not succeed in combining Aristotelianism and Neo-Platonism. A. also detects elements of Zoroastrian and mystical influences in I.S.

The major part of A.'s comment is devoted to I.S.'s concept of the Necessary Existent. First of all, A. distinguishes three groups of terms which I.S. uses to describe the Necessary Existent, i.e. semiotic, epistemic and normative concepts. Then he focuses on the Necessary Existent as the cause of the entire realm of entities (I.S. hereby adhering a Proclean rather than an Aristotelian view of causation). Further A. concentrates on the problem of God's knowledge in its twofold aspect of Self-knowledge and of knowledge of things outside of Himself. In this context, A. introduces three fundamental ways by which I.S. considers the Necessary Existent, and relates each of them to one specific major philosophical work by I.S. So, he ascribes to the *Dânesh-Nâmeh, Book of Science*, a basically ontological approach, while he links with the *Shifâ, The Cure* a religious view and with the *Ishârât, Remarks and Admonitions*, a phenomenological (-mystical) interpretation. Finally, A. points to a paradox, raised by I.S.'s contention that God is not a substance (see also 45).

Interesting, but does A. not introduce a too great distinction between I.S.'s three major philosophical writings? Regarding the use of tools of analytical philosophy, cf. *supra*, 43.

(48) MUÑOZ, R., La existencia de Dios en Avicena, in : *Milenario de Avicena*, 89-99.

A. starts with a detailed analysis of *Ishârât, Remarks and Admonitions*, p. II, N. 4, subdiv. 9-15. A. compares the argument, involved in it, with Thomas Aquinas' *tertia via*. For a confrontation with Anselm, however he uses another subdivision of the same part of the *Ishârât*, i.e. subdivision 29 (A. briefly discusses its interpretation by such well-known authors as Badawi, Cruz Hernandez, Gardet and Goichon). Acc. to A., the two fragments form in fact one single argument. A. concludes that I.S. offers a real ontological argument, but not in the way of Anselm. I.S.'s proof being *a simultaneo*.

A.'s (very personal) reconstruction of I.S.'s argument for the existence of God is not totally convincing. Why were the 2 fragments not put together by I.S. himself?

(49) NETTON, I., Ibn Sînâ's Necessary and Beloved Deity, in: I. NETTON, *Allah Transcendent. Studies in the Structure and Semiotics of Islamic Philosophy, Theology and Cosmology (Exeter Ar. and Isl. Ser., 5)*. London, New York, Routledge, 1989, 149-202.

Acc. to A., I.S.'s description of God's necessity and unity (and also His other attributes) is largely indebted to al-Fârâbî. Monotheism and transcendence constitute the two major bases of I.S.'s concept of God (there existing a possibility to equate I.S.'s God with Plotinus' One). Regarding I.S.'s cosmology, A. affirms that it is infiltrated by an angelology (in the line of Corbin), but that it is radically different from the religious doctrine of *creatio ex nihilo* (following Morewedge, see *supra*, 47). Then A. insists that I.S. does not succeed in reconciling his ontological scheme with his cosmological scheme. Finally, after a brief discussion of I.S.'s proofs for God's existence (A. accepting the presence of an ontological proof in the *Ishârat, Remarks and Admonitions*), A. concentrates on I.S.'s mystical philosophy. For A., it is obvious that I.S. has much in common with sufism, especially regarding his concept of love. A. concludes that I.S. holds a double theology (God as necessary and God as love) - allegory as mirror functioning as a structure for this theology. In order to illustrate this conclusion, A. offers a brief analysis of Ḥayy ibn Yaqzân, according to some principles of Barth's semiology.

Some interesting ideas, but A.'s basic approach - esp. the introduction of modern semiotical means - appears risky (as already mentioned regarding the use of modern analytical philosophy by Morewedge, see *supra*, 43).

(50) POKROP, M., The Concept of Necessary Existence in the *Metaphysics* of Avicenna's *Dânesh-Nâmeḥ*, in: A. ADUSZKIEWICZ and A. GOGACZ (Eds.), *Awicenna: sredniewieczna filozofia arabska*. Warszawa, Ak. Teol. Kat., 1982, <sup>2</sup>1983, 196-228 (Pol).

(51) RADWANSKI, W., The Idea of Efficient Causality in the Necessary Existent, according to the *Metaphysics* of Avicenna's *Najât*, in: *ibid.*, 229-301 (Pol).

(52) RAHMAN, F., Essence and Existence in Ibn Sînâ. The Myth and the Reality, in: *Hamdard Islamicus*, 4<sub>1</sub> (81), 3-14.

A. further elaborates on his Essence and Existence in Avicenna, in: *Med. and Ren. Stud.*, 4 (58), 1-16. He pays special attention to the concept of contingency. In analyzing the form-matter relationship, he points to I.S.'s introduction of a third principle which bestows existence on everything (an idea, which is not present in Aristotle, but I.S. remains basically inside an Aristotelian framework). In the light of this element, form appears as a contributory cause of matter - and as such its priority over matter is safeguarded. Now, whereas the form-matter composition entails a real contradiction between existence and non-existence, this very same contradiction does not follow in the case of a pure essence-

existence composition (as present in the transcendental Intelligences). Nevertheless, once actualized, these higher Intelligences also never rid themselves of their fundamental contingency.

This paper strengthens the plausibility of A.'s basic thesis!

(53) RIORDON, J., God, Intellect, and Avicenna, in : R. ROTH (Ed.), *God, Knowable and Unknowable*. New York, Fordham Univ. Press, 1973, 23-41.

A. discusses Nasr's thesis that "Western philosophy failed to distinguish between intellect and reason, in sharp contrast with truly Islamic philosophy". I.S., at least in his Peripatetic writings, is considered by Nasr to be among the historical sources of the positivism, so characteristic for the former. However, A. notes that I.S. in his Peripatetic *De Anima (Shifā)* explicitly distinguishes between single intellect and discursive reason - the former helping man to grasp reality by offering an intuition of the necessity in Being. As to I.S.'s esoteric writings, A. agrees with Nasr (and Corbin) that they include a pure symbolic vision (A. remarks that for Nasr only a vision such as this leads to the true insight regarding the difference between intellect and reason).

The paper includes valuable features, but is it not dealing with Nasr rather than with I.S.?

(54) SARANYANA, J., Möglichkeit und Notwendigkeit bei Ibn Sînâ (Avicenna), in : *Orientalische Kultur und Europäische Mittelalter*, 207-217; also as : Posibilidad y necesidad segun Avicena, in : *An. Sem. Hist. Filos.*, 5 (85), 239-248.

Having offered an analysis of the absolute primacy of *esse* in I.S. (in full agreement with Thomas Aquinas' interpretation), A. discusses I.S.'s proper theory of possibility and necessity. A. brings to the fore the distinctions between logical possibility and real possibility, respectively logical necessity and real necessity. Moreover, he points to I.S.'s identification between possible *in se* and necessary *ab alio*, and states that it constitutes a clear proof of I.S.'s holding the real distinction between essence and existence. As to the *possibilitas essendi*, A. understands it realistically as an accident of the universal substratum, i.e. the *hylè*. In his conclusion, A. affirms that he is tempted to identify this *hylè* with Being (*dem Sein; el ente*).

A. develops a highly personal interpretation which is built up along a very logical line of thought, but which may also be seriously questioned (esp. on the basis of I.S.'s clear rejection of the mu'tazilite theory of non-being).

(55) SHEHADI, F., *Metaphysics in Islamic Philosophy*. ch. 5 : *Ibn Sînâ*. Delmar, New York, Caravan Books, 1982, 71-86.

Acc. to A., I.S. is a remarkable philosopher of Being, albeit that he had no feeling for the "Vocabulary of Being"-problem as did his predecessor al-Fârâbî. A. pays special attention to the essence-existence distinction in I.S. With respect to the accidentality of existence, he distinguishes between a logical sense and a

metaphysical sense. The former implies that existence is not part of the essence of the subject, while the latter underscores the contingency of created things. Further A. believes that I.S.'s logical sense of essence in itself always refers to essence as essence of something - the 'in itself'-status indicating a mode of Being, but not meaning an independent mode of existence! A. also observes a sharp distinction in I.S. between existence, as analytically implied in the idea of substance, and existence, as being part of the nature of caused things (and, as such, evoking their contingency, and hence their being 'accidental'). So, it becomes evident that existence can never be external to God, who is sheer existence. For A., the main reason for I.S.'s refusal to call God a substance, is most probably given by the fact that a substance may not exist. However, A. wonders why I.S. did not therefore declare God as infinite substance?

A very valuable contribution, although there might have been other reasons for I.S.'s denial of substantiality in God than the one suggested (e.g. the material reference which always seems to be implied in the Arabic notion of *jawhar* substance).

(56) SIROJOV, F., *Mas"alshoi falsafai hastî dar kitobi Najât (Metaphysical Problems in the Work "Najât")*. Dushanbe, Donish, 1980, 138 pp.

(57) ṬABÂṬABÂ'Î, M., *Naqd-i ârâ-i Ibn Sînâ dar Ilâhiyyât (The Spirit of Ibn Sînâ's Metaphysical Conceptions)*. Tehran, Nashir, 1983, 88 pp.

In this booklet, A. deals with three major items :

1. The relationship between I.S. and some of the most important Arabic and Persian thinkers subsequent to him;
2. The sharp distinction between God and the sensible world in I.S.;
3. Three religious themes of I.S.'s metaphysics, i.e. his doctrines of the divine One, of prophecy and of resurrection.

Acc. to A., all of I.S.'s doctrine, including the religious themes, is guided by Aristotelian principles - sometimes to the detriment of authentic religion! It is worth mentioning that A. offers many citations from different works, in the original Arabic as well as in a (rather) critical Persian translation.

Valuable, although introductory.

(58) TUNÇ, C., Obligatory Existence (sic!) in Avicenna's Mind, in: *Kayseri-Kongr.*, 202-208 (Tu).

(59) TÜRKEL-KÜYEL, M., May one indicate the "Kut" source of the Agent Intellect in al-Fârâbî and Ibn Sînâ?, in: *Ibn Sînâ. Doğumunun...*, 489-590 (Tu).

Note: "kut" is an old Turkish term, derived from Sumerian and Babylonian sources, and meaning: 'Holy Spirit' or 'Favour of the Heavens'.

(60) ID., The Sources of I.S.'s Agent Intellect, in : *Ibid.*, 591-670 (Tu).

(61) ID., Fârâbî's Politics, a Step towards Ibn Sînâ's Agent Intellect, in : *Ibid.*, 671-706 (Tu).

(62) ID., Ibn Sînâ and the Agent Intellect, in : *Ibid.*, 707-748 (Tu).

(63) ID., Ibn Sînâ and Mystical Ideas, in : *Ibid.*, 749-792 (Tu).

59-63 : Taken together these papers seem to constitute one large monograph on the problematic of the Agent Intellect, both in its historical sources and in its actual significance inside I.S.'s own philosophical system. From the very outset, one gains the impression of dealing with a very fundamental study. Unfortunately, one's ignorance of the Turkish language obliges one to withhold any critical evaluation.

(64) VERBEKE, G., *Avicenna. Grundleger einer neuen Metaphysik (Rheinl.-Westf. Ak., Wiss. Votr., G 263)*. Opladen, Westdeutscher Verlag, 1983, 26 pp.

A summary of 65-66, but it offers a few important additions. A. presents I.S. as the first philosopher who has really systematized Aristotle's disparate metaphysics, in three ways :

1. The explicit positing of Being qua Being as the proper object of metaphysics;
  2. The adhering to not only a categorical, but also a transcendental analogy of Being;
  3. The introducing of the idea of creation into the very heart of metaphysics.
- A. concludes that I.S.'s system became highly appreciated in the Latin Middle Ages (A. notes that there is no explicit condemnation of any of I.S.'s theories).

A very valuable complement to 65-66. A. clarifies I.S.'s own input in the development of metaphysics in a significant way.

(65) ID., Le statut de la Métaphysique, in : S. VAN RIET (Ed.), *Avicenna Latinus Liber de philosophia prima sive scientia divina, I-IV*. Louvain, Peeters; Leiden, Brill, 1977, *Introd. doctr.*, 1\*-122\*.

(66) ID., Une nouvelle théologie philosophique, in : *Ibid.*, V-X. Louvain, Peeters; Leiden, Brill, 1980, *Introd. doctr.*, 1\*-80\*.

65-66 : These two doctrinal introductions together outline in a masterly way the general structure of I.S.'s very complicated *Metaphysics* of the *Shifâ*. From A.'s analysis, let us select a few salient features :

- I.S. agrees with Aristotle that the proper object of metaphysics is Being qua Being, but he deviates from the Stagirite when he states that God can only be discussed inside the science of metaphysics;
  - I.S. adheres a 'mitigated realism', insofar as he does not defend an absolute parallelism between logical and ontological order;
  - I.S. (re-)thinks the notions of possible and necessary in an existential dimension;
  - The probable presence in I.S. of a transcendental analogy of Being;
  - I.S.'s keeping with Aristotle, and rejecting Plotinus, in holding the accidentality of unity;
  - I.S.'s defense of the reality-involved character of the metaphysical inquiry (based on his specific theory on universals);
  - The ultimate originality of I.S.'s doctrine of causality;
  - I.S.'s justification of monotheism in a philosophical way, e.g. by conceiving God's perfection in terms of pure Being;
  - I.S.'s acceptance of the idea of a necessary and mediated creation.
- A very fine basic outline and analysis of the *Metaphysics*.

(67) YAZDÎ, M., The Relation between Existence and Essence in the Philosophy of Ibn Sînâ, in : *Hazâra-i Ibn Sînâ*, 11-29 (Pers).

For A., I.S.'s affirmation of the "accidentality" of existence requires a specific semantic analysis, which he develops (based on *Nâjat*, *The Salvation* and *Ishârât, Remarks and Admonitions*, and paying attention to Ibn Rushd's critical remarks). A. concludes that for I.S. the accidentality of existence has to be placed on a purely mental level, and that I.S. gives existence its full value on the ontological level. With Mullâ Şadrâ Şîrâzî, the reversed expression, i.e. essence is an accident of existence, is even true. Therefore, A. wonders whether Mullâ Şadrâ's and I.S.'s opinions can be put together in one symmetric relationship (in the sense it has in analytical logic)? For A., the answer is in the affirmative, since the otherness of essence from existence is necessarily implied by both systems.

Interesting, but the textual basis on which A. argues appears rather weak (especially in view of the importance of the conclusion).

(68) ZEDLER, B., Another Look at Avicenna, in : *New Scholast.*, 50 (76), 504-521.

A. believes one may accept the existence of a real, but not reified distinction of essence and existence in I.S. For the sake of clarification, she offers a brief, but accurate description of I.S.'s emanation scheme. Then, she observes that I.S.'s originally logical analysis of essence becomes a metaphysical composition of essence and existence in "created" beings. Similarly, I.S. glides from the logical into the ontological order, when dealing with the order of the possibles (in both cases, A. finds some historical support in Ibn Rushd). For A., this 'gliding' results from the very fact that I.S. tries to preserve, even within the context of necessary universe, the Qur'anic teaching of God as the creative cause of all things. Valuable, a defense of the classical Western interpretation of I.S., but in a nuanced way.

## Chapter XI

# Religious Themes and Mysticism

A. PHILOSOPHY AND RELIGION

B. RELIGIOUS THEMES

I. Prophecy

II. Life in the Hereafter

C. MYSTICISM,  
QUR'ANIC EXEGESIS,  
ORIENTAL PHILOSOPHY

See also :

III, 19

V, B 6; V, C 28, 53

VIII, 17

IX, 9, 11

X, 11, 45, 47, 53, 63

XIV, A-I, 2

XV, D 4; XV, E 5





## A. Philosophy and Religion

(1) ABDI, W., Ibn Sînâ's Critique of Mutakkalimîn's Atomic Theory, in : *Ind. J. Hist. Sc.*, 21 (86), 285-292.

A. concentrates on I.S.'s proofs against atomism (especially in the *Dânesh-Nâme*, *Book of Science*). He also brings to the fore I.S.'s rejection of the existence of a Void, and his theory of motion. Finally, he presents some basic ideas of I.S.'s metaphysics. A. concludes that for I.S. the Islamic doctrine is fundamentally correct, but that one has to use rationality in solving problems involving faith.

Good, but somewhat preliminary, and not always very accurate.

(2) CASPAR, R., Philosophie et révélation selon Avicenne, in : *IBLA*, 33 (70), 103-121 : also in Engl. Translation, in : *Isl. Rev. Arab. Aff.*, 58<sub>10-11</sub> (70), 12-8ff. (Engl Tr. : N.C.).

After a brief presentation of al-Kindî and al-Fârâbî, A. fully concentrates on I.S. A. presents the latter as a philosopher who consciously tries to bring philosophical insights more into harmony with the data of revelation. The high points of this effort by I.S. are his attempts to arrive at a more genuine idea of creation - out of the distinction between necessary and possible existence, and at a more orthodox doctrine of God's knowledge of particulars - by stressing that God knows them insofar that He is their cause. But the very limit of this harmonizing tendency is, acc. to A., shown by I.S.'s clear rejection of the resurrection of the body.

A good, but rather conventional paper. For a much more critical evaluation of I.S.'s doctrine of resurrection, see however *infra*, B II, 11.

(3) GHORABA, H., *Ibn Sînâ bayn al-dîn wa 'l-falsafa (Ibn Sînâ between Religion and Philosophy)*. Cairo, 1948. Repr. Cairo, M. al-buḥūth al-islâmiyya, 1972.

(4) GÖLCÜK, Ş., The Philosophy of Ibn Sînâ and its Relationship with Kalam, in : *S. Ü. Selçuk Dergisi*, 2 (88), 125-133 (Tu).

(5) GÜNGÖR, H., The Philosophy of Religion in Ibn Sînâ's View, in : *Kayseri Kongr.*, 263-269 (Tu).

(6) JOLIVET, J., *Le déploiement de la pensée philosophique dans ses rapports avec l'Islam jusqu'à Avicenne*, in : *L'Islam, la philosophie et les sciences*. Paris, Unesco, 1981, 35-58 (Discussion : 59-65).

Muslim philosophers had to face two major difficulties :

1. The already existing all-encompassing corpus of knowledge, based on the Qur'ân;
2. The most evident contradiction between some philosophical theories and some data of Revelation.

Now, A. detects two tendencies inside the *falsafa* in order to overcome these difficulties. The first tendency rejects any fundamental disagreement between Greek philosophy and Islamic thought, and, in its first great representative, al-Kindî, is based on two principles :

1. The truth becomes only known through the collaboration between all men (implying that the individual has to contribute to the acquisition of truth);
2. Philosophy, in as much as it is the science of divine sovereignty and unity (an essential Neo-Platonic definition!), does not contradict religion. The second way out of the problem consisted in limiting the utility of religion to its social value.

It was clearly more preoccupied with pure philosophy. It arose in al-Fârâbî, and found its apogee in Ibn Rushd. As to I.S., he seems to adopt the Kindian line of thought. In fact, in his philosophy one comes across many themes derived from religion (their presence in late antiquity philosophy is fully recognized by A.; however, he sharply remarks that there the framework was polytheistic). As to I.S.'s theory of creation, A. points to its extreme complexity (and its sensible difference with both al-Fârâbî and al-Kindî's views on this matter). Finally, A. most emphatically declares that I.S. derives his essence-existence distinction from the *kalam*, esp. the *mu'tazilite kalam*.

A remarkable, and most interesting paper, especially for its showing the extreme importance of the *kalam* with respect to some Avicennian doctrines.

(7) KIRCA, C., *Interrelation between Islamic and Positive Science according to Avicenna*, in : *Kayseri-Kongr.*, 299-317 (Tu).

(8) MAHDI, M., *Introduction to art. Avicenna*, in : *Enc. Ir.*, 66-67.

In this introduction, A. limits himself to the problem of the relation between philosophy and religion in I.S. For A., I.S. sustained al-Fârâbî's view of religion, but without its original formulation and political framework. Instead of discussing the relation between philosophy and religion, I.S. tried to offer a philosophical interpretation of religion. Therefore, his philosophy was appreciated by a large number of educated Muslims. So, notwithstanding the development within philosophical circles of an anti-Avicennian tradition, many later authors, as e.g. al-Ghazzâlî or Al-Sahrastânî, almost identified philosophy with I.S.'s doctrine.

A valuable contribution, but clearly in need of some further development.

## B. Religious themes

### I. PROPHECY

(1) AMALI, A., Ibn Sînâ's Attitude towards Prophecy, in : *Hazâra-i Ibn Sînâ*, 31-44 (Pers).

A. studies the different aspects of I.S.'s theory of prophecy, mainly based on I.S.'s major works, *al-Shifâ*, *Najât* and *Ishârât*. He insists on the necessary character of prophecy in the Avicennian system. However, A. affirms I.S.'s doctrine to be superogatory with respect to the original Qur'anic conception of prophecy.

A rather superficial account of I.S.'s theory of prophecy.

(2) BANU, I., Créativité humaine, créativité prophétique chez Ibn Sînâ, in : *Proc. 16th. Int. Congr....*, 361-366.

For A., I.S. is a religious believer, but also, and, above all, a scientific spirit. This is shown through the fact that I.S. incorporates religion within the practical sciences, and venerates God as being the summum of rationality and creative power. A further indication for this, A. discovers in I.S.'s acceptance of human being as being primarily a *cogito* (interpreted by A. as the ability to know everything by one's own intellectual forces). Moreover, I.S. emphasizes the possibility for all wise men (hence not just the prophets!) to possess a special power of intuition, and even the power of performing miracles. Consequently, in the prophet, although still natural, this power is somehow greater.

A rather classical analysis, albeit coloured by an outspoken rationalistic (Marxist-inspired) interpretation.

(3) ELAMRANI-JAMAL, A., De la multiplicité des modes de la prophétie chez Ibn Sînâ, in : *Etudes sur Avicenne*, 125-142.

A. believes that there exists a close relationship between I.S.'s hierarchical structuring of the animal faculties in the *De Anima*, IV-V (powers of perception and motion, and the intellect) and his three-fold division of prophecies (by imagination, by motion and by the activity of the Agent Intellect). So, the possibility for the soul to have real images without any relations to the sensible objects opens large perspectives for a real foundation of the kind of prophecy by imagination. In associating the functions of imagination in dreams with Aristotle's chapter on imagination in the *De Anima*, I.S. even asserts a predominance of the concept of prophecy. In fact, the prophet is, through his imaginary power, linked with the suprasensible world as well as with particular

forms - hence he seems to be the only person capable of having at the same time universal knowledge *and* knowledge of singulars. As to prophecy by motion, it is based on an almost similar ground as the prophecy by imagination. It concerns once more the opportunity for the soul to act without undergoing any influence from the sensible realm, i.e. its capacity to act efficiently on the sensible things in a way totally independent of any material causality. As to the third kind of prophecy, the intellectual one, A. only mentions its formal side - an immediate, intuitive knowledge, free of any discursivity.

The paper contains some interesting ideas, but one may wonder if A.'s interpretation is not based on a somewhat too narrow basis?

(4) RAHMAN, F., *Prophecy in Islam: Philosophy and Orthodoxy*. London, 1958, reprinted at Chicago, Univ. of Chicago Press (Midway Repr.), 1979, 118 pp.

A. mainly deals with I.S.'s theory of prophecy (pp. 30-91), and, to a lesser extent of intellect (pp. 14-20).

## II. THE LIFE IN THE HEREAFTER

(1) ANAWATI, G.C., Un cas typique de l'ésotérisme avicennien : sa doctrine de la résurrection des corps, in : *Etudes de philosophie médiévale (Et. mus., XV)*. Paris, Vrin, 1974, 263-289.

Reprint of *Revue du Caire*, 141 (51), 68-94.

(2) ASHRAF, S., Avicenna's Explanation of Destiny, in : *Indo-Iranica*, 34 (81-82), 70-74.

A. briefly summarizes I.S.'s *R. fî sirr al-qadar*, *Tr. On the Secret of Destiny*. He considers I.S. to be an extreme rationalist, who rejects religion insofar as it is not in congruity with his own thoughts.

Almost insignificant!

(3) 'ĀSĪ, M., *Al-Adḥawīyya fî 'l-ma'ād li-Ibn Sīnâ (Ibn Sīnâ's Treatise On Resurrection)*. Beirut, al-mu'assasat al-jâm. li 'l-dirâsât wa 'l-nashr wa 'l-tawzî, 1984, Part I : *al-ma'ād*, 14-70.

In this introductory part, A. focuses on the concept of *ma'ād* in its different pre-philosophical meanings (esp. in common language, Qur'ân and *hadîth*-literature), before he turns to I.S.'s particular interpretation of it. As to this latter, A. briefly evokes its spiritualistic overtone, its moral foundation (the life in the hereafter being directly dependent upon this life), as well as Ghazzâlî's and Ibn Rushd's discussions of I.S.'s theory. He, moreover considers the work as authentic, but dating of a later period of I.S.'s life - an earlier dating, on the

contrary, is defended in 10 and 11 (and this in a most convincing way, since it is based on doctrinal grounds!).

A rather superficial introduction.

(4) ID., The Idea of Resurrection (al-ma'âd) in the *R. Al-Adhawiyya* of Ibn Sînâ, in : *Al-thaqâfa al-islâmiyya (Damas)*, nr. 24 (89), 236-246 (Ar) (N.C.).

(5) AYDIN, M., Analysis of Happiness (*sa'âda*) in Ibn Sînâ, in : *Ibn Sînâ. Doğumunun...*, 433-452 (Tu).

(6) BLUMBERG, H., The Problem of Immortality in Avicenna, Maimonides and St. Thomas Aquinas, in : *H.A. Wolfson Jubilee Volume*. Jerusalem, Amer. Ac. for Jewish Research, 1965, 165-185 (Engl Section); repr. in : J. DIENSTAG (Ed.), *Studies in Maimonides and St. Thomas Aquinas*. New York, KTAV, 1975, 29-49; and also in : A. HYMAN (Ed.), *Essays in Medieval Jewish and Islamic Philosophy*. New York, KTAV, 1977, 95-115, and in : J. DIENSTAG (Ed.), *Eschatology in Maimonidean Thought (Bibl. Maim., 2)*. New York, KTAV, 1983, 76-96.

(7) KAYA, M., The Conception of Happiness in Ibn Sînâ, in : *Ulusl. I.S. Semp.*, 495-500 (Tu).

(8) KHWANSÂRÎ, M., Morality of the Soul according to Ibn Sînâ's Works, in : *Hazâra-i Ibn Sînâ*, 67-81 (Pers).

Having summarized I.S.'s theories of the soul and of emanation, A. proceeds with a description of I.S.'s doctrine on the perfection of rational soul, especially in view of his concept of resurrection (mainly based on *Shifâ, Met.*, IX, 7). Some special attention is also given to the perfection of the soul, attained by the 'ârif, "he who knows" (out of the *Ishârât*). Acc. to A., in all this I.S. is giving a metaphysical foundation to a religious doctrine, and so his theory continues to maintain a link with the latter.

A good paper, but clearly in need of much more development in order to justify the final claim.

(9) LUCCHETTA, F., Avicenna e la retribuzione corporale nella vita futura, in : G. GIACON (Ed.), *Saggi e ricerche su Alessandro di Afrodisio, Avicenna, Brentano, Jaspers, Ingarden, Carr, Storia filos. ital., Ebraismo*. Padova, Antenore, 1970, 25-41.

A summary of A.'s *Avicenna. Epistola sulla vita futura*. Padova, Antenore, 1969. A. characterizes I.S.'s doctrine as fundamentally Neo-Platonic though having

some Islamic input, insofar as for I.S. each human soul individually survives. But, in fact, the revealed work of the Qur'ân is primarily of an educative nature - Revelation being destined to the common people, the full, i.e. philosophical, truth being only accessible to a small élite. Of course, revelation expresses the same truth as philosophy, but it does so on a purely allegorical level. A. declares that I.S., due to his Platonism, rejects any kind of bodily resurrection, although he seems to search for a satisfactory solution for the imperfect souls by accepting the eventuality of an imaginary projection by means of a celestial body. Valuable, although one may wonder if A. is not over-Platonizing I.S.'s views? For other possible objections, see also 10 and, most of all, 11.

(10) MICHOT, J., Avicenne et la destinée humaine. A propos de la résurrection des corps, in: *Rev. philos. Louvain*, 79 (81), 453-484.

Contains some of the most essential ideas of 11, but in a clearly less mature form.

(11) ID., *La destinée de l'homme selon Avicenne. Le retour à Dieu (ma'âd) et l'imagination*. (Académie Royale de Belgique. Classe des Lettres. Fonds Draguet, V). Lovanii, Aed. Peeters, 1986, 240 pp.

The theme of *ma'âd*, resurrection, is placed and studied by A. in its larger psychological and metaphysical contexts. A choice is made out of a wide variety of Avicennian texts (of most of them, A. offers for the first time a (always critical!) translation into French). A.'s interpretation appears highly innovative, although it is clearly based on such ancient "commentators" as Ghazzâlî, Shahrastânî, F.D. Râzi, Ṭûsî and Mullâ Sadrâ Shîrâzî. Among the major insights of this book, we may mention: I.S.'s acceptance of a bodily resurrection, but understood as being realized on an 'imaginally' (in the Corbinian sense) level; a plurality of worlds (in the metaphysical realm), explained by I.S.'s rather extreme formalism and his theory of divine epiphany; the influence of the celestial souls on the practical intellect; the 'idealism' of sensation; the existence of two kinds of human persons - the elite and the masses, and consequently the existence of two kinds of resurrection - purely intellectual, and imaginal; I.S.'s adherence to a rethoric rather than a symbolic approach of the Qur'anic Revelation. Moreover, a tentative chronology of some of I.S.'s most important works is established by A. - who provides strong evidence to date the *R. adhawiyya fi 'l ma'âd*, *Tr. On Resurrection*, in a rather early period of I.S.'s thought (precisely based on the way in which I.S. expresses his idea on resurrection in this treatise - a clear evolution towards a more pronounced acceptance by I.S. himself of the reality of an 'imaginally' resurrection being detectable in the latter's different works).

Special mention has to be made of the well-documented bibliography, esp. where editions and translations of Avicennian texts are concerned, both authentic works and *spuria* (both categories of works are clearly distinguished by A.).

A very fine monograph, highly innovative and extremely rich in documentation as well as contents.

## C. Mysticism, Qur'anic Exegesis, Oriental Philosophy

(1) ANAWATI, G.C., Gnose et philosophie. A propos du récit de Ḥayy ibn Yaqzân de A.-M. Goichon, in : *Etudes de philosophie médiévale (Et. mus., XV)*. Paris, Vrin, 1974, 291-305.

Reprint of *Cahiers de civilisation médiévale*, 6 (63), 159-173.

(2) 'ÂSÎ, M., *Al-tafsîr al-Qur'ânî wa 'l-lugha 'l-ṣufiyya fî falsafat Ibn Sînâ. (Qur'anic Exegesis and Mystical Language in Ibn Sînâ's Philosophy)*. Beirut, Al-mu'assasat al-jâmi'iyya li-l-dirâsât wa 'l-nashr wa 'l-tawzî, 1983, Part I : *Exegesis and Mysticism*, 11-74.

The first chapter of this part (which serves as an introduction to the texts, edited in the second part - see *Works, C, passim*) is devoted to the examination of the significance of I.S.'s Qur'anic exegesis. For A. it is evident that I.S. consciously limited his exegetical efforts to only a few sura's and verses - since no evidence exists that such a kind of work by I.S. has been lost. Moreover, I.S.'s exegesis reveals itself as being of an outspoken intellectual kind. I.S. interprets religious terms by way of his own philosophical concepts (in order to illustrate this fact, A. makes a comparison between I.S.'s exegesis of some verses and that by al-Jawzî and Ibn Taymiyya of the very same verses). A. closes this first chapter with a useful lexicon of the main Qur'anic terms, analyzed by I.S. They are arranged in alphabetical order, and the exact reference of their occurrence(s) in I.S.'s works is given (according to the text-editions of the second part). In the second chapter of the first part, A. concerns himself with I.S.'s mysticism. He stresses that I.S. was not a practicing sufi - as is witnessed by the biographical data. Introducing a distinction between 'mystical state' and 'mystical knowledge', A. states that I.S.'s system is incompatible with the former, but compatible with the latter. Similar to his method in ch. I, A. maintains that I.S.'s mysticism is of a philosophical nature (re-)interpreting some mystical themes in a philosophical way (A. compares these interpretations by I.S. with that of some renowned sufi-masters). Also this time A. adds an alphabetically ordered lexicon, extended by a comparative lexicon (using for this purpose Qushayrî and Ibn 'Arabî). Moreover, A. presents a table of comparison between I.S.'s original philosophical concepts, and their specific denomination in each of his symbolic tales as well as in the *Poem on the soul*.

A useful introduction, but is the given interpretation not too unilaterally rationalistic?



(3) BAKAR, O., Ibn Sînâ's Methodological Approach towards the Study of Nature in his "Oriental Philosophy", in: *Hamdard Isl.*, 7<sub>2</sub> (84), 33-49.

Acc. to A., I.S. uses different methods and sciences in the study of nature - thus illustrating the peculiar Islamic theory of the unicity of Nature. But in this paper, A. concentrates on the methodology which is used by I.S. for the study of nature in his "Oriental Philosophy". This kind of philosophy basically expresses a journey in the realm of light, which symbolizes knowledge, related to man's own consciousness or being (these latter two being in fact identical). In it, nature no longer represents an object of investigation, as was the case in Peripatetic thought. On the contrary, it becomes an interior reality so that natural phenomena support no other than a symbolic interpretation. Moreover man needs a journey through the Universe in order to attain what lies beyond it. By way of illustration of this general theory, A. offers a summary of the three recitals of the Avicennian cycle.

However interesting this kind of doctrine in itself may be (following clearly the Corbin-Nasr "tradition"), its relevance for the historical I.S. is highly questionable. See *infra*, 11.

(4) BEHBEHÂNÎ, M., Aspects of Difference between Occidental and Oriental Wisdom, in: *Hazâra-i Ibn Sînâ*, 285-303 (Pers).

A. describes in detail the major differences in the methodology, the contents, and the final aim of Occidental and Oriental wisdom. Sohrevardî functions as his principal source, esp. when clarifying the specific concept of Oriental wisdom. As to I.S., A. briefly evokes his concept of theoretical science, as expressed in the *R. Aqsâm al-'ulûm*, *Tr. On the Division of the Sciences*, thus illustrating the Occidental way of thinking.

A good study, but of a rather preliminary kind. It might be useful for eventual comparative studies between I.S. and Sohrevardî (and the *Ishrâqî*-tradition after him).

(5) BELL, J., Avicenna's *Treatise on Love* and the Non-Philosophical Muslim Tradition, in: *Der Islam*, 63 (86), 73-89.

A. starts with a most accurate and most complete overview of all the important editions of, and studies on I.S.'s *Tr. On Love*. Then he presents to the reader a summary of the treatise, by specifically focusing on the very notion of '*ishq*, love. Finally, he analyzes the different aspects of the concept of love in this treatise, but does not consider the proper philosophical argumentation. In fact, he consciously limits himself to indicating the possible parallels in the non-philosophical tradition. Out of A.'s detailed analysis, it appears that I.S.'s theory of love, although in most of its facets unacceptable for the scripturalists, is clearly not incompatible with the tradition of Islamic mystical writings on love. So, A. indicates the close resemblance between I.S.'s and al-Ḥallâj's conceptions of essential love, I.S.'s acceptance of a static definition of love, and also the reflection of the tradition of chaste love (including the "refinement ideal", *zarf*)

in his conception of the love for beautiful faces - to cite a few examples out of this rich and extensive material. One has to observe that A. leaves open (but does not examine himself) the possibility of a common Neo-Platonic heritage as an explanation for these striking similarities.

A well-documented study, although one may wonder to what extent A.'s conclusion remains valid when one takes into account the basic philosophical character of the treatise which A. himself recognizes?

(6) COLOSIO, I., *Profilo dell'uomo 'mistico' in un'opera del filosofo Avicenna*, in : *Palestra del Clero*, 57<sub>4</sub> (78), 198-213.

A. presents I.S.'s mysticism according to Gardet's interpretation, and paraphrases the chapter on the ultimate mystical stage of the *Ishârât* (based on Goichon's translation).

Not scholarly (intended as such by A.), but rather honest.

(7) CORBIN, H., *Avicenne et le récit visionnaire. Etude sur le cycle des récits avicenniens*. Téhéran, Paris, 1954. Rééd. Paris, Berg, 1979. Engl. Transl. W. Trask, *Avicenna and the Visionary Recital*. New York, 1960. Repr. Texas, Spring Publ., 1980.

Reprints of both the original and the English translation of this study.

(8) DEMIRCI, A., *Islamic Mysticism according to Ibn Sînâ*, in : *Kayseri Kongr.*, 259-262 (Tu).

(9) GARDET, L., *The Religious and Philosophical Attitude of Ibn-i-Sînâ (and its Hellenic Sources)*, in : *J. Pakistan Hist. Soc.*, 21 (73), 149-163; also in : *Roczn. Filoz.*, 27 (79), 157-167.

In I.S.'s 'Oriental Philosophy', A. detects a movement towards a logic of experience - induction becoming more and more important. But above all, he discovers in it a revival of the Greek Orient (Plato, ps.-Theology, Neo-Pythagorism and Ps.-Empeclodes), mediated however by a Muslim assimilation. Out of all this, I.S.'s mysticism appears as a natural mysticism of the Platonic, and still more Plotinian kind. Further, his intellectualist gnosis per se emerges in a fold of esoterism although being of an essentially philosophical order. Finally, I.S.'s exegeses reveal the transmutation executed by him on Revelation out of his Hellenistic sources - while they demonstrate at the same time the anxiety to remain loyal to the problematic of Revelation. A. concludes by establishing a comparison with Sohravardî. It has to be noted that A. explicitly states that there is no real rupture inside I.S.'s entire work.

A fine paper by a leading authority on I.S., but for some fundamental criticism on his acceptance of a natural mysticism in I.S., see 11.

(10) GÓMEZ NOGALES, S., *El misticismo persa de Avicena y su influencia en el misticismo español*, in : *Milenario de Avicena*, 65-88.

The title is somewhat misleading. In fact, A. discusses the presence of a mysticism in I.S. (presenting a significant overview of interpretations by such authors as Corbin, Massignon, Badawi, Gardet, Ehwany and Goichon). Moreover, he mentions not only I.S.'s "mystical" influence on Muslim Andalusia (discerning two major tendencies in its reception, showed by Ibn Rushd and Ibn 'Arabî), but also on the Eastern Islamic world (also detecting in that case two different ways of reception, now demonstrated by al-Ghazzâlî and Sohrevardî). He even points to I.S.'s "illuminationist" influence on the Latin Middle Ages - in both currents of "augustinisme avicennisant" and "Latin Avicennism".

For A. it is almost a given fact that I.S. systematized mysticism. He even believes that I.S.'s twofold theory of cognition (for it, A. leans heavily on Ehwany) contains the real roots of a mysticism in I.S. (the last chapters of the *Ishârât* constituting the *locus classicus* for it). So, acc. to A., I.S. adopted a kind of Neo-Platonic (however not a Greek, but of an Iranian origin) mysticism. But one looks in vain for some solid arguments in this respect!

A. leans on secondary sources. As to his more personal ideas, they are in need of some more substantial arguments.

(11) GUTAS, D., art. Avicenna-Mysticism, in : *Enc. Ir.*, 79-83.

A. declares I.S.'s system rationalistic and self-consistent, and therefore free from any mystical or esoteric aspect - even though I.S. upholds the validity of Sufism (and of other manifestations of Islamic religious life). The pivotal concept of I.S.'s epistemology is the concept of *hads*, i.e. the capacity to hit spontaneously upon the middle term in any syllogism (a concept, directly derived from Aristotle's *eustochia* - *An. Post.*, 89 b 10-11), to which is added Galen's idea that the different degrees of acumen in people are related to the temperament of the body. Therefore, one should strive to acquire a balanced temperament, or, in religious terminology, a pure soul. Now, religious life, in all its functions, enables people to purify their souls (hence its practices are beneficial also for the philosophers, especially when they are faced with a difficulty). The variety of styles among I.S.'s different works has also a similar 'paedagogical' function. Instead of mystical treatises, one would in his case better speak of works concerning the metaphysics of the rational soul. Moreover by his theory of *hads*, I.S. arrived at a progressive view of the history of philosophy - following a course increasingly more independent from the transmitted formats of exposition and discussion in the Graeco-Arabic Aristotelian tradition (although he considered it the most worthy of adherence!). This becomes exemplified in his texts on the Eastern philosophy and the Easterners - which present a later, but temporary stage in his development (A. hereby offers an overview of the relevant texts). The chosen name of East reflected appropriately I.S.'s background in the East of the Islamic world, i.e. Khorasan. But this idea received little approval, and I.S. quickly abandoned it.

An utmost significant contribution. A. most convincingly shows that I.S.'s "Eastern works" have nothing in common with the so-called "Oriental mysticism" (this latter being a false problem with respect to him!). Moreover, his suggestion to replace 'mysticism' in I.S. by 'Metaphysics of the rational soul' may be quite to the point, and, at least, deserves full attention!

(12) JĀBARĪ (AL-), M., *Ibn Sînâ and Oriental Philosophy. Excavations in the Roots of the Arabic-Islamic Philosophy in the East*, in : *Pensée arabe...*, 89-179 (Ar).

Having presented the basic texts regarding the problem of I.S.'s "Oriental philosophy", A. first concentrates on I.S.'s relationship with al-Fârâbî. Acc. to A., I.S. accepted the basis of al-Fârâbî's metaphysics, but adhered to a "spiritual" philosophy instead of al-Fârâbî's "intellectual" philosophy - a fact proven *inter alia* by I.S.'s ascribing sensation and imagination to the celestial bodies (an idea which was not accepted by the "Occidental" philosophers). Further, A. points to the Occidental readings of I.S.'s "Oriental" philosophy by Ibn Rushd and Ibn Ṭufayl, to the two major sources of that very same philosophy, i.e. the "religious philosophy" of the school of Harran, and Neo-Platonism; and to the existence of two competing philosophical schools in I.S.'s time, i.e. the Occidental school of Baghdad and the Oriental school of Khorasan. In the final part, A. explains I.S.'s turn towards an "Oriental" philosophy as motivated by ideological factors (A. hereby also refers to Sohrawardî and the Ikhwân aṣ-Ṣafâ).

The paper contains some valuable elements, but the very basis of its interpretation is highly questionable. See especially 11.

(13) MACUCH, R., *Greek and Oriental Sources of Avicenna's and Sohrawardî's Theosophies*, in : *Graeco-Arabica*, 2 (83), 9-22.

Mainly based on Panoussi's unpublished doctoral thesis (Louvain-la-Neuve, 1967), A. surveys the most important literature of the last 150 years on the subject of I.S.'s "Oriental philosophy". With Corbin, he recognizes a real connection between Sohrawardî's illuminative philosophy and I.S.'s Oriental philosophy. The latter (together with the writings of the Ikhwân aṣ-Ṣafâ) prepared the ground for the former - but A. offers no real proof for this affirmation.

Rather weak. A.'s exposé is almost completely based on secondary sources.

(14) MOREWEDGE, P., *The Logic of Emanationism and Sufism in the Philosophy of Ibn Sînâ*, in : *JAOS*, 91 (71), 467-476 and 92 (72), 1-18.

A. first presents in a most valuable way the representative positions taken by contemporary commentators on the relationship between I.S.'s philosophy and mysticism. A.'s personal preference among these commentators goes clearly to the interpretation which posits Zoroastrism as the main source of inspiration for I.S.'s mysticism (defended by Corbin, Panoussi and a few others). As to his own point of view, A. concentrates on the relationship between the ultimate Being and the human individuals. As usual with A., the proper analysis is realized by means of ideas taken from analytical philosophy. Hence, he distinguishes three possible characterizations of the relationship between God and man: the religious (a combination of creation with harmony); the philosophic-intellectual (linking co-eternity with connection); and the mystical (adhering to both emanation and mystical union). For A., there is no doubt that I.S. adhered to the

third kind, i.e. the mystical. He refers to I.S.'s emanative scheme (presenting it as dyadic!), and his theory of the mystical return of the creatures to the ultimate Being (although as recognized by A. himself, this theory fails in e.g. the *Shifâ*). I.S.'s adherence to the reality of a mystical union becomes more evident in his doctrine of a purely intellectual afterlife - but A. formulates some reserve against his own interpretation (invoking the almost total absence of critical editions of I.S.'s texts).

An interesting paper - but compare with *supra*, 11 (where a totally different interpretation is offered - a thorough investigation is undoubtedly required in order to choose between both interpretations), and also with *supra* 2.

(15) PÛRMÂNDÂRIÂN, T., *Ramz va dâstânhâ-i ramzî dar adab farsî. Tahlîlî az dâstânhâ-i 'irfâni-falsafî-e Ibn Sînâ va-Sohravardî (Symbolism and Symbolic Stories in Persian Literature. An Analysis of the Mystico-Philosophical Stories of Ibn Sînâ and Sohravardî)*. Tehran, Shirkat-i Intishârât-i 'ilmi va-farhangî, 1986, <sup>2</sup>1988, 528 pp.

The book offers a lot of information on symbolism, both on a general plane (A. cites various Western reference works) and on its particular importance in Persia (A. presents in this respect material derived from theology, poetry and philosophy). Although Sohravardî occupies by and large the first place in A.'s analysis (many of his works being examined in great detail), I.S. also receives some attention (in several places, and not really in a unified way). A. ascribes to I.S. a mystical philosophy, especially in his later works - laying at its basis the foundation of the possible junction of the rational soul with the Agent Intellect, and the other higher Intelligences. Moreover, A. detects in I.S. an inclination towards a symbolic exegesis of the Qur'ân. Finally, A. accepts the presence in I.S. of elements of Oriental wisdom (his arguments are mainly based on secondary sources). It may be noted that in a separate appendix A. provides a summary of I.S.'s three symbolic tales.

A well-documented book - but, as to its interpretation of I.S. not really original, and, insofar as it subscribes to Corbin's point of view, open to the severe criticism of 11.

(16) RAVÂN FARHÂDÎ, A., Ibn Sînâ and Sufism, in : *Afghanistan Q.*, 33<sub>2</sub> (80), 1-8.

A. believes that I.S. in his later life was living a crisis of conscience, but did not accept its full consequences. He offers a partial English translation of *Mantiq al-mashriqiyyîn, Logic of Orientals* (based on Nasr's Persian translation!), as well as a selective bibliography of French and English works on the topic of I.S. and sufism.

Of a rather limited value.

(17) ID., Ibn Sînâ's Inclination towards Sufism, in : *Ibn Sînâ and Sufism*, 1-30 (Pers).

Acc. to A., I.S.'s theory of '*ishq, love*, reveals an Islamic inspiration, and hence is

quite different from superficially comparable doctrines in Greek thought. I.S. comes even close to 'orthodox' Islamic mysticism, insofar as he rejects the very ideas of *ittihād*, *unification* and *hulūl*, *incarnation*. A. offers a lot of other information about what he considers to be I.S.'s mystical works, or I.S.'s mystical influence (as to the latter, he distinguishes no less than three currents: *hikmat dhawqī*, wisdom of 'intuition' (e.g. Ghazzālī), Oriental wisdom (e.g. Sohrawardī) and mystical poetry (e.g. the wise Sīnā, and also Attār, Rūmī, Jāmī and even M. 'Iqbal!) - the given information being of a quite different nature of value, and mostly being based on secondary sources.

A. clearly exaggerates the mystical aspect of I.S.'s thought.

(18) SABRI, T., Avicenne, philosophe et mystique dans le miroir de trois récits : Ḥayy B. Yaqzân, L'Oiseau, Salamân et Absâl, in : *Arabica*, 27 (80), 257-274.

A. first insists on the importance of both the Christian and the Muslim Orient in the transmission of the Greek heritage. After this general remark, A. summarizes the main content of I.S.'s three tales, and briefly analyzes a few basic themes in them, i.e. prophecy, *ma'ad* (resurrection), self-knowledge, matter-form, the human Being, the act of knowledge and God. As to the human Being, I.S. places at the summit both the prophet and the philosopher, and declares the latter superior to the former in his knowledge of eternal values. While treating the proper place for the philosopher, A. remarks moreover that I.S. replaced the Aristotelian realism by a Platonizing realism. A. concludes that mystics in I.S. is a natural religion. Consequently, symbols have to be used. So, for I.S. mystical life is a way of profound intuitive knowledge (being totally independent of religious convictions or practices).

A. makes extensive use of Corbin - clearly ignoring Goichon's study on Ḥayy ibn Yaqzân (Paris, Desclée de Brouwer, 1959). As to a basic criticism of his kind of interpretation, see 11.

(19) SAMANDAR GHŪRYÂNĪ, A., Ibn Sīnâ and Sufism, in : *Ibn Sīnâ and Sufism*, 31-39 (Pers).

The title is highly misleading. A., in fact, presents a classical survey of I.S.'s doctrine of Being, and an even more classical account of the way in which al-Fârâbī tries to harmonize Aristotle with Plato. As to I.S.'s 'mysticism', he seems to understand it as the latter's Hegel-like synthesis between man and God!

A rather confused study. Of not great value.

(20) SARANYANA, J., De la teologia a la mistica pasando por la filosofia. Sobre el itinerario intelectual de Avicena, in : *Anu. Filos.*, 21 (88), 85-95.

The famous axiom of the three first notions, present in every human soul from the very beginnings of its existence, proves that I.S. intends to philosophize departing from religious problems. A., however, suggests that I.S. is above all a theologian - philosophy being for him no more than *ancilla theologiae*. In order

to substantiate his view, he presents I.S.'s theory of *Metaphysics*, b. IX-X, as a serious attempt to solve the central problem of the new Islamic credo, i.e. the reconciliation of God's absolute necessity with the possibility of prophecy and *creatio ex nihilo*. In this theory, I.S. places side by side, in a kind of Neo-Platonic inspired orthodox gnosis, the necessities of God, emanation and prophecy. However, by contrasting God, the absolute Necessary Being, with matter as an absolute possibility, I.S. is no longer able to secure the link between God and the world. Willing to solve this latter aporia, he introduces an esoteric rupture - following old Iranian traditions, and inaugurating a new, imaginary kind of mysticism. A.'s basic assumption about the nature of I.S.'s evolution is highly questionable - not only out of 11, but also because of his interpreting I.S. too much in terms of Christian scholastics.

(21) TAQÎ JA'FARÎ, M., Scientific Knowledge and Inspired Knowledge in the Epistemological Perspective of Ibn Sînâ, in : *Hazâra-i Ibn Sînâ*, 105-115 (Pers).

For A., I.S. agrees with the Islamic tradition in his adherence to two - in fact, distinguishable - ways of knowledge: *'ilm*, scientific knowledge, based on universal judgments, and *'irfân*, inspired knowledge, revealing something 'wonderful' - or, to put it in other words: Occidental and Oriental wisdom. As to I.S.'s explanation of how to acquire inspired knowledge, A. refers to some verses of the *Poem on the Soul* and a Persian poem, ascribed to I.S.

A.'s thesis is based on very weak grounds: a few poetic verses belonging to works classified among the *dubia!*

(22) ÜLKEN, H., Novelties of Ibn Sînâ and Mysticism, in : *Ibn Sînâ and Sufism*, 40-45 (Pers). (The English table of contents reads: Ibn Sînâ. Treatise on the Nature of Love).

A Persian translation by Ravân Farhâdî of a paper written in French (or C.R.?) by Ülken, probably many years ago, however, the original publication was not identified.

(23) ZAYED, S., The Problem of Intellectual Exegesis (*ta'wîl*) in Islamic Thinkers of the Orient, Especially Ibn Sînâ, in : *Hauliyyat Kulliyât al-adâb (Kuwait)*, 6 (85), N. 28, 3-103 (Ar); 104 (Engl S.).

After a discussion of the distinction between *ta'wîl* and *tafsîr*, A. surveys the different methods used by the classical Islamic thinkers (both theologians and philosophers) in the developing of their Qur'anic exegeses. Regarding I.S., A. affirms that he accepts a concordance between the Truth of Revelation and the truth of philosophy by means of an intellectual interpretation, or by means of the subjugation of the religious truth to the philosophical point of view. To substantiate his basic thesis, A. refers to such classical topics as I.S.'s doctrines of the soul, the divine attributes, the eternity of the world, etc. (mainly based on the *Metaphysics* of the *Shifâ*, and from the interpretation of secondary sources). Regarding proper elements of Qur'anic exegesis, A. always refers first to Nasîfî's

explanation, before he properly deals with I.S.'s (and often one looks in vain for a real comparison).

Of very limited value. A. is clearly unaware of 'Âṣî, see *supra*, 2.

(24) ZIÂDAT, M., *Mystical Thought in Ibn Sînâ*, in : *Al-dhikr*, 79-101 (Ar).

A. distinguishes three kinds of mysticism in Ibn Sînâ :

1. Philosophical mysticism (A. pointing to I.S.'s emanationism and his theory of 'ishq, love, both in the perspective of generation (cf. *Ishârât*) and the perspective of return (cf. *R. Fî 'l-'ishq, Tr. On Love*);
2. A reflection on his mystical practice (A. citing large extracts of the last chapters of the *Ishârât*);
3. Oriental philosophy (present in I.S.'s so-called esoteric writings. A. leans heavily on Nasr in this part).

A. concludes that I.S.'s mysticism represents a philosophical or intellectualistic mysticism.

Not very original, and highly questionable, cfr. *supra*, 11.





## Chapter XII

### Sources (Greek)

See also :

I, C - j 2 (Pines)

V, A 29 (Sabaeans); V, B 7 (Zoroastrism)

VI, A 7, 11, 21, 22; VI, B 2, 5; VI C 4

VIII, 16, 24

IX, 1, 6, 7, 13, 18

X, 15, 36, 47 (Zoroastrism), 64-66

XI, C 9, 13, 14 (Zoroastrism), 18

XIII, 6, 11, 16

XIV, A-II, 8

XV, A 6 (Indian), 14, 24, 28-29; XV, B 1,

2 (Indian), 6; XV, B 2, 1, 2 (Iranian), 9;

XV, D 3



(1) BOOTH, E., Ibn Sînâ and the Re-ordering of Aristotle's Thought, in : E. BOOTH, *Aristotelian Aporetic Ontology in Islamic and Christian Thinkers* (Cambridge Stud. Med. Life and Thought, ser. 3, vol. 20). Cambridge, Cambridge Univ. Press, 1983, ch. IV, § 2, 107-126.

Acc. to A., I.S. showed respect for the "radical" interpretation of Aristotle, and even wished to clarify and develop it. Having discerned three ontological orientations in I.S., A. concentrates on I.S.'s re-arrangement of Aristotle's aporetic ontology, mainly based on the *Isagogè* of the *Shifâ*. A. shows how I.S. unproblematically works out the aporetic distance between the factor of universality in the individual and the factor of true individuality (referring hereby to I.S.'s distinction between the logical and physical conceptions of the essential). A. moreover remarks that I.S.'s categorialisation didn't protect the logical constructions from being severed from the reality to which they were supposed to refer (A. speaks in this context of I.S.'s "proto-scholasticism"). A. finally evokes the crucial role accorded by I.S. to the *species* - because it permits the relation between logical and physical genera (but Aristotle's aporetic of *Met.* VII automatically comes to the fore here). A "radical" Aristotelianism is also observed by A. in I.S.'s Plato-critique - but the presence of more outspoken Neo-Platonic themes is recognized by him where it regards the ontology of some other Avicennian works (*Ishârât, Remarks and Admonitions; Dânesh-Nâmeh, B. of Science, and the Comm. on the Theol. Arist.*).

A significant contribution, although one may wonder whether A. is not overemphasizing somewhat the presence of a "radical" Aristotelianism in I.S.?

(2) BURRELL, D., Essence and Existence: Avicenna and Greek Philosophy, in : *MIDEO*, 17 (86), 53-66.

Referring to 1, A. states that the solution of Aristotle's *aporia* about the (existing) individual - distinguishing the individual, namely its existing from the kind that it is - was rooted in Arabic philosophy, arguable in al-Fârâbî, and clearly, yet not coherently, in I.S. The latter tried to characterize essences so that their existence in things may properly be explained - essence being the starting point, probably out of I.S.'s standing in the Neo-Platonic tradition. But A. insists that Aristotle's *aporia*, and its giving primacy to existing individuals, motivated, but did not structure I.S.'s thought. Further, A. carefully observes that the factor "existence" is isolated as a distinct factor in I.S., and that essence cannot account for the existence of the individual thing, since it is prior to universality or particularity, without any conditions at all. That existence requires for its explanation a reference to the First Being, whose very essence would be to exist. A. however notes that I.S. doesn't succeed in formulating a notion of creation corresponding to a radical contingency. A. concludes that I.S. offers only an interim-solution, mainly because of the latter's failure to characterize in a proper way existence's being accidental to essence (but A. rejects categorically the view that I.S. posits existence as an accident in the usual significance).

A valuable paper, not really innovative, but offering a good synthesis.

(3) EHLERS, D., Aristoteles, Proklos und Avicenna über philosophische Probleme der Mathematik, in: *Ibn Sînâ / Avicenna*, I, 88-94.

For his evaluation of mathematics, I.S. expanded on Aristotle, criticizing Plato and the Pythagoreans. He raised objections against atomism (acc. to A., not the Greek atomism, but the one having an Indian origin). He identified the mathematical and physical structures of matter, and borrowed Proclus' idea of the necessity of matter (hereby giving matter importance in a pantheistic way).

A good paper, but in need of some further development, esp. as far as it concerns I.S.'s concept of matter.

(4) FAKHRY, M., The Contemplative Ideal in Islamic Philosophy: Aristotle and Avicenna, in: *J. Hist. Philos.*, 14 (76), 137-143 (app. 143-145).

A. first discusses Aristotle's ethical intellectualism. As to I.S., he defined the ideal of human contemplation as the conjunction with the Agent Intellect - the soul becoming a mirror of the world. Notwithstanding I.S.'s struggle to reconcile the Aristotelian visionary or contemplative ideal with the Plotinian unitary ideal, his sympathies were distinctly on the side of the former. Acc. to A., I.S. was thus inclined to a humanism (which tends to bypass the otherworldly ideal of Islam). Only with Thomas Aquinas could a real harmonization be realized between the contemplative ideal and the spiritual aspirations to be assimilated to God. In the appendix, A. offers a valuable translation of an extract of I.S.'s *R. fi 'l-nafs*, Tr. *On the Soul* (AN. 77; M. 121, part of ch. 15).

Very interesting - although the precise significance of I.S.'s attention to the Plotinian unitary ideal appears in need of some further clarification.

(5) ID., The Subject-matter of Metaphysics: Aristotle and Ibn Sînâ, in: M. MARMURA (Ed.), *Islamic Theology and Philosophy. Stud. in Hon. of G. Hourani*. Albany, New York, SUNY, 1984, 137-147.

A. believes that I.S., in his defining of the subject-matter of metaphysics, follows a more independent line from Aristotle than al-Fârâbî did before him. I.S. practically limits that subject-matter to being and its attributes - paying little attention to the 'first principles' of demonstration, and redefining cause as the principle of existence instead as being the principle of motion (al-Kindî (and maybe al-Fârâbî also) having prepared the way for such train of thought). Moreover, the inclusion of such themes as providence and prophecy can be traced back to the *Pseudo-Theology*. Finally, the presence of Islamic subjects can only be justified out of Aristotle's most comprehensive definition of metaphysics.

A good paper, but for a much more detailed, and in some respects somewhat corrective view, see *infra*, 6, esp. 237ff.).

(6) GUTAS, D., *Avicenna and the Aristotelian Tradition. Introduction to reading Avicenna's Philosophical Works (I.P.T., IV)*. Leiden, Brill, 1988, XIII + 342 pp.

The first part of the book contains a critical English translation of 14 texts, or text-fragments by I.S. and his disciples on his relation to the Aristotelian tradition (for more details, see ch. I, *passim*), and an overview of I.S.'s major philosophical works, with particular attention to their organisation and contents (once more in relation to the Aristotelian tradition), and to their relative chronology. As to the second part, it contains a systematic study of I.S.'s reception of the Aristotelian tradition. Among the many striking insights of A., we may cite :

1. I.S.'s acceptance of the existence of two ways to acquire knowledge of intelligible matters, i.e. *hads*, intuition and instruction - the former being the most fundamental, since the latter is ultimately reducible to it. This is considered by A. to be a basic fact in I.S.'s system, and it forms the corner-stone of his interpretation. Acc. to him, it enabled I.S. to posit : the ontological reality per se as the object of knowledge and to bridge the gap between paedagogy, epistemology and ontology. Moreover, it freed him from slavish adherence to a school tradition, as well as from excessive book reading. Finally, it explains his use of varying methods in different works - each audience having its own capacity for intuition;
2. The classification of the sciences in the Alexandrian/Islamic Aristotelian tradition represents for I.S. *toto modo al-'ilm*, absolute knowledge;
3. I.S.'s attachment to an objective verification of acquired knowledge (A. discussing in this respect such terms as *Tahqîq*, verification, *Taqlîd*, following Authority uncritically, and *Inşâf*, impartial judgment);
4. I.S.'s creation of a coherent account of human knowledge, through his defending (in the line of late Alexandrian Aristotelianism) above all the acquisition of Truth (thus taking a critical, but constructive stand vis-à-vis Aristotle);
5. I.S.'s great indebtedness to al-Fârâbî's *Fî Aghrâd...*, *On the Intentions of Aristotle's Metaphysics* (as stated by I.S. in his *Autobiography*) - this text making clear to him that metaphysics does not only concern '*ilm al-tawhîd*, science of the Divine One (as a certain tradition - al-Kindî belonging to it - affirms it), but that it also implies the study of '*being as being*', and of '*first philosophy*'. But I.S. conceded to the Kindian tradition that 'theology' is the highest and most noble part of metaphysics. He added moreover a new fourth part to the previous three of the Aristotelian tradition, i.e. the metaphysics of the rational soul;
6. I.S.'s attitude toward Aristotle never changed in its essence but only in its expression. I.S. considering himself more and more as another Aristotle (no longer a commentator!);
7. The use by I.S. of three different methods : symbolic, indicative, and demonstrative. The first, he derived from Greek traditions about allegorical writing, the other two ultimately from Aristotle (al-Fârâbî playing in all three cases a mediative role). The first method enables the philosopher to present the Truth (A. insists : the *same* Truth) to the masses. The second method, on the contrary, has an obfuscatory function for the common people, but a didactic for

the philosopher.

A very important monograph - clarifying several essential issues - but one may wonder whether A. does not underestimate the significance of the Islamic impact on I.S.'s thought (may-be by being too confident in Goichon's interpretation)? Regarding the proposed chronology of I.S.'s works, it has to be handled with caution (more substantial arguments are needed than the ones given).

(7) ID., Philoponus and Avicenna on the Separability of the Intellect. A Case of Orthodox-Muslim Agreement, in : *The Greek Orthodox Theological Review*, 31<sub>1-2</sub> (86), 121-128.

The problem of the separability of the Intellect arose with Aristotle's famous *De Anima*, 429 a 10-12. Having outlined its major interpretations in Greek thought (Alexander of Aphrodisias; Plutarch and Stephanos; Simplicius), A. observes that I.S. (according to his *Marginal Notes on De Anima*), like Philoponus (and most probably using the latter's *Comment* - notwithstanding the *prima facie* absence of any reference to it in the ancient Arab bibliographies), represents a further shift in interpretation. Both Philoponus and I.S. partly return to Alexander by stating that the separability of the intellect is from the body, but they stress it concerns the "entire" intellect, and consider it in terms of separability in essence or in theory, not in terms of actuality and potentiality. A. concludes that this shift can easily be understood out of a religious concern regarding the possibility of a future life.

A fine paper. The problem of possible direct knowledge by I.S. of Philoponus' *Comment* is worth further investigation!

(8) NOOR NABI, M., Theory of Emanation in the Philosophical System of Plotinus and Ibn Sînâ, in : *Isl. Cult.*, 56 (82), 233-238.

Compared with Plotinus' emanative system, I.S.'s entails, acc. to A., three fundamental changes :

1. God is no longer 'above' existence;
2. God's emanation occurs through rational necessity;
3. A complete union with God no longer constitutes the basis of the survival of the human soul. But also this corrected emanative view is rejected by A. - partaking in this Ghazzâlî's line of critique!

A very conventional paper.

(9) PINES, S., The Arabic Recension of *Parva Naturalia* and the Philosophical Doctrine concerning Veridical Dreams according to *al-Risâla al-Manâmiyya* and Other Sources, in : *Israel Oriental Studies*, 4 (1974), 104-153; repr. in : *Studies in Arabic Versions of Greek texts and in Medieval Science (Coll. Works Shl. Pines, 2)*. Jerusalem, Magness Press; Leiden, Brill, 1986, 96-145.

The *R. al-Manâmiyya*, *Tr. On Interpretation of Dreams*, may be considered to be an authentic work by I.S. - notwithstanding the fact that it is not mentioned in

the most ancient lists of his works. One of its central notions, esp. in the chapters 6-9, is that of "Divine Force". Although A. accepts that some Islamic additions have been introduced, he believes, and convincingly shows, that one has to accept an ultimate Greek source. He specifies the Greek's influence as Stoic, but also probably entailing some Peripatetic-derived (however not Aristotelian!) materials (A. more specifically refers to Cratippus). Hereafter, in what appears to be a second part, A. compares the so-called citation of Aristotle's *Parva Naturalia* in this *Risâla* with its version in Averroes' *Epitomè*, contrasting both of them with the known Greek recension. In his well-known prudent way, A. concludes that there may have existed another Greek recension of the *Parva Naturalia*, to be ascribed possibly to the young Aristotle, or, more probably, to a Stoic (or relatively late Peripatetic) adaption of the Treatise, or to an Hellenistic substitution of it. The Arabic philosophers considered this other version no doubt to be genuinely Aristotelian, as is proved by Averroes' unreserved commitment to it, or by al-Fârâbî's theory of veridical dreams and prophecy. It has to be noted that A. offers an excellent translation (based on MS. Brit. Mus. Arabic 978) of the ch. 6-9, 15, 25 and 39 of I.S.'s treatise. A most remarkable paper!

(10) RAMÓN GUERRERO, R., En el centenario de E. Gilson : Las fuentes árabes del agustinismo avicenzante y el "*Peri nou*" de Alejandro de Afrodísia. Estado de la cuestión, in : *An. Sem. Hist. Filos.*, 4 (84), 83-106.

A. offers a detailed survey of the different opinions expressed by 19th and 20th C. commentators, regarding the origin of the theories of the intellect upheld by the three major representatives of the classical Oriental *falsafa*, i.e. al-Kindî, al-Fârâbî and I.S. A. detects in a first period a growing tendency to consider Alexander of Aphrodisias, and especially his *Peri Nou* as the source of all these Arabic doctrines. Gilson fully endorsed this thesis, especially in the framework of his introduction of the notion of "augustinisme avicennisant". Acc. to Gilson, the Arabs had confused Aristoclès, the supposed teacher of Alexander, with Aristotle, and became moreover victim of many misreadings and errors. In recent times, different authors, e.g. Jolivet, Badawi and Lucchetta, have challenged Gilson's thesis. A. concludes that in the actual state of affairs no definite solution for this problem can be given (in full agreement with J. Jolivet).

A useful *status quaestionis* of an important problem.

(11) SALIBA, G., *Min Aflâtûn ilâ Ibn Sînâ (From Plato to Ibn Sînâ)*. Damas, 1935. <sup>3</sup>Beirut, Dâr al-Andalus, 1983. Chapters 4-6 (pp. 81-144) deal explicitly with I.S.

(12) VERBEKE, G., Deux étapes de la réflexion métaphysique : Aristote et Avicenne, in : J. DANÉK (Ed.), *Vérité et éthos. Rec. comm. A.-M. Parent*. Québec, Presses Univ. Laval, 1982, 57-86.



For Aristotle, metaphysics was an ontology, an archeology, an ousiology and a theology. I.S. did not reject this Aristotelian view, but A. detects in I.S. a much greater systematization, and an outspoken identification of metaphysics with ontology - its archeological and theological functions being made secondary to this primordial ontological function. This option enabled I.S. to separate physics clearly from metaphysics (in Aristotle physics tended to become a metaphysics of the sensible world). I.S. moreover surpassed the Stagirite by positing a transcendental analogy of Being. He also deviated from him by claiming existence to be an accident on the ontological level (logical and ontological orders being perfectly parallel). But his main difference with Aristotle lies within the introduction of God as a creative cause, who knows Himself, as well as all Being of which He is the creator.

A good summary of some of the basic insights of A.'s *Metaphysics*, 65-66, with a few additions.

## Chapter XIII

# Ibn Sînâ and other Arabic thinkers

See also :

I, A-III, 3 St. 2; I, A-III, 12, St.;

I, C-m (Michot)

VI, A 3; VI, B 7; VI, C 2

VIII, 8

IX, 6, 7

X, 3, 8, 15, 27, 30, 40, 61, 67

XI, A 6; XI, C, 2, 4, 5, 10, 12, 13

XII, 9

XIV, A-I, 2, 4, 13; XIV, A-II, 8, 14;

XIV, A-IV, 2

XV, A 4, 8, 18; XV, B-I, 2, 5; XV, B-II, 12;

XV, C 12; XV, D, 5, 6; XV, E, 3



(1) ATAY, H., *Farabi ve Ibn Sina'ya göre yaratıma (Being in the Philosophy of al-Fârâbî and Ibn Sînâ)*. Ankara, Üniv. İlâh. Fak., 1974, 158 pp.

(2) BADAWI, A., Avicenne en Espagne musulmane : pénétration et polémique, in : *Milenario de Avicena*, 9-25.

A. presents a comprehensive picture of the way in which I.S.'s works were received, and judged, in Muslim Spain of the 12th and early 13th C. In general, a strong negative attitude towards the Avicennian heritage is manifest, as may be illustrated by Ibn Zuhr's contempt of the *Canon* in medical circles, and Ibn Rushd's multiple and severe criticism on philosophical ideas. As to Ibn Bajjâh, one cannot but notice the total absence of any Avicennian element in his thought (A. notes that it is possible, though not certain that I.S.'s works were not yet introduced in Spain in Ibn Bajjâh's lifetime). Ibn Tufayl, however, certainly knew I.S.'s major philosophical writings. Although he took a rather neutral stand towards I.S.'s major thoughts, he did not avoid delivering harsh criticism with respect to some particular points of the Avicennian doctrine. Only in literary circles, a genuine Avicennian current developed. Abû 'l-Hâzim al-Qartâjinnî is considered by A. as its most typical exponent.

A valuable sketch of I.S.'s thought in 12th C. and early 13th C. Muslim Spain.

(3) BAYRAKDAR, M., Concerning the Ontological Argument in Fârâbî and Ibn Sînâ, in : *Ibn Sînâ. Doğumunun...*, 461-470 (Tu).

(4) ID., The Criticism of Atomism in al-Kindî and Ibn Sînâ, in : *Ibid.*, 471-580 (Tu).

(5) BELENISKI, A., Ibn Sînâ and al-Bîrûnî, in : *Ibn Sino v ego epokhe*, 161-180 (Ru).

(6) BROWN, H., Avicenna and the Christian Philosophers in Baghdad, in : S. STERN, A. HOURANI and H. BROWN (Eds.), *Islamic Philosophy and the Classical Tradition. Essays pres. to R. Walzer (Orient. Stud., 5)*. Columbia, S. Carolina, Univ. of S. Carolina Press, 1973, 35-48.

A. first points to the ambiguity surrounding the concept of nature in its Aristotelian formulation, insofar as it posits nature as purposive, although having no rational choice, nor reflection. Alexander of Aphrodisias did not espouse Galen's (and Porphyry's) criticism of Aristotle in this respect, but he made Aristotle's account of nature more comprehensible by presenting it as an efficient rather than as a final cause. This last interpretation was adopted by the 10th-C. Christian philosophers of Baghdad, inter alia Yaḥyâ ibn 'Adî and Abû 'l-

Faraj ibn al-Ṭayyib. Abū Bīr Mattā, who was a disciple of Yaḥyā, went even further, and posited not only the principle of motion in the particular thing but also an immanent creative being - Active Nature. I.S., however, firmly rejected such an interpretation - accepting only God as the real cause for the being of everything in the world, hence nature being no agent at all. Acc. to A., this "different attitude" toward nature may be one of the things that provoked I.S.'s violent attacks on the "philosophers of the West".

A serious study about significant historical developments in Aristotle's concept of nature (in Greek as well as in Arabic philosophy), but is this sufficient to support A.'s final conclusion about the "orientalism" of I.S.?

(7) CUNNINGHAM, F., Averroes versus Avicenna on Being, in: *New Scholast.*, 48 (74), 185-218.

The central issue of this paper consists in the question whether I.S. accepted the real distinction between essence and existence, and whether in that respect he was criticized by Ibn Rushd? A. first observes that the Latin Averroes condemns the Latin Avicennian view that 'one' and 'Being' are additions to a thing's essence. Hereafter, he analyzes some 100 years of studies on Latin Averroism and Avicennism, esp. on Thomas' relationship with I.S. as far as it deals with the 'real' distinction. However, A. finds no reason to ascribe to Thomas this real distinction - Giles of Rome being in fact its innovator, but even for him it was nothing else but a universal hylemorphism under a new name! (at the end of the paper, A. mentions that John Quidort of Paris seems to be the first author, who explicitly linked the introduction of the real distinction with the name of I.S.). Consequently, for A. Ibn Rushd's attack on I.S. was neither inspired by the latter's asserting the real distinction, nor by his establishing an independent order of possibles. But it was related to I.S.'s explanation of the difference between *ens* and *unum* as a difference in comprehension, not as a difference in our modes of understanding. So, Ibn Rushd refused I.S.'s addition of a new positive intelligible note to the essence of a thing.

A somewhat provocative paper, but with some solid grounds, although one may suspect that A.'s formulation is somewhat exaggerated, since it is the result of an open hostility against contemporary Thomistic interpretations of this matter. For an interesting retort, see Zedler (*Metaphysics*, 68).

(8) DAIBER, H., art. Bahmanyâr Kîâ, in: *Enc. Ir.*, 501-503.

A. rightly presents Bahmanyâr as a commentator and transmitter of I.S.'s philosophy, although he differed from his master in his teaching on the soul in the afterlife. A. also offers important bibliographical considerations, not at least concerning such works as the *Mubâḥathât*, *Discussions* and the *Ta'liqât*, *Notes*, which, at least partly, result from Bahmanyâr's discussions with I.S.

A fine article.

(9) DAVIDSON, H., Alfarabi and Avicenna on the Active Intellect, in: *Viator. Medieval and Renaissance Studies*, 3 (72), 109-178.

A. most accurately shows that the famous problem of the *nous poiêtikos* arises

out of Aristotle's *De Anima*, Bk. 3. Further on, he discusses the antecedents of al-Fârâbî's and I.S.'s solutions for it. Hereby, he concentrates on four topics :

1. The type of entity the Active Intellect is (for both Arabic authors, it is the last of the celestial Intelligences - A. stresses that this particular interpretation is totally original in al-Fârâbî);
2. The manner in which it serves as a cause for human thought (with special attention to the notion of acquired intellect);
3. The manner in which it serves as a source for the existence of the whole or of a part of our world, and
4. The manner in which it causes certain religious phenomena.

Out of a profound analysis of these four major points, Alexander of Aphrodisias, Plotinus and al-Kindî (and to a lesser extent Themistius and the Arabic treatise *On the Soul*, attributed to Porphyry) are revealed to be of a particular historical significance for the Farabian-Avicennian doctrine of the Active Intellect. Then, A. examines in detail, but separately, al-Fârâbî's and I.S.'s opinions. As to the former, we may note here *inter alia* that A. distinguishes no less than three views within al-Fârâbî's different works, that A. characterizes al-Fârâbî's declaration of the heavens as emanating the matter of this world as original in al-Fârâbî, and that A. makes it obvious that al-Fârâbî excludes a strict individual survival (at most, he accepts the immortality of the acquired intellect, but in his lost *Commentary on the Nichomachean Ethics* al-Fârâbî would even have rejected any kind of human survival after death). As to I.S., we notice the following items :

1. Prime matter is emanated by the Active Intellect, together with the aid of the movements of the celestial sphere - on this point, A. stresses the existential impact of I.S.'s considerations;
2. Moreover, the Active Intellect emanates the forms appearing in matter as well as the individual human souls;
3. Further, it is the direct source of human thought (the human intellect being typified by a fourfold division) - acc. to A., I.S. goes beyond al-Fârâbî in this respect, and takes a position close to Plotinus' view;
4. The human intellect may have a conjunction with It - through it I.S. assures the individual immortality of each human Being, and also the phenomenon of prophecy (A. stressing however that it concerns an intellectual type of prophecy).

A most essential study (almost a monograph!) of one of the very central issues of I.S.'s philosophy, including a highly illuminating comparison with the latter's famous predecessor al-Fârâbî.

(10) DEBOUT, M., Avicenne et Ibn Ṭufayl, in : *MELCOM*. Paris, Institut Monde Arabe, 1988, 104-107.

A. offers some very rudimentary considerations about both authors, and their respective versions of Ḥayy ibn Yaqzân.

Of almost no value.

(11) DRUART, TH.-A., Imagination and the Soul-Body Problem in Arabic Philosophy, in : A.-T. TYMIENIECKA (Ed.), *Soul and Body in Husserlian Phenomenology (An. Huss., XVI)*. Dordrecht, Reidel, 1983, 327-342.

The study focuses on I.S. and al-Ghazzâlî. Out of the latter's texts, one has the impression that the Arabic philosophers insist on the independence of the human soul from the human body. So, A. first searches for the origin of this problem in Greek thought, esp. in Plato and Aristotle. Then, she concentrates on I.S. She points to the latter's dualism (in the Platonic line). I.S.'s dualism is however lessened by the unique natural desire which links each soul to the particular body which individuates it. But this does not imply that the body is a necessary and indispensable tool for all the activities of the soul. This may be clarified by the sharp contrast posited by I.S. between imagination and intellection. The former can only prepare the soul for the latter. The flying man-argument even seems to exclude any need for the former, because in it self-awareness is immediate. Now, al-Ghazzâlî offers a definite Aristotelian critique of I.S.'s Platonic view. By enhancing the connection between imagination and intellection, he enhances also the connection between soul and body. A. observes however that al-Ghazzâlî seems to accept, at least to some extent, I.S.'s basic claim of the substantiality of the soul.

A very fine paper - showing how the debate between al-Ghazzâlî and I.S., at least on the particular problem of the soul-body relation, may be considered as a further elaboration of the problem, and the two involved antagonistic points of view, as yet originally present in Greek thought.

(12) EGRI, B., The Arabic Triad : Hunain ibn Ishak, Rhazes, Avicenna, in : *Orv. Hetil.*, 122 (81), 1595-1600 (Hung).

(13) FAIZULLAEV, A. and NASYROV, R., The Problem of Truth in the Philosophical Discussions of al-Bîrûnî and Ibn Sînâ, in : *Soc. Sciences Uzb.*, 1970<sub>6</sub>, 18-23 (Ru).

(14) GARCÍA MARQUÉS, A., La polemica sobre el ser en el Avicena y Averroes Latinos, in : *Anu. Filos.*, 21<sub>1</sub> (87), 73-103.

Although A. specifies in the title of his paper : "Avicena and Averroes *Latinos*", his analysis and interpretation are based on some unknown works to the Latin Middle Ages. As to I.S., A. presents his theory of essence in a rather conventional way (evoking particularly the famous *triples respectus essentiae*) - ascribing also to I.S. the theory of the accidentality of existence, as well as the real distinction between essence and existence. As to Averroes, A. stresses his anti-Avicennian attitude, and also offers in this case a rather conventional survey of Averroes' main contentions.

A. does not go beyond a preliminary presentation of Averroes' criticism of I.S.'s doctrine of Being.

(15) GHANNOUCHI (AL-), A., La problématique de l'haecceité et de l'altérité chez Avicenne et Averroès, in : *Multiple Averroès (Coll. Int. 850. anniv. de la naissance d'Averroès)*. Paris, Les Belles Lettres, 1978, 175-188.

A. explains the solipsism, which characterizes I.S.'s theory of the "I"-ness of the "I" (as shown in the flying man-argument), out of the latter's theologico-philosophical project. Acc. to A., one may deduce out of Averroes' general system a severe criticism of this kind of Avicennian solipsism, although the Commentator did not devote any explicit discussion to it. In fact, a genuine Averroistic train of thought makes the possibility of self-knowledge directly dependent upon reality (and not upon some imaginary situation!), and starts with concrete Beings, not with intellection. So, haecceity appears in Averroes as a 'being together' with the world - revealing itself during the immanotranscendental activity of the human intellect. A. concludes that Averroes replaces I.S.'s theological idealism by a humanistic realism.

A. arrives at the kernel of the divergence between Averroes and I.S. (by what seems a warranted extrapolation), although his formulation of this kernel remains rather vague.

(16) HYMAN, A., Aristotle's "First Matter" and Avicenna's and Averroes' "Corporeal Form", in : *H.A. Wolfson Jubilee Vol.* Jerusalem, The Magnum Press, 1965, 385-406 (Engl Sect.); repr. in : A. HYMAN (Ed.), *Essays in Medieval Jewish and Islamic Philosophy*. New York, KTAV, 1977, 335-336.

(17) IRISOV, A., Al-Fârâbî and Ibn Sînâ, in : *Soc. Sciences Uzb.*, 1974<sub>6</sub>, 71-79 (Ru).

(18) KAYA, M., Averroes' Critique on Ibn Sînâ, concerning the Subject of Essence and Existence, in : *Ibn Sînâ. Doğumunun...*, 453-460 (Tu).

(19) KHAIRULLAEV, M., Al-Fârâbî and Ibn Sînâ, in : *Ibn Sîno. K-1000 letiju*, 61-71 (Ru).

(20) KOGAN, B., Some Reflections on the Problem of Future Contingency in Alfarabi, Avicenna, and Averroes, in : T. RUDAVSKY (Ed.), *Divine Omniscience and Omnipotence in Medieval Philosophy (SHL, 25)*. Dordrecht, Reidel, 1985, 95-101.

A. agrees completely with Marmura's final conclusion on I.S.'s theory of God's knowledge of particulars, but adds two particular implications :

1. God's comprehensive causality is, at least with respect to the sublunar world,



blind (and hence how to explain justice in the retribution of the hereafter?);  
 2. A replacement from the Deity to the celestial souls as concerns the problem of omniscience in relation to future contingents (acc. to A., I.S.'s and al-Fârâbî's solutions are almost similar in this respect). The major part of A.'s contribution is however devoted to Ibn Rushd, who, by separating the philosophical and the theological aspects of the problem, elaborated a fundamentally different solution.

A good paper, but, A.'s observations about I.S. are (too?) heavily dependent upon Marmura's interpretation.

(21) MADELUNG, W., Aš-Šahrastânîs Streitschrift gegen Avicenna und ihre Widerlegung durch Našîr ad-Dîn aṭ-Ṭûsî, in : A. DIETRICH (Hsg.), *Akten VII. Kongr. für Arabistik und Islamwissenschaft*. Göttingen, Vandenhoeck u. Ruprecht, 1978, 250-259.

A. offers some primary analysis of Shahrastânî's *al-Musâra'a*, the *Wrestling*, and its critique by Ṭûsî, based on Tehran Univ. Ms. 269. Five questions predominate in it : the division of being, the proof of God's existence, the divine unity, God's knowledge and the eternity of the world. (A. remarks that Shahrastânî does not finish the work according to its original plan, because of some particular circumstances.) I.S.'s acceptance of Being as a general category, his use of an analogical concept of Being (in order to separate God from the contingent Beings) are discussed, and most severely criticized by Shahrastânî, who defends an equivocity between God and the order of creature - originating out of a Neo-Platonic, Ismailite theology and cosmology. Ṭûsî, however, vehemently reacted against Shahrastânî's rejection of these Avicennian ideas (which may indicate Ṭûsî's rupture with the Ismailism he adhered previously).

Although the main significance of the paper concerns Shahrastânî and Ṭûsî (and is indeed of high relevance with respect to them), it also contains interesting ideas with respect to I.S., esp. on his theory of Being.

(22) MADKOUR, I., Al-Bîrûnî et Ibn Sînâ, représentants d'une époque et d'une culture, in : *MIDEO*, 12 (74), 195-201; also in : *The Commemoration Volume of Bîrûnî International Congress*. Tehran, High Council of Culture and Art, 1976, III, 247-257.

I.S. and al-Bîrûnî are presented by A. as two high-peaks of the golden age of Islam, the first as a great physician and an outstanding philosopher, the second as an extraordinary mathematician and astronomer. They both show by their works an open, encyclopaedic and tolerant mind.

A good, but general, introductory paper.

(23) MAMEDOV, Z., Bahmanyâr, a Brilliant Disciple of Ibn Sînâ, in : *Ibn Sino...*, 120-127 (Ru).

(24) MARMURA, M., Ghazali and the Avicennian Proof from Personal Identity for an Immaterial Self, in: R. LINK-SALINGER (Ed.), *A Straight Path. Studies in Medieval Philosophy and Culture (Essays in Hon. of A. Hyman)*. Washington, The Catholic University, 1988, 195-205.

Ghazzâlî's refusal of the ninth proof of the philosophers for the existence of an immaterial soul (proof which states that the human self remains the same notwithstanding all bodily changes) consists of two parts, as is most convincingly shown by A. The first part compares animal and vegetative Beings (whose growing old does not prove that they have an existence other than body). As to the second part, it concerns the retention of the forms in the imagination (how may these forms be retained in the brain, while they are material?). But Ghazzâlî's criticisms, cogent as they are, do not cover all the facets of the philosophical argument, as can be seen by a critical examination of I.S.'s own two versions of the proof, in his *Mubâhathât, Investigations* (however, A. stresses several obscurities in its actual formulation) and in his *R. fî ma'rifat al-nafs al-nâtiqa wa Ahwâlihâ, Treatise on Knowing the Rational Soul and its States*. In fact, one misses the notion of one's awareness of self-identity, which is clearly implied in these texts, esp. the latter.

One cannot but hope that this study will function as a model for further detailed analysis of Ghazzâlî's different criticisms of several philosophical theses (derived mainly from I.S.'s works) as formulated in his *Tahâfut al-Falâsifa, The Incoherence of the Philosophers*.

(25) MICHOT, J., Avicenne et le *Kitâb al-Maḍnûn* d'al-Ghazâlî, in: *Bull. Philos. Méd.*, 18 (76), 51-59.

A. points to the existence of two parallel fragments found in both I.S.'s *R. aḍhawiyya fî 'l-ma'âd, Tr. on Resurrection*, and the *K. al-maḍnûn, Book of what has to be preserved*, ascribed to al-Ghazzâlî. He observes that these common fragments are ascribed by I.S. to some learned men (so a third work may be the common source for both I.S. and al-Ghazzâlî), and that in both works the idea of an 'imaginal' resurrection is present. He concludes that the authorship of the *K. al-maḍnûn* cannot be solved definitively by a comparison of these parallels, although they show that the attribution to al-Ghazzâlî is not quite impossible. But, two major questions arise: to what extent did I.S. try to explain Muslim dogmas on the level of reason, and to what extent did al-Ghazzâlî reject philosophy?

A. offers clear and useful information in order to grasp more precisely the delicate problem of al-Ghazzâlî's dependence on I.S.

(26) MILLÂ, A., *Al-Qaṣîda al-'ayniyya*, or the Rational Soul, by Ibn Sînâ, and the (manu-)Script *Ma'rifa 'l-nafs* of Ibn Ḥazm, in: *Fikr wa-fann*, 19<sub>37</sub> (80), 30-38 (Ar).

Having presented the texts (in a rather uncritical way) of both I.S.'s *Poem on the Soul* and Ibn Ḥazm's *Knowledge of the Soul* (acc. to the unique Istanbul-ms.

2704) (the first is enlarged with a few footnotes, the second with a brief introduction on the life and works of Ibn Ḥazm). A. briefly compares some major doctrinal points implied by both texts. They reveal a fundamental difference in approach. Whereas I.S. starts from a philosophical (metaphysical) point of view, Ibn Ḥazm adheres a religious point of departure. A rather superficial paper.

(27) MOHAGHEGH, M., The Influence of Ibn Sînâ on Mîr Dâmâd, in : *Hazâra-i Ibn Sînâ, 273-286* (Pers).

A. examines an exemplary case of Avicennian influence on Mîr Dâmâd : the doctrine of the becoming of the world. Before dealing with this topic, A. insists that Mîr Dâmâd, notwithstanding his knowledge of I.S.'s illuminative philosophy, relied heavily on the latter's Occidental philosophy of existence. As to the problem of the origin of the world, Mîr Dâmâd took as its starting point the Avicennian doctrine that it is a dialectical problem of two extremes. However, Mîr Dâmâd tried to bridge these extremes by introducing the notion of an eternal innovation (*ḥudûth dahrî*) in an "imaginary time" (by this solution, he came close to the kalâm). A. hereby summarizes the main premisses of the theory of Mîr Dâmâd. Then, he presents a survey of several of Mîr Dâmâd's citations of I.S. in relation to the concepts of time and eternity, and in particular in relation to the problem of origin. Finally, A. discusses the Platonic and Aristotelian origin of I.S.'s theory in this field, as reviewed by Mîr Dâmâd. A very interesting paper, revealing one of the high points of Avicennian influence, although one may wonder whether I.S. himself ever endorsed any other philosophy than a "Occidental philosophy of existence" (as it is called by A.)?

(28) MOREWEDGE, P., The Analysis of Substance in Ṭûsî's *Logic* and in the Ibn Sinian Tradition, in : G. HOURANI (Ed.), *Essays in Islamic Philosophy and Science*. New York, SUNY, 1975, 158-188.

Having indicated some difficulties surrounding Aristotle's concept of substance, A. points to both al-Fârâbî's and I.S.'s contributions in order to clarify these problems. Then, he concentrates on Ṭûsî's doctrine of substance, as given in his *Asâs al-Iqtibâs, Principles of Inference*. He evokes Avicennian influences with respect to Ṭûsî's theory on Being (A. states that both philosophers adhere to a syntactical rather than an epistemological sense of priority of Being), his interpretation of the categories and of the very nature of the categorical investigation (the study of the categories being placed in the field of logic), and his elaboration of the very notion of substance itself (Ṭûsî continuing I.S.'s doctrine). A. concludes that both I.S. and Ṭûsî, by developing a syntactical construction of the concept of substance, attempt to distinguish between philosophy and science. But A. also stresses that this is not their only use of substance, since there exists a totally different, non-Aristotelian one in their "mystical" writings.

No doubt, the paper contains valuable insights. However, we cannot but maintain our usual reservation about A.'s use of contemporary philosophical

ideas in his analysis of classical texts (see *Metaphysics*, 43), as well as his sharp distinction between I.S.'s different works (see *Metaphysics*, 47).

(29) NASR, S., Post-Avicennian Islamic Philosophy and the Study of Being, in: *Int. Philos. Q.*, 17 (77), 265-271; also in: H. KOHLENBERGER (Ed.), *Reason, Action and Experience. Essays in Hon. of R. Klibansky*. Hamburg, F. Meiner, 1979, 87-93, and: P. MOREWEDGE (Ed.), *Philosophies of Existence, Ancient and Medieval*. New York, Fordham Univ. Press, 1982, 337-344.

After I.S., many great thinkers in Islam, esp. in Iran, undertook the study of Being and gradually arrived at a theory, which proclaims the spiritual experience of pure existence, and ultimately of Being itself. Among them, one finds such great names as Sohravardî, Ibn 'Arabî, Ṭûsî, Mîr Dâmâd and Mullâ Sadrâ. Acc. to A., al-Fârâbî and I.S. elaborated the conceptual framework for these latter developments, although new meanings were very often given to the terms and concepts they had established.

A. offers a sound basis for further detailed investigation on the theory of Being, as developed in the Islamic world after I.S.

(30) NASYROV, R., see: FAIZULLAEV A.

(31) OLGUNER, F., Existence in Ibn Sînâ's Thought, and Objections against it by F.D. Râzî, in: *Ulusl. I.S. Semp.*, 333-339 (Tu).

(32) PINES, S., Ibn Sînâ et l'auteur de la *Risâlat al-Fuṣûṣ fî 'l-ḥikmat*: Quelques données du problème. Transl. into Turk. by K. OZAYDIN, in: *Ankara Univ. İlâh. Fak. Dergisi*, 19 (78), 193-196.

Turkish translation of Pines' well-known paper, originally published in *Revue des études islamiques*, 19 (51), 121-124.

(33) ID., Quelques notes sur les rapports de l'Iḥyâ al-dîn d'al-Ghazzâlî avec la pensée d'Ibn Sînâ, in: *Ghazzâlî. La raison et le miracle (Islam d'hier et d'aujourd'hui)*. Paris, Maisonneuve-Larose, 1987, 11-16.

The place mystical science occupies in Ghazzâlî's classification of the sciences, as stated in the *Marvels of the Heart (Iḥyâ, III, 1)*, cannot but evoke I.S.'s opinion on it, as formulated in the *Ishârât, Remarks and Admonitions*, II, 9-10. Besides this major idea, A. points also to the presence of a refutation of I.S.'s theory of the eternity of the world *a parte ante* in Ghazzâlî's *Book of the Foundations of the Faith (Iḥyâ, I, 2)* quite comparable to the one in his *Tahâfut, Incoherence of the Philosophers*. It has to be noted that A. presents Ghazzâlî's *Maqâṣid, Intentions of the Philosophers*, as a faithful summary of I.S.'s system, as developed in the *Shifâ* (but see *Works, A III, 3, St. 2*, which shows it to be an almost pure translation of the latter's *Dânesh-Nâme, Book of Science*).

A (too?) limited, but useful piece of information about Ghazzâlî's knowledge (and use) of I.S.'s thought.

(34) PREISZLER, H., Ibn Sînâ und Miskawayh, in : *Avicenna / Ibn Sînâ*, II, 35-42.

Comparing I.S. and Miskawayh, A. refers to their common encyclopaedial mind, and stresses also the presence in both of a tendency to harmonize religion and philosophy (acc. to A., in a secularizing way!).

A general paper, clearly based on Marxist premisses.

(35) RAHMAN, F., The Eternity of the World and the Heavenly Bodies in post-Avicennian Philosophy, in : G. HOURANI (Ed.), *Essays on Islamic Philosophy and Science*. New York, Albany, SUNY, 1975, 222-237.

Having outlined Aristotle's arguments in favour of the eternity of the world, and Philoponus' reaction against it, A. shows how I.S. introduces a subtle but important change vis-à-vis Aristotle, by positing the existence of Beings outside God as possible - making the heavens not intrinsically different from any other body in the world. Moreover, I.S. did consider the body of the heavens as eternal, without, as A. judiciously observes, offering any justification for this claim. Among the many Islamic thinkers, who took into consideration this problematic, A. concentrates more specifically on Ghazzâlî, F.D. Râzî, Abû 'l-Barakât al-Baghdâdî, Sohravardî and Mullâ Sadrâ.

A. offers a brief, but accurate synthesis of the different positions of the authors he takes into consideration.

(36) RAHMAN, M., Avicenna and his Contemporaries, in : *Indo-Iranica*, 34 (81-82), 75-87.

A. enumerates 11 personalities with whom I.S. would have been in touch, at least according to some older sources, and also reviews the list of I.S.'s disciples. Although the paper contains some valuable information, its use is very difficult, due to the lack of critical evaluation by A. of the material presented, and of the sources from which it originated.

(37) SERAUKY, E., Zur Stellung der Ismâ'îlîya in der frühfeudalen Entwicklung des Jemen, in : *Avicenna/Ibn Sînâ*, II, 43-50.

Acc. to A., the 10th C. - Ismailite movement contributed to the development of materialistic pantheism - and, as such, formed one of the theories attacked by I.S. Of no real significance.

(38) SULTONOV, U., *Muosoroni Abûalî ibni Sino (Contemporaries of Ibn Sînâ)*. Dushanbe, Donish, 1980, 128 pp.

(39) TĀMIR, 'A., *Ibn Sīnā fī marābī' Ikhwān aṣ-Ṣafā (Ibn Sīnā in the Footsteps of the Ikhwān aṣ-Ṣafā)*. Beirut, M. 'izz al-dīn, 1983, 264 pp.

A. first surveys I.S.'s life, especially the political context, in which it was embedded - paying special attention to the Ismailite input. Then, he presents the system of the Ikhwān aṣ-Ṣafā, focusing on such major themes as creation, the life in the hereafter, alchemy, etc. He points to their extensive use of symbolism, but, above all, to their peculiar vocabulary that largely differs from I.S.'s philosophical terminology. A., however, considers this to be of no essential significance. So, he does not hesitate to identify the soul, asserted by the Ikhwān as a second hypostasis in a Plotinian inspired way, with the second higher Intelligence of I.S.'s emanation scheme (sic!). Finally, he tries to prove I.S.'s dependence upon the Ikhwān, mainly in two ways :

1. The evidence of their common rejection of such doctrines as the transmigration of the soul, or incarnation (but were such ideas not discarded by almost all Muslim thinkers?);
2. The juxtaposition of (at least, at first sight) parallel texts (but A. fails to develop a proper analysis in order to show that they really partake of the same doctrinal community).

It has to be noted moreover that A. many times gives no exact reference for his citations.

At most, A. has assembled some basic material in order to study possible influences of the Ikhwān on I.S. - a subject, no doubt, worth considering.

(40) ID., *Naṣīr al-dīn aṭ-Ṭūsī fī marābī' Ibn Sīnā (Ṭūsī in the Footsteps of Ibn Sīnā)*. Beirut, M. 'izz al-dīn, 1983.

The general outline, as well as the method used in the work are almost the same as in 39, although the comparison seems a little more natural, and also more objective than in the former. Nevertheless, A. offers at best a 'point of departure' for further investigation.

(41) TURSUMOV, A., On the Ideological Collision of the Philosophical and the Theological, in: *Vopr. Filos.*, 1980<sub>7</sub>, 62-75 (Ru); 187 (Engl S.).

Acc. to S., A. opposes Ghazzālī to Ibn Sīnā in a rather conventional way.

(42) VAJDA, G., *Le Ma'arīğ al-quḍs fī madāriğ ma'rīfat al-naḥs* attribué à Gazālī et les écrits d'Ibn Sīnā, in: *In Mémoriam S. Stern (Israel Oriental Studies, II)*. Tel Aviv, Tel Aviv Univ., 1972, 470-473.

A. indicates the existence of some important parallels between fragments of the *Ma'arīj* and some parts of I.S.'s works, *Aḥwāl al-naḥs*, *Shifā* and *Najāt*. Although A. is aware of the very fact that his inventory is probably not complete, he is inclined to believe that his observations are sufficient in order to seriously question the usual attribution of the *Ma'arīj* to al-Ghazzālī. A.'s indications are

precious (although not always very precise), and, as he himself suspected far from complete. Some further investigation permitted me to discover fragments, derived from other Avicennian works, but also a lot of texts, which are paralleled in Ghazzalian works. Hence, the problem of the attribution of the work is much more complicated than suspected by A. (I am preparing a publication on this topic).

(43) YAHÂNGÎRÎ, M., Cavillors of Ibn Sînâ, in : *Hazâra-i Ibn Sînâ*, 225-271 (Pers).

I.S.'s thought was criticized in many respects by Islamic authors of all walks of life in his own and later times. A. offers a well-documented survey of the most significant criticisms, and their representatives. Besides the more familiar names (and their well-known objections), e.g. Ghazzâlî, Ibn Rushd, Ibn Taymiyya, al-Bîrûnî, Miskawayh, etc. A. pays special attention to what he calls the intelligentsia of Shiraz : al-Kirmânî, Abû 'l-Khayr and Ibn Sab'în. On the basis of a manuscript, he translates (or paraphrases?) I.S.'s (supposed?) answers to Kirmânî (out of this, appears some kind of difference in the method of investigation and argumentation - logic versus linguistic analysis). Also on the basis of a manuscript, he summarizes I.S.'s discussion with Abû 'l-Khayr. A. mentions also some later authors, almost unacknowledged in the West, as e.g. Kamâl al-dîn ibn Yunas, Zuhayr al-dîn Bayhaqî or Muh. Baqîr Khwansârî - providing always useful information.

A significant survey of the main objectors, and objections against I.S., although sometimes a little 'rough' (esp. with respect to the 'great names').

## Chapter XIV

# Influences

### A. IBN SÎNÂ AND THE LATIN WEST

I. General

II. Thomas Aquinas

III. Other Medieval Authors

IV. Renaissance and Modern Age

### B. IBN SÎNÂ AND JEWISH THOUGHT

### C. IBN SÎNÂ AND INDIAN THOUGHT

See also :

X, 3

XI, B II, 6

XIII, 2

XV, A 18; XV, C 9, 10, 18; XV, D, 1, 2





## A. Ibn Sînâ and the Latin West

### I. GENERAL

(1) D'ALVERNY, M.-TH., Avicennisme en Italie, in: *Oriente e Occidente nel Medioevo: filosofia e scienze (Atti dei Convegni, 13)*. Roma, Acc. Naz. dei Lincei, 1971, 117-139.

The history of the introduction of I.S. in late medieval Italy forms the proper object of this study. A. starts her investigation in Spanish Toledo of the second half of the 12th C. She mentions briefly Gundissalinus (and his translation of some parts of the *Shifâ*), but pays special attention to Gerard of Cremona (and his translation of the *Canon*). Now, in the Toledo of these days one can easily detect the presence of *scolares*, i.e. itinerate scholars - Gerard e.g. seems to have made some philosophical (non-Avicennian) translations on request. Some of them probably came from Italy, but the majority consisted of Spanish clergymen, who intended to make a career in foreign *studia*, e.g. Bologna. So, already in the very beginnings of the 13th C., one finds indications of some knowledge in Italy of either the *Canon* or parts of I.S.'s philosophical encyclopedia. A certain Urso de Lado testifies to the former, while an anonymous treatise (Paris, BN, Lat. 3236 A), which was probably written in Bologna, illustrates the latter. Still in the first half of the 13th C., Michael Scot (establishing the Latin translation of the *De Animalibus*) and Roland of Cremona (offering many citations of I.S. in his *De Universo* and in his *Comment on the Book of Job*) bear testimony to a lively interest in Italy for I.S.'s work. After the 1250's, the number of copies of, and comments on the *Canon* grows increasingly - but it has to be noted that philosophical items were always incorporated into medicine. In this respect, A. surveys a list, prepared in the 15th C., and edited and annotated by E. WICKENHEIMER, in: *Janus*, 34 (30), 33-37 - A. supplementing significant information. At the end, A. offers a brief description of some well-illustrated manuscripts of the *Canon*, and presents a list of manuscripts, containing philosophical texts of I.S. in Latin, whose origin is almost certainly, or most probably Italian.

A rich, and well-documented study - completing somehow A.'s basic studies on the *Avicenna Latinus* - see *Works*, A II, *Av. Lat.*

(2) BERTOLA, E., E esisto un avicennismo latino nel Medioevo?, in: *Sophia*, 35 (67), 318-334 and 39 (71), 278-320.

The entire first part of the paper is devoted to a detailed and critical survey of the various opinions given on the existence of a Latin Avicennism in the Middle

Ages by such great scholars as R. de Vaux, E. Gilson, M. Gorce, A. Masnovo, M. de Wulf, F. Van Steenberghen or Vicaire de Contenson. The second part starts with an accurate and systematic analysis of some medieval Latin works. Out of this analysis, A. derives that I.S. most certainly played a fundamental rôle in the beginning of the 13th century, influencing directly such major metaphysical or psychological doctrines, e.g. the distinction between essence and existence, or the substantiality of the soul. Hence, for him the presence of a Latin Avicennism in that time is confirmed. But it may not be conceived in the same way as the Latin Averroism, because its delimitation is not possible on behalf of one single doctrinal point, such as the unity of the possible intellect which was typical for the latter. Moreover, the Latin Avicennism never seems to have introduced elements of the original Avicennian system, which clearly contradict the basic tenets of religious belief. However, A. categorically rejects Gilson's distinction between a religious (Muslim) Avicenna and a (rational) philosopher Averroes, placing religion totally outside philosophy. As to Gilson's discernment of a special current of thought, characterized by him as "Augustinisme avicennisant", A. admits its reality, but indicates that only one doctrinal point is involved in this current, while many more and larger influences are detectable in the broad movement of the Latin Avicennism.

A. offers a well-documented *status quaestionis* concerning the problem of the existence of a Latin Avicennism, and seems to propose a valuable solution for this rather complex problem.

(3) ECER, A., The Reputation of Avicenna in the West, in: *Kayseri Kongr.*, 183-192 (Tu).

(4) GILSON, E., Avicenne en Occident au Moyen Age, in: *AHDLMA*, 34 (69), 89-121; also in: *Oriente e Occidente nel Medioevo: Filosofia e scienze (Atti dei Convegni, 13)*. Roma, Acc. Naz. dei Lincei, 1971, 65-95.

A., one of the most leading authorities on the history of medieval philosophy, exposes four main themes concerning the reception of I.S. in the Latin Middle Ages: 1. I.S. and Latin scholasticism; 2. I.S. and Christian religion; 3. particular cases of Avicennian influence; and 4. the question whether there existed a Latin Avicennism, or not? Among his many observations, we may briefly mention: 1. I.S.'s particular method and style, as found in his great philosophical encyclopedia, the *Shifâ*, and expressing a very personal input in his thought, were imitated by several medieval authors, i.e. Gundissalinus, Guillaume of Auvergne, R. Bacon and Albert the Great; 2. I.S.'s philosophy, notwithstanding its being based on Aristotelian techniques, supports Qur'anic teaching, and therefore is in this respect a 'religious' (Muslim) philosophy. As such it had a great influence on both theologians and philosophers of the end of the 12th C. and the beginning of the 13th C. Then, the introduction of Averroes eclipsed the Avicennian impact for a while, but I.S., or at least the 'Avicennian Aristotle' regained his influence at the end of the 13th C., as is at best illustrated in Henry of Ghent;

3. A. discusses mainly three cases : 1. The identification of I.S.'s Agent Intellect with the illuminating God of S. Augustine (giving rise to the movement of the "augustinisme avicennisant"); 2. The durable (but extremely difficult to determine) influence of I.S.'s metaphysical system on Thomas Aquinas, esp. on his metaphysics of Being (A. clearly recalls the specific problems surrounding Thomas' "citations" of I.S.); 3. The particular significance of I.S.'s doctrine of the *natura communio* for Duns Scotus' theory of the univocity of Being; 4. A. denies the existence of a true Latin Avicennism. Since I.S.'s thought was too intimately linked with religion, but, at the same time, defended views which were in vehement contradiction with Revelation. No medieval Christian author was able to entirely accept this method and system of philosophizing (contrary to the Averroists, who could easily accept the entire philosophical thought of their master, insofar as they sharply distinguished between their philosophical project and their religious belief).

A paper, which completely justifies the fame of its author, proposing many valuable insights for further investigation, but see 2 for a somewhat different approach.

(5) ID., *Les sources gréco-arabes de l'augustinisme avicennisant* (together with : *De Intellectu d'al-Fârâbî*). Paris, Vrin-reprise, 1981. Reprint of *AHDLMA*, 4 (29-30), 5-149.

(6) GÓMEZ NOGALES, S., Comment Ibn Sînâ devint Avicenne, in : *Le Courrier de l'Unesco*, 1980<sub>10</sub>, 32-39.

A. first discusses the introduction of I.S.'s thought in medieval Andalusia (paying special attention to Ibn Ṭufayl and Ibn Rushd). Hereafter, he points out that I.S. was considered by several Latin authors to be a thinker of Spanish origin. Finally, A. presents a basic outline of I.S.'s influence on the West (in the domains of philosophy, science and medicine).

Good, but introductory.

(7) GUASHOV, A., Ibn Sînâ's Influence on the West, in : *Ibn Sino...*, 153-166 (Ru).

(8) KARLIĀ, B., L'influence de la philosophie avicennienne sur la philosophie occidentale, in : *Ulusl. I.S. Semp.*, 433-440 (Tu); 441-442 (Fr S.).

Out of S., a superficial survey of the translations of I.S.'s works into Latin, and of the great outlines of his philosophical influence.

(9) KHODEIRY, Z., *Ibn Sînâ wa talâmîdhuhu al-lâtîn (Ibn Sînâ and his Latin Disciples)*. Cairo, M. al-Khânjî, 1986, 207 pp.

A. offers a detailed survey of I.S.'s influence on the Latin Middle Ages, but offers almost no new insights. Sometimes, one finds outdated ideas. A. seems to be

unaware of the most important studies of the last twenty years in the field - for example she ignores such a major project as the edition of the *Avicenna Latinus*. The very fact that most of the secondary literature, cited by A., date from (long) before 1960 seems to us highly relevant in this respect.

At most, a very first introduction to the problematics of I.S.'s influence on the Latin West, but in several respects out-dated.

(10) LUCCHETTA, F., La cosiddetta 'teoria della doppia verità' nella *Risâla Adḥawiyya* di Avicenna e la sua trasmissione all'Occidente, in : *Oriente e Occidente nel Medioevo: Filosofia e scienze (Atti dei Convegni, 13)*. Roma, Acc. Naz. dei Lincei, 1971, 97-116.

Previously in the introduction to her edition and translation of I.S.'s *Treatise on Resurrection* (Padova, 1969), A. had detected a kind of double truth in I.S. In this paper, she somehow corrects that view by declaring that I.S. in fact defended the existence of one single truth, but that he made a distinction between the intellectual truth, reserved to the elite, and a political-practical truth, destined to the masses. But, above all, A. adds some considerations about the introduction, and the influence of the *Tr. on Resurrection* in the West. She first notes that I.S.'s negation of the resurrection of the body seems to have been acknowledged by the Franciscan school of Oxford, and esp. Henry of Ghent. However, the work itself remained unknown till Alpago's translation in the beginning of the 16th C. A. considers in detail the circumstances surrounding that translation - stressing the underlying philosophical and theological motives for it. A. finds a last echo of I.S.'s so-called "theory of the double truth" in G. Bruno.

A fine paper - esp. relevant with respect to Alpago's translation of the *Ris. Adḥawiyya*, and providing an important precision with respect to I.S.'s concept of the Truth.

(11) PANIAGUA, S., Avicena Latino y la cuestión teleológica en la fenomenología de Husserl, in : *Stromata*, 35 (79), 101-104.

Acc. to A., the great "metaphysical confusion" was created by I.S., because he mixed up Aristotle's study of Being as Being and Plotinus' study of pure Being. Proceeding in this way, I.S. deprived metaphysics of the proper *telos* it had in Aristotle. The confusion became complete when the Latin Middle Ages identified I.S.'s metaphysics with Aristotle's metaphysics. One has to wait till Husserl for the restoration of the original Aristotelian project.

A highly disputable thesis - simplifying to the extreme the history of metaphysics!

(12) RAMÓN GUERRERO, R., La Metafísica de Avicena en la Edad Media Latina, in : *Bol. Ass. Esp. Orient.*, 15 (79), 243-248; also in : *Fragua*, 78 (79), 29-32.

A. distinguishes four tendencies in the reception of I.S.'s metaphysics in the West: Latin Avicennism; Avicenna-inspired augustinism; Thomas (esp. his

theory of the real distinction between essence and existence) and Duns Scotus.

Rather insignificant.

(13) RUBIO, L., Cuatro pensadores musulmanes : Alkindi, Alfarabi, Avicena (Ibn Sina) y Algazzali (Algazel), a los dos lados de la frontera cristiano-islamica en el siglo XII y parte del XII, in: *La Ciudad de Dios*, 102 (88), 323-339.

After a preliminary outline of the political and cultural situation of Andalusia during the 12th and 13th centuries, A. discusses the major facts of the introduction into medieval Spain of the works and ideas of the four great Eastern Muslim thinkers of the classical period, i.e. al-Kindî, al-Fârâbî, I.S. and al-Ghazzâlî. A. states that the real penetration of their ideas, at least in the philosophical field (their medical or scientific opinions causing no problem whatsoever), only occurred in Muslim Andalusia at the end of the 12th and in the beginning of the 13th C. due to the predomination of the conservative Malekite school of jurisprudence. Much earlier their works had been translated into Latin in Christian Toledo (A. surveys in detail these translations - but exclusively based on secondary Spanish sources).

Introductory. Comp. *Ibn Sînâ and other Arabic thinkers*, 2 for the part regarding Muslim Spain.

(14) SHAYMUHAMBETOVA, G., The Problem of the Universal in Aporeumatics, and Medieval Philosophy, in: *Ibn Sino...*, 89-103 (Ru).

(15) VAN RIET, S., art. Avicenna. The Impact of Avicenna's Philosophical Works in the West, in: *Enc. Ir.*, 104-107.

A. surveys in much detail the medieval Latin translations of different parts of the *Shifâ*, the *Cure* - giving place and date of the translation, as well as the name of the translator himself (and indicating the missing parts with respect to the original Arabic text). She also points to the famous *De medicinis cordialibus*, and to two minor citations by R. Martin, taken from the *Ishârât wa-Tanbîhât*, *Remarks and Admonitions*, and from the *Najât*, the *Salvation*. Moreover, A. sketches the great currents of Avicennian influence in the 12th and 13th C. In the 12th C. a tendency to keep I.S.'s translated writings together with texts of Christian and Neo-Platonic authors predominated, whereas in the 13th C. I.S. was considered to be an Aristotle-interpreter. Albertus Magnus adhered to a Neo-Platonic, and above all Avicennized Aristotelianism; Thomas Aquinas discussed several important theses of I.S.; and later authors, who made large-scale syntheses, engulfed I.S.'s texts in a mass of texts by other authors.

A very valuable basic outline for further investigation on the Avicenna Latinus, both in its sources and in its impact.

(16) VERBEKE, G., Avicenna im Westen : eine historische Begegnung, in : *Acta Ant. Acad. Sc. Hung.*, 29 (81), 1-18.

A. points to the fact that the 12th C.-Latin West looked for a rational proof of the existence of the soul - as is proven by the almost simultaneous translation of both I.S.'s and Aristotle's *De Anima*. A. hereby stresses that I.S. was not just considered as a mediator of Aristotle's thought - I.S.'s originality was fully recognized! In this respect, special attention was paid inter alia to his spiritualistic, but dualistic psychology (the Christian medieval authors tried to combine it with Aristotle's *entelechy*-concept), his acceptance of a transcendental intellect (raising the problem of the individuality of the human Being - the West developed its theory in contradistinction to I.S.) and his development of a proper metaphysical system, based on the distinction necessary-possible, and implying a necessary emanation, i.e. a mediated creation (the West accepted the idea of the dependence of the creatures upon their Creator, but rejected mediated creation).

A. offers a general, but significant overview of I.S.'s influence on the medieval Latin West.

(17) ID., Avicenna's Metaphysics and the West, in : M. WAHBA (Ed.), *Islam and Civilization (Proc. 1. Int. Isl. Philos. Congr.)*. Cairo, Ain Shams Univ. Press, 1982, 53-64.

A. concentrates on one central topic of I.S.'s metaphysics : creation. Having clarified the precise nature of the connection of I.S.'s theory of creation with Plotinus' conception of creation (A. indicating both resemblances and incongruities), A. specifies the proper significance of I.S.'s theory of creation for the Latin Middle Ages by examining the doctrines of two major authors, whose relevance in this respect is not doubted : Guillaume of Auvergne and Thomas Aquinas. The former refutes I.S.'s argument against creation in time, not, however, without presenting it in an objective way, while the latter accepts I.S.'s idea of God as a permanent source of Being, but criticizes him heavily for not having conceived the creative act as a free (divine) initiative - I.S. having introduced an element of chance in the arrangement of the universe by conferring creative activity to the higher Intelligences.

A well-documented and clarifying paper.

(18) ID., Transmission d'Avicenne à l'Occident latin. Les cheminements de l'histoire, in : *Rev. Théol. Philos.*, 114 (82), 51-64.

This paper has many common points with 16, but also contains some refinements and additions.

(19) WEBER, E., La classification des sciences selon Avicenne à Paris vers 1250, in : *Études sur Avicenne*, 77-101.

A. concentrates mostly, although not exclusively, on two authors : R. Kilwardby and Albert the Great. He carefully scrutinizes their concepts on the division of the sciences, and indicates the following elements as revealing a profound

Avicennian influence :

1. The division between theoretical and practical science (being based on the division between what is not and what is related to us and to our action);
2. The attribution of the perfection of the soul to speculative knowledge as such;
3. The epistemological foundation of the tripartition of the theoretical sciences (A. refers in this respect to Thomas' *Comment on Boethius' De Trinitate*, but seems to be unaware of Wippel, see *infra*, II 17);
4. The further elaboration of Aristotle's subdivision of the physical sciences;
5. The idea of a close 'collaboration' between the three speculative sciences;
6. The adopted noetics in Albert (Kilwardby clearly differs with I.S., and prefers to adhere the Augustinian tradition).

A. concludes that the history of this influence shows that I.S. was not just a Neo-Platonic, but, above all, an original thinker, and that it makes the thesis of an "augustinisme avicennisant" rather suspect.

A well prepared paper, highly significant with respect to the theory of the division of the sciences in the midst of the 13th C., however, one may wonder if A.'s criticism concerning Gilson's discernment of an "augustinisme avicennisant" is not too overhasty?

(20) ZAMBELLI, P., *L'immaginazione e il suo potere. Da al-Kindî, al-Fârâbî e Avicenna al Medioevo latino e al Rinascimento*, in: *Orientalische Kultur und Europäische Mittelalter*, 188-206.

A. first outlines the philosophical theory on prophecy of al-Kindî, al-Fârâbî and I.S., the first three important representatives of the *falsafa*-movement. In this respect, he leans heavily on secondary sources, esp. Rahman's *Prophecy in Islam*. In a second, much more personal part, A. investigates the repercussion of I.S.'s idea of 'transitive imagination' (and the involved psychosomatics) on the magical theories of such medieval and early renaissance authors as Guillaume of Auvergne, R. Bacon, Albert the Great, Ockham, Galeotto Mazzio, Andrea Cattani, Ficinus and Pomponazzi.

A. opens perspectives for further investigation in the field, but a closer scrutiny of the Latin translations of classical Arabic (philosophical and medical) texts seems desirable.



## II. THOMAS AQUINAS

(1) ABDUL, M., *Essence and Existence in Relation to God: A Comparative Note between Avicenna and S. Thomas Aquinas*, in: *ORITA*, 13<sub>11</sub> (81), 50-57.

A. briefly describes the essence-existence problematic in both I.S. and Thomas Aquinas - stressing their different evaluations of existence.

A good, but almost conventional paper.

(2) ANAWATI, G.C., *Psychologie avicennienne et psychologie de S. Thomas: étude comparée*, in: *Acta Ant. Ac. Sc. Hung.*, 29 (81), 13-32.

Having outlined the general framework of I.S.'s philosophy, A. offers a succinct, but significant survey of the major items of I.S.'s psychological theory, stressing inter alia that for I.S. the soul is entelechy of the body insofar as she is activity, and almost not insofar as she is substance, and that for I.S. there exists no substantial union between soul and body. Then A. presents a much detailed comparison on all major items between I.S. and Thomas Aquinas - A. himself recognizes his great indebtedness in this respect to the Granada, 1957-doctoral thesis of A. Lobato. Thomas' rejection of an external agent as source for the proper act of human knowledge, and his acceptance of a substantial unity between the soul and the body, reveal themselves as major break-points with I.S.

Although not really original, the paper remains valuable, insofar as it contains an enlightened summary of the 'classical' view on this topic.

(3) ID., *St. Thomas d'Aquin et la Métaphysique d'Avicenne*, in: E. GILSON (Ed.), *St. Thomas Aquinas 1274-1974 Commemorative Studies*. 2 vol. Toronto, Pont. Inst. Med. Stud., 1974, I, 449-465.

A. first lists the main studies undertaken in the West up to  $\pm$  1960 on the relationship between I.S. and Thomas. Secondly, he evokes in a most significant way some basic elements one should not neglect in order to establish a fruitful comparison between the philosophical systems of both authors. Then, A. enumerates a multitude of notions, definitions, and distinctions in the domains of metaphysics, which, being original with I.S., were accepted by Thomas (A. however points in a precise manner to some evolutions in the latter's thought). Finally, A. develops Thomas' main criticism of I.S., while concluding that the former rejected most categorically the latter's essentialism, although he did in fact introduce many concepts directly derived from the latter.

A very fine paper.

(4) BURRELL, D., *Knowing the Unknowable God. Ibn Sînâ, Maimonides, Aquinas*. Notre Dame, Univ. of Notre Dame Press, 1986, 130 pp.

A. focuses on the problem of the 'distinction' between God and the world as the central issue of philosophical theology, and more specifically on the scheme, elaborated and shared by Jewish, Christian and Muslim thinkers up to the 13th C. Now, the mentioned 'distinction' can only be conceived of in a valid way, through the acceptance of a fundamental distinction between essence and existence. Acc. to A., I.S. offered the basis for it, although he still considered existence to be a kind of super-attribute. Thomas emended this view by his formulation of existence as *actus essendi*. This 'correction' permitted Thomas moreover to show how the identification in God of essence with existence, which I.S. had already presented, in fact meant a perfection in the divinity. It further allowed him to adhere a semantics that rendered possible the acceptance of positive attributes in God. As to the question how to relate God to the world, Thomas relied on an intentional mode of causality (borrowing in this respect from Maimonides), and avoided as such the inevitable restrictions implied by I.S.'s necessary emanationistic scheme. So, Thomas, in contradistinction with I.S., was able to defend God's knowledge of *all* particular beings, as well as God's providence towards *each* of them. A. concludes that Thomas did discover in I.S.'s introduction of the essence-existence distinction a new sense of contingency. An interesting booklet, although A.'s interpretation of I.S. may be questioned in several respects, e.g. as to the affirmation of existence as a super-attribute (see *Metaphysics*, 52), or as to his placing I.S. in the same line as al-Fârâbî (see *Politics and Ethics*, 7).

(5) CHISAKA, Y., St. Thomas d'Aquin et Avicenne (sur les interprétations de l'être et de l'essence), in : *Tommaso d'Aquino nel suo settimo centenario*. 7 vol. Napoli, Ed. Dom. It., 1975, I, 284-295.

A. distinguishes in I.S. two ways of searching the knowledge of Being: one by intuition (based on the flying man-argument), and another out of abstraction by the intellect of the sensible data. Acc. to him, I.S. accepts in the latter case the pre-existence of the essence in almost the same way as Plato's theory of ideas (A. seems to ignore completely I.S.'s criticism of this Platonic theory!). As to Thomas, A. describes his further elaboration of I.S.'s basic distinction between essence and existence in almost classical terms, stressing the particular significance of the notion of participation for Thomas' own doctrine of Being.

A. appears to be a good Thomas-scholar, but his knowledge of I.S. is fragmentary, clearly incomplete, and sometimes evidently mistaken.

(6) COLISH, M., Avicenna's Theory of Efficient Causation and its Influence on St. Thomas Aquinas, in : *Tommaso d'Aquino...* (see 5), I, 296-308.

Having enumerated a list of differences and similarities between Thomas

Aquinas and I.S., A. concentrates on one particular point of doctrine: the distinction between physical and metaphysical efficient causation. In I.S., the physical agent cause is the finite principle of motion (an idea, inherited from Aristotle), whereas the metaphysical agent cause is the infinite principle of Being (this latter principle having to be identified with the Muslim Creator God). But I.S. did not fully exploit this interesting distinction in order to resolve the problem of creation, nor that of freedom and determinism - both problems dominating the theological and philosophical debates of his days. Thomas on the contrary brought the concerned distinction to its plain fruition. A. concludes that Thomas uses the distinction both to defend I.S., as far as it concerns the necessary dependence of all creatures on God, and to attack him, insofar as he adheres to the theories of the eternity of matter and emanationism. An original and well founded study, although the identification of I.S.'s infinite principle of Being with the Muslim Creator God remains rather unwarranted by A.

(7) FLYNN, J., St. Thomas and Avicenna on the Nature of God, in : *Abr Nahrain*, 14 (73-74), 53-65.

Acc. to A., Thomas agreed with I.S., at least in his *Shifâ*, the *Cure* (this work being the only one known in the Latin Middle Ages), about the following items concerning God :

1. The need for proving the divine existence by way of causality (but for I.S. the more appropriate way is to proceed from universal, self-evident principles - an idea clearly dismissed by Thomas);
2. The absolute simplicity of the divine Being (God being no substance);
3. God having no essence other than His existence (acc. to A., Thomas would not have fully understood I.S. on this topic).

Thomas however disagreed with I.S. on the doctrines of divine attributes, emanation and God's knowledge of particulars. A. discusses Thomas' criticisms in an utmost classical way.

A rather conventional paper, which moreover appears to be rather questionable in its (few) original ideas.

(8) GIACON, C., La distinzione tra l'essenza e l'esistenza in Avicenna e in S. Tommaso, in : *Doctor Communis*, 27<sub>3</sub> (74), 30-45.

Out of the observation that Thomas was less dependent upon I.S. in his late works than in his early ones, A. wonders whether he really derived the distinction between essence and existence from I.S.? In order to solve this problem, he examines I.S.'s theory of the necessary existence. As its source, he indicates Aristotle's *Met.*, Δ, 5, and, even more significantly, al-Fârâbî's *Gemstones of Wisdom*. In this latter work, one finds an undoubtedly pure logical distinction between quiddity (universal essence) and ipseity (individual essence), but the relationship between ipseity and existence is not discussed in it. Now, I.S. developed this Farabian point of view in a more ample and a more systematic way, although without changing its main content. A. analyzes in this respect some significant text-fragments in the *Najât* (according to Caramè's

1926-Latin translation). A. concludes that I.S. never reaches an ontological distinction between essence and existence, contrary to Thomas (Guillaume of Auvergne having somehow prepared the way for the latter's asserting of the ontological distinction). So, I.S.'s real 'disciple' in the Latin West in this respect was Suarez, who simply shared the logical view on the distinction.

A. may be right in his rejection of ascribing the ontological distinction between essence and existence to I.S. himself, but one may wonder if the latter just considers it so unqualifiedly purely logical as A. suggests? It has to be noted also that the authorship of the *Gemstones of Wisdom* is a subject of discussion among scholars!

(9) ID., La distinzione tra l'essenza e l'esistenza è logica in Avicenna ed è ontologica in S. Tommaso, in : *Actas V. Congr. Int. Filos. Med.*, II, 775-784.

Almost *verbatim* the same as 8, adding Aristotle's denial in the *An. Post.* of the possibility to deduce the existence of a thing from its essence, or vice-versa, to I.S.'s sources, and omitting the consideration on Suarez.

(10) JUDY, A., Avicenna's "Metaphysics" in the *Summa contra Gentiles*, in : *Angelicum*, 52 (74), 340-385 and 541-586; 53 (76), 184-216 (*app.*, 217-226).

In this extensive case-study A. shows the existence of a remarkable parallelism between Thomas' *Summa contra Gentiles*, ch. 25-27 and I.S.'s *Metaphysics* of the *Shifâ*, VIII, 4, concerning the doctrine of divine simplicity. (Thomas himself offers no indication whatsoever, which may lead one to suspect a deep dependence upon I.S.!)

After a general introduction, which contains : a brief biography of I.S., a selective list of contemporary publications on him and a survey of some major steps in the reception of his *metaphysics* in the medieval Latin West; a more specific introduction is given in the form of a succinct, but sharp analysis of both the Avicennian and the Thomistic context.

As to the proper comparison, A. presents the texts in parallel columns. Then he proceeds to the main ideas of the source, he lists the most significant points of contact between I.S. and Thomas, and invariably ends with a much detailed examination of Thomas' own version. No doubt in order to facilitate the reading, he divides the text into five parts : sections A and B concern God's essence or quiddity; section C has as its object the distinction between the divine Being and abstract common being, and sections D and E have as their specific topic God's not being in any genus. A. is always prudent, and most of the time very subtle in establishing parallels or differences. So, A. concludes that the presence of many similarities between I.S.'s and Thomas' doctrines on divine simplicity does not mean a complete dependence of the latter on the former. In fact, Thomas' more positive evaluation of existence, clearly proves such was not the case.

A most interesting, almost pioneering study - although the Latin text of I.S.'s *Metaphysics*, as given by him in the *appendix* on the basis of a collation of the Venice, 1495 and 1508-editions, appears defective in some crucial places when

compared to the critical edition of the *Avicenna Latinus*, and so may have misled A., in his interpretation (see *Metaphysics*, 33).

(11) KHODEIRY, Z., St. Thomas d'Aquin entre Avicenne et Averroès, in : A. ZIMMERMAN (Ed.), *St. Thomas von Aquin (Misc. med., 19)*. Berlin, New York, W. de Gruyter, 1988, 156-160.

A. describes briefly the proper method and tendencies of Thomas' philosophy, in contradistinction to I.S. and Ibn Rushd. She tries to show how the Aquinate in an eclectic way makes use of both Avicennian and Averroistic elements. For this purpose, she points to three so-called exemplary cases of the Thomistic doctrine, but their actual formulation by A. is surrounded by a profound ambiguity (maybe due to the use of poor French).

A rather general, and, indeed, confused paper.

(12) LEE, P., St. Thomas and Avicenna on the Agent Intellect, in : *The Thomist*, 45 (81), 41-61.

A.'s point of departure is the distinction between three landmarks in the history of Aristotelianism :

1. Its Neo-Platonic transformation by I.S.;
2. Averroes' attempt to resolve all the inconsistencies in the Aristotelian psychology, on purely Aristotelian grounds;
3. Thomas' enterprise to remove these same inconsistencies by moving beyond Aristotle.

By way of illustration A. concentrates on the theory of the Agent Intellect (however paying little attention to landmark 2). In this respect, he offers a succinct, but valuable summary of I.S.'s theory of knowledge (based on the critical edition of the *De Anima* of the *Avicenna Latinus*). He observes that I.S.'s doctrine, although Aristotelian in language and inspiration, turns out to be more Neo-Platonic in a larger frame. He even remarks most significantly that I.S.'s Aristotelianism slides back by its own momentum into a Platonic view of man. More specifically the spirituality of the intellect pushed I.S. to 'platonize man'. Thomas rejected this Avicennian step. By placing the Agent Intellect inside man, Thomas arrived at the inclusion of matter inside intelligibility.

Although not really innovative, a most valuable paper, insofar as it synthesizes the most essential features.

(13) ROUSSEAU, M., Avicenna and Aquinas on Incorruptibility, in : *New Scholast.*, 51 (77), 524-536.

A. argues that Thomas' argument for the incorruptibility of the human soul (*Summa Theologiae*, I, 75, 6) is based on I.S. (*De Anima*, V, 4), notwithstanding the absence of any explicit reference in Thomas' text to I.S. To substantiate her view, A. invokes resemblances in structure (basically the argument is developed according to a two-fold pattern), as well as in contents (e.g. the arguing from the operations of the soul to its attributes; the analysis of abstract intellection as the premise for establishing the immateriality and the incorruptibility of the soul;

the acceptance of the soul's substantiality and simplicity). However, she is not blind to the evident differences that separate Thomas from I.S., especially since they concern such important topics as the soul-body relation, or the very idea of abstraction.

A valuable case study of Avicennian influence on Thomas (not supported by explicit references), although one may wonder whether A. does not underestimate the real significance of the tremendous distance that separates Thomas' fundamental concept of man from I.S.'s point of view in this matter?

(14) SILVA CASTRO, E., Santo Tomás, Avicenna, Averroes, in: *Est. PP. de la Merced*, 30 (74), 371-406.

After a long introduction treating Thomas' dependence on previous Arabic (and Jewish) thought, A. discusses in more detail the relationship of the Aquinate with I.S., and, in an even more laborious way, Averroes. His views are almost exclusively based on secondary literature (of which he seems to have a good knowledge, although he clearly ignores such an important contribution as Vansteenkiste's, concerning the Avicenna-citations in Thomas, in: *Tijdschrift voor Filosofie*, 15 (53), 457-507).

A good, but rather unscholarly paper.

(15) TOGNOLO, A., Il problema della struttura metafisica dell' uomo in Avicenna e Tommaso d'Aquino, in: *Actas V. Congr. Int. Filos. Med.*, II, 1283-1289.

Having opposed the so-called Avicennian essentialism and the Thomistic existentialism, A. offers a brief description of their respective concepts of man.

A rather insignificant paper, lacking originality.

(16) USHIDA, N., Le problème de la forme substantielle chez St. Thomas d'Aquin et Avicenne, in: *Actas V. Congr. Int. Filos. Med.*, II, 1325-1329.

Acc. to A., Thomas' theory of the unity of the substantial form implicates an overestimation of the role of form inside the hylemorphic doctrine. Thomas would have derived this 'formalism' from I.S., who defended the unity of the soul out of a transcendental idealism.

Good, but A. offers no single reference to a basic text.

(17) WIPPEL, J., Thomas Aquinas and Avicenna on the Relationship between First Philosophy and the Other Theoretical Sciences. A Note on Thomas' *Commentary on Boethius' De Trinitate*, Q. 5, art. 1, ad 9, in: *The Thomist*, 37 (73), 133-154; also in: J. WIPPEL (Ed.), *Metaphysical Themes in Thomas Aquinas*. Washington, Cath. Univ. of America Press, 1984, ch. 2, 37-53.

One finds in Thomas a triple denomination of the metaphysical science: theology, metaphysics and first philosophy. The latter refers to the fact that the other sciences derive their principles from it. But, A. asks, whether metaphysics should not be placed before the other sciences? Thomas himself was well aware of this problem. In replying to it, he clearly parallels I.S.'s *Metaphysics*, I, 3, as is shown in a convincing way by A. (who observes that the Thomistic distinction *naturaliter - quoad nos* seems implicitly present in I.S.'s thought on this matter). So, Thomas demonstrates that metaphysics is in some way dependent upon natural sciences as well as upon mathematics. But does this not involve a circular reasoning? Confronted with this new difficulty, Thomas elaborates a further, but very ambiguous solution, which permits of two essentially different readings. A. carefully analyzes each of them, and offers some strong arguments in favour of what he considers to be the second version - esp. based on a comparison with I.S. A. concludes that Thomas closely follows I.S., although most of the time he shortens the latter's arguments.

A most accurate presentation of a significant case of Avicennian influence on Thomas, although one gets the impression that A. sometimes overvalues I.S.'s impact on Thomas.

## III. OTHER MEDIEVAL AUTHORS

(1) ABU SHANAB, R., Avicenna and Ockham on the Problem of Universals, in : *Pakistan Philos. J.*, 11 (73), 1-14.

A. shows how, and to what extent Ockham's discussion of the problem of universals is based on I.S.'s proposed solution for that problem. With E. Moody, he recognizes three different positions in Ockham concerning the nature of the concept or intention. The Avicennian origin of the first - which declares the concept a real quality in the soul - is certain, since Ockham himself often attributes it to I.S. Also the second - stating that a concept is a mental fiction - calls for an Avicennian inspiration, insofar as Ockham and I.S. seem to agree that the idea of universality is not an actual existent except in thought. The third, which is Ockham's preferred position, views the universal as nothing other than the act of understanding. Hereby, A. points to some similarities, but, at the same time, some dissimilarities with I.S.'s discussion in this respect.

Probably the first systematic study on the presence of an Avicennian influence in Ockham, and, as such, very meritorious, but one wonders whether Ockham did undergo this influence directly, or indirectly, and if other aspects of his thought are traceable to I.S.?

(2) D'ALVERNY, M.-TH., Une rencontre symbolique de Jean Scot Erigène et d'Avicenne. Notes sur, le *De Causis. Primis et Secundis et Fluxu qui consequitur eas*, in : S. O'MEARA and C. BIELER (Eds.), *The Mind of Eriugena*. Dublin, Irish Univ. Press, 1973, 170-181.

A. presents the *De Causis...* as a remarkable synthesis of three different Neo-Platonic systems : the Proclean, according to its version in the *Liber de Causis*; the Avicennian and the Scotian. The (well reasoned) choice of textfragments in the *De Causis...* reveals that its main purpose is to establish a connection between Eriugena's idea of 'exemplar' and the emanative system of the Arabic sources. However, a full coherence in this respect was never realized. Moreover, A. preoccupies herself with the delicate problem of its datation (for her, most probably in the beginning of the 13th C.) and its authorship (A. presents strong evidence that it was someone belonging to the circle of the naturalists). The extant manuscripts, of which A. gives a complete list and a detailed description confirm the particular role played by the British intelligentsia of the 13th C. in reintroducing the work. Besides, A. discusses in a most enlightened way how one can conceive its attribution to I.S. - in spite of the presence of large extracts of Christian authors!

A very fine study, finally establishing the origin of the *De Causis...*, and offering precious insights regarding its contents.

(3) BIRKENMAYER, A., Avicenna und Roger Bacon, in : *Etudes d'Histoire des Sciences et de la Philosophie du Moyen Age (Studia*



*copernicana*, 1). Wrocław, Zakład Narodowy im Ossolinkich, 1970, 89-101.

Repr. of A.'s paper from the *Revue néo-scholastique de philosophie*, XXXVI (34), 303-320, where its title more significantly ran: Avicenna's Vorrede zum *Liber Sufficientiae* und Roger Bacon.

(4) CORTABARRIA, A., Avicenne dans le "*Pugio Fidei*" de R. Martin, in: *MIDEO*, 19 (89), 8-16.

A. briefly presents citations from I.S.'s *Ishârât* (2 x), *Najât* (1 x) and 2 other unattributed ones (A. points to the *De Anima* for one of them, but this is obviously mistaken) in the *Pugio Fidei*.

Interesting, but limited to a very primary outline (see also *supra*, I 15).

(5) GILSON, E., *Pourquoi S. Thomas a critiqué S. Augustin, suivi de : Avicenne et le point de départ de Duns Scot.* Paris, Vrin-reprise, 1981, 1986.

Repr. of: *AHDLMA*, 1 (26), 5-127 and 2 (27), 89-149.

(6) HUGONNARD-ROCHE, H., La classification des sciences de Gundissalinus et l'influence d'Avicenne, in: *Etudes sur Avicenne*, 41-75.

A. examines in detail Gundissalinus' theory on the division of the sciences, according to the *De divisione philosophiae* - omitting however the discussion of the division of the practical sciences. Aside the *kephalaia* of the Neo-Platonic introductions to philosophy, and al-Fârâbî (whose *De Scientiis* was translated by Gundissalinus himself), I.S. appears as one of the major sources of that theory. This is proven by the presence in the middle of the treatise of a Latin translation of *K. al-Burhân, Book of Demonstration*, V, 8, of the *Shifâ* (it has to be noted that this seems to be the only extant fragment of a translation into Latin of that logical work of I.S.). Further, the evidence of a strong Avicennian (and, acc. to A., also Ghazzalian) input in Gundissalinus' tripartite division of the theoretical philosophy posits a new confirmation of a real Avicennian influence (as Gundissalinus' changing attitude towards the sciences also does). Finally, the fact that Gundissalinus based the classification of the sciences on the proper 'subject-matter' of each science, and the way in which he conceived the subordination between the different sciences, also point in the same direction.

A very fundamental paper.

(7) KURDZIALEK, M., Der Anteil einiger mittelalterlichen Ärzte und Naturwissenschaftler in der Rezeption der philosophischen Schriften Avicennas und Averroes, in: *Stud. Philos. Christ.*, 9<sub>2</sub> (73), 5-18 (Pol); 18-19 (Germ S.).

The same as 8?

(8) ID., Die ersten Auswirkungen Avicennas *Liber de Anima seu Sextus de naturalibus* und Averroes' *Metaphysik* auf die Lateiner, in : *Actas V. Congr. Int. Filos. Med.*, II, 897-903.

A. focuses on Gilbertus Anglicus, and his *Compendium medicinae*. One of the major aims of this work seems to have been the bridging of the gap between the Platonic-Augustinian and the Aristotelian-Peripatetic theories of the soul. An important role was accorded hereby to I.S.'s *De Anima*, and most specifically to the latter's theory of the two faces of the soul - Gilbertus concentrating above all on the lower face. Moreover, Gilbertus was undergoing some indirect Avicennian influence through his main source, the *Quaestiones Nicolai peripatetici* (at almost an equal level, one also finds Averroistic elements in both the *Quaestiones* and Gilbertus' *Compendium*).

An interesting study - showing that I.S.'s (and Ibn Rushd's) influence was not limited to philosophical literature only, even in the period immediately after the introduction of their works in the Latin Middle Ages.

(9) LINDGREN, U., Avicenna und die Grundprinzipien des Gemeinwesens in Francese Exeimenis' *Regiment de la cosa publica*, in : A. ZIMMERMAN (Hsg.), *Soziale Ordnungen im Selbstverständnis des Mittelalters* (*Misc. Med.*, 12). 2 vol. Berlin, N.Y., W. de Gruyter, 1980, II, 449-459.

A. points to the existence of several citations of I.S. in the "*Regiment...*" of the late medieval author F. Exeimenis, most of them deriving from *Metaphysics*, X. An accurate analysis shows that Exeimenis adopts them sometimes, but clearly not always, in his own theory. However, A. detects a more significant Avicennian influence in Exeimenis' idea that justice constitutes the highest principle of order in the state. But A. also insists that I.S. is not the only source of Exeimenis, and even not the most important one.

An honest paper, which proves that even in late medieval political thinking I.S. was not completely ignored (the paper justifies in our view no stronger conclusion).

(10) MACKEN, R., Avicenna's Auffassung von der Schöpfung der Welt und ihre Umbildung in der Philosophie des Heinrich von Gent, in : J. BECKMAN, L. HOONFELDER, G. SCHRIMPF u. G. WIELAND (Hsg.), *Philosophie im Mittelalter. Entwicklungslinien und Paradigmen*. Hamburg, F. Meiner, 1987, 245-257.

After a brief survey of I.S.'s theory of creation, A. points to the fact that Henry of Ghent recognizes in I.S. a kind of mediary position regarding the non-being in creatures. But, whereas I.S. limits himself to the acceptance of a sole mental non-being, Henry goes further and defends a real non-being - mainly in order to safeguard the temporal beginning of the world. With respect to this latter idea, Henry believes contrary to Thomas Aquinas and Aegidius Romanus, that it could even be proven by reason, based on a consideration both *ex creaturae* (A.

points to Henry's theory of metaphysical transformation) and *ex creatoris* (A. refers to Henry's doctrine of predestination).

A very fine paper, indicating the specific, but well delimited significance of I.S. for Henry of Ghent, at least in this particular field.

(11) ID., *Henri de Gand et la pénétration d'Avicenne en Occident*, in : *Philosophie et Culture (Actes 17. Congr. Int. de Philos.)*. Montréal, Montorency, 1988, vol. III, 845-850.

After some general remarks on I.S.'s influence on medieval Christian thought, A. concentrates on the reception of I.S. by Henry of Ghent. He particularly stresses the fact that Henry did understand the distinction between essence and existence as an intentional (therefore, not real) distinction. Regarding Henry's spiritualistic concept of man (which also derived from I.S.), A. remarks that Henry in his later years replaced the idea of the unity of the substantial form by that of dimorphism (a concept particular to him). Finally, in Henry's noetics, A. observes an evolution from the usual scholastic doctrine towards a more spiritual, illuminative doctrine (in the way of I.S., but Henry stresses the human will and freedom more than I.S.).

An interesting paper, but in need of some further development.

(12) THOMASSEN, B., *Metaphysik als Lebensform. (Beitr. zur Gesch. Philos. u. Theol. des Mittelalters, NF.-B. 29)*. München, Aschendorfer, 1985, Kap. II. *Der Aufbau und die Teile der Metaphysikparaphrase*, 12. *Vergleich mit Averroes und Avicenna*, 25-34.

A. convincingly demonstrates that Albert the Great did not undergo any Avicennian influence in the proper construction of his paraphrase of Aristotle's *Metaphysics* (Albert being rather indebted to Averroes in this respect). For A., one finds at most some elements of Avicennian inspiration regarding some particular items - and even then almost never in an unmodified way!

A succinct, but significant clarification of the significance of I.S. for Albert.

(13) WOREK, J., *Avicennismus und Averroismus in gnoseologia Gregorii Ariminensis, O.S.A. († 1358)*, in : *Actas V. Congr. Int. Filos. Med.*, II, 1359-1370.

Acc. to A., Gregory of Rimini's gnoseology respires a profound anti-Ockhamian character, and has Augustine as its main source. However, Gregory's theory of the intellectual cognition of the sensible singular, reveals a secondary influence of Averroes, and also, but to a lesser extent, of I.S. This fact becomes evident by the explicit presence of references to both Arabic authors in the *Comments on the Librum Sententiarum*. Moreover, I.S. appears as an explicit source of Gregory's doctrine on practical cognition - but A. offers no detailed analysis of this particular influence.

A rather preliminary study - indicating possible *loci* of Avicennian influence on Gregory of Rimini.

## IV. RENAISSANCE AND THE MODERN AGE

(1) ARNALDEZ, R., Un précédent avicennien du cogito cartésien?, in : *Annales Islamologiques*, 19 (72), 341-349.

In the beginnings of I.S.'s *De Anima* a most difficult aporia concerning the proper nature of the soul appears. A. convincingly shows that I.S. consciously elaborates on it. Thus he arrives at the conclusion that the physical method, which only allows of a knowledge "with respect to", cannot solve the question of what the soul really is. Consequently, I.S. radically changes his method - considering the soul in its essence, but at the same time limiting his inquiry to the human soul. This resulted in the famous argument of the 'flying man'. It reveals that I.S. has recognized the intuition of thought by itself, although not in the indubitable way of the Cartesian *cogito*. A. rightly observes that I.S. adhered to medieval roots, which prevented him in discovering the Cartesian solution - his main interest consisting in opening a perspective for the resurrection of the soul.

A most serious and valuable study, but to be complemented by 3.

(2) ARSLAN, A., Das Problem der Beziehungen zwischen Philosophie und Religion bei Ibn Sînâ und Spinoza, in : *Ulusl. I.S. Semp.*, 377-411 (Tu); 412-413 (Germ S.).

Acc. to S., A. considers I.S.'s theory on the relation between philosophy and religion as a further development of al-Fârâbî's conception of this topic. Moreover, he detects several affinities (notwithstanding crucial differences) between Spinoza's idea in this field and the Farabian-Avicennian view, enumerating the following ones: The essentially moral-practical value of Revelation; The metaphorical expression by Revelation of the essential philosophical truths on the level of the masses; The existence of a particular intellectual faculty in the prophet; The radical distinction between imagination and intelligence; And the privilege of the intellectual élite not to observe the prescriptions of religious law.

At first sight, an interesting paper, but one may wonder whether there is really such a profound continuity between I.S. and al-Fârâbî on this particular matter?

(3) DRUART, TH.-A., The Soul and Body Problem: Avicenna and Descartes, in : TH.-A. DRUART (Ed.), *Arabic Philosophy and the West. Continuity and Interaction*. Washington, Georgetown Univ., Center for Cont. Arab. Stud., 1988, 27-49 (followed by : MCTIGHE, Th., Further Remarks on Avicenna and Descartes, *ibid.*, 51-54); also in : *Al-mustaqbal al-'arabî*, 58<sub>6</sub> (83), 113-126 (Ar).

A. carefully compares Descartes' idea of the *cogito* with I.S.'s "Flying Man"-argument. In both cases, the method of access of the human soul, or of the

human mind, to itself is some kind of process of self-reflection that uncovers something already present, but hidden. In both cases, the unity of consciousness is also corroborated, albeit in a somewhat different way: I.S. shows by an imaginary experiment that the consciousness of oneself does not depend on the body, or even on different human faculties, whereas Descartes makes sensation, imagination and will into different aspects of the thought process, of the same thinking being qua thinking. In both cases, moving from a distinction of reason to a real distinction does justify the claim that the soul is distinct from the body (but Descartes, contrary to I.S., cannot automatically sustain this - he first needs to prove the existence of God). Finally, both authors affirm the immateriality and the immortality of the soul (although only I.S. really offers a proof for the latter). A. concludes that both I.S. and Descartes adhered to a dualistic conception of man, but rejected a strict dualism by accepting a connection between soul and body. But whereas for Descartes this connection was rather natural, and hence the distinction of the soul from the body rather problematic, quite the contrary is true concerning I.S. - the distinction being basic and the connection quite uncertain.

A very fine, and highly significant paper.

McTighe's remarks are rather of a secondary kind, expressing a more personal view, with one exception: his remark that Descartes considered the soul exclusively as a substantial reality, and no longer, as in I.S., as both substance and form.

(4) GOGACZ, M., *La métaphysique de Plotin, du Liber de Causis et d'Avicenne comme point de départ de l'idée héliocentrique de l'univers dans "De Revolutionibus de N. Copernic"*, in : *Actas V. Congr. Int. Fil. Med.*, II, 789-795.

A. tries to demonstrate that the astronomical theory of Copernic took its point of departure in Neo-Platonic metaphysics - its basic idea being the perfect order of the *Kosmos*. A. makes only one brief reference to I.S.'s theory of the higher Intelligences. Hereby, A. seems to consider I.S. as a typical instance of Neo-Platonic metaphysics.

A quite interesting paper, but without importance as far as one is concerned with the study of I.S.

(5) RUSSELL, G., *The Impact of Ibn Sînâ via Ḥayy ibn Yağzân*, in : *Ulusl. I.S. Semp.*, 307-315 (Engl), 315 (Tu S.).

A. argues that I.S.'s psychology, mediated by Ibn Ṭufayl's *Ḥayy ibn Yağzân*, had a great influence on 17th and 18th C. European thought, due especially to Pocock's Latin translation of Ṭufayl's work. Such thinkers as Leibniz and Locke expressed their great admiration for Ṭufayl's tale. A. situates the impact of *Ḥayy* also inside the wider cultural context of both centuries (the becoming aware of the perfectibility of human nature).

A good paper, but precisely to what extent does Ṭufayl's *Ḥayy* reflect the basic psychological insights of I.S.?

(6) ID., The Impact of Ibn Sîna's Psychology via Ḥayy ibn Yağzân, in : *Proc. 16th Int. Congr. Hist. Sciences*, 390.

Summary of 5.

(7) ŠAMIN, A., Avicenna's Works in Europe during the Renaissance, in : *Vopr. Ist. Estest. Tekhn.*, 1980<sub>4</sub>, 73-76 (Ru); also in : *Proc. 16th Int. Congr.*, 392 (Ru S.).

(8) SCHIPPERGES, H., Zur Typologie einen 'Avicenna Hispanus', in : *Sudhoffs Archiv*, 57 (73), 99-101.

A. points to some precise facts, in demonstrating the belief in an "Avicenna Hispanus" in Spain between the 16th and the 18th century.

Useful, but A. seems to be unaware of M.-Th. D'ALVERNY, *Survivance et renaissance d'Avicenna à Venise et À Padoue*, in: A. PERTUSI (Ed.), *Venezia e l'Oriente tra tarde Medioevo e Rinascimento*. Venezia, Sansoni, 1966, 75-102 (which explicitly deals with the legend of an Avicenna Hispanus).

(9) SCRIMIERY, G., Sulla lettura avicenniana di Andrea Alpagò Bellunese, in: L. OLIVIERI (Ed.), *Aristotelismo Veneto e scienza moderna (Saggi e Testi, 17-18)*. 2 vol. Padova, Antenore, 1983, II, 949-959.

A. concentrates on Alpagò's skill as a translator of I.S., distinguishing three major groups of works: The *Canon* (A. stressing the superiority of Alpagò's translation over Gerard's); Philosophical treatises (A. pointing to the fact that Alpagò's explicative comments, *declarationes*, may still be considered as an example of good hermeneutics); and *Comments on the Canon* (especially Ibn al-Nafis - Alpagò arriving here at the peak of his philological-scientific skills). A. concludes with the examination of a doctrinal point, i.e. in what sense I.S.'s concept of man is spiritualistic? No doubt, for Alpagò spiritualistic it is, but for him no identification can exist in I.S. between the spiritual and the incorporeal, a fortiori the abstract intelligible - Alpagò referring hereby to the notion of *spiritus* in the *Canon* (A. agrees with Alpagò on the necessity of a simultaneous reading of I.S.'s psychological and medical works). So, the soul is only spiritual by means of 'intention'-body and bodily spirits being only instrumental with respect to it.

An informative and stimulating paper-exhibiting a (too?) great sympathy for the deserving translator that Alpagò was.

(10) STROHMAIER, G., Avicenna's *Ḥayy ibn Yağzân* und Dantes *Commedia*, in : *Acta Ant. Ac. Sc. Hung.*, 29 (81), 73-80.

(11) ID., *Chaj ben Mekitz* - die unbekannte Quelle der *Divina Commedia*, in : *Deutsches Dante Jahrbuch*, 55/56 (80-81), 191-207.

(12) ID., Platonische Psychologie in allegorischer Verkleidung von Avicenna bis Dante, in : *Avicenna / Ibn Sînâ*, II, 51-61.

(10-12 : A. presents I.S.'s *Ḥayy*, but even more Ibn Ezra's reelaboration of it, as the original model for Dante's *Commedia* (11 pays attention to the specificity of Ibn Ezra's version, and its proper significance for Dante). Among the most striking similarities, A. evokes Beatrice, in the *Comedia* an earthly person who possesses cosmological knowledge - clearly corresponding with *Ḥayy*, The Agent Intellect; the division of the Universe in an Eastern and a Western region; the linkage of human 'groups' with the celestial spheres, and the presence of the sphere of fire above the purgatory. But, above all, there are the three animals of the first song of the *Inferno* - representing the three Platonic parts of the soul. Now, I.S.'s tale clearly implies a Platonic psychology although in a somewhat modified, or even corrected form - I.S. replacing the hierarchical structure which Plato had established between the different parts of the soul, by a more harmonic model (A. notes that I.S. categorically rejects the ultra-Platonic, Ismailite theory of three different souls inside a human being).

An excellent case-study, especially when one takes the three papers together - they being rather complementary than overlapping.

(13) SWIEZAWSKI, S., Notes sur l'influence d'Avicenne sur la pensée philosophique latine du XV. S., in : *Recherches d'Islamologie. Recueil d'articles offert à G.C. Anawati et L. Gardet par leurs collègues et amis* (*Bibl. philos. Louvain*, 26). Louvain, Peeters; Louvain-la-Neuve, I.S.P., 1977, 295-305.

A. indicates the existence of a more or less important Avicennian influence on such thinkers as Hugues of Benzi and Ficinus, especially on the particular item of the classification of the internal senses (A., in this context, briefly evokes also the anti-Avicennian reaction, incarnated by Paracelsus). But, on the philosophical side, I.S.'s major influence concerned metaphysics. A. observes a growing tendency to interpret his essence-existence distinction in an essentialist way (a fact shown by Scotism, but also by such a Thomistic author as Cajetan). He moreover detects in the Latin Avicennism a move from metaphysical potentiality to logical possibility.

A good introductory paper-mainly based on (valuable) secondary sources.

## B. Ibn Sînâ and Jewish thought

(1) GLUSKINA, G., "Chaj ben Mëkîz" of Ibn Ezra and "Ḥayy ibn Yağ-zân" of Ibn Sînâ, in: *Vostokovendenio I* (74) (= *Ucenye zapiski Leningradskoyo-univ.* 374, ser. *vost. nauk*, v. 17), 93-106 (Ru).

(2) PINES, S. and SULER, B., art. Avicenna, in: *Encyclopedia Judaica*. Jerusalem, 1971, vol. 3, 955-960.

Both authors present I.S.'s major contributions in the philosophical and medical fields respectively, before discussing the ancient Hebrew translations of I.S.'s works in each of the two fields. As far as philosophy is concerned, Pines presents concrete elements of Avicennian influence in Jewish thinkers, especially in Maimonides (but A. warns of a too Avicennian interpretation of Maimonides' philosophy) and in Abraham ibn Daud.

A useful basic outline for further research.

(3) ROSENTHAL, E., Avicenna's Influence on Jewish Thought, in: *Studia Semitica*. 2 vol. Cambridge, Cambridge Univ. Press, 1971, II, 93-114.

Repr. of G. WICKENS (Ed.), *Avicenna: Scientist and Philosopher*, London, 1952, 66-83.

(4) VAJDA, G., Un champion de l'avicennisme. Le problème de l'identité de Dieu et du premier moteur d'après un opuscule judéo-arabe inédit du XIII. S., in: D. GIMARET, M. HAYOUR and J. JOLIVET (Eds.), *G. Vajda-Etudes de théologie et de philosophie arabo-islamiques à l'époque classique*. London, Variorum Reprints, 1986, Tr. IX.

Reprint of *Revue Thomiste*, 48 (48), 480-508.



## C. Ibn Sînâ and Indian Thought

(1) RIZVI, A., *Ibn Sînâ's Impact on the Rational and Scientific Movements in India*, in : *Ind. J. Hist. Sc.*, 21 (86), 276-284.

Having reviewed the vehement struggle against Rationalists and Scientists by both theologians and mystics in classical Islamic times, A. points out that I.S.'s thought always remained influential, even in the Indian subcontinent. Especially during the 15th and 16th centuries, a vivid interest existed in that area regarding I.S.'s medical, scientific and philosophical ideas (e.g. Miyân Bhûwa, Sultan Sikandar Lodî, Khatîb Abu'l-Fazl, Fathu'l-lâh Shîrâzî). Even in the 17th-19th centuries, one still finds elements of Avicennian influence, as is shown by A. A very interesting paper, especially since it enlightens us on an unexplored domain of Avicennian influence - but still in need of a more detailed presentation.

## Chapter XV

# Sciences

A. GENERAL

B. 1. MATHEMATICS

2. MUSIC

C. PHYSICS

D. OPTICS

E. ASTRONOMY AND ASTROLOGY

F. CHEMISTRY AND ALCHEMY

G. GEOLOGY AND GEOGRAPHY

H. APPLIED SCIENCES

See also :

I, A II, Tr. II, St. 1

IV, A 14 (nr. 5-6)

XI, A 1; XI, C 3

XII, 3

XVI, A 36 (Biology)

## A. General

(1) AKHADOVA, M., Some Works on Ibn Sînâ in Mathematics and Physics, in: *Matematika*, 41-47 (Ru).

(2) ANAWATI, G.C., art. Ibn Sînâ. Philosophy and Science, in: *Dictionary of Scientific Biography*. New York, 1975, Suppl. I, 494-498.

A. presents a basic outline of I.S.'s most important scientific ideas, i.e. body, movement, time-space and the classification of the sciences.

Valuable, although introductory.

(3) ID., Ibn Sînâ's Contribution to the Development of the Sciences, in: *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 16-42 (Ar); also in: *Al-shaykh al-ra'îs*, 52-86 (Ar).

A. enumerates and also analyzes three particularly original characteristics of Ibn Sînâ's scientific method: an extraneous power of observation, an inclination towards the investigation of practical experiences, and a critical examination of the existing scientific theories. A. stresses that I.S. still did understand science in its Aristotelian form as the knowledge of a thing by its causes. Out of this fundamental perspective one has to understand I.S.'s division of the sciences, of which A. offers a detailed description. To conclude A. outlines I.S.'s major influences in the scientific field, esp. in medicine, upon the West.

The paper offers a good introduction to I.S.'s general scientific attitude.

(4) ARNALDEZ, R., The Theory and Practice of Science according to Ibn Sînâ and al-Bîrûnî, in: *al-Biruni Commemoration Volume*. Karachi, Times Press, 1979, 428-436; also in: *Stud. Philos. Med.*, 1 (77), 58-69.

A. convincingly demonstrates that I.S. did believe in the ideal of the 'philosophia perennis', which had to furnish *the* ontological framework for the whole universe, as well as *the* epistemological framework for the universal thought. So, I.S. was more interested in universal theoretical ideas than in concrete facts. A. sustains this interpretation by referring to some medical concepts of I.S. Acc. to A., in all this I.S. is diametrically opposed to al-Bîrûnî, who he considers to be a kind of predecessor of modern mathematical science.

A very fine analysis of I.S.'s basic scientific attitude.

(5) ASIMOV, M. and YAROSKEVSKII, M., A Great Encyclopaedist and Natural Scientist, in: *Vopr. Ist. Estest. Tekhn.*, 1980<sub>4</sub>, 70-72.

(6) BAG, A., Ibn Sînâ and Indian Science, in : *Ind. J. Hist. Sc.*, 21 (86), 270-275.

Acc. to A., Āyurvedic medical works, as well as Indian mathematical and astronomical writings were available to I.S., and somehow influenced his scientific thought. A. gives a few concrete indications of such influence, as e.g. I.S.'s acceptance of the method of testing the simplest function by using the number 9. An interesting case-study on one of I.S.'s sources in the scientifico-medical field, although one may wonder whether A. does not overrate its significance?

(7) BARATOV, R., Ideas of Ibn Sînâ in Natural Science, in : *Acta Ant. Acad. Sc. Hung.*, 29 (81), 49-55; also in : *Izv. Akad. Nauk Tadj. SSR. Otdel. Fiz.-Mat. i Geol.-Khim. Nauk*, 1981<sub>1</sub>, 52-57 (Ru).

A brief enumeration of different scientific topics and/or observations in I.S. Honest, but of no great importance.

(8) BAUSANI, A., Some Considerations on Three Problems of the Anti-Aristotelian Controversy between al-Bîrûndî and Ibn Sînâ, in : A. DIETRICH (Hsg.), *Akten des VII. Kongr. für Arabistik und Islamwissenschaft*. Göttingen, Vandenhoeck u. Ruprecht, 1976, 74-85.

A. analyzes the questions 4 (divisibility of bodies), 2 (eternity of the world and perfection of the heavens) and 5 (plurality of worlds) of the famous *al-As'îlah wa 'l-ajwibah* (*Answers and Questions*), which reflect an exchange of ideas between al-Bîrûndî and I.S. Hereby, A. shows the empiricist mentality of al-Bîrûnî, which sharply contrasts with the purely theoretical adherence of I.S. to the Aristotelian logic and physics. A. concludes that the former did seriously challenge the generally accepted Neo-Platonic-Aristotelian system, and arrived at an interesting combination of empirism and demythologized "religion".

An interesting paper, almost in the same line as 3, but paying more specific attention to al-Bîrûnî.

(9) BRENTJES, S., Ibn Sînâ als Naturwissenschaftler und Mathematiker, in : *Ibn Sînâ, der fürstliche Meister* (V, A 6), 59-77.

A. characterizes I.S.'s scientific attitude as basically Aristotelian, although there are also some Neo-Platonic influences detectable. She summarizes I.S.'s main ideas in the physical and mathematical domains. Hereby, she always indicates I.S.'s sources (Greek and/or Arabic), but also stresses his innovative ideas (showing a slight tendency to overemphasize them).

A good introductory paper - although A. seems sometimes to become victim of her inclination to detect - wherever 'possible' (?) - pre-materialistic conceptions in I.S.

(10) CROMBIE, A. (transl. TÜRKER-KÜYEL, M.), Avicenna's Influence on the Medieval Scientific Tradition, in: *Ibn Sînâ. Doğumunun...*, 21-40 (Tu).

Turkish translation of Crombie's paper, originally published in: G. WICKENS (Ed.), *Avicenna: Scientist and Philosopher*. London, Luzac, 1952, 84-108.

(11) DINORSHOEV, M., *Naturfilosofiy Ibn Siny (The Philosophy of Nature of Ibn Sînâ)*. Dushanbe, Donish, 1985.

(12) FARRUKH, M., Ibn Sînâ, the Scientist, in: *Al-dhikr...*, 41-58; also in: *Qadâyâ 'arabiyya*, 9<sub>1</sub> (82), 31-39.

I.S. was not a slavish follower of the Greeks, as al-Ghazzâlî, Ibn Tufayl and Ibn Rushd already admitted. Instead, he was the Islamic Aristotle - although he did not attain the same originality as the Stagirite. In order to demonstrate the validity of this claim, A. evokes I.S.'s general contribution to the progress of human knowledge, and, more specifically, to the development of the sciences. The larger part of A.'s paper is devoted to a few concrete examples in this latter respect, i.e.: I.S.'s theory of mutual attraction (acc. to A., it somehow prefigures Newton - but I.S.'s approach, notwithstanding its great ingenuity, remains theoretical-philosophical); some of I.S.'s opinions linked with the opposed couple heat-cold, or with the senses of hearing and seeing (A. always distinguishes between correct and erroneous opinions); and, finally, I.S.'s chemical doctrine (A. insists that it is basically a theory of coloration, and that I.S. rejects any substantial change). It has to be noted that A. always uses primary text-fragments from various works of I.S.

Notwithstanding its introductory character, a very fine study.

(13) HOME, W., Ibn Sîna and Western Historians of Science, in: *Isl. Q.*, 25 (81), 75-85.

A. uses I.S. just as an example case in order to demonstrate that ancient scientists were either ignored (esp. in the 17th C.), or looked upon with disdain (esp. in the 19th C.) by Western historians of science. A. suggests that ancient thinkers have to be studied in their own right.

The basic assumption of A. is right, but almost trivial!

(14) 'IRÂQÎ (AL-), M., *Al-falsafat at-ṭabi'iyya 'inda Ibn Sînâ (Natural Philosophy in Ibn Sînâ)*. Cairo, Dâr al-ma'ârif, 1971, 448 pp.

Books 1-3 of the *Natural Sciences* of the *Shifâ, The Cure*, form the main source for A.'s basic overview of the central issues of I.S.'s natural philosophy. So, after an analysis of some fundamental preliminary notions, such as substance, matter, form or cause, special attention is paid to the main physical issues: movement, time, place, the void, and the structures of the infra- and the supra-lunar worlds.

Among A.'s most significant insights, we may cite the following:

1. The existential, not essential need of the corporeal form for prime matter (in

this respect A. largely bases his interpretation on F.D. Râzî's and Tûsî's Commentaries on I.S.'s *Ishârât*);

2. I.S.'s criticism - in the line of Aristotle - of the contention that matter is the nature of things;
3. I.S.'s failure to formulate a substantial criticism of Democritus' theory on coincidence;
4. I.S.'s rejection of the *kumûn*-theory of al-Nazzâm;
5. I.S.'s acceptance of the unity of movement, proving it out of the unity of form;
6. I.S.'s attributing a kind of material meaning to the present time;
7. I.S.'s refutation of the existence of the void;
8. I.S.'s distinction between natural and violent inclination.

A. offers a good summary of the *Samâ' at-Tâbî'î* of the *Shifâ*, but of a rather general, and sometimes even redundant kind. Nevertheless, one may find some interesting insights.

(15) KAHYÂ, E., The Scientific Aspect of Avicenna, in: *Kayseri-Kongr.*, 50-56 (Tu).

(16) KHAIRULLAEV, M. and ZAHIDOV, A., Little-known Pages of Ibn Sînâ's Heritage, in: *Vopr. Filos.*, 1980<sub>7</sub>, 76-83.

Authors refer to (sometimes lesser known) works of I.S. in order to demonstrate that he is fundamentally a defender of the natural sciences. It is note-worthy that authors mention a certain *R. fî taqsîm al-mawjûdât*, *Tr. on the Division of the Existent Beings* (as far as can be determined, not mentioned by Anawati, nor Mehdavî).

A good, but somewhat unilateral approach of I.S.'s thought.

(17) KHAIRULLAEV, M., The Problem of the Systematization of Scientific Research in the Medieval Near and Middle East, in: *Avicenna / Ibn Sînâ*, 51-60 (Ru).

(18) LISTFELDT, H., Some Concepts of Matter of Avicenna, Averroes, St. Thomas and Heisenberg, in: *Aquinas*, 17 (74), 310-321.

Heisenberg's concept of matter forms the central issue of this paper. I.S., Averroes and Thomas Aquinas are presented as having somehow prepared the way to Heisenberg - the problem of mixture remaining their major difficulty. A.'s presentation of I.S.'s thought is highly dependent upon A. MAIER's *An der Grenze von Scholastik und Naturwissenschaften*. 2. Ed. Roma, 1952.

A.'s explanation of the '*Dator formae*' (sic) cannot but surprise, insofar as the Giver of the form(s) is identified with God Himself!

(19) MADKOUR, I., Ibn Sînâ savant, in : G. HOURANI (Ed.), *Essays in Islamic Philosophy and Science*. New York, Albany, SUNY, 1975, 76-82.

After a general description of the introduction and of the development of the different sciences in the Islamic civilisation before I.S., A. specifically concentrates on some major scientific ideas of I.S., esp. on chemistry (A. stresses I.S.'s rejection of alchemy) and on physics (A. briefly presents the most striking opinions of I.S., as expressed in the *Shifâ, Libri Naturales*, b. 2, 4, 5, 7 and 8). A. concludes that I.S.'s scientific research was based on observation and experimentation.

A meritorious introduction to I.S.'s scientific insights - but, for a different evaluation of I.S.'s basic scientific attitude, see 3 and 6.

(20) MATVIEVSKAYA, G., From the History of the Study of the Heritage of Ibn Sînâ in Physics and Mathematics, in: *Matematika*, 16-40 (Ru).

(21) MUKHTÂR, B., *Nazariyyat at-ṭabî'īyyât 'inda Ibn Sînâ (Theory of Natural Sciences in I.S.)*. Beirut, Dâr al-hadâtha, 1986, 312 pp.

A. develops a comprehensive survey of natural sciences in I.S. Aside from some of I.S.'s most important physical and chemical ideas, special attention is paid to his concept of natural science per se. Especially with respect to the idea of scientific investigation, I.S. adopted a highly personal position - outgrowing the classical Aristotelian concept which he adhered to in the very beginnings of his scientific thought. Acc. to A., that novelty is no less than the experimental method! So, A. discovers many 'modern' scientific insights in I.S. He does not even hesitate to declare that I.S. approaches very closely the Kantian doctrine on the status of metaphysics and science. He also accepts a close relationship between I.S.'s and Descartes' conceptions of extension (a fact which seems *partially* justified, in so far as I.S. attributes extension to matter). At the same time, A. tries to convince the reader of the Qur'anic-based character of a great part of I.S.'s scientific insights.

A. falls clearly victim to his pre-conceived thesis that I.S. has to be considered a real and unique precursor of modern science.

(22) SADYKOV, A., Abû 'Alî Ibn Sînâ and the Development of Natural Sciences, in : *Vopr. Filos.*, 1980, 54-61 (Ru); 87 (Engl S.).

Acc. to S., A. considers I.S. to be a systematizer of the classical heritage, but also an innovator in some specific scientific fields.

(23) SAID, M., Ibn Sînâ as a Scientist, in : *Ind. J. Hist. Sc.*, 21 (86), 261-269.

A. presents I.S. as having introduced many original ideas in different scientific



disciplines (geology, meteorology, etc), but he offers no precise textual basis for such claims.

A. clearly overemphasizes I.S.'s originality!

(24) SALIBA, G., art. Avicenna. Mathematics and Physical Science, in : *Enc. Ir.*, 88-92.

A. surveys I.S.'s mathematical theories (based on the *Shifâ*). He insists that I.S.'s geometrical text is not an abridgement, but a paraphrase of Euclid's *Elements* (A. sustains his thesis by referring to I.S.'s additional definition of irrationals). He also stresses I.S.'s critical attitude towards the Ptolemaic astronomy, and discusses at some length I.S.'s curious note about his alleged observation of the disk of Venus. Having dealt with I.S.'s mathematics, A. proceeds to examine I.S.'s physical opinions, at least three of them : his refutations of both alchemy and astrology and his theory of vision. Acc. to A., the latter is an explicit restatement of Aristotle's theory, while I.S.'s refutations of alchemy and astrology appear to be confused.

Regarding mathematics, valuable, but with respect to physics highly incomplete, and, no doubt, less convincing.

(25) SEGADEEV, A., Ibn Sînâ as a Systematizer of Medieval Scientific Knowledge, in : *Vestn. Ak. Nauk SSR*, 1980<sub>11</sub>, 91-103 (Ru).

(26) SOKOLOVSKAYA, Z., The Scientific Instruments of Ibn Sînâ, in: *Matematika*, 48-54 (Ru).

(27) TIRMIZI, S., Ibn Sînâ as a Scientist, in : *Isl. Q.*, 26 (82), 211-215; also in : *Stud. Hist. Med.*, 5 (81), 233-238.

A. portrays I.S. as a model of the 'modern' scientist - exalting I.S.'s "empirical bent of mind". A. tries to show this by citing several of I.S.'s scientific theories from different domains.

A. indicates some interesting features of I.S.'s scientific thought, but he bypasses important 'conservative' elements in it.

(28) VERBEKE, G., *Le problème du devenir*, in : S. VAN RIET (Ed.), *Avicenna Latinus. Liber tertius Naturalium. De Generatione et corruptione*. Louvain-la-Neuve, Peeters; Leiden, Brill, 1987, *Introd. doct.*, 1\*-63\*.

(29) ID., *Un univers qualitatif*, in : S. VAN RIET (Ed.), *Avicenne Latinus. Liber quartus Naturalium. De Actionibus et Passionibus*. Louvain-la-Neuve, Peeters; Leiden, Brill, 1989, *Introd. doct.*, 1\*-25\*. 24-25 : A. offers a profound and philosophically significant structural analysis of both works.

By way of example we may cite the following items :

1. Although I.S. agrees almost completely with Aristotle on all major issues, he differs from him in two significant respects : by accepting an all-embracing providency, and by introducing the Agent Intellect, as the *dator formarum*;
  2. I.S., in plain adherence to Aristotle, does not distinguish between natural sciences and philosophy - notwithstanding his introducing some 'new' scientific data, and his appearing to the modern mind more a scientist than a philosopher in this work;
  3. I.S.'s predominantly negative judgment about ancient Greek theories of generation – Aristotle being presented as the great exception (A. shows in this context that I.S. clearly misunderstood Plato);
  4. I.S.'s rejection of al-Nazzâm's *kumûn*-doctrine - declaring it logically mistaken, and also contrary to elementary facts of experience;
  5. I.S.'s very personal conception of necessity (by no means comparable with Aristotle's);
  6. I.S.'s realistic interpretation of the theory of the four elements;
  7. I.S.'s idea that the element "earth" is coloured in itself.
- Very valuable introductions.

(30) ZAHIDOV, A., see : KHAIRULLAEV, M.

## B.1. Mathematics

(1) AKHMEDOV, A., Ibn Sînâ and the Problems of Argumentation in Geometry, in : *Ibn Sina, K-1000 letiju*, 183-189 (Ru).

(2) DAFFÂ (AL-), A. and STROYLS, J., Ibn Sînâ as a Mathematician, in : *Ibn Sînâ. Doğumunun...*, 67-140.

Having reviewed I.S.'s mathematical education according to the latter's famous *autobiography*, authors examine critically which mathematical texts may be properly ascribed to him. Then they present and analyse I.S.'s major insights concerning arithmetic, geometry, trigonometry and foundation of mathematics. Special attention is paid to the possible sources, authors specifying them as follows: Nichomachus of Geresa, and some Indian sources (arithmetic); al-Hajjâj or Ishâq-Thâbit (geometry, in fact, authors feel unable to make a final choice, but they afford most valuable information and suggestions); al-Fârâbî (trigonometry - unfortunately, authors did not use the Cairo-edition of this part of the *Shifâ*, published in 1980 - see *Works*, A II); Aristotle, most probably mediated by al-Kindî and al-Fârâbî (foundations). In their final conclusion authors observe that I.S.'s interest in mathematics is not so extremely philosophical as Sarton has claimed. In fact, I.S. occasionally improves on his sources. Moreover he has often a fixed, practical purpose (e.g. the arithmetic of the *Dânes-Nâme*, *Book of Science*, as an introduction to musical theory). Nevertheless, authors agree that mathematics formed only one of I.S.'s multiple occupations, and, indeed, not the most important one. A very fundamental paper on I.S.'s mathematical ideas.

(3) HODŽIEV, I., see : KAHHOROV, A.

(4) KAHHOROV, A. and HODŽIEV, I., Ibn Sînâ-Mathematician (On the Occasion of the 1000 th. Ann. of his Birth), in : *Izv. Ak. Nauk Tadj. SSR Otdel. Fiz.-Mat. i Geol.-Khim. Nauk*, 1977<sub>3</sub>, 121-124 (Ru).

(5) RASHED, R., Mathematics and Philosophy in Ibn Sîna, in : *Ulusl. I.S. Semp.*, 131-138.

A. points to the fact that I.S. incorporates mathematics completely into the philosophical realm - notwithstanding his total agreement with the traditional view on the status of mathematics. A. also observes that I.S. distinguishes between *Arithmâtîqî*, the classical study of natural numbers, and *Hîsâb*, the study

of numbers which supposes an instrumental or applied aspect, including *inter alia* algebra. Now, in order to account for the object of the algebraist, i.e. the 'thing', an ontology other than Aristotle's is needed. It was indeed developed after al-Fârâbî, and was presented by I.S. in a very systematic way, where he declared the thing, together with the existent and the necessary, to be notions given by immediate evidence.

A. no doubt points out an important fact, but, unfortunately, he does not really elaborate on this famous new ontology.

(6) SABRA, A., The Sources of Avicenna's Geometry, in: *JHAS*, 4<sub>2</sub> (80), 404-416 (Ar); also in (but without the notes): IBN SÎNÂ, *K. al-Shifâ. Uṣûl Al-handasa*. Eds. A. SABRA and A. LUṬFÎ. Cairo, 1977 (see *Works*, A II), *Introd.*, 3-13 (Ar).

A. characterizes I.S.'s *Uṣûl al-Handasa* as an example of Euclid's *Elements*. However, his main focus is the reception of Euclid's text in classical Islamic culture - esp. the problem of the different translations, and the differences in figures mentioned (A. pays in this respect particular attention to Ṭûsî). A. concludes that in the actual state of affairs the precise Arabic source for I.S. cannot be determined.

A. poses well the complex problem of the precise source of I.S.'s geometry.

(7) SHARIPOVA, M., Problems of the Theory of Numbers in the Book of Healing by Ibn Sînâ, in: *Uchen Zap*, 71<sub>6</sub> (70), 3-30 (Ru).

(8) STROYLS, J., see: DAFFÂ (AL-), A.

(9) USMANOV, A., Ibn Sînâ and his Contribution in the History of the Development of the Mathematical Sciences, in: *Matematika*, 55-58 (Ru).

*See also*: A 1, 9, 20, 24.

## B.2. Music

(1) BARKASHLÎ, M., Ibn Sînâ's Music, in : *Hazâra-i ibn Sînâ*, 305-329 (Pers).

A. starts his paper by indicating the place of music among the mathematical sciences. Hereafter, he discusses the origin of Oriental music - stressing the Iranian contribution to it. Although A. accepts that the foundation of I.S.'s theory of intervals and degrees of harmony lies mainly in a Greek-inspired cosmological model, he is also convinced of a typical Iranian-Islamic impact on I.S.'s theory of music, at least with respect to the concept of harmony. It may be noted that for A. the exposé of the *Shifâ*, *The Cure* forms the common ground of all of I.S.'s musical treatises. A. gives a list of mss. of this part of the *Shifâ* - unfortunately in a not very precise manner.

A. offers a good basic analysis of I.S.'s theory of music.

(2) CRUZ-HERNANDEZ, M., La teoria musical de Ibn Sînâ en el *kitâb al-Šifâ*, in : *Milenario de Avicena*, 27-36.

A. first develops the fact that one can distinguish two tonal systems in the classical Arabic treatises on music : one of autochtone origin (but almost nothing is known about the beginnings of this music) and another of Greek origin (mediated by Byzantine, Coptic and Persian sources). With respect to I.S., A. analyzes the general theoretical foundation of his theory of music (mainly pointing to (Neo-)Pythagoric, Aristotelian and Platonic ideas), as well as its object and its formal structure (using very different sources for the different subparts of that structure).

A very interesting paper, in which A. expresses himself in a very cautious way about the probable historical sources of I.S.'s musical theory.

(3) DHZUMAEV, A., Ibn Sînâ's Opinion on the Aesthetics of Music, in : *Muzyka. Narodov Azii i Afriki*, 4 (84), 161-178 (Ru).

Note : Dhzumaev is sometimes also spelled : Gemaev.

(4) ID., Ibn Sînâ and Music, in : *al-turâth al-'arabî*, 5<sub>2-7</sub> (84), 220-230 (Ar); also in: *Sadoi Sharq*, 1980<sub>3</sub>, 145-151 (Ru).

A. concentrates on the social and aesthetic aspect of I.S.'s theory of music. He hereby pays special attention to I.S.'s attitude towards his Greek predecessors (esp. Pythagoras), as well as to his Arabic predecessors, or contemporaries (esp. Ikhwân aş-Şafâ, al-Fârâbî and al-Bîrûnî). Acc. to A., I.S.'s theory of music was inspired by a physical approach (and hence, not based on the movements of the

heavenly spheres). Moreover, music was presented by I.S. as a means of physical therapy (esp. in the field of psychosomatics).

Valuable, although of an introductory kind.

(5) FARMER, H., The Lute Scale of Avicenna, in: H. FARMER, *Studies in Oriental Music*. Second vol. *Instruments and Military Music*. Nachdruck von Schriften, erschienen in der Jahren 1925-1969. Hsg. E. NEUBAUER (*Veröff. Inst. Gesch. Arab.-Isl. Wiss.*, Reihe B. Abt. Musik, Bd. 1, 2). Frankfurt am Main, Inst. Gesch. Arab.-Isl. Wiss., Goethe Univ., 1986, 173-187.

Repr. from: H. FARMER, *Studies in Oriental Music Instruments. Second Series*, Glasgow, 1939, 45-57.

(6) GÖRÜN, M., The Turkish Descendence of Ibn Sînâ, and Music, in : *Musiki Mecmuasi*, 33 (80), 20-21 (Tu).

(7) KORLAELÇI, M., Music in Avicenna's Mind, in : *Kayseri-Kongr.*, 344-356 (Tu).

(8) NISAMOV, A., Ibn Sînâ and his Works on the Theory of Music, in : *Ibn Sînâ ve ego epokha*, 181-190 (Ru).

(9) SHEHADI, F., Art and Imitation: Plato and Ibn Sînâ, in: R. LINK-SALINGER (Ed.), *Of Scholars, Savants, and their Texts: Studies in Philosophy and Religious Thought (Essays in Hon. of A. Hyman)*. New York, P. Lang, 1989, 217-227.

Based on the opening section of I.S.'s introduction to his *Book of Music* of the *Shifâ*, A. shows inter alia I.S.'s (relative) independence from the ancients, I.S.'s rejection of a Pythagorean-type approach to music-theory, and I.S.'s holding a fundamental separation between the musical and the extra-musical domains. A. characterizes I.S.'s approach to music as close to what we call nowadays an aesthetician approach (but I.S. does acknowledge the therapeutic value of music). Although music has biological and social functions, it is above all a source of enjoyment. Moreover, although I.S. recognizes with Plato, that music is imitative, he, unlike Plato, does not consider imitation to be a central characteristic of music. For I.S., it is the structural or formal aspect of music that is the source of the greatest delight.

A valuable case-study having several basic ideas in common with 4, which A. seems to be unaware of.

(10) ÜNGÖR, E., The Musical Side of Ibn Sînâ, in : *Ulusl. I.S. Semp.*, 101-104 (Tu).

(11) VYZGO, T., Ibn Sîna's Contribution to the Universal Science of Music, in : *Ibn Sino. K-1000-letiju*, 189-201 (Ru).

(12) WRIGHT, D., art. Avicenna, Music, in : *Enc. Ir.*, 92-94.

A. observes that I.S.'s approach to music is very similar to al-Fârâbî's. I.S. elaborated a sophisticated adaptation and development of material derived from the Greek theorists (empirical observation playing almost no role). Concerning rhythm, I.S. took his main analytical tools from the Arab science of prosody, while his doctrine of melody seems to represent an interesting transitional phase between the early diatonic system and the later system of Saîf al-dîn Ormavî. A. provides the reader with a valuable basis for further investigation on I.S.'s theory of music.

## C. Physics

(1) AKHMEDOV, A., see : SIRAZHDHINOV, S.

(2) DEMIREL, S., Ibn Sîna and the Establishment of Violent Inclination, in : *Ulusl. I.S. Semp.*, 353-364 (Tu).

(3) FREUDENTHAL, G., The Cohesion of Matter from Aristotle to Avicenna, in : *Int. Congr. Hist. of Science. 17. Abstracts of paper pres. in sc. sect. 2* vol. Berkeley, Univ. of California, 1985, Ca.

A. informed me that the name of I.S. is not mentioned in this summary, but that a paper of him, entitled : "(Al-)Chemical Foundations for Cosmological Ideas : Ibn Sîna on the Geology of an Eternal World" is in print.

(4) GODDU, A., Avicenna, Avempace and Averroes - Arabic Sources of "Mutual Attraction" and their Influence on Medieval and Modern Conceptions of Attraction and Gravitation, in : *Orientalische Kultur und Europäische Mittelalter*, 218-239.

A. states that I.S., contrary to Aristotle, left open the possibility of action at distance, by holding an innovative view on causality and matter. In fact, I.S. defended the immediacy of cause and effect in physical processes, and tried to develop a positive view of matter, which enabled him to elaborate a unified vision of the cosmos. Out of these basic assumptions I.S. deduced that if bodies were scattered in space, they naturally would tend to cohere - their magnitudes and their reciprocal distance being determinant factors in this process. The remaining part of the paper is devoted to further historical developments in the idea of motion at distance (beginning with Avempace and Averroes through Einstein).

It has to be noted that A. always uses the medieval Latin translations of I.S.'s texts. Unfortunately, for the *De Caelo* he uses the pseudo-Avicenna of the Venice-1508 edition.

A. offers some interesting insights.

(5) HASNAOUI, A., La dynamique d'Ibn Sîna (La notion d'inclination : *mayl*), in : *Etudes sur Avicenne*, 103-123.

A. points to the fact that the notion of *mayl* is always linked in I.S. with the nature of things. He, hereafter, carefully distinguishes the ways in which I.S. uses this notion - the larger part being devoted to the study of *mayl qarî*, violent



inclination. In a last part, A. convincingly demonstrates that the acceleration of natural movement is due in I.S.'s eyes to the production of different *mayl*-s in the motive force.

A very well-documented study of one of the most central notions of I.S.'s dynamics.

(6) MARUPOV, N., Ibn Sînâ and the Nature of the Rainbow, in : *Vopr. Ist. Estest. Techn.*, 67-68 (80), 107-110 (Ru).

(7) MATVIEVSKAYA, G., see : SIRAZHDINOV, S.

(8) SAIDMURADOV, M., see : ZIKRILLAEV, F.

(9) SAYILI, A., Ibn Sînâ and Buridan on the Dynamics of Projectile Motion, in : *Ibn Sînâ. Doğumunun...*, 141-160.

A. observes that Philoponus is the first thinker, who claims that the hurled body acquires a motive power from the throwing agent, and that this power, not the ambient medium (as held by Aristotle), secures the continuation of the motion. However, he considered this impressed virtue as temporal. Now, I.S. probably for the first time in history, attributed a permanent character to it. Since Buridan holds some similar concept, it seems natural to consider I.S. as a forerunner for the latter. And, indeed, there is a close resemblance between some expressions and/or ideas, as presented by I.S. in the *Physica* of the *Shifâ*, and Buridan's wording. A. very carefully remarks that some of them were not available in Latin translation at least as far as one can actually discover. Moreover, he offers a most critical and balanced evaluation of the significance of I.S.'s contribution - stressing its fundamental failure to mathematize dynamics, but also to the presence of some significant new ideas in it - even if most of them were still in need of further development (Buridan having done a great job in this respect).

A very fine paper, in which A. consciously avoids making too many unilateral judgments.

(10) ID., Ibn Sînâ's Influence on Buridan in the Domain of Dynamics, in : *Ulusl. I.S. Semp.*, 273-277 (Tu).

Probably a summary of 9, although it may give some complementary information.

(11) SEZGIN, F., Arabische Meteorologen. Ibn Sînâ, in : F. SEZGIN (Ed.), *Geschichte des arabischen Schrifttums*. Bd. VII, *Astrologie, Meteorologie und Verwandtes*. Leiden, Brill, 1979, 292-302.

A. stresses that I.S. adopts a basic Aristotelian approach in his meteorological theory, although he sometimes adheres to other, more 'modern' views (A. refers to such authors as Theophrastus, Olympiodorus, and al-Kindî). Moreover, I.S.

on several occasions takes clearly into account his own observations. All this is illustrated by a basic description of I.S.'s major meteorological ideas, i.e. his opinions on rain, wind, thunder and lightning, and meteorites (as well as related phenomena).

A very valuable survey of I.S.'s major meteorological ideas - paying attention to their (possible) sources.

(12) SHAMSI, F., *Ibn Sînâ's Argument against the Atomicity of Space/Time*, in : *Isl. Stud.*, 23<sub>2</sub> (84), 83-102; almost unchanged, but differently entitled : *Ibn Sînâ's Argument against Atomicity*, in : *Ulusl. I.S. Semp.*, 479-494.

A. claims that I.S. has invented one of the two possible valid arguments one may express against the finpos-atomic hypothesis. In order to offer a better understanding of I.S.'s argument, A. develops a large historical survey of the most important anti-atomistic theories before I.S., esp. Zeno, Plato and Aristotle, presenting with each a refutation (for Zeno, out of Ash'arite metaphysics; for the others, out of contemporaneous considerations). Then, he analyzes three arguments of I.S. against the finpos-atomic hypothesis, two of which he declares valid. According to A., one of the valid arguments is unique to I.S. (Ghazzâlî should have developed in greater detail the second - A. ignores, however, that Ghazzâlî's *Maqâsid* is a slightly reworked translation of I.S.'s *Dânesht-Nâmeh*, *Book of Science* (see *Works*, A III, 3, St. 2).

The basic idea of A. looks very tempting, but his analysis of I.S.'s thought is incomplete, insofar as he neglects the *Dânesht-Nâmeh*.

(13) SIRAZHDINOV, S., MATVIEVSKAYA, G. and AKHMEDOV, A., *Ibn Sînâ and the Physical and Mathematical Sciences*, in : *Vopr. Filos.*, 1980<sub>9</sub>, 106-111 (Ru).

(14) ID., *Ibn Sînâ's Role in the History of the Development of the Physico-Mathematical Sciences*, in : *Izv. Ak. Nauk Uzb. SSR., Otd. Fiz-Mat.*, 1980<sub>5</sub>, 29-32, 99 (Ru).

(15) 'UBAIDÎ (AL-), H., *Nazariyyat al-makân fî falsafat Ibn Sînâ (The Conception of Space in Ibn Sînâ's Philosophy)*. Baghdad, Dâr al-shu'ûn al-thaqâfa al-'amma "Ifâq 'arabiyya", 1987, 198 pp.

Having summarized the pre-philosophic, the Greek and the pre-Avicennian Arabic theories on space, A. presents and analyzes I.S.'s theory on this topic. From the rich contents, we may cite :

1. I.S.'s fidelity to Aristotle in his basic definition of body;
2. I.S.'s clear distinction between the logical, the mathematical and the physical analysis of space;
3. I.S.'s well-founded criticism of all theories which deny space;
4. I.S.'s reflecting the "transmitted" Plato, not the "historical" Plato (as regards

such a basic notion as that of *hayulâ*);

5. The existence of different definitions of place in I.S. (some of them lean more on al-Kindî than on Aristotle);

6. I.S.'s establishment of 4 sensible and 3 intellectual proofs in order to reject the existence of the void;

7. I.S.'s introduction of the notion of violent inclination (based on some ideas of John Philoponus).

A pioneering, and, no doubt, valuable work - although sometimes too paraphrastic.

(16) USMANOV, M., see : ZIKRILLAEV, F.

(17) VIRK, H., Ibn Sînâ's Approach to Physics, in : *Ind. J. Hist. Sc.*, 21 (86), 374-378.

A. describes in rather general terms some basic physical concepts in I.S., e.g. power, time and movement. A. notes that I.S. hardly manages to rid himself of the errors of Peripatetic physics. A. also stresses that for I.S., contrary to Aristotle, the ultimate Being is a remote cause for the material aspects of the world.

Good - introductory.

(18) WEISHEIPL, J., Aristotle's Concept of Nature: Avicenna and Aquinas, in : L. ROBERTS (Ed.), *Approaches to Nature in the Middle Ages*. Binghamton, New York, Centre Med. and Early Ren. Stud., 1982, 137-160, 161-167 (Comment by W.A. WALLACE); almost invariably published also as : The Concept of Nature : Avicenna and Aquinas, in : V. BREZIK (Ed.), *Thomistic Papers, I*. Houston, Centr. Thom. Stud., 1984, 65-82.

A. detects three major differences between I.S.'s and Thomas Aquinas' interpretations of Aristotle's concept of *phusis* (this latter is together with Plotinus' concept of nature the object of study of the first part of the paper). The first difference concerns nature as a cause of natural motion. I.S. makes the form of bodies responsible for the material movement of bodies, whereas Thomas considers this very same form to be only a principle by which bodies move naturally and spontaneously (Wallace, in his comment analyzes Galileo's position with respect to this first aspect of nature). The explanation of substantial change gives rise to the second difference. Thomas, contrary to I.S., does not need the postulation of a *Dator formarum*. Finally, there exists a direct opposition between the Avicennian determinism and the Thomistic indeterminism. A. concludes that the opposition between I.S. and Thomas is basically the same as the contrast between Plato and Aristotle.

No doubt, A. brings to the fore some important differences between I.S. and Thomas Aquinas as concerns their respective concepts of nature, but does this automatically imply that it is the only valid interpretation of the historical Aristotle, as A. seems to suggest?

(19) WÖHLER, H., Zur Bewegungslehre des Ibn Sînâ, in : *Avicenna / Ibn Sînâ*, II, 62-68.

A. stresses the dualistic character of I.S.'s theory of movement - at its best illustrated by the division between heavenly and sublunar movements. Moreover, A. observes that I.S. makes a principal distinction between movement and emanation. A. concludes that I.S. adheres a Neo-Platonic interpretation of Aristotle's philosophy of nature, however not without creating some ambiguities.

A good, but not very original paper.

(20) ZIKRILLAEV, F., SAIDMURADOV, M. and USMANOV, M., Problems of Physics in Ibn Sînâ's Book '*Kurozai Tabi'at*', in : *Trudy XIII. M. Kongr. pro Istorii Nauki (Transactions 13. Int. Congr. Hist. of Sc.)*. Moscou, 1974, 152-154 (Ru).

*See also:* A 1, 7, 9, 11, 12, 14, 20, 21, 24.

## D. Optics

(1) AKDOĞAN, C., Avicenna and Albert's Refutation of the Extramission Theory of Vision, in: *Isl. Stud.*, 23<sub>3</sub> (84), 151-157.

A. enumerates different arguments, developed by Albert the Great against the transmission theory of vision, which are closely related to I.S.'s refutation of such theories of vision.

A. outlines some primary indications concerning a possible dependence of Albert on I.S. with respect to the refutation of the extramission theory, but further investigation is required in order to fix its exact nature.

(2) BASTAIT'S, M., "Similitudo sensibilis" chez Aristote, Avicenne et S. Thomas, in: *L'homme et son univers au moyen âge (Actes VII. Congr. Int. de philos. méd.)*. 2 vol. Louvain-la-Neuve, Inst. sup. de Philos., 1986, II, 554-559.

A. shows that Aristotle's theory of action, interpreted by the Stagirite through the dyad *agens-patiens* in terms of 'similar', evolved in the Avicenna Latinus into a theory of "similitude of assimilation" - a theory accepted by Thomas Aquinas. As to "vicarious similitude", A. outlines the different schemes of view of the three authors under consideration, noting that Thomas represents an intermediary position between Aristotle and I.S. Although Aristotle and I.S. agree on the double immateriality present in the act of knowledge, there are some significant differences in accentuation between them. So, I.S. affirms light to be the cause of the visuality of colour, and accords to the diaphanous character of the eye alone a transformation in the process of vision. Finally, A. points to the particular importance of the concept of similitude in both of its forms to the theory of causality. By having interpreted the Aristotelian theory of causality in terms of similitude, I.S. has permitted Thomas to effectuate a relative synthesis between Aristotelian and Neo-Platonic causality, although the latter does not recognize the reality of the optical image.

A highly condensed, but a most significant study, offering an important complement to 3.

(3) ID., Sur quelques aspects de la doctrine de la vue dans le "De Anima" d'Avicenne, in: *Ann. Inst. Philos.* (Bruxelles), 1976, 25-44.

A. offers a very detailed analysis of I.S.'s exposé on sight, as presented in the *De Anima* of the *Shifā* - using mainly the critical Latin edition of S. Van Riet (see *Works*, A II, *Av. Lat.*, but taking into account, when necessary, the important variant readings of the Arabic edition of Rahman). A. carefully explains the

significance of I.S.'s major concepts in this field. He also points judiciously to the main anti-materialistic stream of I.S.'s doctrine of vision - reflecting a fidelity to Aristotle, and at the same time a strong opposition towards Galen and Euclid. Moreover, in order to explain the phenomenon of vision, he does not hesitate to employ the essential features of I.S.'s cosmology - stressing the strong similarity between the role of the sun in the process of seeing and the role of the Agent Intellect in the process of knowing. Finally, A. brings to the fore some of the most significant differences between I.S. and Aristotle (giving some corrections and additions to Najâfî's observations in this respect (see *Psychology and Paedogics*, 19).

A remarkable and no doubt very fundamental study.

(4) BERTOLA, E., La teoria della luce in Avicenna, in : A. PIOLANTI (Ed.), *S. Tommaso. Fonti e riflessi del suo pensiero (Studi Tomistici, I)*. Roma, Pont. Ac. S. Thom., 1974, 30-61.

A. is inclined to believe that I.S.'s exposé on sight in the *De Anima* functioned as an independent treatise before its incorporation into the larger context of I.S.'s main psychological work (A. makes use of the 1508-ed. of Venice). No wonder, he characterizes it as being of a most personal kind. Therefore, A. tries to clarify as much as possible the basic notions involved in I.S.'s theory. He concentrates very specifically on I.S.'s theory of colours, and pays also great attention to the historical sources I.S. dealt with. Finally, A. declares that I.S.'s doctrine of light and sight in the *De Anima* forms in fact a preliminary to his 'Oriental' metaphysics of light.

A serious study, containing many valuable insights and offering very useful information - complementing in some respects 2-3, but questionable regarding its affirmation of an Oriental metaphysics (see *Religious Themes and Mysticism*, C 11).

(5) LINDBERG, D., The Intermission-Extramission Controversy in Islamic Visual Theory: Alkindî versus Avicenna, in : P.K. MACHAMER and R.G. TURNBULL (Eds.), *Studies in Perception*. Columbus, Ohio State Univ. Press, 1978, ch. V, 137-159.

A. wants to dispel the rather common opinion that the classical intermission-extramission controversy was based on simple-minded arguments. In order to do so, he critically analyzes the historical, differing theories of al-Kindî and I.S. While the former made great efforts to demonstrate the validity of the basic postulation of Euclid's extramission theory, the latter looked after strong rational arguments in favour of Aristotle's point of view. In this latter respect, A.'s exposé shows many affinities with Bertola's (see *supra*, 4), although offering a somewhat different systematization. However, A. makes in his conclusion a very personal and, no doubt, significant remark, which runs as follows : whereas al-Kindî and the extramissionists always argued on mathematical grounds, I.S. always made use of physical and psychological arguments. A. adds that I.S.'s critics were from the physico-psychological point of view indeed devastating.

This study resembles in many respects 4. However, it has some new insights in addition to it (and also in addition to 2 and 3).

(6) SAYILI, A., A Possible Influence, in the Field of Physiological Optics, of Ibn Sînâ on Ibn al-Haytham, in : *TTKB*, XLVII, 187 (83), 665-675.

Having briefly, but clearly reviewed Ibn al-Haytham's contribution to the geometrization of physiological optics, A. points to a surprising assumption present in Ibn al-Haytham. It poses as the basis of visual perception images formed on the anterior surface of the eye-lens. This assumption calls for a striking resemblance with I.S.'s conception of the visual image. Moreover, one discovers in both cases almost the same fundamental error : a confusion between virtual and real image. Now, in so far as this error fits in more conveniently with I.S.'s ideas, one may reasonably suppose that they influenced Ibn al-Haytham. Acc. to A., there also exists historical evidence that I.S.'s writings in this field preceded by several years Ibn al-Haytham's major work on Optics.

An interesting paper - but one may wonder whether I.S. and Ibn al-Haytham did not make use of a common third source?

(7) ID., Light, Visual Perception, and the Rainbow in Ibn Sînâ, in : *Ibn Sînâ. Doğumunun...*, 203-242 (Tu).

## E. Astronomy and Astrology

(1) BULGAKOV, P., Ibn Sînâ's Contribution to Practical Astronomy, in : *Ibn Sino. K-1000 letiju*, 149-157 (Ru).

(2) ROZENFEL'D, B., Concerning Ibn Sînâ's Works on Mathematics and Astronomy, in : *Ibn Sino. K-1000 letiju*, 157-163 (Ru).

(3) SALIBA, G., Ibn Sînâ and Abû 'Ubayd al-Juzjânî - the Problem of the Ptolemaic Equant, in : *JHAS*, 4<sub>2</sub> (80), 376-403 (Engl-Ar).

A. offers in fact an edition and an English translation of a treatise of al-Juzjânî, a pupil of I.S. In the introduction A. observes that there is no proof that al-Juzjânî's idea concerning the Ptolemaic Equant was already present in I.S.

(4) SAYILI, A., Astronomy and Astrology in Ibn Sînâ, in : *Ibn Sînâ. Doğumunun...*, 161-201 (Tu).

(5) SCRIMIERY, G., Ibn Sinâ tra 'ilm (scienza) e hikma (sagezza). Per un' introduzione all'astronomia di Ibn Sînâ, in : G. SCRIMIERY, *Testimonianze medievali e pensiero moderno*. Bari, Levante, 1970, 159-192.

A. considers I.S. to be an "illuminated Oriental thinker" (in the line of Corbin). I.S.'s wisdom transcends temporal limits - astrological intuition being a part of its basis. Hereafter, one finds a classical description of I.S.'s emanative system. Finally, A. offers a (partly) Italian translation of a *R. fi 'l-hay'a*, *Tr. on Astronomy*, ascribed to I.S. (see *Works*, C-k 4).

One gets the impression of a rash publication - A. does not really settle the problem of the authenticity of the *Tr. on Astronomy*.

(6) SEZGIN, F., Arabische Astronomen. Ibn Sînâ, in : F. SEZGIN (Ed.), *Geschichte des arabischen Schrifttums*. Bd. VI. *Astronomie*. Leiden, Brill, 1978, 276-280.

Based on secondary sources, A. presents I.S.'s astronomical theory as a further development of the Ptolemaic system.



(7) TANDOĞAN, Y., Understanding Mathematics and Astronomy in Avicenna's Mind, in : *Kayseri-Kongr.*, 334-346 (Tu).

(8) ÜNVER, A., Le secret des étoiles, in : *Le Courrier de l'Unesco*, 1980<sub>10</sub>, 45.

A summary of A.'s famous paper : Avicenna Explains..., published in : *J. Hist. of Med.*, 3 (48), 330-334. It has to be noted that the Tract, referred to by A., is not by I.S. (see Mahdavi, 277, N. 171 and Sezgin, *supra*, 6, p. 280, N. 2).

## F. Chemistry and Alchemy

(1) ANAWATI, G.C., Avicenne et l'alchimie, in: *Oriente e Occidente nel medioevo: filosofia e scienze (Atti dei Convegni, 13)*. Roma, Acc. Naz. dei Lincei, 1971, 285-341.

The Latin middle ages attributed 4 treatises on alchemy to I.S. Two of them, *De Anima in arte alchemiae* and *Declaration Lapis physici*, are shown by A., agreeing with Ruska, to be apocryphs. As to the *De conglutinatione et conglutinatione lapidum* its authenticity cannot be doubted, since it forms a part of the *Meteorologica* of the *Shifâ*. In this text I.S. is a declared opponent of alchemy - a fact which plainly confirms Ibn Khaldûn's affirmation in this respect. As to the fourth treatise, the *Epistola de re recto* (Ar: *R. al-Iksîr*), A. accepts Atech's arguments in favour of its authenticity. However, he stresses much more than the latter that I.S. does not mention any substantial change in it, but refers only to different possibilities of coloration. Moreover, A. observes that this tract probably belongs to I.S.'s earlier works.

A. also offers for the last two-mentioned treatises the Arabic and the medieval Latin text, as well as a French translation (see *Works*, A II and C-j 1).

A very fundamental study, and, no doubt, extremely useful for further investigation on I.S.'s (al-)chemical ideas.

(2) ASLAN, M., see: ÖZER.

(3) DIRIÖZ, M., see: ÖZER.

(4) IHSANOĞLU, E., A New Appreciation of Ibn Sînâ's Chemical Ideas, in: *Ulusl. I.S. Semp.*, 115-116 (Tu).

(5) KAHYÂ, E., Avicenna and his Thought about Chemistry, in: *Ulusl. I.S. Semp.*, 173-177 (Tu); 178 (Engl. S.).

Acc. to S., A. offers a general survey of the history of chemical ideas from pre-history to the Latin middle ages - pointing to I.S.'s acceptance of chemistry, and also to his rejection of some misuses of alchemy.

(6) ÖZER, U., ASLAN, M. and DIRIÖZ, M., Avicenna and Chemistry, in: *Kayseri-Kongr.*, 357-362 (Tu).

(7) TERZIOĞLU, A., Avicenna und Alchemie, in : *I. Ulusl. Türk-Islam Bilim ve Tekn. Tarihi Kongr.* 2 vol. Istanbul, 1981, vol. II, 133 (Engl S.); 134-139.

A. adheres to Atech's arguments in favour of the authentic Avicennian character of the *R. al-Iksîr*, adding supplementary support from some Turkish biographers (most of them from the 16th and the 17th C.). In accordance with these biographers, he considers I.S. to be an important alchemist.

A. is no doubt confident in his late Turkish sources, but could have benefited from the consultation of Anawati's study (see *supra*, 1), which he seems to be unaware of.

## G. Geology and Geography

(1) FREUDENTHAL, G., Ibn Sîna's Petrology, in: *Proc. 16th Int. Congr. Hist. Sciences*, 385.

Summary of an allocution. Acc. to A., I.S. drew on contemporaneous chemical theories in order to explain geological processes.

(2) HAMOUDI, S., The Science of Earthquakes according to Ibn Sîna, in: *Ris. al-Khaleej al-'arabî*, 3<sub>10</sub> (83), 57-77 (Ar).

After a very general introduction, A. reviews the conception of earthquakes in Greek and pre-Avicennian Arabic thought. Then he offers a detailed account of I.S.'s doctrine in this field. Among I.S.'s most prominent ideas, he points to the acceptance of the existence of different causes beneath the earth's surface - no earthquake being possible without the presence of all of them, and his distinction between three kinds of tremblings. According to A., one had to wait until the past century in order to see any substantial improvement of I.S.'s theory!

A very detailed survey of I.S.'s theory of earthquakes, but one may wonder whether A. does not exaggerate in modernizing I.S.'s opinions?

(3) SHAFI, M., Contribution of Ibn Sîna to Geographical Knowledge, in: *Ind. J. Hist. Sc.*, 21 (86), 379-382.

A. deals in conventional terms with some well-known geographical, or related topics. A. pays attention to such items as mountains, fossils, soils, hydrology and climatology.

Of limited value. A. interprets I.S. in a much too modern way.

## H. Applied Sciences

(1) BÂBÂ (AL-), M., Ibn Sînâ's Contribution to the Formation of Modern Hydraulics, in : *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 114-122; also in : *Al-shaykh al-ra'îs*, 197-214 (Ar).

A. recognizes that I.S. took many of his ideas on water from Hippocrates. However, I.S. himself did also develop new insights, as e.g. the purity of rain-water, the distinction of different kinds of water, etc. Then A. brings to the fore some specific techniques of water-purification, which one finds described in I.S.'s works.

At first sight A.'s analysis seems well founded, but a real verification of his interpretation is very difficult, since the many references to Avicennian texts, present in his exposé, are imprecise.

(2) ROZANSKAYA, M., Ibn Sînâ and Mechanics, in : *Ibn Sino. K-1000 letiju*, 163-183 (Ru).

## Chapter XVI

# Medicine

- A. GENERAL
- B. DEONTOLOGY AND BEDSIDE MANNER
  - I. Deontology
  - II. Diagnostics
- C. PSYCHOPHYSIOLOGY AND PSYCHIATRY
  - I. Psychosomatics
  - II. Psychiatry
- D. HYGIENE
- E. PEDIATRICS
- F. GERIATRICS
- G. ANATOMY
- H. PHYSIOLOGY

- I. GENERAL DISEASES
- J. OPHTHALMOLOGY
- K. STOMATOLOGY
- L. DISEASES OF SPECIFIC ORGANS
- M. SKIN DISEASES AND COSMETICS
- N. SURGERY AND ANAESTHESIA
- O. OBSTETRICS
- P. PHARMACOLOGY
- Q. NEUROLOGY
- R. SOURCES  
(and Contemporary Physicians)
- S. HISTORICAL INFLUENCES

See also :

II, 4, 12, 16, 18, 22, 26, 30, 31, 32, 33, 35,  
36, 38, and Notes 2 and 5

V, A 23; V C 58

VII, 15, 16

VIII, 12, 32

XIV, A-I, 1; XIV, A-IV, 9

XV, A 3, 6

## A. General

(1) ABŪ RĪDA, M., *Avicennian Medicine: its Philosophy and its Method of Investigation (on basis of the Canon)*, in: *Qaḍâyâ 'arabîya*, 9<sub>1</sub> (82), 107-120 (Ar).

A. affirms the *Canon* to be a perfect academic work as well as a useful manual, which is developed along logical lines. He presents such well-known items as I.S.'s definition of medicine (its peculiar, but limited area; its proper object); his views on disease, and its treatment; his theory of the soul and some of his medical experiments (in this latter respect, A. compares I.S. to John Stewart!).

Good - can serve as a first outline of the relationship between medicine and philosophy in I.S.

(2) 'AMMAR, SL., *Avicenne: "Le prince de la médecine"*, in: *Avicenne*, 15-56 (Fr).

Introductory - clearly exaggerating I.S.'s contributions in the medical field.

(3) ID., *Les écrits d'Avicenne; Ibn Sînâ: "Le maître par excellence"; L'apport d'Avicenne à la médecine; Avicenne, le psycho-somaticien; Maximes et citations d'Avicenne*, in: *Tunis méd.*, 58 (80), 543-555.

A slightly reworked version of 2.

(4) ARIPOV, S. (et alia), *Abû 'Alî ibn Sînâ, ego medicininskia i nekotorie filosofskie vozzrenija (Ibn Sînâ: His Medical and Philosophical Ideas)*. Tashkent, Meditsina, 1974.

(5) ARZUMETOV, Y., *Ibn Sînâ: Physician-Encyclopaedist, and certain Principles of his Teachings concerning Health and Disease*, in: *Fiziol. Zh. SSSR*, 66 (80), 1273-1277 (Ru).

(6) BEČKA, J., *The Father of Medicine, Avicenna, in our Science and Culture: Abû 'Alî Ibn Sînâ*, in: *Cas. Lék. čes.*, 119 (80), 17-23 (Czech).



(7) BRANDENBURG, D., Das Portrait des Ibn Sînâ (Avicenne), in : *Med. Welt*, 34 (83), 682-684.

After a brief bio-bibliographical outline, A. discusses some Russian studies on I.S.'s skull.

Of almost no value.

(8) BRĂTESCU, GH., Avicenne, le médecin, in : *Proc. 16th Int. Congr. Hist. Sciences*, 367-372.

A. stresses that I.S.'s greatest achievements as a physician are of a theoretical kind. Moreover, Galen, not Hippocrates, constitutes I.S.'s main source - but one finds in I.S. also some real innovations. A. concludes that I.S. was the latest scholastic thinker who realized a "Summa" of the complete medical knowledge, but, at the same time, sometimes prefigures the modern experimental medicine.

A valuable, well-balanced study.

(9) BRENTJES, S., Ibn Sînâ als Mediziner, in : *Ibn Sînâ. Der fürstliche Meister*, (V, A 5), 78-90.

A. considers I.S. to be a physician who continued the tradition of Galen, but who introduced some modifications due to the influence of the Pneumatic school. A. also shows some originalities in I.S., but, at the same time, points out that he sometimes relapses with respect to Galen.

A valuable paper.

(10) BUKHAROV, P., see KUZ'MIN, M.

(11) CHATARD, J., Avicenna and Arabian Medicine, in : F. SEZGIN (Ed.), *Beiträge zur Geschichte der arabisch-islamischen Medizin. Aufsätze*. 2 Bd. : *Aus den Jahren 1870-1909 (Veröff. Inst. Gesch. Ar.-Isl. Wiss., Reihe B., Med., Bd. 4, 2)*. Frankfurt am Main, Inst. Gesch. Ar.-Isl. Wiss., Goethe Univ., 1987, 698-701.

Reprint from this paper, originally published in the *John Hopkins Hospital Bulletin*, 19 (1908), nr. 207, 157-160).

(12) CHIKIN, S., Abû 'Alî ibn Sînâ - An Outstanding Physician and Philosopher of the Middle Ages, in : *Sov. Med.*, 1980<sub>3</sub>, 119-121 (Ru).

(13) DALIMOV, Z., Natural and Preformed Physical Factors in the Medical Activity of Abû 'Alî ibn Sînâ, in : *Vopr. Kurort. Fizioter.*, 1981<sub>1</sub>, 64-66 (Ru).

(14) DEMIRHAN, A., Ibn Sîna's *Canon* and some Patterns, in : *Med. Bull. Istanbul Med. Fac.*, 1979<sub>12</sub>, 158-162.

A. enumerates some (so-called) innovative ideas in I.S.'s *Canon*.  
Of limited value.

(15) GHAUSSY, A., If Avicenna had a Computer, in : *Proc. I. Conf. Isl. Med.*, 160-162.

Almost science-fiction! Of no value.

(16) HABIBULLAH, C., Avicenna, a Physician and His Approach to Medicine, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 75-77.

A. praises I.S.'s clinical insights. Of no great value.

(17) HASHEM, M., The Destination of Scientific Discovery in Ibn Sîna's *Canon*, in : *RAA Damas*, 62 (87), 445-462.

In a somewhat general introduction, A. accuses the West of not having paid due attention to the real discoveries of the classic Arabic science and medicine. But, at the same time, A. warns that one should not confuse classical concepts with actual ones. In this respect, he stresses the totally different approach between I.S.'s medicine and modern medicine. From this point of view, A. criticizes Aroua (see *infra*, D 6), also expressing some techno-critics (regarding materia medica, A. proposes a lot of corrections of Aroua's identifications).

Interesting, and certainly a useful complement to Aroua.

(18) HAU, FR., Rhazes und Avicenna, in : *Deutsches Ärzteblatt*, 77 (80), 2644-2646 and 2699-2701; part II of this paper, entitled: Avicenna : ein "zweiter Galen", also in : *Iranzamin*, 1<sub>1</sub> (81), 39-44.

A. offers no real comparison between al-Râzî and I.S. A very general description of their medical system is given.

Of almost no value.

(19) IOBAL, A., Contribution of Avicenna to Medicine, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 139-145.

A. discusses in a most general way what he considers to be I.S.'s original contributions to medicine - merely useful as a primary inventory of novelties in I.S.'s medicine.

(20) ISHAKI, YU., *Ibni Sino i meditsinskaya nauka (Ibn Sîna and Medical Science)*. Dushanbe, Irfon, 1984.

(21) ID. (Ed.), *Kanon ibn-Sino i sovremenneya meditsinskaya nauka (Ibn Sînâ's Canon and Contemporary Medical Science)*. Dushanbe, Donish, 1980, 232 pp.

(22) ISHAKOV, I., *Abuali ibn Sino i ego meditsinskie vozzreniya (Ibn Sînâ and His Medical Ideas)*. Dushanbe, Donish, 1980, 45 pp.

(23) ISKANDAR, A., Critical Studies in the Works of al-Râzî and Ibn Sînâ : an Assessment of Their Influence on Medical Research, in : *Proc. I. Conf. Isl. Med.*, 194-203.

A. examines Râzî's and I.S.'s respective contributions to medicine in general. He carefully avoids any exaggeration or simplification by recognizing both's dependence upon the Greek medical and/or philosophical tradition whenever evident, but he also takes into account their personal approaches (including similarities and differences between both of them). Proceeding this way, A. convincingly shows that both al-Râzî and I.S. formulated *some* new insights in *some* respects, which were quite relevant for the further development of medicine.

A most valuable paper although the references (in Arabic!) are not explicit in the text itself.

(24) ID., art. Ibn Sînâ. Medicine, in : *Dictionary of Scientific Biography*. New York, 1975, Suppl. I, 498-501.

For A., al-Râzî, who was the better and more progressive physician, was one of I.S.'s major sources. However, not al-Râzî's writings, but I.S.'s *Canon* became *the* work of reference, both in the East and the West - thus keeping medicine in a static condition for many years. A. also offers a basic outline of the *Canon*, and an important bibliography (dealing with original works and secondary literature).

Very valuable, especially on the bibliographical level.

(25) KADYROV, A., see : SAIPOV, U.

(26) KATAYE, S., *Le Canon d'Avicenne*, in : *Adyat Halab*, 1 (75), 109-125 (Ar); 10-11 (Fr S.); also partly in: *Avicenne*, 33-38 (Ar).

A. first presents (in a rather conventional way) a survey of those physicians, both in the East and the West, who underwent the influence of I.S.'s *Canon*, as well as of the editions and translations of the *Canon*, both in ancient and more recent times. A. also deals with the well-known facts of I.S.'s life and works. Finally, A. offers a broad outline of the *Canon*. In his final conclusion, A. stresses the scientifico-logical spirit of I.S.'s medical investigations, and ascribes to I.S. an all-encompassing knowledge of all medicine previous to him (not only Graeco-Roman, but also Syrian and Indian).

A good introductory paper.

(27) KHADRI, S., Avicenna as a Physician and His Contribution to the Science and Art of Medicine, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 130-138.

The paper is one great eulogy of I.S.'s *Canon*, and of his so-called authoritative medical innovations!

Of no great value.

(28) KHALEEFATULLAH, S., Avicenna as a Physician and Medical Writer, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 123-129.

Glorifies as much as 27 I.S.'s "innovations", A. even designating I.S. as the Arabian Galen!!

Of no great value.

(29) KÖKER, A., Explanations in Relation to the *Canon*, in : *Kayseri-Kongr.*, 57-69 (Tu).

(30) KUCHARZ, E., Avicenna. His Life and Medical Activities, in : *Wiad. Lek.*, 34 (81), 1405-1409 (Pol).

(31) KUZ'MIN, M. and BUKHAROV, P., Ibn Sîna and Folk Medicine, in : *Fel'dsher Akush.*, 46<sub>3</sub> (81), 50-52 (Ru).

(32) LEIBOWITZ, J., Ibn Sîna in Hebrew, in : *Koroth*, 8<sub>1-2</sub> (81), 3\*-8\* (Engl Sect.), 3-8 (Hebrew).

The title is highly misleading. In fact, A. insists that I.S. (Maimonides following him in this respect) borrowed much more from Aristotle than from Galen. Nevertheless, I.S. adhered to some of Galen's ideas, especially his teleological tendency. This is illustrated by A. by means of I.S.'s exposé on the spine in the *Canon* (A. making use here of the 1491-'2 Hebrew translation). A. concludes that this teleological approach (notwithstanding its being contrary to sound scientific investigation!) served as an incentive for future physiological inquiry.

An interesting paper, but somehow (too?) succinct.

(33) MADZHIDOV, N., Abû 'Alî ibn Sîna and His Influence on the Medical Science of the World, in : *Acta Ant. Ac. Sc. Hung.*, 29 (81), 57-64.

A. presents a wide variety of medical 'novelties' in I.S. - even claiming that in some way I.S. is more progressive than present-day medical science! Moreover, he does not hesitate to state that I.S. appears in many of his works as a consistent mediator of materialist ideas (sic!).

An over-glorification of I.S.'s medical innovations, presented inside an outspoken materialistic frame of interpretation.

(34) MUHAMMAD, U., Avicenna as a Clinician, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 87-90.

Acc. to A., I.S. based the pathogenesis of diseases on humoral theory - in agreement with Greek thought. A. describes I.S.'s diagnostic skill, as well as his performances in the domain of psychotherapy as almost unequalled in the history of medicine.

The prudent approach of the beginning of this paper is unfortunately all too quickly forsaken!

(35) MÛSÂ, J., Ibn Sîna and his Book : "The *Canon*", in : *Pensée arabe...*, 482-502 (Ar).

A. offers a classical survey of I.S.'s major medical ideas regarding such items as the relationship between philosophy and medicine; symptoms and treatment of diseases; diagnostics, and preventive medicine (based on the *Canon*).

Valuable, although introductory.

(36) MUSALLAM, B., art. Avicenna-Biology and Medicine, in : *Enc. Ir.*, 94-99.

Acc. to A., the contest between Galen and Aristotle was nowhere as dramatic as in I.S.'s works. Although I.S. was committed to the Aristotelian point of view, he accepted the new (post-Aristotle!) Galenic evidence in anatomy and physiology, and tried to interpret it so as to fit the Aristotelian theory. As to the *Canon*, A. stresses that it is unique as a magisterial exposition of Galenic medicine in the Arabo-Islamic world of the 9th-11th C. But, in contradistinction to his famous predecessor al-Majûsî, I.S. explicitly wished to delineate the proper area of medicine, and specify how it differs from natural philosophy. With respect to I.S.'s biological views, A. concentrates on the *K. al-Ḥayawân*, *Book of Animals* of the *Shifâ*, *Cure*. In this work, he distinguishes three different kinds of texts :

1. Summaries of Aristotle's *Historia Animalium* and *De Generatione Animalium* (according to Ibn al-Bîṭrîq's Arabic translation);
2. Elements of a new synthesis by the introduction of Galenic materials - but saving Aristotle's theory in the end (A. mentions in this respect I.S.'s theories of the heart and of sexual generation);
3. Substitutions - almost the entire part paralleling Aristotle's *De Partibus Animalium* is directly derived from the *Canon* (A. offers a table of concordance between the *K. al-Ḥayawân* and the *Canon*).

A. remarks that the space devoted to anatomy in the *Canon* is more than double than that found in Aristotle, and that there is a clear tendency to narrow the focus of biology from the living creation as a whole to man. He concludes that I.S. probably never finished the *K. al-Ḥayawân* himself having only written the basic outline of the main topics (B. 11 contains such an original outline by I.S.).

A significant paper, especially with respect to I.S.'s *Book of Animals*, and the basic background of I.S.'s conception of medicine.

(37) NADER, A., Avicenne médecin, in: *Orientalische Kultur u. Europäische Mittelalter*, 327-343.

After a brief description of the development of Arabic medicine before I.S., and of I.S.'s life, A. concentrates on the *Canon*. A first offers a succinct survey of its different parts also paying attention to its method (the general preceding the particular - philosophically based option), its classification (modern, but with some mistakes) and its sources (not always easy to detect). Hereafter, A. presents some major topics of I.S.'s medical teachings, such as e.g. diseases, their symptoms and their treatment, surgery, ophtalmology, and psychotherapy. A. concludes that for I.S. the medical art was only a part of the all-encompassing domain of philosophy. In a kind of appendix, A. surveys the high-points of the Latin translations of I.S.'s medical works.

A good introductory paper - indicating very well the exact place I.S. reserved for medicine, but questionable on some particular points (e.g. A.'s contention that I.S. recognized the existence of an intermediary state between health and disease, and even divided it further into three subdivisions).

(38) NUSEIBEH, S., Avicenna : Medicine and Scepticism, in : *Koroth*, 8<sub>1-2</sub> (81), 9\*-20\* (Engl Sect.); 9-10 (Hebrew).

Out of I.S.'s remark (in his *Ta'liqât, Notes*) that it is humanly impossible to stand upon the reality of things, A. concludes that there is a rational scepticism in I.S.'s theory of knowledge, and asks how it may be reconciled with I.S.'s association with, and practice of medicine? For I.S., medicine was not a 'real' science, and the distinction between theoretical and practical medicine is a distinction on the whole between descriptive statements of principles and prescriptive statements of practice. Consequently, empirical discoveries can only be made meaningful against the background of an already given theoretical model. So, the aim of medicine appears as the formulation of a set of beliefs. Moreover, I.S. defines the relationship between a particular and a universal in terms of a catalytic function, and as being merely one of conjunction. A. concludes that I.S. was an anti-inductivist, although not an epistemic passivist or anti-empiricist.

An interesting and original paper, but one may wonder whether I.S. was really a "rational scepticist"? Compare also, *Logic*, B 7.

(39) PETROV, B., Study of Ibn Sînâ's Medical Heritage, in : *27. Int. Congr. Hist. Med.*, II, 746-749; also in : *Klin. Med.* (Moscow), 59<sub>1</sub> (81), 7-12 (Ru), and in : E. SCHULTHEISZ (Ed.), *History of Physiology*. London, Elmsford; New York, Pergamon, 1981, II, 49-51.

A. formulates some kind of program for further research on I.S. as a physician and as a scientist. He hereby defends an outspoken Marxist approach, and sharply criticizes Western scholars (in a very general, and totally unfounded way).

Of no importance.

(40) ID., The Medical Legacy of Ibn Sînâ, in : *Sov. Zdravookh.*, 1980<sub>9</sub>, 53-56 (Ru) (the same as 39?).

(41) PITSKHELAURI, G., Abû 'Alî ibn Sînâ and His *Canon of Medicine*, in : *Sov. Zdravookh.*, 1973<sub>12</sub>, 73-75 (Ru).

(42) PULATOV, A., Ibn Sînâ and his Scientific and Medical Legacy, in : *Vrac. Delo*, 1980<sub>9</sub>, 1-6 (Ru).

(43) SAID, K., Ibn Sînâ as a Physician, in : *Stud. Hist. Med.*, 5 (81), 298-307.

A. presents I.S. as a kind of super-human Being, and the *Canon* as an almost sacred book. He discovers great originality in I.S.'s medical ideas, general as well as specialized (in almost all fields!).

A. clearly overemphasizes the merits of I.S., and his innovations.

(44) ID., *Le Canon de la médecine. Un moment du savoir*, in : *Le Courrier de l'Unesco*, 1980<sub>10</sub>, 13-17; also in (but differently entitled : Zuviel Erfolg für Avicenna?) : *Med. Welt (Stuttgart)*, 32 (81), Nr. 39, 62-63.

A. offers a brief summary of the *Canon*, but points also to I.S.'s introduction of Aristotelian principles (the doctrines of the four causes and of the four elements) into his medical theory. A few major items and innovative ideas of I.S.'s medical writings are also mentioned.

A valuable first introduction.

(45) SAIPOV, U. and KADYROV, A., *Veliky sredne-aziatsky ucheny medik A.A.i. Sinui (The Great Central-Asian Scholar and Man of Medicine Ibn Sînâ)*. Tashkent, Meditsina, 1980, 102 pp.

(46) SAKAITA RAMA RAO, G., Contribution of Avicenna in Therapeutics Reflecting on Modern Medicine, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 118-122.

An amalgam of I.S.'s medical ideas is presented by A. - with some special attention to healthcare and therapeutics.

Of almost no significance.

(47) SÂLIM, F., Ibn Sînâ, the Physician, in : *Al-dhikr...*, 59-77 (Ar).

In the introduction of this paper, A. insists that for I.S. medicine is subordinated to philosophy, and he hereby points to the doctrines of the unity of body and soul (citing Thomas Aquinas!), and of man as microcosm (referring to I.S.'s *R. fi 'l-'ishq, Tr. On Love*). For A., it is certain that I.S.'s medicine is the result of a

synthesis between Greek thought and Islamic wisdom. So, not only philosophy, old and contemporary medicine, and experimentation, but also *shari'a* (Islamic Law) can be found among its roots. The basic principles of I.S.'s medicine are presented in a rather conventional way, while I.S.'s innovations are briefly dealt with (acc. to A., they consist in the introduction of causality; prevention; transfer of diseases; experimentation; psychosomatics and pharmacology!). To conclude, A. situates I.S. in the history of medicine.

Introductory - but it is certain that A. overestimates the "Islamic impact" on I.S.'s medicine.

(48) SCHIPPERGES, H., *Eine "Summa Medicinae" bei Avicenna. Zur Krankheitslehre und Heilkunde des Ibn Sînâ (980-1037). (Sitzungsber. Heid. Akad. Wiss., Mathematisch-Naturwiss. Kl., Jg. 1987, Abh. 1).* Berlin, Heidelberg, Springer Verlag, 1987, 58 pp.

A. presents I.S. as a 'modern' human being, because he occupied himself with such different domains as philosophical wisdom, scientific experimentation and political responsibility. Acc. to A., medicine functions in I.S. as a model-science : it illustrates by its very nature the interdependence of the different sciences (the systematization of the sciences being based on the division into theoretical and practical). After these introductory remarks, A. specifically concentrates on I.S.'s *Canon*, which he still considers to be a real "Summa Medicinae". Among A.'s many observations we may note :

His insistence on the presence of both theory and praxis in the *Canon*;

His contention that I.S. physiological opinions, which were mainly based on Galen, put an end to ancient medicine, and offered a guarantee for all future medicine;

The explanation by I.S. of all pathologies based on his doctrine of the four temperaments;

The necessity of both *ratio* and *experimentum* in order to clarify the therapeutical value of drugs;

I.S.'s doctrine of the '*regimen sanitatis*'.

A. also offers a well-documented bibliography.

A valuable study, but one may wonder whether A. does not fall victim to his undoubtedly great admiration for I.S.?

(49) SCHUB, M., Avicenna, in : *S. Afr. Med. J.*, 45 (72), 675-676.

Very general, based on doubtful sources.

Of no value.

(50) SHARMUHAMMEDOV, S., *Abû 'Alî ibn Sînâ (Avicenna).* Dushanbe, Ac. Tadj. of Sciences, 1980, 18 pp. (Ru).

(51) SLAMA (BEN), H., Ibn Sînâ et sa contribution à la médecine, in: *Avicenne*, 29-32 (Ar).

Miscellaneous ideas.

Of no great value.



(52) SMITH, R., Avicenna and the Canon of Medicine: A Millennial Tribute, in: *West. J. Med.*, 133 (80), 367-370.

A survey of the general outline of the *Canon*, selecting a few relevant examples in order to show what kind of medicine I.S. adhered to.

Honest, but introductory.

(53) ID., Tribute to Avicenna: One Thousand Years of the Art of Preserving Health, in: *J. Kansas Med. Soc.*, 82 (81), 359-360, 372. Almost the same as 52, but paying some special attention to I.S.'s ideas on the preservation of health.

(54) VIESCA TREVIÑO, C., La medicina de Avicena, in: *Med. Trad. (Mexico)*, 45-51 (N.C.).

(55) VOSKOBOINIKOV, V. (transl. RAHMONOV, A.), *Hakimi buzurg: Ibn Sînâ (A great Sage: Ibn Sînâ)*. Dushanbe, Irfon, 1980, 248 pp.

(56) WEISSER, U., Ibn Sînâ und die Medizin des arabisch-islamischen Mittelalters. Alte und neue Urteile und Vorurteile, in: *Med.-Hist. J.*, 18<sub>4</sub> (83), 283-305.

A. discusses three major tendencies one may find in the interpretation of I.S.'s medicine during the last two centuries. The first tendency had a general negative prejudgment against the Islamic culture. Some authors (Sprengel among them) criticized I.S. for his major contribution to the stagnation of the development of medicine. Another tendency, shown by Neuburger, had its origin in historicism, and described I.S. as a genius who systematized in a most logical way the total Graeco-Arabic corpus of medical knowledge - although I.S. is presented at the same time as being above all a theoretician, who possesses almost no practical experience. The trend to glorify I.S. even became stronger during the last decennia - some authors presenting I.S. a real innovator on the theoretical as well as on the practical plane. A. judiciously remarks that particular attention has to be paid to the specific terminology (and that the Latin translation by Gerard of Cremona may be useful in this respect), to historical circumstances and to the possibility of new discoveries by pure theoretical means. A. hereafter enumerates a lot of innovations which were wrongly ascribed to I.S., and observes that it is sometimes very difficult to 'remove' them - even from scientific publications! A. concludes that I.S.'s contribution to the development of medicine was mainly of a theoretical kind - I.S. practicing medicine in a rather sporadic way, as becomes evident in his *autobiography*, and his considering medicine not to be a science of primary importance.

A very fine, and most fundamental paper.

(57) WRIGHT, D., *The Prince of Physicians, Ibn Sînâ (Avicenna) (Cameo Sketches on Eminent Figures in Medicine, I)*, in: *J. Kuwait Med. Ass.*, 21 (87), 62-66.

After a most conventional account of I.S.'s life, A. briefly presents the main ideas of *Canon*, book I (A. hereby stresses that I.S.'s theoretical framework, however strange it may seem, now, "worked" in his time). With Shah and Gruner A. evokes also the possibility of Chinese and Indian sources for I.S.'s medical ideas.

Of no great importance.

(58) ZAMÂN HUSAYNÎ ŞÂHÎB, M., *Shaykh Abû 'Alî Ibn Sînâ, the Genius of the Canon of Medicine*, in: *Indo-Iranica*, 34 (81), 1-43 (Pers).

After a general introduction, A. examines I.S.'s fundamental purposes for writing his *Canon*, paying attention to some later Arabic sources, which discussed I.S.'s work. Further, A. expounds several, according to him innovative remedies, as well as some rare diseases present in the *Canon*. Finally, A. discusses the influence of the *Canon*, and offers extensive lists of I.S.'s own medical writings, as well as of compendia of, and commentaries on his *Canon*.

Good, but introductory, and not always critical with respect to I.S.'s real originality.

## B. Deontology and Bedside Manner

### I. DEONTOLOGY

- (1) AŞÇIOĞLU, O., Ibn Sînâ and Deontology, in: *Kayseri-Kongr.*, 79-93 (Tu).
- (2) MUKHITDINOV, B., Ethical Principles of A.A.i. Sînâ, and the Problems of Modern Deontology, in: *Vestn. Rentgen. Radiol.*, 1980<sub>3</sub>, 80-82 (Ru).
- (3) NURALIEV, Y., Avicenna and Problems of Medical Ethics, in: *Klin. Med. (Moscow)*, 1980<sub>10</sub>, 112-114.

### II. DIAGNOSTICS

- (1) PETROV, B., Diagnostics in the System of the Medical Works of Ibn Sînâ, in: *Klin. Med. (Moscow)*, 57<sub>12</sub> (79), 91-96 (Ru).
- (2) YÜSECOY, M., Patient's Examination according to Avicenna, in: *Kayseri-Kongr.*, 143-148 (Tu).

## C. Psychophysiology and Psychiatry

### I. PSYCHOSOMATICS

(1) 'AMMAR, S., Avicenne (980-1037). Rôle et importance du psychisme et du système nerveux dans la médecine d'Avicenne, in : *Médecine et Hygiène*, 958 (71), 581-584 and 959 (71), 616-618.

A. presents I.S. as a super-genius, who was the second (sic!) master after Aristotle. I.S.'s psychosomatal "skill" is considered by A. as evident (because of the well-known stories in Nizâmî - although A. does accept that there were Greek precedents for these stories). A. discovers in I.S. a pre-cursor of actual morpho-psychology, and also of many actual hygienic opinions. Moreover, he suggests that I.S.'s musical theory is primarily elaborated as a therapy for mental diseases. For him, I.S. defended without any doubt a psychosomatal approach of medicine.

Esp. in the light of 2, A.'s basic thesis seems very questionable.

(2) BORSZÁK, I., Avicennas Qânûn in Westlichen Ärztekanon, in : *Acta Ant. Ac. Sc. Hung.*, 29 (81), 65-72.

After having presented some evidence of the great esteem in which the Latin Renaissance held I.S. as a physician, A. devotes the main part of his paper to the famous story of Antiochus and Stratonikè (and the implied idea of a psychosomatic disease), and remarks that whereas the West ascribed the role of 'clever Wise man' to Erasistratas, Hippocrates or Galen, the East bestowed it on I.S.

Well-documented - most significant regarding I.S.'s so-called discovery of psychosomatics, or psychotherapeutics.

(3) JALÎLÎ, A., Certain Indications of the Psychic Foundations of the Avicennian Medicine, in : *Hazâra-i Ibn Sînâ*, 369-382 (Pers).

Acc. to A., I.S. was well aware of psychosomatics, and even of the pure psychic basis of various diseases. Moreover, I.S. held some observations on psychotherapeutics. Several times A. links also ideas, ascribed by him to I.S., with contemporary views. His main sources are the *Canon*, and, more importantly, the *Chahar Maqâla* of Nizâmî.

A. clearly overestimates I.S.'s personal contribution to the very idea of psychosomatics, as well as to the development of psychotherapy.

(4) MAHDIHASSAN, S., A Legendary Diagnosis by Avicenna Traceable to Galen, in : *Hamdard Med.*, 26<sub>4</sub> (83), 60-62.

A. points to the fact that a dramatic account of a psychosomatic diagnosis by I.S. of a love-sickness had a precedent both in Galen and in Erasistratus.

Good, basically the same as 2, but less developed (moreover A. seems to believe that I.S. was a real practitioner of psychotherapeutics).

(5) SCHULTHEISZ, E., Avicenna as a Psychosomatal Physician, in : *Orv. Hetil.*, 121 (80), 3171-3173 (Hung).

(6) SHAFII, M., A Precedent for Modern Psychotherapeutic Techniques. One Thousand Years Ago, in : *Am. J. Psychiatry*, 128 (72), 1581-1584.

Out of Nizâmî's famous story, A. concludes that the use by I.S. of psychotherapeutics was innovative.

Of no value. See 2.

(7) TAYIB, M., Psychological Approach of Ibn Sînâ towards the Science of Behaviour, in : *Ind. J. Hist. Sc.*, 21 (86), 363-367.

A. presents I.S. as a physician who had already developed the basic idea of Pavlov, and who had a clear idea of psychosomatics.

Almost of no value.

## II. PSYCHIATRY

(1) BAYRAM, M., Avicenna and Psychiatry, in : *Kayseri-Kongr.*, 97-100 (Tu).

(2) GÖKAY, F., Turkish and Islamic Psychiatry and Ibn Sînâ, in : *Ulusl. I. Türk-Islam Belim ve Tekn. Tarihi Kongr.*, 5 vol. Istanbul, 1981, II, 191-196 (Tu).

(3) GÖKSEL, A., Psychology and Psychiatry of Avicenna, in : *Ulusl. I.S. Semp.*, 563-566 (Tu), 567 (Engl S.).

Acc. to S., A. stresses the central place that the concept of *psychè* occupies in I.S.'s system, paying attention to I.S.'s theory of pathogenesis in mental disorders, as well as to his psychodiagnostic method.

## D. Hygiene

(1) AROUA, A., *Hygiène et Prévention médicale chez Ibnou Sînâ (Avicenne)*. Alger, SNED, 1974, 106 pp.

As far as can be determined, the first encompassing study on I.S.'s hygienic views. A. first mentions the physiological and epidemiological basis of I.S.'s theory. Then, A. discusses the hygiene of the "interior environment", as well as of the "exterior environment". Further, A. deals with infectious diseases and wounds, and their treatment. Finally, A. concentrates on the special hygiene of eyes, ears and teeth. In all these matters, A. offers long citations from the *Canon* (but A. omits to give the exact references), along with limited interpretations, which reflect actual insights.

Meritorious, insofar as it is a pioneering work, but in need of improvement.

(2) ID., Ibn Sînâ et la prévention médicale, in: *Avicenne*, 57-61 (Fr).

A brief summary of 1.

(3) ID., L'hygiène et la prévention chez Ibn Sînâ, in: *Tunis méd.*, 58 (80), 556-559.

A slightly reworked version of 1, ch. 2-3.

(4) ID., L'hygiène et l'environnement chez Ibn Sînâ, in: *Avicenne*, 39-44 (Ar).

Similar ideas as those found in 2 and 3.

(5) ID., Préceptes et conseils du Dr. Avicenne, in: *Le Courrier de l'Unesco*, 1980<sub>10</sub>, 18.

Summary for a larger public of 1.

(6) ID., The Protection and the Conservation of Health, in: *RAA Damas*, 61 (86), 49-80, 273-304, 504-552 and 678-710 (Ar).

An improved version of 1 - the general structure has been ameliorated, the citations are specified, and some parts (e.g. on parasites) are presented in more detail. But A.'s basic perspective remains unchanged. For a critical supplement to this study, see *supra*, A, 17.

(7) ATABAEV, SH., BABAKHODZAEV, N. and IL'INSKII, I., Hygienic Views of Ibn Sîna (in the Millenary of his Birth), in : *Gig. i san.*, 1979<sub>12</sub>, 36-40 (Ru).

(8) KAHHOROV, G., Hygienic Ideas of Avicenna, in : *Fel'dsher Akush*, 1984<sub>2</sub>, 52 (Ru).

(9) MOSHKOV, V., A.A.i. Sîna on Physical Exercises and Massage, in : *Vopr. Kurort. Fizioter.*, 1981<sub>1</sub>, 66-67 (Ru).

(10) MUSALLAM, B., *Sex and Society in Islam (Cambridge Stud. in Isl. Civ.)*. Cambridge, Cambridge Univ. Press, 1983, <sup>2</sup>1986 deals with I.S.'s theory of conception (46-49), and I.S.'s discussion of contraception in the *Canon* (67-68; 86).

Acc. to A., I.S., in his *K. al-Ḥayawân, B. of Animals*, integrates the post-Aristotle biological observations (e.g. the discovery of the ovaries) into the Aristotelian system. However, one finds another, more eclectic treatment of generation in the *Canon*. For A., this fact well illustrates that for I.S. medicine is an independent art, having different requirements than those of natural philosophy. Regarding I.S.'s theory of contraception in the *Canon*, A. points out I.S.'s dependence on al-Râzî. He also pays attention to the way in which the European churchmen masked birth control information, although the Latin version of the *Canon* shows no sign of censorship.

A significant contribution.

(11) NABIELEK, R., Sexualerziehung im Werk des Avicenna. Ein Beitrag zur arabisch-islamischen Sexualgeschichte, in : *N.T.M. (Leipzig)*, 13<sub>2</sub> (76), 82-87.

A. first points to the fact that the Islamic world had a different approach to sexuality than the Christian world. In I.S.'s conception (which has to be gathered from different parts of his works), sexuality finds its philosophical-ethical foundation in the classical theory of the harmony between the upper and the lower parts of the soul. In practical sexual education, I.S. incorporated the prevalent social views - the predominance of man, and procreation being the principal source of sexual intercourse. A. concludes that I.S. viewed sexuality rather positively, although he (on ethical grounds) rejected pleasure in itself as a proper motive for the sexual act. It may be noted that A. observes that I.S.'s description of the function of the clitoris sounds very modern, but, at the same time, indicates that it is a logical consequence of I.S.'s theory of the female *samen* (based on Galen and Alkmaion of Croton).

An exemplary case-study!

- (12) ÖZÜGÜL, Y., Sport during the Lifetime and Termal Spring (sic!) according to Avicenna, in : *Kayseri-Kongr.*, 170-172 (Tu).
- (13) PAYZIN, S., The Summaries related to the Effect of Climate and Environment to (on?) Health and Diseases in the *Canon* of Avicenna, in : *Kayseri-Kongr.*, 161-169 (Tu).
- (14) PETROV, B., Problems of Public Health in the *Canon* of Ibn Sîna, in : *Gig. i. san.*, 1980<sub>5</sub>, 22-25 (Ru).
- (15) RAHMAN BAIG, M., Avicenna's Principles of Dietetics, in : *Bull. Ind. Ist. Hist. Med.*, 11 (81), 95-98.  
A general overview of I.S.'s observations in the *Canon* about food and dietetics - no analysis being offered (A. just states them as the result of observation and experience).  
Of no great significance.
- (16) SHAYUSUPOVA, M., Ibn Sîna. Views on Hygiene, in : *Problemy Gig. i Organ. Zdravookh. Uzb.*, 1 (73), 45-46 (Ru).
- (17) ÜSTÜNBAŞ, B., Avicenna and Public Health, in : *Kayseri-Kongr.*, 70-74 (Tu).



## E. Pediatrics

(1) DILMEN, U., Avicenna and Diseases of Children, in : *Ulusl. I.S. Semp.*, 569-573 (Tu); 573 (Engl S.).

Acc. to S., a short enumeration of all diseases in children known to I.S.

(2) HASANOĞLU, A., Avicenna in Pediatric Medicine, in : *Kayseri-Kongr.*, 75-78 (Tu).

(3) KEKLIK, N., Conditions of an Equilibrated Complexity in the Infant and the Young Man according to Ibn Sînâ, in : *Ibn Sînâ, Doğumunun...*, 249-255 (Tu).

(4) SHAMANSUROV, SH. and MADZHIDOVA, A., Ibn Sînâ and Childhood Diseases, in : *Pediatriya*, 1980<sub>7</sub>, 70-71 (Ru).

(5) TERZIOĞLU, A., Ibn Sînâ and Turkish Infantile Psychiatry, in : *Ibn Sînâ. Doğumunun...*, 257-273 (Tu).

(6) YURDAKÖK, M., Avicenna and Baby Care, in : *Ulusl. I.S. Semp.*, 425-432 (Tu), 432 (Engl S.).

Acc. to S., A. concentrates on I.S.'s remarks about breast-feeding, as well as on other aspects of baby care.

## F. Geriatrics

(1) GUSIO VL., DUMITRU, M. and ECONOMOU, SM., Aspects gérontologiques dans l'œuvre d'Avicenne, in : *Proc. 16th Int. Congr. Hist. Sciences*, 386.

French abstract (it has not been determined whether the original was ever published) indicates the existence of different gerontological aspects in I.S.'s medical work.

(2) HOWELL, TR., Avicenna and His Regimen of Old Age, in : *Age and Ageing*, 16 (87), 58-59.

(3) ID., Avicenna and the Care of the Aged, in : *The Gerontologist*, 12 (72), 424-426.

2-3: enumeration of the most important passages in the *Canon* concerning gerontology, particular attention is paid by A. to thesis 3 of B. I in his 3.

Both papers together offer a serious basic outline for I.S.'s gerontological views.

(4) PITSKHELAURI, G. and JORBENADZE, D., Gerontology and Geriatry in the Works of A.A. ibn Sînâ, in : *Sov. Zdravookh.*, 1970<sub>10</sub>, 68-71 (Ru).

## G. Anatomy

(1) IONESCU, M., La contribution d'Avicenne au progrès de l'anatomie humaine du Moyen Age, in : *Al-turâth al-'arabî*, 27 (82), 215-220 (Ar); Fr S. in : *Proc. 16th Int. Congr.*, 387.

A. presents I.S. as the anatomist par excellence of his times. Acc. to A., I.S. not only systematized the totality of the anatomical knowledge of his Greek and Arabic predecessors, but also formulated some new insights, and, above all, asserted that anatomy was the very basis of medicine.

Of no great value - such a highly positive judgment being not justifiable, see 3.

(2) KUPRINALOV, V., Outstanding Contribution of the Works of Avicenna to the History of Anatomy, in : *Arkh. Anat. Gistol. Embriol.*, 1980, 109-111 (Ru).

(3) NABIELEK, R., Hat Avicenna (930-1037) bereits zwischen *Cortex* and *Medulla Cerebri* unterschieden?, in : *NTM (Leipzig)*, 22<sub>1</sub> (85), 53-65.

Acc. to G. Rath (in his Ph. D.-Thesis. Bonn, 1948), I.S. already distinguished *cortex* and *medulla cerebri* in his *Canon*, III, 1.1.2 (acc. to Latin translation of Gerard of Cremona). A. reexamines this passage. He first points out that in I.S. (as in all ancient and medieval authors) *encephalon*, Ar. *dimâgh*, Lat. *Cerebrum*, has a rather broad sense - its denotation being larger than the strict substance of the brain. Moreover, A. takes into account the Arabic original (giving some imprecisions of Gerard's translation), and pays special attention to Galen's theory of the brain. A. convincingly shows that I.S. clearly follows Galen, at least as far as the neurophysiological point of view is concerned. For the structure of the bodily tissues, I.S. adopted Aristotle's point of view. A. concludes that the above distinction remained unknown till Vesalius.

A study of utmost value.

(4) ORTUG, G., Über die Arbeit von Ibni Sina für die Blutgefäße, von denen man Blut entnommen werden kann (sic!), in : *Ulusl. I.S. Semp.*, 257-272 (Tu); 272 (Germ S.).

Acc. to S., a study on the veins that I.S. believed to be candidates appropriate for venesection (based on I.S.'s treatise *Al-faşd, On Venesection*), and a comparison with contemporary opinion.

- (5) USMANOVA, R., Ibn Sîna on the Musculoskeletal System, in : *Arkh. Anat. Gistol. Embriol.*, 1980<sub>8</sub>, 112-114 (Ru).

## H. Physiology

(1) AROUA, A., The Physiology of Respiration, according to Ibn Sînâ, in : *I. Int. Conf. Isl. Med.*, 204-210.

A. considers I.S.'s description of respiration physiology as an historical landmark in the approach to respiratory mechanics. Outlining this description in view of actual respiratory theory, A. stresses that I.S. prefigures on several occasions the medical revolution of the Renaissance (e.g. in his analysis of the nature and the role of the respiratory exchanges). However, A. also recognizes that I.S. sometimes makes the same mistakes as his predecessors, especially Galen (e.g. in the description of the blood circulation).

Valuable, although there is a clear tendency by A. to use modern terms in his interpretation of I.S.

(2) HUSSAIN, S., Body Fluids according to Avicenna, in : *Bull. Ind. Inst. Hist. Med.*, 13 (83), 52-58; also in (differently entitled : Fluid Dynamics, according to the *Canon*) : *Hamdard Med.*, 26<sub>3</sub> (83), 76-83.

A. presents I.S.'s theory of bodily fluids as highly innovative, and, even from the present point of view, very unique. He points *inter alia* to I.S.'s distinction between primary and secondary fluids (indicating that I.S. probably knew about the distribution and exchange of electrolytes between the various body fluids), his connecting bodily fluids with germinal continuity (I.S. prefiguring Weismann) and his postulating a very ingenious concept of fluid dynamics which can be termed as "Calorie-Fluid Relationship" (and being the basis for growth and senescence). It has to be noted that A. always cites I.S.'s original Arabic terminology, and offers two tables - concerning the classification of body fluids, and concerning fluids and germinal continuity.

A.'s explicit attention to I.S.'s own terminology is most gratifying, but his identification of it with present terminology is highly questionable since there exists no real basis for any kind of valuable comparison in the physiological field.

(3) HUSSAIN, S. and WAHEED, S., Contribution of Avicenna to the Physiology of Growth and Ageing, in : *Hamdard Med.*, 28<sub>1</sub> (85), 90-94.

A further development of a particular point of 2 - the basic approach remaining exactly the same. Authors state that I.S.'s definition of growth has not been improved by modern science, and that nothing in his physiological theory of

growth and ageing can be contradicted by the modern advocates of the positive and negative nitrogen balance.

For critical evaluation, see 2.

(4) KHAN, Z., Reproductive Physiology as seen by Ibn Sîna - Need for Research, in : *Med. Times (SPEM)*, 17<sub>2-3</sub> (82), 18-20 (N.C.).

(5) ORMOS, I., The Theory of Humours in Islam (Avicenna), in : *Quaderni di Studi Arabi*, 5-6 (87-88), 601-607; also in (?) : *Keletkutató*, 1987<sub>2</sub>, 63-68 (Hung); 148 (Engl S.).

A. summarizes in a clarifying way I.S.'s theory of humours, according to *Canon*, book I (A. uses the critical 1982-ed. - see *Works*, B I). A. is conscious of the fact that I.S. dealt elsewhere with this subject, and that the rest of the *Canon* has to be investigated in order to know how I.S. applied his theory in practice. Nevertheless, this primary outline permits him to formulate some pertinent conclusions :

1. The physiological system presented by I.S. was a highly speculative system (but A. recognizes that another solution was impossible at that time);
2. I.S. does not seem to have been aware of the difference between a fact and a hypothesis;
3. I.S. seems to have limited himself to the presentation of an extremely short, concise epitome of Galen's relevant works.

Introductory, but most enlightening - although one may wonder whether A.'s third conclusion, as far as it describes I.S. to be an epitomizer of Galen, is not formulated somewhat overhasty?

(6) RAHMAN, S., Avicenna on Digestion of Food, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 59-63.

A. first outlines the basic anatomical and physiological knowledge, which the Greeks had elaborated, and which was commonly accepted in I.S.'s times. He most lucidly uses this knowledge as an appropriate background for the presentation and analysis of I.S.'s theories on digestion and on the formation of humours (significant in this respect is his observation that "in the absence of the knowledge of digestive juices, it had to be assumed that the food was digested by the heat of the body"). He does not hesitate to state that I.S.'s description of the formation of urine is unclear (I.S. probably ignoring Galen's explanation).

A valuable paper - but A. unfortunately does not indicate his text-source (probably *Canon*, b. I), and his treatment of the subject is certainly not exhaustive.

(7) SANKARAN, J., Avicenna's Thoughts and Concepts of the Pulse (Sphygmology), in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 64-74.

Based on *Canon*, Book I (acc. to Gruner's translation), A. surveys and analyzes in great detail all observations of I.S. about the pulse - its definition (acc. to A., still valid, at least when one takes into account I.S.'s ignorance of gaseous

exchange and circulation), its description (largely based on Galen), its rhythm (almost musical, as in Galen, as well as in Chinese medicine), its various names when being irregular, its designation as natural (A. hereby remarks that I.S. does not understand it as simply referring to a mean between two extremes, as was the case in Galen); the causes of its production (A. hereby gives a few brief indications about similar ideas in classical Chinese and classical Indian medicine).

Valuable - but in need of further development as to possible sources, or historical parallels.

(8) SHETTY, P., A Critical Analysis of Avicenna's Contribution to Physiology, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 152-160.

A. rightly points out that I.S.'s scientific achievements may not be judged by the criteria of present Western science. But he stresses at the same time that, at least as far as anatomy and physiology are concerned, I.S. was influenced by Galen - whose doctrine formed a permanent barrier, while dissection was forbidden by religion, and, anyhow, difficult, in the given climate. I.S.'s conception of the pulse as an expression of the heart's activity, constitutes for A. a decisive proof of the former's passion for observation and documentation. As to I.S.'s concept of *rûh*, vital force, A. observes a major difference with Galen's *pneuma*, because I.S. defined it as a luminous substance, carried by the heart and blood vessels (therein A. discovers a very modern sense). A. concludes with a few brief observations about I.S.'s physiological theory of the nervous system.

A somewhat ambiguous paper. A.'s "premisses" being excellent, but not *always* fully applied by himself.

(9) USMANOVA, R., Digestive Physiology in the Works of Ibn Sînâ, in : *Fiziol. Zh.*, 66 (80), 1424-1428 (Ru).

(10) YAROSKEVSKIÏ, M., The Role of Ibn Sînâ in the Evolution of Medical Psychophysiology, in : *16th Int. Congr. Hist. Sciences*, 379-381 (Ru).

*See also* : S. 5.

## I. General Diseases

### I. CONTAGIOUS DISEASES

(1) ABDULLAEV, A. and SHARAFIDDINOV, T., Ibn Sîna on Leprosy, in : *Vestn. Derm. Vener.*, 1981<sub>5</sub>, 76-79 (Ru).

(2) CARRERAS PANCHÓN, A., Sobre el concepto de Pestilencia (*Wabâ'*) en el *Canon* de Avicena, in : *Asclepio*, 33 (81), 265-273.

Out of a detailed analysis of *Canon*, 4.1.4. - the fragment on *wabâ'* (A. using both the Venetiis 1582-ed. and an unpublished translation from the Arabic original by F. DIAB), A. makes it obvious that I.S.'s theory of pestilence was based on Greek medicine, especially Galen - this being valid both for the general description and the specific clinical observations). Moreover, *wabâ'* is used by I.S. in the same broad sense as was characteristic for the Galenic *loimos*. Only as far as the premonitory signs are concerned, one may find personal observations by I.S., but those being of a rather speculative kind! A. however judiciously remarks that there existed no possibility whatsoever for I.S. to have a direct, or even close experience of an epidemic of pestilence. A. concludes that I.S. offered a somewhat better systematization of the Hippocratic and Galenic writings (I.S. paying some (moderate) attention to the Qur'anic tradition), although he did not present any new insights.

A very valuable case-study.

(3) GUERRA, FR., The Description of Syphilis in Avicenna, in : 27. *Congr. Int. Hist. Med.*, II, 731-733.

A. points out that in classical Arabic works on medicine, one finds the term of *sahafati*. I.S.'s explanation in the *Canon* permits us to identify it with syphilis (also al-Râzî mentions it, but I.S.'s description appears superior).

An interesting study - discussing a disease unknown to the Greeks, and most probably discovered by the Arabs (although one cannot exclude a priori the possibility of an Indian (or even another ancient) source).

(4) SARI, N., Ibn Sîna's Views on Rabies, and its Influence on Ottoman Medicine, in : *Ulusl. I Türk-Islam Bilim ve Tekn. Tarihi Kongr.* 5 vol. Istanbul, 1981, II, 59-69; also in : *Ibn Sîna. Doğumunun...*, 309-316, 318 (Tu); 317 (Engl S.).

A. discusses the different aspect of I.S.'s theory on rabies in the *Canon* (using



some manuscripts). A. stresses that I.S.'s description of rabid animals reveals the qualities of the perfect observer - these qualities being confirmed by I.S.'s detailed account of the prognoses and the progress of the illness in man (with its particular attention to the symptom of hydrophobia). I.S.'s prescriptions concerning the treatment of the wound (the application of various ointments, blisters and drugs, but, above all, the cauterization of the wound) are considered by A. as clear progress in the history of medicine. The great importance of I.S.'s contribution to this field becomes evident in some later Ottoman medical writings (14th-18th centuries).

A well-documented paper.

(5) SHARMA, O., Avicenna's Description of Tuberculosis, in: *Bull. Ind. Inst. Hist. Med.*, 11 (81), 83-86.

A. summarizes I.S.'s account of tuberculosis (predisposing factors, symptoms, clinical manifestations, treatment) based on the *Canon*. He affirms that I.S.'s classification of tuberculosis into three stages is the same as that of modern medicine.

At most, introductory.

(6) THÉODORIDÈS, J., Ibn Sîna et la rage, in: *27. Congr. Int. Hist. Med.*, II, 756-760.

A. presents a rather detailed description of I.S.'s theory on rabies in the *Canon* (A. hereby uses a French translation by H. CAMUSSI of this part of the *Canon*, which was published as a separate tract in *Journal Asiat.*, 1888). A. affirms that this description is highly precise and detailed, but points at the same time to the absence in I.S. of an attempt to specify the etiology and the localisation of the disease (as Caelius Aurilianus had done before him). Nevertheless, I.S. excelled in some respects, i.e. his insistence on the presence of urinary troubles in a rabid man, and his therapeutical advice (most especially his description of preparations based on *Lytta vesicatoria L.*).

A valuable paper.

*See also*: R. 2.

## II. CANCEROLOGY

(1) ERDOGAN, YU., Blood Diseases, Cancers and Infections, in: *Kayseri-Kongr.*, 135-142 (Tu).

(2) MUSAEV, T., Views of Ibn Sîna on Tumorous Diseases, in: *Vopr. Onkol.*, 1980<sub>9</sub>, 72-74 (Ru).

(3) PAKDAMEN, A., Ibn Sîna's Opinions about Cancer and its Heredity, in : *Hazâra-i Ibn Sîna*, 345-367 (Pers).

A. concentrates on the causes, the diagnostics, the prevention, and treatment of cancer - dealing sometimes extensively with contemporary views, the relevance of which is not always clear with respect to I.S. Moreover, there appears to be some tendency in A. to overvalue the significance of I.S.'s contribution (as well as that of classical 'Iranian' (usually referred to as Arabic) medicine.

From an historical point of view, of no great value.

### III. DIABETES

(1) NAFÎSÎ, A., Ibn Sîna and Diabetes (disease of sugar), in : *Hazâra-i Ibn Sîna*, 331-344 (Pers).

After a brief survey of the history, the nomenclature and the present knowledge of diabetes, A. outlines I.S.'s physiological, pathological and therapeutical ideas (in a rather vague way - no single text-reference being present!).

At most, introductory.

### IV. MICROBIOLOGY

(1) FAZLI, A., Pathogenic Microorganisms, Humoral Pathology and Immunology, in Avicenna's Medicine, in : *Kayseri-Kongr.*, 109-120 (Tu).

(2) MUSABAEV, I., *A.A.i. Sino ob infektsiyakh (Ibn Sîna on Infections)*. Tashkent, Meditsina, 1980, 22 pp.

(3) TARARIN, R., Importance of the Scientific and Historical Heritage of Ibn Sîna in the Field of Epidemiology and Infectious Pathology, in : *Zh. Mikrobiol.*, 1974<sub>12</sub>, 112-118 (Ru).

### V. PARASITOLOGY

(1) STARKOV, O., *Parazity i vadovitye v 'Kanone vracebnoi nauki' Abuoli Ibn Sino (Avicenny) (The Parasites and Poisonous Animals in the 'Canon' of Ibn Sîna)*. Dushanbe, Donish, 1980, 200 pp.

## J. Ophtalmology

(1) HAMÂRNEH (AL-), N., *Medicine of the Eye in the Canon*, in : *Al-turâth al-'arabî*, 27 (81), 100-113; also in : *Al-shaykh al-ra'îs*, 197-214 (Ar).

After some general remarks on I.S. as philosopher and as physician (and on his *Canon* and *Poem on Medicine*), A. concentrates on the classical Arabic works on ophtalmology, and formulates some fundamental questions about I.S.'s possible sources in the field of ophtalmology (with special attention to al-Râzî), as well as on the exact influence the *Canon* had on later generations. However, A. does not formulate any answer, not even in a tentative way. In the final part of the paper, A. presents some observations about the *K. al-istibsâr, On Visual Perception* (a work belonging to the *dubia*).

A. poses some valuable questions - but one looks in vain for possible answers.

(2) ISMAIL, M. and RAHEEM RAFEEQ, M., *Anatomy of the Eye and the Mechanism of Vision according to Avicenna*, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 146-151.

General work on the anatomy of the eye, as well as of the humours present in the eye (according to the *Canon*). Authors ascribe great originality to I.S.

Introductory - but uncritical in the evaluation of I.S.'s originality.

(3) KAHYÂ, E., *Eye and Eye's Diseases in Avicenna's Medicine*, in : *Kayseri-Kongr.*, 121-130 (Tu).

## K. Stomatology

(1) BELOLAPOTKOVA, A., Stomatologic Subjects in Ibn Sînâ's *Canon of Medicine*, in : *Stomatologiya*, 1980<sub>6</sub>, 69-70 (Ru).

(2) ERKILETLIOĞLU, H., The Knowledge about Dental Medicine in Avicenna's Book called "*Al-Kanun fil-Tibb*", in : *Kayseri-Kongr.*, 173-180 (Tu).

(3) KAHLE, E., Avicenna (Ibn Sînâ) über Sprachanomalien, in : *International Congress History of Medicine*, 30 (Düsseldorf, 1986). Düsseldorf, Univ. Düsseldorf, 1988, 1265-1269.

Based on the *Canon*, A.'s presentation of I.S.'s theories about anomalies of the tongue and the formation of the voice is brief, but interesting. Acc. to A., the theory of the tongue is exclusively based on Galen, while the theory of the voice is clearly different from Galen (and even differs from I.S.'s own view, as given in his phonetical works).

An interesting case-study.

(3) UZEL, I., Comparaison du *Canon* avec le *Mudjez* au point de vue ortondo-stomatologique, in : *Ulusl. I.S. Semp.*, 447-452 (Tu); 454 (Fr S.).

In the S., A. affirms that the *Mudjez* has fewer details than the *Canon* on the specific topic of stomatology.

## L. Diseases of Specific Organs

### I. OTORINOLARYNGOLOGY

(1) ISKHAKE, YU. and KAL'SHTEIN, L., Role of Ibn Sîna in the Development of Otolaryngology, in: *Vestn. Oto-rino-laryng.*, 1980<sub>5</sub>, 81-85 (Ru).

(2) KATAYE, S., La paralysie faciale selon Avicenne, in: *Ann. Oto-Laryng.*, 92<sub>1-2</sub> (75), 79-82.

A. summarizes I.S.'s view on facial paralysis according to *Canon*, III, F. 2. A. claims that I.S. is the first physician who distinguished between peripheric facial paralysis and central facial paralysis. A. also deals with I.S.'s ideas regarding therapeutics, as well as surgical treatment.

Good, but does A. not overemphasize I.S.'s originality?

(3) LAKSHIMAPATI, G., Avicenna on Ear, Nose and Throat Diseases, in: *Bull. Ind. Inst. Hist. Med.*, 11 (81), 78-82.

Acc. to A., I.S.'s descriptions in the *Canon* of ENT-diseases are still valid, but his remarks about the etiology and the treatment of these diseases belong to the tenets and concepts of his time. A. also stresses that I.S. attached much importance to the preservation of health.

Introductory. One looks in vain for precise references!

(4) MUMINOV, A., *Voprosui otorinolaringologii v "Kanone vrachebnoi nauki" A.A.i. Sinui (Otorinolaringological Investigations in Ibn Sîna's Canon of Medicine)*. Tashkent, Meditsina, 1980, 26 pp.

(5) WILLEMOT, J., Le nez et la gorge dans le *Poème de la Médecine et le premier livre du Canon* d'Avicenne, in: *27. Congr. Int. Hist. Med.*, II, 766-770.

A. gives a significant primary outline of I.S.'s opinions concerning diseases of the nose and the throat (using contemporary translations of the Avicennian texts mentioned in the title but also several secondary sources). He finds in I.S. a major concern with infections, although there is little attention paid by him to traumatology. A. also notes that I.S.'s treatment of angina was more complete than that of the Greeks, and that the chapter in the *Canon* on respiration is quite

elaborate. At the end of his paper, A. also deals with I.S.'s description of meningitis, which he considers innovative and very precise.  
Good, but not really innovative.

## II. NEPHROLOGY

(1) KAHYÂ, E., Renal Calculi and Their Treatment in Ibn Sînâ, in : 27. *Congr. Int. Hist. Med.*, II, 734-738.

A. states that I.S.'s description of renal calculi in the *Canon* is much more detailed than those in other ancient medical works. In considering the different aspects of I.S.'s theory, A. notices that some of I.S.'s views are still valid today (e.g. his analysis of the causes of the formation of renal calculi, as well as some of the drugs he mentioned as specific for the treatment of renal calculi). Acc. to A., the surgical instrument which I.S. used to crumble and eject renal calculi was most probably the *lithotomus*.

A valuable paper - but in need of some further work developing precise information regarding I.S.'s (direct and indirect) historical sources.

(2) ID., Renal Diseases and Their Treatment in Ibn Sînâ, in : *Ibn Sîna. Doğumunun...*, 275-291 (Tu); 293-307 (Engl).

Includes 1, but adds an analysis of the description by I.S. of five other renal diseases : ptosis, renal weakness, renal swellings, renal trauma, and ulcers in the kidney and urinary passages. The basic approach is almost the same as in 1. A. sometimes (but not systematically) indicates a historical source, and insists on some occasions that a particular principle of I.S. is still correct according to contemporary medicine (but, on the whole, the tendency to ascribe 'modern' views to I.S. predominates).

A good study - but one may wonder if A. does not overemphasize somewhat I.S.'s originality?

(3) ID., Urology in Ibn Sînâ, in : *Ankara tip Bül.*, 1983, *Suppl.* 1, 59-68 (Tu).

(4) KARACAGIL, M., Avicenna as an Urologist, in : *Kayseri-Kongr.*, 94-96 (Tu).

(5) MUJAIS, S., Nephrologic Beginnings : The Kidney in the Age of Ibn Sînâ, in : *Am. J. Nephrol.*, 7 (87), 133-136.

Out of the *Canon*, the different aspects of I.S.'s theory of the kidney (anatomy, function, diseases...) are briefly discussed. A. indicates some remarkable observations by I.S., but mentions also some evident errors, or some diffused

explanations (I.S. sometimes introducing metaphysical considerations).  
Valuable as an introduction - in need of more detailed support.

(6) MUKHTAROV, A. and BOLGARSKÎ, I., Problems of Urology in the Works of Ibn Sînâ, in : *Urol. Nefrol.*, 1980<sub>5</sub>, 52-55 (Ru).

### III. CARDIOLOGY

(1) BRAHMAN RAO, U., Avicenna's Contribution to the Understanding of Anatomy and Pathology of Heart, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 91-94.

A most general survey of a few major items of I.S.'s observations in the *Canon* on the anatomy and the pathology of the heart. A. considers I.S. to be a great innovator - the latter's understanding of the circulation of the blood would be almost equal with that of W. Harvey (sic!).

Of no value.

(2) FAROOQUI, A., Cardiovascular Diseases as described by Ibn Sînâ in his *Qânûn fi 'l-T'ibb*, in : H. HAMEED (Ed.), *Avicenna's Tract...*, 130-165.

A most detailed analysis of the different passages of the *Canon* concerning cardiovascular diseases.

A well-documented study.

(3) KATSENOVICH, S. and MIRZAEV, N., Cardiological Legacy of Ibn Sînâ, in : *Kardiologiya*, 1980<sub>11</sub>, 120-122 (Ru).

(4) KHAN, M., The Section on Cardiac Diseases and their Treatment in the *Qânûn* of Ibn Sînâ, in : *Ind. J. Hist. Sc.*, 21 (86), 315-325.

A.'s analysis concerns *Canon*, III, 9. A. first deals with the anatomical and physiological aspects of I.S.'s writing on the heart. In this respect, A. observes the absence of any significant difference with the view(s) of I.S.'s predecessors. Then A. summarizes the different elements-symptoms, causes, effects and treatment - of I.S.'s doctrine concerning heart diseases. Finally, A. judiciously remarks that this section of the *Canon* is very similar to the same section of al-Majûsî's *Kâmil aṣ-ṣinâ'at at-ṭibbiyya*, *Perfection of the Medical Practice*, but that there exists sufficient evidence that I.S. also used his personal knowledge and experience when writing it. A. concludes that this section of the *Canon* is well organized, but is still imperfect.

A very valuable case study - compare also *infra*, P 9.

(5) KÖKER, A., Cardiovascular Diseases according to Avicenna, in : *Kayseri-Kongr.*, 101-108 (Tu).

(6) SULTÂNÎ, A., Diseases of Defective Respiration in the Perspective of Ibn Sînâ, in : *Hazâra-i Ibn Sînâ*, 383-398 (Pers).

A. concentrates on I.S.'s views concerning various diseases of the respiratory system (based on a Persian translation of the *Canon*), and pays attention to the various medicinal plants, mentioned by I.S. in this context. A. also briefly evokes the contemporary point of view on all these matters (without claiming that I.S. already had discovered most of it). For A., it is obvious that although I.S. borrowed from al-Râzî, he himself formulated new insights, e.g. the introduction of the distinction between chronic and non-chronic respiratory diseases, and his description of new medicinal plants.

A valuable study - but one may wonder by which means I.S. did acquire his new insights?

#### IV. GASTROENTEROLOGY

(1) ARZUMETOV, Y., "*Kanon vrachebnoi nauki*" Ibn Sinui v istorii gepatologii (*Ibn Sînâ's Canon of Medicine in the History of Hepatology*). Tashkent, Meditsina, 1980, 40 pp.

(2) ID., Topics of Hepatology in the *Canon* of Ibn Sînâ, in : *Sov. Zdravookh.*, 1980<sub>5</sub>, 67-69 (Ru).

(3) MANSUROV, KH., *Avitsenna o nekotoruikh boleznyakh organov pishchevareniya i prival'nom pitanii* (*Avicenna on Certain Diseases of Digestive Organs, and the Correct Diet*). Dushanbe, Donish, 1979, 44 pp.

(4) ID., *Problems of Dietology, Gastroenterology and Hepatology in Avicenna's Canon of Medicine* (Original title unknown). Dushanbe, Donish, 1980, 36 pp.

*See also:* R 7.



## M. Skin Diseases and Cosmetics

(1) BANO, M. and IQBAL, A., Cosmetics according to Avicenna, in : *Bull. Ind. Inst. Hist. Med.*, 11 (81), 110-117.

Authors summarize I.S.'s description of diseases of hair and of skin, as well as their respective treatment (based on the Urdu-translation of the *Canon*). They make many comparisons with present practices in Indian medicine, and state I.S. to be the only medieval physician to have dealt in so great detail with this topic.

Of no great value - but an interesting testimony to the present dealing of Unani-medicine with I.S.'s medical works and ideas.

(2) BELOVA, L., Contribution of Ibn Sîna to Cosmetology, in : *Sov. Zdravookh.*, 1984<sub>9</sub>, 55-56 (Ru).

(3) ID., The Importance of Ibn Sîna's Creative Activity for Dermatology, in : *Klin. Med. (Moscow)*, 1985<sub>4</sub>, 140-143 (Ru).

(4) BELOVA, L. and MIRAKHMEDOV, U., Contribution of Ibn Sîna to Dermatoveneology, in : *Vestn. Derm. Vener.*, 1983<sub>12</sub>, 60-64 (Ru).

(5) TOPALOĞLU, U., Avicenna and the Treatment of Burns, in : *Kayseri-Kongr.*, 156-160 (Tu).

## N. Surgery and Anaesthesia

### I. SURGERY

(1) BILGE, A., Surgery of Avicenna and His Role in Today's Surgical Notion, in : *Kayseri-Kongr.*, 149-155 (Tu).

(2) DHZUMAEV, A., *Chirurgiy A.A.i. Sino i se istorioeskie istoki (The Surgery of Ibn Sîna and its Historical Significance)*. Tashkent, Meditsina (?), 1979, 353 pp.

Acc. to Girs (See *Varia*, 15) includes an important bibliography.

(3) FRÖLICH, H., Kriegschirurgisches Avicenna's, in : F. SEZGIN (Ed.), *Beiträge zur Geschichte der arabisch-islamischen Medizin. Aufsätze 2. Bd. : Aus den Jahren 1870-1909 (Veröff. Inst. Gesch. Ar.-Isl. Wiss., Reihe B, Med., Bd. 4, 2)*. Frankfurt am Main, Inst. Gesch. Ar.-Isl. Wiss., Goethe Univ., 1987, 343-350.

Reprint of this paper, originally published in *Archiv für klinische Chirurgie*, 30 (1884), 745-752.

(4) HIJAZI, A., L'anesthésie chez Avicenne et les techniques anesthésiques au XI.S., in : *Ann. fr. Anesth. Réan.*, 3<sub>1</sub> (84), 76-78.

A. points to the fact that one may find a lot of information about anaesthetic methods in Arabic medical works of the 11th C. (notwithstanding the absence of any systematic treatise), as is shown by I.S.'s *Canon*. The *Canon* offers the description of forty plants having anaesthetic properties (five of them are presented in some detail by A. - although most in I.S.'s own terms, without any further comment). One also finds practical advice (also this time A. only offers a few concrete examples).

Good, but introductory - clearly in need of further development.

(5) OMIROV, R. and MARDANOV, L., Various Problems of Surgery in the Works of A.A.i. Sîna, in : *Klin. Khir.*, 1980<sub>3</sub>, 66-68 (Ru).

(6) SANAGUSTIN, F., La chirurgie dans le *Canon de la Médecine (al-Qânûn fi 'l-tıbb)* d'Avicenne, in : *Arabica*, 33<sub>1</sub> (86), 84-122.

For A., I.S. was not only a theoretical systematizer of the medical knowledge of his time, but undoubtedly also a practicing physician. Acc. to A., I.S.'s extensive and detailed observations on surgical interventions constitute a very decisive proof of his having been a regular 'practicus'. In fact, such major interest in the very topic of surgery was rather uncommon in the 11th C. A. however quite objectively remarks that I.S.'s attitude towards surgery was rather reserved (it was just an ultimate therapeutical mean), and furthermore that I.S. in the spirit of the "Ancients", considered medicine (and its practice) to be part of a universal science. In the main part of the paper, A. offers a very systematic and very detailed survey of a wide variety of (minor and major) surgical interventions (using many passages of *Canon*, b. III, but also using some material from b. II). Several times he points to possible historical sources (mostly Greek, but sometimes also Indian) for some particular items, presented by I.S. He also mentions some important lacunae in I.S.'s treatment of the matter. In his final conclusion, A. discusses the reasons for the great success of the *Canon* in the history of medicine. Acc. to him, I.S.'s success finds its major explanation in the didactic character of the *Canon*, in its being a homogeneous medico-philosophical system and in its revaluation of ophthalmology.

A highly informative, most valuable paper, although one may regret that A. does not indicate more explicitly which elements of I.S.'s doctrine are undoubtedly practice-based (and eventually may be considered to be original).

(7) VAKHIDOV, V., *Khirurgiya v "Kanone" A.A.i Sinui (Surgery in Ibn Sîna's Canon)*. Tashkent, Meditsina, 1980, 32 pp.

*See also* : S. 4.

## II. TRAUMATOLOGY

(1) SHAKIROV, A., *Voprosui travmatologii i ortopedii v trudakh A.A.i Sinui (Traumatological and Ortopedical Investigations in the Works of Ibn Sîna)*. Tashkent, Meditsina, 1980, 32 pp.

(2) SHVABE, Y., Problems of Traumatology in the Works of Ibn Sîna, in : *Ortop. Travm. Protez.*, 1979<sub>9</sub>, 67-70 (Ru).

(3) ID., Treatment of Traumatic Injuries in the Works of Ibn Sîna, in : *Fel'dsher Akush.*, 1980<sub>8</sub>, 47-48 (Ru).

## O. Obstetrics

(1) ASIMOVA, M., KUZNETSOV, V. and PIOTROSKII, S., Ibn Sîna and the Influences of His Scientific Heritage in the History of Gynaecology, in : *Fel'dsher Akush.*, 43<sub>5</sub> (80), 59-61 (Ru).

*See also* : R. 8.

## P. Pharmacology

(1) AHMAD, R., Critical Appreciation of Avicenna's Theories and Terminology of Drugs for General and Cardiac Ailments in *Kitab-ul-Adviyah-Qalbiyah*, in : *Bull. Ind. Inst. Hist. Med.*, 7 (77), 138-143.

A. discusses particularly the philosophical ideas underlying I.S.'s classification of drugs. A. pays special attention to I.S.'s theory of "cells" - claiming that I.S. presents for the first time in history the idea of living and non-living cells (but A. concedes that I.S. does not explain that idea in the same terms as present cell-theory).

Reasonable, but one may wonder whether A. does not interpret I.S. too exclusively in the light of contemporary Unani-medicine, of which he himself is an adept?

(2) ID., Single Drugs mentioned by Avicenna for Cardiac Ailments in his *Canon* and *Kitab-ul-Adviyah-Qalbiyah*, in : *Bull. Ind. Inst. Hist. Med.*, 9 (78), 46-66.

This paper completes 1. It offers the complete list of drugs for cardiac ailments, mentioned by I.S. in his *B. on Cardiac Drugs* and in his *Canon* (however A. establishes no real comparison). In an appendix, A. tries to fix the botanical names of all these drugs (he hereby expresses sometimes his personal doubts).

Good, but rather of a preparatory kind - clearly in need of further development.

(3) AROUA, A., Scientific Methods for the Knowledge of Single Drugs in Ibn Sînâ, in : *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 123-129; also in : *Al-shaykh al-ra'îs*, 227-234 (Ar).

Based on the *Canon*, A. describes six methodological ways, used by I.S. in his classification and description of single drugs. However, A. limits himself to citing the most relevant texts (although he does not offer any precise reference!).

At most introductory - for a more significant study in this respect, see 12.

(4) DEMIRHAN, A., Ibn Sînâ and His Opinion about Opium, in : *Ulusl. I.S. Semp.*, 365-370 (Tu); 370 (Engl S.); 371-375 (5 plates).

Acc. to S., an analysis is given of I.S.'s opinion about opium (based on the *Canon*) comparing it to the point of view of modern medicine.

(5) DENISENKO, P. and NURALIEV, Y., A.A.i. Sînâ and Pharmacology (on the Millenium of the Birth of Ibn Sînâ), in : *Farmak. i Toksikol.*, 43 (80), 753-754 (Ru).

(6) GARIN, I., Sources of Biopharmacological Ideas in the Works of Ibn Sînâ, in : *Vopr. Ist. Estest*, 1985<sub>4</sub>, 125-127 (Ru).

(7) HABIB, K. and ZUBAIRY, H., The Materia Medica in the 'Canon' of Ibn Sînâ : an Evaluation, in : *Hamdard Med.*, 29<sub>1-2</sub> (86), 82-92.

In the first part of the paper, I.S.'s passion for classification is stressed - authors pointing to I.S.'s arrangement of the drugs in a tabular form. I.S. recognized the characteristics of a drug in two ways : through inductive reasoning and through actual experimentation. Authors detect in I.S.'s description of the action of drugs a "modern note", but they also criticize him because of his too casual approach regarding the occurrence and habitat of medicinal plants. In the second part of the paper, authors discuss a few concrete examples of drug taxonomy and therapy, as described by I.S.

A valuable paper - offering a serious basis for further investigation.

(8) HEGEDÛS, L. and LÖRINCZNE CSAPO, E., Ibn Sînâ, Superpharmacist, in : *Gyogyszereszet*, 26 (82), 21-25 (Hong).

(9) KHAN, M., Ibn Sînâ's Treatise on Drugs for the Treatment of Cardiac Diseases, in : *Isl. Q.*, 22 (85), 49-56.

After a few general remarks on the *B. of Cardiac Drugs* regarding its title, authenticity, editions and translations, A. states that the first part of this work is medico-philosophical in character. Acc. to A., the philosopher in I.S. always predominates over the physician. At the basis of the second part of the treatise, which is completely devoted to the prescription of simple and compound drugs for the treatment of heart diseases, A. detects the Galenic concept of the four humours (but A. notes that I.S. also uses the works of his famous Arabic predecessors in medicine). For A., I.S.'s originality lies in his presentation of personal clinical notes, and, above all, in his discussion of the relation between pneuma, heart and medicine. But A. does not fail to mention also some obvious demerits of I.S.'s tract, i.e. a too great dependence upon Galen, imprecisions, incompleteness, etc.

A valuable study - especially with respect to a general critical evaluation of I.S.'s doctrine on cardiac drugs (and in some ways even on medicine in general).

(10) KRENDEVEV, F., Information on the Medicinal Minerals in the Treatises of Ibn Sînâ and al-Bîrûnî, in : *Izv. Akad. Nauk Tadj., Otdel. Fiz.-Mat. i Geol.-Khim. Nauk*, 77<sub>3</sub> (80), 71-85 (Ru).

(11) LÖRINCZNE CSAPO, E., see : HEGEDÜS, L.

(12) MOUSSA, J., *Materia Medica and its Faculties* by Ḥunayn ibn Ishâq and Ibn Sînâ, in : *Proc. 1. Int. Symp. Hist. of Arabic Science*. 2 vol. Aleppo, Inst. Hist. of Arabic Science, 1977-78, t. I, 805-822 (Ar); t. II, 341-342 (Engl S.).

Ḥunayn ibn Ishâq, in his *Questions and Answers on Medicine for Scholars*, mentioned eight rules for testing the faculties of single drugs, while I.S. formulated seven rules for the same purpose. A. establishes a systematic comparison between both lists, and shows that they are strikingly similar. But, at the same time, A. detects in both catalogues of rules, the very same spirit as that which prevails in Bacon's idea of the necessity of both continuity and diversity in experimentation (cf. esp. *Novum Organum*, b. II, Aph. 13). Moreover, for A. some of the expressed rules correspond almost *verbatim* to Mill's agreement rule, disagreement (difference) rule, and concomitant variance-rule.

An interesting paper - but is A.'s interpretation of Ḥunayn and I.S. not too much influenced by his knowledge of Bacon and Mill?

(13) MUNAJJID, 'A., *The Lotus-flower in the Arabic Medical Works*, in : *Al-shaykh al-ra'îs*, 183-196 (Ar).

A. outlines some basic ideas on the Lotus Flower in Arabic pharmacology. Of no great value.

(14) NURALIEV, Y., see : DENISENKO, P.

(15) SANMILLAN, M., see : VALVERDE, J.

(16) SARDAR YAR KHAN, M., *Al-adwiyat al-qalbiya* : a Scientific Appraisal, in : A. HAMEED (Ed.), *Avicenna's Tract*, 173-185.

A. presents in this paper eleven drugs, to which I.S. had ascribed cardiotoxic properties. Acc. to A., the modern scientific findings always support I.S.'s claims. With respect to 14 other drugs, A. observes that the actual use of them differs from I.S.'s (but none of them really contradicts the fundamental observation by I.S.!).

A. clearly overemphasizes the perspicacity of I.S. Of no great value.

(17) SIDDIQI, T., *Ibn Sînâ on Materia Medica*, in : *Stud. Hist. Med.*, 5 (81), 243-277; also in : *Indian J. Hist. Sc.*, 21 (86), 326-357.

A. paraphrases book II of the *Canon*. A. considers it necessary to reconstruct the tables of drugs (established by I.S. in the 2nd chapter) by scanning and gathering together the actions and properties from the descriptions of all single drugs I.S. has dealt with in the first chapter, and to correlate them with each class. At the end of his paper, A. gives a detailed account of a few significant drugs.

A valuable introduction, both to b. II of the *Canon* and to I.S.'s general conception of single drugs.

(18) TEKOL, Y., Codex and Pharmacology in Avicenna's Medicine, in : *Kayseri-Kongr.*, 131-134 (Tu).

(19) ID., Ibn Sîna's Cardiac Drug "Zarnab", in : *Isl. World Med. J.*, 2<sub>3</sub> (86), 60-62.

Acc. to A., *zarnab* is identical with *Taxus baccata* L. (Engl. *Yew*) (A. herefore invokes Indian sources). Then, A. concentrates on actual chemical and pharmacological research on this later substance. A. concludes that I.S. is an early forerunner of the use of drugs inhibiting  $I_{na}$  and  $I_{ca}$ .

A. completely ignores the medieval context of I.S.'s pharmacology!

(2) ÜÇER, M., Concerning Drugs made of Honey and Harma in the *Canon* of Avicenna, in : *Ulusl. I.S. Semp.*, 323-331 (Tu); 331 (Engl Abstract).

Acc. to Abstract, A. surveys the drugs made of honey and of harma in the *Canon*. Moreover, A. considers their effect on contemporary folk medicine, as well as their importance for modern medicine.

(21) VALVERDE, J. and SANMILLAN, M., Concepto del medicamento a través de la traducción latina del *Canon* de Avicena, realizada por Gerardo de Cremona, in : *Bol. Soc. Esp. Hist. Farm.*, 25 (74), 147-152.

Authors first outline the general philosophical framework underlying I.S.'s theory of drugs, i.e. I.S.'s doctrine on health and disease, and, even more fundamental, his doctrine on matter and form (authors seem to follow Bloch's materialistic interpretation of I.S.'s metaphysics). Acc. to authors, human health is defined by I.S. in terms of the equilibrium of two contraries - a drug restoring the actuality of a lost equilibrium. Moreover, induction and experimentation were used by I.S. as the only two valid ways for defining the properties of medicinal substances.

Rather insignificant - somehow too general (esp. in view of the title).

(22) YALDASHEV, K., *Nekoturie terapeuticheskie vozzreniya A.A.i. Sinui (Some Therapeutical Opinions of Ibn Sîna)*. Tashkent, Meditsina, 1980, 40 pp.

(23) ZUBAIRY, H., see : HABIB, K.



## Q. Neurology

*Note* : Because of the vagueness of the Russian titles, the two works dealing with this topic were placed under a separate heading.

(1) MADZHIDOV, N. and GORDEEVA, V., *Nevrologicheskie vozzreniya A.A.i Sinui (Neurological Opinions of Ibn Sînâ)*. Tashkent, Meditsina, 1980, 148 pp.

(2) PULATOV, A., *Ibn Sina i ego vklad v nevrologiya (Ibn Sînâ and His Contribution to Neurology)*. Dushanbe, Irfon, 1981, 36 pp.

## R. Sources (and Contemporary Physicians)

(1) ABDULLAEV, A., The Teachers of Ibn Sînâ, in: *Klin. Med.* (Moscow), 1978<sub>5</sub>, 142-145 (Ru).

(2) DABDÛB, E., Measles from al-Râzî to Ibn Sînâ, in: *RAA DAMAS*, 57 (84), 690-701 (Ar).

Al-Râzî, al-Majûsî and I.S. are the three major representatives of classical Arabic medicine. A. offers a summary of their respective descriptions of the disease of measles, as well as their observations regarding its treatment. In each case, A. also presents a critical evaluation. For him, the superiority of al-Râzî over the two others is evident. With respect to I.S., A. stresses his adherence to a rather logico-philosophical approach of the medical matter. It has to be noted that A. rejects unambiguously the opinion that Arabic medicine is no more than a copy of Greek medicine (cf. also *infra*, 3).

An interesting paper - illustrating the existence of different currents in classical Arabic medicine, but for a still better approach, see 5-6.

(3) ID., Medical Philosophy from Hippocrates to Ibn Sînâ, in: *Al-turâth al-'arabî*, 2<sub>5-6</sub> (81), 204-212; also in: *Al-shaykh al-ra'îs*, 259-270 (Ar).

A. first outlines the fundamental (logical) basis on which Greek medicine was based, i.e. the acceptance of four elements, and mixtures of them (paralleled in the living being by the acceptance of four humours, and their blending). Then he affirms that the classical Arabic physicians were not slavish followers of the Greek medical tradition, although they inherited much from their Greek predecessors. Finally, A. discusses original contributions by the three great Arabic physicians of the classical period: al-Râzî, al-Majûsî and I.S. - his major attention going to al-Râzî (whom he presents as an almost present-day physician!). For A., the originality of the Arabs consists in the introduction of a scientific, experimental methodology. However, one finds this kind of approach in I.S. only in some of his particular observations.

Somehow in the same line as 2 - but A.'s (exaggerated?) admiration for al-Râzî is still more pronounced (cf. also this time 5-6).

(4) FELLMANN, I., Ist der *Qânûn* des Ibn Sînâ ein Plagiat des *K. al-Hâwî* von al-Râzî?, in: *Z. Gesch. arab-isl. Wiss.*, 1 (84), 148-154.

A. examines whether the manuscript WMS Or. 123 really contains the final

redaction by al-Râzî himself of the first four books of his *K. al-Hâwî*? The assumption that this was indeed the case formed the very basis of Iskandar's affirmation (in his *A catalogue of Arabic Manuscripts on Medicine and Science*. London, 1967, 1-32) that I.S.'s *Canon* largely plagiarizes the *K. al-Hâwî*. A. rather convincingly shows that this manuscript most probably includes a later reworking of the *Canon*, and cannot be identified with the *K. al-Hâwî* of al-Râzî.

A very important paper insofar as WMS Or. 123 is concerned, but it leaves the fundamental question of a possible dependence of I.S. on al-Râzî unanswered.

(5) GRACIA, D.-VIDAL, S., Avicena, sobre el corazon, in : 27. *Congr. Int. Hist. Med.*, II, 711-722.

Authors first outline the existence of two great currents in ancient Greek medicine, i.e. a cerebro-centered current (shown by Plato, Galen and the Galeno-Alexandrian tradition) and a heart-centered current (shown by Aristotle, the Hippocratic School of Sicilia and the Aristotelian-Antiochian tradition) as far as the fundamental seat of life and the soul are concerned. In classical Arabic medicine there also arose two currents, i.e. one of the *medicos* (ibn Ridwân, ibn Zuhr and Haly Abbas being its major representatives) and another of the *philosophers* (whose major adherents were ibn Butlan, Rhazes and Averroes). Acc. to authors, I.S. tried to link both traditions, although he always subordinated the former to the latter, as becomes evident in his cardio-centrism. However, I.S. linked with his cardiocentrism the Galenic doctrine of the three principal organs and their specific virtues - hereby giving a dynamical aspect to his theory on the tripartition of the 'spirit' (Authors pay in this respect special attention to I.S.'s description of the spirit in his *De viribus cordis*).

A very valuable and stimulating paper, esp. when taken together with 6.

(6) ID., Avicena, sobre la definicion de la medicina, in : 27. *Congr. Int. Hist. Med.*, II, 723-730.

Acc. to authors, in the classical Arabic period one may distinguish between two currents of criticism against Galen. The first current had an empirical basis, and found his major defender in al-Râzî; the second trend was logically and biologically orientated (reflecting an Aristotelian inspiration) - al-Fârâbî being its most important representative. I.S. agreed with this latter current. Such becomes already evident in his rejection of an intermediary state between health and disease, and hence of a three-fold division of theoretical medicine (as was always the case in the Galenic-Alexandrian tradition). Moreover, medicine is for I.S. basically *technè*, not *epistème* (the physician has to know the principles of natural philosophy, before he can start his medical praxis) - a thesis directly derived from the Aristotelian-Antiochian tradition.

As 5, a very stimulating paper, and a useful complement to it.

(7) HAMMÂMÎ, M., Colic between al-Râzî and Ibn Sînâ, in: M. HAMMÂMÎ, *K. al-qûlanj...* (see *Minor Works*, i 7), 177-201 (Ar).

A. points out some similarities and dissimilarities between al-Râzî and I.S., as becomes evident from their respective theories on colic. A. states that both physicians defended a two-fold basic division of colic, although not in precisely the same terms. Moreover, they both were unaware of many nowadays well known facts. Finally, as to both's methodological approach a fundamental difference reveals itself: al-Râzî busied himself with the analysis of the individual case, whereas I.S. paid much more attention to the description of the general causes and symptoms of the disease.

A valuable case-study.

(8) NURALIEV, Y., *Medsitsina epokhi avitsenni. Kniga 1 (Medicine in the Time of Ibn Sînâ. Part I)*. Dushanbe, Irfon, 1981.

(9) WEISSER, U., Beiträge Ibn Sînâ's zur Kenntnis der weiblichen Genitalien und zur Embryology. Eine kritische Betrachtung, in: *27: Congr. Int. Hist. Med.*, II, 761-765.

Through a critical analysis of the Arabic terminology, A. shows that I.S.'s description of female genitals is based on Galen. In some sense, this is also true for I.S.'s embryological theory - although I.S. reinterprets the Galenic doctrine in an Aristotelian perspective. So, A. ascribes a 'theoretical-scholastic' attitude to I.S.

A valuable case-study - but does it suffice in order to substantify the general conclusion?

*See also :*

A : 8, 9, 23, 32, 48;

C-I : 2, 4;

D : 10, 11;

G : 3;

H : 1, 5, 6, 7, 8;

I-I : 2, 3, 6;

K : 3;

L-III : 4, 6;

P : 9, 12;

S : 16

## S. Historical Influences

(1) ASIL, E., The Influence of Avicenna on Ottoman Medicine and Pharmacy, in : *Ulusl. I.S. Semp.*, 317-321 (Tu); 322 (Engl S.).

Acc. to S., A. discusses the impact of I.S. on pharmalogical works of the Ottoman-era, and also mentions translations of the *Canon* in the same period.

(2) BIRTALAN, G., Avicenna's *Canon* and European Medicine, in : *Orvostört. Közl.*, n. 89-91 (80), 25-43 (Hung; Germ Abstr.).

(3) BRENTJES, S., The Use of Ibn Sînâ's *Canon* in the Medical Teachings of Leipzig and Wittelberg, in : *Ibn Sino ve ego epokhe*, 203-204 (Ru).

(4) BREWSTER, P., A Curious Parallel : Coincidence or Borrowing? (Charles Reads and Knowledge of Avicenna), in : *J. Hist. Med.*, 26 (71), 305-307.

A. points to the fact that Ch. Reads deals with the problem of how to ligate an abundantly bloody wound in almost the same manner as I.S. Therefore, one may suppose an historical influence, although there is no strong evidence for it. Therefore, one cannot exclude the possibility of a pure coincidence.

A good case-study.

(5) CHATURVEDI, G., SINGH, K. and UPADHYAYA, S., Impact of Ibn Sînâ on Pulse Examination and Materia Medica of Âyurveda, in : *Ind. J. Hist. Sc.*, 21 (86), 358-362.

Authors outline I.S.'s basic observations on the examination of the pulse. They mention the introduction of pulse-examination and of some materia medica, i.e. opium and mercury, in Âyurvedic medicine. Finally, they state that the origin of these later introductions lies in I.S.'s Graeco-Arabic medicine.

Interesting, but clearly in need of more substantial development.

(6) ETINGEN, L., *Vliyanie vzglyadov A.A.i. Sino na vospitanie vracha (The Influence of Ibn Sînâ's Opinions on the Formation of Physicians)*. Dushanbe, Irfon, 1980, 39 pp.

(7) GOEHL, K., Guido d'Arezzo als Avicenna-Leser, in : *Würzburger Medizinhist. Mitt.*, 1 (83), 23-35.

In preparing the edition of Arezzo's *Liber mitis*, A. discovered that I.S. functioned not only as one of the most explicitly cited authors, but that he also constituted the implicit greatest authority. Arezzo gathered together many citations of I.S.'s *Canon*, but in a very critical way - a fact well illustrated by A. through a systematic comparison between *Canon*, I, 4, 3 and *Liber mitis*, I, 20. A. concludes that Arezzo did know the *Canon* before the school of Salerno, and discovered new medical ideas unknown to the physicians of his time (A. believes that Arezzo did write the *Liber mitis* around 1170 A.D.).

An interesting case-study, but one may wonder whether the early datation of the *Liber mitis* is correct?

(8) GÖKAY, F., The Place of Ibn Sînâ in Turkish and World-wide Literature, in : *Ulusl. I.S. Semp.*, 167-172 (Tu).

(9) ISHAKOV, I., see : TADJEEV, V.

(10) JACQUART, D., La réception du *Canon* d'Avicenne. Comparaison entre Montpellier et Paris au XIII<sup>e</sup> et XIV<sup>e</sup> s., in : *Actes 110. congr. nat. soc. savantes. Section hist. des sciences et des techniques*, II. *Hist. de l'école médicale de Montpellier*. Paris, CNRS, 1985, 69-77.

A. focuses on the reception of I.S.'s *Canon* in the universities of Montpellier and Paris in the 13th-14th C. A. mentions such names as Arnald of Villanova (pro-Galen, anti-I.S.), Bernard of Gordon, Petrus Hispanus, Gerardus Bituricensis, John of St. Amand and P. Gas (the former two belonging to the medical school of Montpellier, while the others were members of the Paris' university). Acc. to A., one probably started the study of the *Canon* somewhat earlier in Paris than in Montpellier. However, Galen always remained the fundamental authority - I.S. being only used for some practical information. Only in the 14th C. I.S. himself became a major authority (in the name of the very same Galenism! - I.S. being more and more perceived as an important mediator between Aristotle and Galen).

A valuable case-study.

(11) KARIMOV, U., On the Medical Heritage of Ibn Sînâ, in : *Ibn Sînâ. K-1000 letiju*, 122-149 (Ru).

(12) MANSUROV, K., Medical Inheritance of Ibn Sînâ, and Current Clinical Medicine, in : *Ter. Arkh.*, 52<sub>11</sub> (80), 149-151 (Ru).

(13) RASHEED BILQUIS, M., Avicenna's Influence on European Medicine, in: *Bull. Ind. Inst. Hist. Med.*, 11 (81), 99-102.

A very general paper, of no significance.

(14) RIHA, O., Vom 'Canon' Avicennas zur Bildbeischrift des 'Wundenmanns', in: *Sudhoffs Archiv*, 73 (89), 45-54.

The major object of A.'s study is the medieval German "artes-literature" (O. von Baierland's "*Arzneibuch*" being chosen as a typical example). I.S.'s *Canon* is only mentioned in a very secondary way, i.e. as one of the many sources used by these medieval German compilations.

Certainly valuable for the study of medieval German medicine, but almost without significance for the study of I.S.

(15) SINGH, K., see: CHATUVERDI, G.

(16) SIRAIISI, N., *Avicenna in Renaissance Italy. The Canon and Medical Teaching in Italian Universities after 1500*. Princeton, New Jersey, Princeton Univ. Press, 1987, XII + 410 pp.

A. focuses on the reception, and the use of I.S.'s *Canon* in 16th and early 17th C. Italy - a most interesting as well as a most exciting period (involving the rise of humanism, new discoveries (inter alia in the anatomical field), etc.). A., very accurately and in much detail, describes this general background (stressing the strikingly different approach towards I.S.'s ideas in these later commentaries from the common attitude in those of the 14th and 15th C.). Even in more detail, she presents all the physicians of this period (and in many respects also of the two preceding centuries!) who tried to improve the Latin translation of the *Canon*, or who wrote commentaries on it (paying extreme attention to all comments on B. I, 1) - to cite only a few names: Alpagò, Posteo, Corti, Oddi, Da Monte, Cardano, Santorio, Morgagni (a fairly incomplete list compared to the factual list of Renaissance-authors discussed by A.). In two separate indices, A. enumerates the complete list of the Latin Editions of the *Canon* published after 1500, and also surveys the Latin Commentaries on the *Canon* of the same period (both manuscripts and printed editions). Among A.'s multiple observations, we may - by way of example - cite:

- Her (supported) rejection of the thesis that the use of I.S.'s *Canon* in Renaissance Europe symbolized an extreme conservatism;
- Her characterization of I.S.'s *Canon* as a synthesis between Aristotelian natural philosophy and Galenic physiology;
- The general preference given by later commentators to Gerard of Cremona's translation over Alpagò's (although the former was the older);
- Her remark that the *Canon*-commentaries were neither isolated, nor idiosyncratic with respect to the whole range of Renaissance medical commentaries;
- The common accepted idea in that time that philosophy formed a necessary preliminary in the training of the *optimus medicus* (there being detectable a

movement from a 'metaphysical' to a more scientific (in the actual sense) approach);

– The existence of a great appeal to the 'ancient' texts in the Renaissance Commentaries, also as far as concerns the physiological part of the teaching (and despite the more explicit attention paid to anatomical facts).

A remarkable pioneering work!

(17) ID., Renaissance Commentaries on Avicenna's *Canon*, b. I, Part I, and the Teaching of Medical *Theoria* in the Italian Universities, in : *Hist. of Univ.*, 4 (84), 47-97.

This paper may be considered to be a kind of preliminary study for 16.

(18) ID., The Changing Fortunes of a Traditional Text : Goals and Strategies in Sixteenth-Century Latin Editions of the *Canon* of Avicenna, in : A. WEAR, R. FRENCH and I. LONIE (Eds.), *The Medical Renaissance of the Sixteenth Century*. Cambridge, Cambridge Univ. Press, 1985, 16-41 (notes : 279-296).

Acc. to A.'s own acknowledgment in 13, p. X, this text forms part of ch. 5 of her book.

(19) TADJEEV, Y. and ISHAKOV, I., The Work of Ibn Sînâ in the Teaching of the History of Medicine in the Tadjiki Medical Institute, in : *Ibn Sîno ve ego epokhe*, 212-214 (Ru).

(20) TERZIOĞLU, A., Ibn Sînâ's Medicine, and Its Influence on Europe, in : *Ibn Sînâ. Doğumunun...*, 41-66 (with several plates I-XI) (Tu).

(21) TUNJÎ (AL-), M., Ibn Sînâ and Arab Medicine in China, in : *Al-'arabi*, 297 (83), 154-159.

Having evoked the general historical circumstances which contributed to the introduction of Arabic ideas into China (and Mongolia), A. concentrates on the specific influence of classical Arabic medicine in China, with some particular attention to I.S. (in order to show that even in modern China there still exists an interest in I.S., A. stresses the very fact that there was a millenium-celebration of I.S. in China in 1952!). To substantiate this Arabic influence on Chinese medicine, A. refers to some technical terms in Chinese medicine, clearly Arabic- or Persian-derived, as well as to some 'medieval' Chinese texts (mainly 13th C.), directly related to classical Arabic medicine.

A valuable primary outline, but in need of further development.

(22) UPADHYAYA, S., see : CHATURVEDI, G.



(23) VIESCA TREVIÑO, C., El Avicenismo, in: *Med. Trad. (Mexico)*, 3<sub>10</sub> (80), 33-36 (N.C.).

(24) WAHAB ZUHURI, M., Influence of Ibn Sînâ on Unani Medicine in Subsequent Ages, in: *Bull. Ind. Inst. Hist. Med.*, 11 (81), 103-109.

A. mentions a famous commentators on I.S.'s *Canon* (or parts of it) in the Arabic world, and also in 18th C. India. Thereafter, he gives lists with the names of such commentators (but without any further references - even the precise title of the commentaries is not mentioned!), as well as a brief survey of translations of the *Canon* in various languages (but also in this case, there is a total lack of precise references).

Of no value.

(25) WEISSER, U., The Influence of Avicenna on Medical Studies in the West, in: *Enc. Ir.*, 107-110.

A. first affirms that a precise assessment of I.S.'s impact on the rise of scientific medicine in the West is yet not possible (because of the lack of systematic studies, and of catalogues regarding the mss. or printed editions of the Latin translations or of commentaries on I.S.'s *Canon* - however, see now 16-18). Hereafter, A. notes that the 12th century-Latin translation of the *Canon* by the Toledan school met the needs of the new scholastic medicine well, mainly because of its immense wealth of information, its systematization of every subject, and its linking the medicine of Galen to the natural philosophy of Aristotle. Then A. surveys the reception of the *Canon* as a textbook for university courses, especially during the 14th C. Hereby A. offers a selective list of commentators and of printed editions of the *Canon* as well as of the *De viribus Cordis* and the *De Cantica*. Further, she pays special attention to later efforts to improve the medieval version, but observes, at the same time (in the very same period, i.e. 16th C.!) a growing rejection of I.S.'s authority (although the *Canon* remained a textbook, there was a clear move towards a purely historical interest in it, esp. during the 17th C.).

A valuable paper, but for a probably more precise evaluation of the significance of the *Canon* in the 16th C., see 16.

*See also :*

I-I : 4.

## **Chapter XVII**

### **Varia**



- (1) AINĪ, L., *Iskusstvo Srednej Azii Epokhe Avicenny (The Central Asian Art of Ibn Sînâ's Epoch)*. Dushanbe, Irfon, 1980, 200 reproductions (+ Ru and Engl text).
- (2) AKMAL AYYUBI, N., An Important Turkish Book on Ibn Sînâ, in : *Indo-Iranica*, 34 (81-82), 57-59.  
A. enumerates the major contributions of the famous Turkish book: "*Büyük Türk ve Tib Ustadi Ibni Sina...*", published in 1937.  
Although no one doubts the exceptional merits of this publication, one may wonder whether its actual value is still as great as suggested by A.?
- (3) AKYÜZ, Y., The Place of Ibn Sînâ in Turkish and World-wide Education, in : *A.Ü. Eğitim Fak. Dergisi*, 15<sub>1</sub> (82), 1-13 (Tu).
- (4) ALIMARDONOV, A. and DODALISHOEV, J., *Surat ve sirati ibni Sino (Histories and Legends on Ibn Sînâ)*. Dushanbe, Irfon, 1980, 120 pp.
- (5) ATABEKOV, YU. and KHAMIDULLIN, SH., *A Bust of Avicenna. A Scientific Reconstruction of the Great Scholar's Image* (title also in Russian and Uzbek). Tashkent, Meditsina, 1980, 97 pp (+ 22 reprod.) (tri-lingual : Ru-Uzb-Engl) (N.C.).
- (6) BAYAT, A., Tales and Reflections on Ibn Sînâ in the Turkish-Muslim Societies, in : *Ulus. I.S. Semp.*, 575-585 (Tu).
- (7) BAYRAM, M., Ibn Sînâ and Ahi Evren, in : *Ibn Sînâ. Doğumunun...*, 481-488 (Tu).
- (8) ÇAYIRDAĞ, M., Writing in a New (Way?) Old Turkish Public Stories on Avicenna, in : *Kayseri-Kongr.*, 385 ff. (Tu).
- (9) DJAHONOV, U., Ethnographical Materials in Ibn Sînâ's Works, in : *Ibn Sino ve ego epokhe*, 191-196 (Ru).
- (10) DODALISHOEV, J., see : ALIMARDONOV, A.

(11) DUMMER, J., Avicenna und Gotthold Ephraïm Lessing, in : *Avicenna / Ibn Sînâ*, I, 78-87.

Although Lessing does not mention I.S. in his major works, and only cites his name two times in his *collectanea* (but in a rather insignificant way), A., who explicitly recognizes all these facts, still believes that Lessing had some knowledge of I.S., and indicates in this respect Lessing's partial translation of Abbé de Marigny's *Histoire des Arabes*...

A. offers no convincing proof of any serious knowledge by Lessing of I.S.

(12) DUN, A., The Heritage of Ibn Sînâ in the Ukraine, in : *Ibn Sino ve ego epokhe*, 197-202 (Ru).

(13) FARID, G., The Postage Stamps on Avicenna, in : *Indo-Iranica*, 34 (81-82), 66-69 (with several plates).

A. gives a survey of the issue of postage stamps on I.S. in different countries during the period 1948-1974.

(14) FAYYÂD, S., *Ibn Sînâ. Abû al-ṭibb al-basharî (Ibn Sînâ. Father of the Human Medicine) ('Ulamâ' al-'Arab, 7)*. Cairo, al-Azhar, 1987, 56 pp.

A booklet for children, including several drawings.

Of no significant value.

(15) GIRS, G., Main Results of Research in the Scientific Heritage of Abû 'Alî ibn Sînâ (Avicenna) in the Soviet Union, in : *Acta Ant. Ac. Sc. Hung.*, 29 (81), 43-48.

A. summarizes contemporary Soviet scholarship on I.S., according to some thematic lines. A. hereby enumerates a lot of names, without giving precise references (the few references given are written in Russian characters!). However, A.'s presentation shows clearly that the materialistic and/or intellectualistic elements of I.S.'s philosophy are particularly underlined in Soviet research.

Of limited value.

(16) GORDON, N., *The Physician*. New York, Simon and Schuster, 1986.

A novel, in which I.S. plays an important role. It has to be noted that this novel has been translated into several languages.

(17) HALLISSY, M., Poison Lore and Chaucer's *Pardoner*, in : *Massachusetts Studies in English*, 9 (83), 54-63.

A. convincingly demonstrates that the section on poisons in I.S.'s *Canon* had a direct influence on Chaucer's tale of the *Pardoner*, esp. section VI, C. Therefore, A. believes in the plausibility, or even probability of Chaucer's familiarity with

the *Canon* - at least, as a casual reader. (A. devotes the rest of his paper to the general conception of poison in Chaucer's time, and to the ambivalence of the Pardoner as serpent.)

A significant paper, insofar as it shows how influential I.S.'s *Canon* was in the West - even outside medical (and philosophical!) circles.

(18) HATIBOĞLU, M., Avicenna in View of the Leaders of the Islamic World, in : *Kayseri-Kongr.*, 193-201 (Tu).

(19) KANSU, Ş, Sur la morphologie du crâne d'Avicenne, in : *Ibn Sînâ. Doğumunun...*, 793-798 (Tu); 799-800 (Fr S.).

Acc. to S., A. offers a detailed description of the skull of I.S., based on a photograph (authenticated by A. Terzioğlu) - for A., this description allows to conclude that I.S. belongs to the type of the *homo alpinus*.

(20) KHAMIDULLIN, SH., see : ATABEKOV, YU.

(21) LITTLE, M., Pound and 'Ylè: Bishop Carame's Translation of Avicenna as Background, in : *Paideuma (E. Pound Scholarship)*, 12<sub>1</sub> (83), 33-40.

E. Pound, the famous contemporary American poet, had a great admiration for I.S. - he didn't hesitate to place I.S. in the upper reaches of the *Cantos'* Paradise. Moreover, it is almost certain that Pound underwent some Avicennian influence in his conceptualization of *hylè*, prime matter (most probably by mediation of Carame's contemporary Latin translation of the *Metaphysics* of the *Najât*, which on one occasion is literally quoted by Pound). A. sees two main reasons for Pound's interest in I.S.'s idea of *hylè*, i.e. :

1. I.S.'s conception of *hylè* as a potential (the process of actualization permitting a harmonization of Neo-Platonism with a profound concern for the reality);
2. I.S.'s linkage of *hylè* with the Active Intellect (matter acquiring form through an illumination by the *nous poiètikos* - the latter denomination deriving from the very same root as 'poet').

An interesting paper - showing a lively interest for I.S. in a contemporary American writer, and the concrete way in which the latter used one of the former's texts.

(22) MUHTADÎ, F., *Afsâna-hâye Bû 'Alî Sînâ (Stories on Ibn Sînâ)*.  
<sup>4</sup>Tehran, A. Kabîr, 1971, 99 pp.

(23) QANOAT, M., *Gahvâre-ye Sinâ (Ibn Sînâ's Cradle)*. Dushanbe, Irfon (?), 1980; the same (or a shorter version?) in : *Sadoi Sharq*, 1979<sub>4</sub>, 3-19.

The work contains a personal poem by A. in honour of I.S.

(24) SAIDADZE, L., *Sozvezdie Oriona (Avitsenna). Roman v dialogakh. (The Constellation of Orion (Avicenna). A Novel in the Form of a Dialogue)*. Moscow, Iskusstvo, 1978.

(25) SAKAOĞLU, S., The Influence of Ebu Ali Sînâ Stories on Turkish Folk Tales, in : *Ulusl. I.S. Semp.*, 501-509 (Tu); 509 (Engl S.); 510-522 (2 concrete examples in Turkish?).

Acc. to S., A. points to the existing similarity in motifs between an old story on I.S.'s life, preserved in 4 mss., and (still) told stories in oral tradition, as well as to the disappearance (at least in part) of this resemblance when the latter turned into tales.

(26) TERZIOĞLU, A., Unter Berücksichtigung einer bis jetzt unbekanntenen Avicenna-Miniatur und neuester anthropologischer Forschungen zur Angehörigkeitsfrage von Avicenna zu den zentralasiatischen Türken (sic!), in : *Ulusl. I.S. Semp.*, 29-40 (Tu) (40-50 : plates); 51-52 (Germ S.).

Acc. to S., A. mentions different arguments in order to prove the Turkish origin of I.S. A. indicates a series of studies regarding I.S.'s skull, but, most specifically, focuses on a 15th C. painted portrait of I.S. (sic!).

(27) TÜRKMEN, F., Image d'Avicenne (Ibn Sînâ) dans la tradition populaire, in : *Ulusl. I.S. Semp.*, 201-205 (Tu); 205-206 (Fr S.).

Acc. to S., A. summarizes different Turkish folk tales (although he also refers to one Persian publication), in which I.S. is glorified as well on the scientific as on the moral side.

(28) YAQULOV, M., Scientific Lectures in Honour of Ibn Sînâ, in : *Ibn Sino ve ego epokhe*, 205-211 (Ru).

# Authors





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 ASLAN, M. (XV, F 2)  
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 ATABEKOV, YU. (XVII, 5)  
 ATAY, H. (X, 5-7; XIII, 1)  
 ATESH, A. (I, C-n9)  
 'AUWN, F. (VI, B 1)  
 'AYĀN, R. (VII, 5)  
 AYDIN, M. (IX, 3-4; XI, B-II, 5)  
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 AZMI, W. (II, Notes 2)  
 BĀBĀ (AL-), M. (I, B II and III; I, C-i, 2, 4; XV, H 1)  
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 BLUMBERG, H. (XI, B-II, 6)  
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 BOGOUTDINOV, A. (I, A III, 3)  
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 BOLTAEV, M. (V, A 6)  
 BOOTH, E. (XII, 1)  
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 BRAHMAN RAO, U. (XVI, L-III, 1)  
 BRANDENBURG, D. (XVI, A 7)  
 BRĂTESCU, G. (XVI, A 8)  
 BRENTJES, B. (I, C-b; III, 2; IV, A 3;  
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 BRENTJES, S. (I, B III; II, 12; V, A 7;  
 XV, A 9; XVI, A 9; XVI, S 3)  
 BREWSTER, P. (XVI, S 4)  
 BROWN, H. (XIII, 6)  
 BUKHAROV, F. (XVI, A 10)  
 BULGAKOV, P. (IV, A 14; XV, E 1)  
 BURREL, D. (XII, 2; XIV, A-II, 4)  
 BUSCHMANN, E. (X, 10)  
 BUTTERWORTH, Ch. (II, 13; IX, 6)  
 CAMERON GRUNER, O. (I, B I, Tr.; I, B  
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 CAMPANINI, M. (X, 11)  
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 CASPAR, R. (XI, A 2)  
 CAYIRDAĞ, M. (XVII, 8)  
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 CRAIG, W. (X, 13)  
 CROMBIE, A. (XV, A 10)  
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- DAVARI, R. (V, C 28)
- DAVIDSON, H. (X, 14-15; XIII, 9)
- DEBOUT, M. (XIII, 10)
- DE KONING, P. (I, B I, Tr., Part. Ch.-B III)
- DEMIRCI, A. (XI, C 8)
- DEMIREL, S. (XV, C 2)
- DEMIRHAN, A. (XVI, A 14; XVI, P 4)
- DENISENKO, P. (XVI, P 5)
- DHZUMAËV, A. (XV, B-II, 3-4; XVI, N-I, 2)
- DĪBĀJĪ, S. (I, A III, 5; I, C-b)
- DILMEN, U., (XVI, E 1)
- DINDAR, B. (V, C 29)
- DINORSHOEV, M. (I, A I, 2; I, A III, 5; I, C-b; V, C 18; X, 16; XV, A 11)
- DIRIÖZ, M. (VII, 8; XV, F 3)
- DJAHONOV, U. (XVII, 9)
- DODALISHOEV, J. (XVII, 10)
- DOĞRAMICI, I. (V, C 30)
- DRUART, TH.-A. (XIII, 11; XIV, A-IV, 3)
- DUMAN, H. (II, 14)
- DUMITRU, M. (XVI, F 1)
- DUMMER, J. (XVII, 11)
- DUN, A. (XVII, 12)
- DUNYA, S. (I, A III, 5)
- DURRANY, K. (I, B II St. 2; VIII, 7)
- EBIED, R. (II, 15)
- ECER, A. (XIV, A-I, 3)
- ECONOMU, S. (XVI, F 1)
- EGGERMONT, P. (IV, B 6)
- EGRI, B. (IV, B 7; XIII, 12)
- EHLERS, D. (XII, 3)
- ELAMRANI-JAMAL, A. (XI, B-I, 3)
- ELTORAI, I. (I, B I, Tr., Part. Ch.-B-IV)
- ERDOGAN, Yu. (XVI, I-II, 1)
- ERKILETLIOĞLU, H. (XVI, K 2)
- ESIN, E. (V, C 31)
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- FAHHĀN (AL-), SH. (V, C 32)
- FAIZULLAEV, A. (XIII, 13)
- FAKHRY, M. (I, A III, 11; I, C-b; V, B 6; X, 17; XII, 4-5)
- FĀKHŪRĪ, M. (I, C-b)
- FARHAD, I. (I, C-n 9)
- FARID, G. (XVII, 13)
- FARMAND, G. (IV, A 2)
- FAROOQUI, A. (I, B I, Tr., Part. Ch.-B III; XVI, L-III, 2)
- FARRUKH, M. (XV, A 12)
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- FARMER, H. (XV, B-II, 5)
- FARUQ, A. (X, 18)
- FAYYĀD, S. (XVII, 14)
- FAZLI, A. (XVI, I-IV, 1)
- FEDOSEEV, P. (V, C 33)
- FELLMAN, I. (XVI, R 4)
- FERNANDEZ, Cl. (I, A II, Av. Lat., I, A III, 5, 11)
- FILIPPANI-RONCONI, P. (X, 11)
- FINIANOS, GH. (X, 20-21)
- FIRDAWSI, B. (I, C-1 7)
- FLYNN, J. (XIV, A-II, 7)
- FREUDENTHAL, G. (XV, C 3; XV, G 1)
- FRÖLICH, H. (XVI, N-I, 3)
- FŪLĀDVAND, M. (I C-c5)
- FURHĀN, M. (VI, A 10)
- GÄTJE, H. (I, C-h 5; VI, A 11; VIII, 8)
- GALSTON, M. (IX, 7)
- GAMARRA, D. (X, 22)
- GARASĪ, A. (VI, A 12)
- GARCIA-JUNCEDA, J. (I, A II, Tr. II, St.)
- GARCÍA-MARQUÉS, A. (XIII, 14)
- GARDET, L. (VII, 9; X, 23; XI, C 9)
- GARIN, I. (XVI, P 6)
- GAWHARĪN, S. (III, 3)
- GHALĪB, M. (V, A 10)
- GHANNOUCHI (AL-), A. (XIII, 15)
- GHASSEM, M. (V, C 34)
- GHAUSSY, A. (XVI, 15)
- GHORABA, H. (XI, A 3)
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- GIACON, C. (XIV, A-II, 8-9)
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- GIRS, G. (XVII, 15)
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- GODDU, A. (XV, C 4)
- GOEHL, K. (XVI, S 7)

- GOGACZ, M. (I, A III, 3; X, 24-25; XIV, A-IV, 4)
- GOHLMAN, W. (I, C-b; V, B 7)
- GOICHON, A.-M. (C-c5; V, A 11; V, B 8)
- GÖKAY, F. (XVI, C-II, 2; XVI, S 8)
- GÖKSEL, A. (XVI, C-II, 3)
- GÖLCÜK, Ş, (XI, A 4)
- GÓMEZ NOGALES, S. (XI, C 10; XIV, A-I, 6)
- GONZALES CASTRILLO, R. (II, 16)
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- GORDON, N. (XVII, 16)
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- GRACIA, D. (XVI, R 5-6)
- GRIBANOV, E. (IV, B 8)
- GRÜNSBERG, T. (VI, A 13)
- GUASHOV, A. (XIV, A-I, 7)
- GUERRA, Fr. (XVI, I-I, 3)
- GÜNGÖR, H. (XI, A 5)
- GÜRSOY, K. (X, 26)
- GUSIO, VI. (XVI, F 1)
- GUTAS, D. (I, A II, Tr. , I, Note; I, A III, 1, 3, 5-6, 8-10; I, C-b, p 1; II, 17; III, 5-6; XI, C 11; XII, 6-7)
- HABIB, K. (XVI, P 7)
- HABIBULLAH, C. (XVI, A 16)
- HADDAD, A. (I, B I, Comm.)
- HADDAVY, H. (VI, A 14)
- HADŽIOLOV, A. (V, C 35)
- HALL, R. (VIII, 9)
- HALLISSY, M. (XVII, 17)
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- HAMÂRNEH (AL-), N. (XVI, J 1)
- HAMEED, A. (I, B I, Ed., Lat. St.; I, B II; II, 18)
- HAMMÂMÎ, M. (I, C-i 7; XVI, R 7)
- HAMOUDI, S. (XV, G 2)
- HANNA, GH. (IV, A 3)
- HASAN, M. (V, A 12)
- HASANOĞLU, A. (XVI, E 2)
- HASAN PÖR, M. (VII, 10)
- HASHEM, M. (XVI, A 17)
- HASNAOUI, A. (XV, C 5)
- HATIBOĞLU, M. (XVII, 18)
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- HEGEDÜS, L. (XVI, P 8)
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- HERAVÎ, N. (I, C-q 1)
- HIJAZI, A. (XVI, N-I, 4)
- HİLÂL, I. (I, C-1 3)
- HIRSCHBERG, J. (I, B I, Tr., Part. Ch.-B III)
- HODŽIEV, I. (XV, B-I, 3)
- HOLMYARD, E. (I, A II, Ed., Tr., II, Ch. 2, Av. Lat.)
- HOME, W. (XV, A 13)
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- HORTEN, M. (I, A II, Tr. II, ch. 3)
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- HOURLANI, G. (I, A II, Tr. IV, ch. 2; I, A III, 11; I, C-c 7, 1 2-3)
- HOWELL, Tr. (XVI, F 2-3)
- HUGONNARD-ROCHE, H. (XIV, A-III, 6)
- HULW (AL-), 'A. (VIII, 10)
- HUSSAIN, S. (I, B II, St. 3; XVI, H 2-3)
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- HYMAN, A. (I, A II, Tr., III, ch. 3; X, 27; XIII, 16)
- IHSANOĞLU, E. (I, C-j 3; XV, F 4)
- İL'INSKII, I. (XVI, D 7)
- İNAL-SAVI, S. (I, C-f 1)
- İNATI, Sh. (I, A III, 5; VI, A 15; X, 28)
- IONESCU, M. (XVI, G 1)
- IQBAL, A. (I, B II, St. 3; XVI, A 19; XVI, M 1)
- 'İRÂQÎ (AL-), M. (XV, A 14)
- İRISOV, A. (XIII, 17)
- ISHAKI, YU. (XVI, A 20-21; XVI, L-I, 1)
- ISHAKOV, I. (XVI, A 22; XVI, S 9)
- ISKANDAR, A. (I, B I, Comm.; II, notes 5; XVI, A 23-24)
- ISMÂ'İL, A. (I, A II, Ed. 2)
- ISMÂ'İL, M. (IX, 8)
- ISMAIL, A. (XVI, J 2)
- IVRY, A. (X, 29)
- JÂBARÎ (AL-), M. (XI, C 12)
- JABBÛR, J. (I, B 1, Ed.)
- JABRE, F., (VI, B 5-6)

- JACQUART, D. (XVI, S 10)  
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 JORBENADZE, D. (XVI, F 4)  
 JUDY, A. (XIV, A-II, 10)  
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- KACHANI, M. (V, C 39)  
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 KAHYÂ, E. (V, C 40; XV, A 15; XV, F 5; XVI, J 3; XVI, L-II, 1-3)  
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 KHAN, M. (II, 20; V, A 19; V, C 44-45; XVI, L-III, 4; XVI, P 9)  
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 KHANLÂRÎ, P. (I, C-e 1)  
 KHÎMÎ (AL-), S. (II, 21)  
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 KHODEIRY, Z. (XIV, A-I, 9; XIV, A-II, 11)
- KHOLEIF, F. (I, C-h 4; VIII, 13)  
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