Hunayn Ibn Ishaq Al-'Ibadi, Abu Zayd | Encyclopedia.com

Complete Dictionary of Scientific Biography COPYRIGHT 2008 Charles Scribner's Sons 22-28 minutes

known in the Latin west as Johannitus (b. near Hīra, Iraq, 808;d. Baghdad, Iraq, 873)

medicine, philosophy, theology, translation of Greek scientific works.

Huanyn, a physician, philosopher, and theologian, was the most famous ninth-century translator of works from Greek antiquity into Arabic and Syrinac. His *nisba* al-Ibādī, is from an Arab tribe, al-Ibād, the members of which became Christian long before the rise of Islam and continued to belong to the Syrian Nestorian church. His father, Ishāq, was a phramatic (*saydalāanī*) at Hīra. While still young, Hunayn learned Arabic and Syriac, perfecting his knowledge of the former at Basra. Ibn Juljul incorrectly reports that in Basra, Hunayn met Khalil ibn Ahmed, founder of Arabic grammar; M.Plessner has shown, on chronological grounds, that this would have been impossible.

Hunayn went to Baghdad to study medicine- a dificult undertaking, according to the picturesque and lively account given by Ibn Abī Usaybi'a in his *Uyūn al-anbā*. The teaching of medicine was then dominated by Yūhannā ibn Māssawayh, originally from jundīshāpūr. The physicians of that city, highly cultivated men who had long devoted themselves to medicine felt contempt for the people of Hīra, who were concerned primarily with commerce and banking. Further, they were not happy to see these merchants' sons becoming interested in medicine.

Nevertheless. Ibn Māsawayh agreed to supervise Hunayn's studies and gave him a book on the various medical schools. Avis for knowledge, Hunayn never tried of raising questions (*sāhibsu'āl*): one day, when they became particularly urgent and difficult to answer, Ibn Māsawayh flew into a rage and brusquely rebuked his young student:

What makes, the people of Hīra want to study medicine? Go away and find of your friends: he will lend you fifty *dirhems*. Buy some little baskets for *a die hem*, some arsenic for three *dirhems*, and with the rest buy coins of Kūfa and of Qādisiyya. Coat the money of Qādisyya with arsenic and put it in the baskets and stand by the side of the road crying: "Here is true money, good for giving alms and for spending ..." Sell the coins; that will earn you much more than the science of medicine².

He then ordered Hunayn to leave his house.

Refusing to accept defeat, Hunayn resolved to pursue his vacation as a physician. He disappeared from Baghdad for several years, during which time he made a profound study of Greek, either in Alexandria or in the "bilād al-Rūm", probably in Byzantium. He was remarkably successful in learning the language; Ibn Abī Usaybia recounts in detail that one evening, while visiting friends, Hunayn recited verses from Homer. He also translated a work by Galen for Jibrāīl ibn Bukhtīshū' Ibn Masawayth, who had sent him away, was forced to recognize his abilities. He was reconciled with Hunayn and accepted him as a dispel: the two became close collaborators.

Following the decision of al- Mamūn (d.833) to have translated made of the works of Aristotle and of other classical authors, a cultural mission was sent to Byzantium to obtain manuscripts. Hunayn, who, according Ibn Abī Usaybi a, poseesed the best knowledge of Greek of anyone of his time, probably was a member of this mission. The rich lords followed the caliph's example and soon were completing to acquire manuscripts and have them translated.

Hunayn, his son Ishāq, his nephew Hubaysh ibn al-Hassan al-A sam, and another dispel. Īsā ibn Uahyā, earned particular distinction as translators. Alone or in collaboration, Hunayn translated works of P,lato and Aristotle, adn of their commentators. Even more important were his translations of the major portion of the three founders of Greek medicine, whose ideas were also central to the development of Arab medicine: Hippocrates, Galen, and Dioscorides.

Hunayn's translation methods were excellent and generally correspond to the standards of modern phi logy. severe in his judgement of poor translations made by other writers, he had even more exacting standards for his own work. Referring to his translations of *De sectis*, he wrote:

I translated it when I was a young man... from a very defective Greek manuscript. Later, when I was fourty-six years old, my pupil Hubasish asked me to correct it after having collected a certain number of Greek manuscripts. thereupon I collated these so as to manuscript with the Syrisc text and corrected thus in all my translation work³.

Hunayn made long journeys in order to find manuscripts, such as that of Galen' *De demonstration*: "I sought for it earnestly and travelled in search of it in the lands of Mesopotamia, Syria, Palestine and Egypt, until I reached Alexandria, but I was not able to find anything, except about half of it at Damascus⁴."

Hunayn and his disciples strove to render the Greek text as clearly as possible. In fact, Hunayn may be considered one of the creators of the philosophical and scientific idiom of classical Arabic. In his study of Hunayn and his school, G. Bergstrasser emphasizes the superiority of Hunayn's versions: "The correctness is greater; nevertheless one is left with the impression that this is not the result of anxious effort, but of a free and sure mastery of the language. This is seen in the easier adaptation to the Greek original and the striking exactness of expression obtained without verbosity. It is all this that constitutes the famous $fas\bar{a}ha$ (eloquence) of Hunain."

Hunayn soon became famous and participated in the scholarly meetings at which physicians and philosophers discussed difficult problems in the presence of Caliph al-Wāthiq (*d*. 847). Al-Mutawak-kil (d.861) named him head physician—thereby dismissing the Bukhtīshūʻ famlily from this post—after having assured himself of Hunayn's absolute loyalty. He asked Hunayn to prepare a poison to be used in eliminating a supposed enemy, encouraging him with both promises of rewards and with threats; Hunayn refused. His intense scientific activity and his favor with the caliph gave rise to jealousy among his colleagues and even among his friends and students. Bukhtīshūʻ ibn Jibrā in particular, sought to turn al-Mutawakkil against him, explOiting Hunayn's iconoclastic views to this end. He induced Hunayn to spit on an icon in the presence of the caliph, who thereupon dismissed Hunayn from his post, confiscated his library, and had him imprisoned. The catholicos The odosius trated Hunayn with equal severity, excommunicating him and dismissing him from his functions as deacon. But six months later the caliph fell ill and had to recall Hunayn from prison. He again granted him favors, and Bukhtīshūʻ was exlied.⁶

Hunayn retained his post until his death. Although his two sons, Although his two sons, Dāūd and Ishāq, both became physicians, only Ishāq followed in his father's footsteps, devoting his efforts primarily to the translation of Greek philosophical works.

Hunayn's immense scientific activity consisted mainly of producing translations or revisions of earlier translations (into Arabic or Syriac) but also included a number of original works. Of the several ancient lists of these writings, the most extensive is that in Ibn Abī Usaybia, Uyūn al-anbā². G. Furlani analyzed this list and attempted to draw up a classification scheme. The list in the Fihrist is shorter. An even shorter one is that of Ibn al-Qiftī¹⁰. A compe but uncritical list of all the works was complied by Lutfi M. Sadi. 11

For convenience, Hunayn's works can be divided into those concerning medicine and those dealing with other subjects. Among the medical works are translations of ancient texts, summaries treatises and paraphrases of these texts, and original. For this group treaties. For this group there is a risāla sent by Hunayn to Abul Hasan ʿAlī ibn yahya al-Munaj-jim in which he indicates which works of Galen he has translated ¹². (For this area of his activity, consult the section of this article by A. Z. Iskandar.)

The nonmedical works are varied. The nature of some has been defficult to classify with certainty as a translation, a paraphrase, or an original work, since all we have is the title. Moreover, many of these works are known only from the lists of Arabic sources. Here we shall present only a selection of Hunayn's works.

On his personal life there is Kitāb ilā ʿAlī ibn Yahya, written in response to the latter's suggestion that Hunayn become a Muslim. ʿAlī Yahyā ibn was secretary and friend of Caliph al-Mutawakkil. Hunayn also addressed his on the translated works og Galen to him. Risāla fīmā asabahu min al-mihan wal-shadāid("Letter concerning Affictions and Calamites") is partially quoted in ibn Abī Usaybïa. ¹⁴ F. Rosenthal, however, contests its authenticity.

Hunayn's writings in philosophy comprise translations (into Arabic or Syriac) and original works: translations of Plato (the Politics, the Laws, and the Timaeous); translations of Aristotle (Categories, De interpretation, Analytica priora and Analytica posteriora, De anima; fragments of the Metaphysics, and the Ethics, with Prophyry's commentary); Kitāb fimā yuqra'u qabl kutub Aflātūn("What to Read Before the Books of Plato") ("Compendium of the De caelo et mundo"); Masāil muqaddama li-Kitāb Furfüryus al-marūf bil-Madkhal ("Introductory Questions to the Book of Porphry Known as the Isagoge"), ("Compendium of the Commentary of the Ancient Greeks on Aristole's Book De caelo et mundo"); ("Commentary on Aristole's Book on Physiognomy"); ("Questions Extracted From the Four Books of Logic"); and a translation of the Book of Dreams of Artemidorus of Ephesus."

To this list should be added some ten philosophical texts by Galen that Hunayn translated into Syriac or Arabic, particularly *That Good People May Benefit From Their Enemies, The Prime Mover Is Immobile*, and *What Plato Says in the Timaeus*. ¹⁷ In addition, Hunayn supposedly translated from the original Greek the allegorical novel upon which Ibn Sīnā was to base his *Salamdn wa-Absāl*. ¹⁸

Works on Arabic grammar and lexicography include *Kitāh fi ahkādm al-irāh ala madhah al-yūfināniyyīn* ("The Rules of Desinential Syntax According to the Greeks"); *Kitāb fil-nahw* ("On Grammar"): and *Kitāb al-nuqat*. Hunayn's grammar was mentioned by Elias of Nisibis in his *Majālis*. In the sixth *majlis* Elias speaks of the superiority of the Syriac language to Arabic. 19 The same chapter contains a passage in which Elias mentions a book by Hunayn that is not otherwise known,

entitled*Kitāb al-nuqat anī nuqat al-kitāb* ("Book of the Points, 1 Mean, Points of the Book"). As proof of the superiority of Syriac, Hunayn states that the Syrians, Greeks, and Iranians had many names for drugs (*al-aqāqīr wal-adwiya*) and instruments (*ālāt*) that the Arabs did not have. 20

Kitāb fī masāʾilihi al-ʿarabiyya ("Book on His Arabic Questions") is mentioned immediately after a book entitled Kitāb ftasmā' al-adwiya al-mufrada ʿalāhūf al-mufam ("Names of Medicines Listed Alphabetically"). Hunayn may have wished to study, in a second book, the problems posed by the translations of terms for certain medicines.

Scientific subjects other than medicine were treated in the following works; *Kitāb khawass al-ahidr* ("On the Properties of Stones"); ²¹*Kitāb al-Jildba* ("On Agriculture"): *Maqāla fī-alwān* ("On Colors"); *Fil-daw' wa haqīqatih* ("On Light and on Its Nature"); ²²*Maqāla fī tawallud al-nār bayn at-hajarayn* ("On the Generation of Fire Between Two Stones"); *Maqāla fīl-sabab al-ladhī min ajlihi sārat miyāli al-bahr māliha* ("The Reason That the Waters of the Sea Are Salty"): *Jawdmi' li-Kitāb Aristū fīl āthar al-Udwiyya* ("Compendium of Meteorology"); ²³*Maqāla fīl-madd wal-jazr* ("On Ebb and Flow"); *Maqāla afāl al-shams wal-qamar* ("On the Effects of the Sun and the Moon"); and *Maqāla fī qaw.s qazah* ("On the Rainbow").

Religion is the subject of Maqāla fī khalq al-insfān we annahu min maslaliatihi wal-tafaddul alaylu an tcila muhtfājan ("On the Creation of Man and that it Is in His Interest and That It Is a Grace for Him to Have Been Created Needy") and Kitfāh fī idrfāk haqfīqat al-adyfān ("How One Grasps the Truth of Religions"). Ibn Ahfī Usaybïa also cites Kitāb kavfīxvat idrfāk al-diyfāna ("How to Grasp Religion"), ²⁴ which may be the same book. The manuscript tradition contains the title fī kayfīyyat idrak haqiqat al-diydna ("How to Understand the Truth of Religion"). Hunayn provides the criteria that make it possible to distinguish error from truth in religious matters. The true is distinguished from the false by the reasons that one adopts at the beginning. Six reasons lead people to accept falsehood; violence, misery and affliction from which one hopes to escape, the desire for glory and honors, the insidious words of a wily man, the listener's ignorance, and kinship between the preacher and his audience.

Four reasons lead a man to embrace the truth: miracles that surpass human power, discovering proofs of the truth of hidden things in the external and perceptible signs of religion, rational and irrefutable demonstration of the truth that one embraces, and the recognition of the authenticity of the origin of a religion by the successive phases of its development.

This treatise was preserved by Abul Faraj Hibatullah, known as Ibn al-'Assāl. L. Cheikho, who mentions Hunayn's book, notes that the Bibliothèqtie Orientale of the University of St. Joseph in Beirut possesses two manuscripts of the book by Ibn al-'Assāl: A, dating from the fifteenth century, and B, which is from the nineteenth century and is written in Karshuni. The treatise by Hunayn that Ibn al-'(Assāl reproduces is at the beginning of chapter 12 of the first part (A, pp. 233-238;B, pp. 93-96). 25

Other religious works are $Maq\bar{a}la\ f\bar{i}\ dal\bar{a}lai\ al-qadar\ ala\ l-tawh\bar{i}d$ ("How Divine Predetermination Is a Proof of the Unicily of God"); $Maq\bar{a}la\ f\bar{i}\ f\bar{a}j\bar{a}l$ ("On the Hour of Death")-the theologian Abū Ishāq al-Mutaman ibn al-Assāl mentions a $Kitah\ a-\bar{a}j\bar{a}l$ and, according to a tradition reported by Masūdī, $\frac{26}{3}$ an Arabic translation of the entire Old Testament based on the version in the Septuagint, which was considered one of the best in existence.

A miscellaneous work is *Nawādir al-falāsifa* a collection of stories, letters, and apothegms of ancient Greek philosophers to which Hunayn added his own remarks. At a later period other books were compiled from extracts taken from this collection. There are two manuscripts of the Arabic text, still unpublished, and a medieval Hebrew translation published by A. Loewenthal. In 1921 Karl Merkle made a thorough study of the work, in which he discussed the two manuscripts (Escorial and Munich), the title, and the authenticity of its attribution to Hunayn, which dates from the Middle Ages. He also examined the translations: the Hebrew (done in 1200 by the Spanish poet Jehuda ben Salomo al-Kharīzī, the translator of Harīrī), the Spanish (*Libra de los biienos proxerbios*), and the German version prepared by Loewenthal. In addition, Merkle established the relationships between the Ādāħ al-falāsifa and the Arabic sources, unpublished as well as published. Finally, he provided a translation, with commentary, of certain passages. The book is based on a similar Byzantine anthology and contains ancient elements. The third part deals with the death of Alexander. Most of Hunayn's translations into Syriac have been lost.

NOTES

- 1. See M. Plessner, "Der Astronom und Historiker ibn Sāid al-Andauisī und seine Geschichie der Wissenschaften." in *Rivista degli studi orientals* **31** (1956), 235-257. esp. 244 ff.
- 2. A. Miiiler. ed.. I (Cairo. 1882). 185 (hereinafter IAU).
- 3. Cited by M. Meyerhof in *The Hook of the Ten Treatises xxiv*.

4.Ibid.

5.Ibid., xxv.

- 6. On the histórical authenticity of this event and the reconciliation of facts reported in a contradictory fashion, see Yusuf Habbi. *Hunayn Urn Ishāq* (Baghdad, 1974), 36-38 (in Arabic). See also F. Rosenthal, "Die arabische Autobiographic" in *Stadia arabica*, 1 (1937), 15-19, which contests the authenticity of the account; B. Hemmerdinger. "Hunain ibn Ishāq et Piconoclasme byzantin." in *Actes du XIIe Congrès international des Etudes byzantines*, II (Belgrade. 1964), 467-469, in which the author accepts Lecierc's view that Hunayn was influenced by the iconoclastic movement during his presumed stay in Byzantium; and G. Sirohmaier, "Hunain ibn Ishāq und die Bilder, "in *Kite* 43-45 (1965). 525-533.
- 7. SeelAu I. 184-200.
- 8. G. Fürlani, "Hunayn ibn Ishāq," in . 6 (1924), 287-292
- 9.Flhrisi.G. Hugel. Ed.,I (Leipzig. 1871), 294 ff.
- 10. Turlkh ul-hukamā J. Lippert, ed., I (Leipzig. 1903), 171 ff.
- 11. Lufti M. Sa'di, "A Biohibliographical Study of Hunayn ibn Ishāq al-Ibadi...," in *Bulletin of the Institute of the History of Medicine*. **2** (1934), 409-446, which draws on the Arab sources and on the list made by Lucien Leclerc, *Histoirc tie la médecine arabe* 145-152.
- 12. Compare the ed. and German trans, of this *risala* by G. Bergsirässer, "Hunain ibn Ishāq über die syrischen und arabischen Galenübersetzungen." which is *Ahhandlungen für die Ktinde des Morgenlandes*, **17**, no. 2 (1925); his "Neue Materialen zu Hunain ibn Ishāq Galen-biblio-graphie." *ibid.*, **19**, no. 2 (1932), also contains biographical details and information on his working methods.
- 13. For details concerning these works, see M. Steinschneider, "Die arabischen Übersetzungen aus dem griechischen," in Zeitschrift der Deutschen morgenländischen Gesellschaft, 50 (1896), also reprinted (Graz, 1960). 390 (index); G. Bergsträsser. Hunain ibn Ishak: und seine Schule (Leiden, 1913): F. Peters. Aristoteles Arahus (Leiden, 1968); and 'Abdurrahmān Badawi, La transmission de la philosophic urecque au nionde arabe. Études de Philosophic Médiévale. no. 56 (Paris. 1968).
- 14. See IAU, I. 191-197.
- 15. On this book, see M. Grignaschi, "La 'physiognomonie' tradutte par Hunayn ibn Ishāq." in *Arahua.*21. fuse. 3 (1974). 287-291.
- 16. T. Fahdted. (Damascus. 1964).
- 17. See R. Walzer, "Djāiānūs." in Encyclopedia of Islam, new ed., II (Leiden, 1965). 402-403.
- 18. See A. F. Mehren, in *Muséon*, 4 (1885). 38 ft., and C. A. Nallino, "Filosofia' orientale' od 'illummativa' d'Avicenna?" in *Rivista dtgli studi oriental*, 10 (1923-1925), 465.
- 19. See L. Cheikho, Trots traités anciens (Beirut, 1923), n. 59.
- 20. See L. Cheikho, al-Mashnq, II (Beirut, 1899), 373.
- 21. See J. Ruska, Untersuchunenu Über das Steinhuch des Aristoteles (Heidelberg, 1911).
- 22. This letter was edited by P. Cheikho. in al-Mashriq, II. 1105-1115.
- 23. This work has been edited with a trans, and notes by Hans Daiber, as *Ein Kompendium der Aristotelischen Meteoro-hile in der Fassum des Hunain ibn Ishāq* (Oxford, 1975).
- 24. See IAU, 199.
- 25. See L. Cheikho, "Un traité inédit de Honein," in *Orienta-lische Studien Theodor Soldeke zum sitbzigstein Geburt-stay* (2. *März: 1906) xewidmet*, Carl Bezold, ed. (Gicssen. 1906), with Arabic text and French trans. The text was reproduced in Cheikho. *Seize traités*, 2nd ed. (Beirut, 1911), 121-123; and *Vingt traités théologiques*, 2nd ed. (Beirut. 1920), 143- 146. For other MSS of the text, see G. Graf, *Geschichie der christlicharabischen t.iteratur*, 11,123-124.
- On Hunayn's religious attitude, see two recent studies; R, Hāddād, "Hunayn b. Ishāq. apologiste chrétien." in *Arabka.*21 (1974), 292-302; and P. Nwyia, "Actualité du concept de religion chez Hunayn Ibn Ishāq" *ibid.*, 313-317.
- 26. On this point, see *Kitāb al-tanbīh*, Michael Jan de Goeje, ed. (Leiden, 1894), 112.

- 27. Abraham Loewenthal, Sefer mūsrē ha pīlōsōfim (Frankfürt, 1896), also in German trans. (Berlin, 1896).
- 28. K. Merkie, Die Sittenspriiche der Philosopher, "Kitāh ādād al-fātdsifa" von Honein ibn Ishāq in der Überar-beitung des Muhammed ibn Ali al-Ansdri (Leipzig, 1921).
- 29. See G. Strohmaier, "Zu einem vveiberfeindlichen Diogenes-spruch aus Herculaneum," in Hermes 95 (1967), 253-255.
- 30. On this book, see Hartwig Derenbourg. "Lea traducteurs arabes d'auieursgrecset Tauteur musulman des Aphorismes des philosophes," in *Mélanges Henri Well* (Paris, 1898). 117-124; M. Plessner. "Analecta to Hunain ibn Ishāq 'Apopthegms of the Philosophers' and lis Hebrew Translation," in *Tarbīz*, **24** (1954-1955), 60-72. with summary in English, vi ff.; J. Kraemer. 'Arabische Homerverse." in *Zeitschrift der Deutschen morgenländischen Gesellschaft*, 106 (1956), 292-302; and A. Spitaler. "Die arabische Fassung des Trost-briefs Alexanders an seine Mutter," in *Studi urientalistici in onore di Giorgio Levi della Vida*, 11 (Rome. 1956). 497 ff.
- 31. See A. Baumstark, *Geschichte der syrischen Literatur* (Bonn, 1922), 227-230. On the possibility of attributing certain of the fragments to Hunayn, see G. Furlani. "Brueh-stucke einer syrischen Paraphrase der 'Klemente' des Eukleides," in *Zeitschrift für Semistik*, 3 (1924), 28: and J. Schleifer, "Zum syrischen Medizinbuch. II. Der thera-peutische Teil," in *Rivista degli studi orientali*. 18 (1940), 341-372. Two more recent studies are A. Vööbus. "Discovery of New Syriac Manuscripts on Hunain," in *Ephrem-Hunayn Festival* (Baghdad. 1974), 525-528; and W. F. Macomber, "The Literary Activity of Hunayn b. Ishāq in Syriac," *ibid*.. 554- 570.

BIBLIOGRAPHY

In addition to the works cited in the notes, other Arab sources are Ibn Juljul. *Tabaqāat al—atibbā*, F. Sayyid, ed. (Cairo, 1955). 68-72: Ibn Sāid al—Andalusi, *Kitāb Tabaqāt al-Umam* L. Cheikho, ed. (Beirut, 1912). 36 ff., French trans, by Régis Blachere as *Livres des catégories des nations* (Paris. 1935), 80 ff.; Ali ibn Zayd al—Bay—haqi, *Tatimmat siwan al—hikma*, Mohammad Shafi'i, ed., I (Lahore, 1935), 3 ff.: 'Alī Ibn Khallikān. *Vitae illustrium vivorum* Ferdinand Wüstenfeld, ed.. II (Gotiingen, 1843 - 1871), I59 ff. (no. 208); Bar Hebraeus, *Chronicon ecclesiasticum*, Jean Baptisle Abbeloos and Thomas Joseph Lamy.eds., III (Louvain, 1875- 1877), 197-200; *Chronicon syriacum*. Paul Bedjan, ed. (Paris, 1890), 162 ff.: and T arīkh Mukhtasar al—duwaL Antūn Salhānī, ed. (Beirut. 1890), 250-253.

Modern works are L. Leclerc, *Histoire de la médceine arabe* (Paris. 1876; repr. New York, n.d.), 139-152. which is not a critical study; M. Steinschneider. *Die hebraischen Übersefzungen des Mittelalters* (Berlin, 1893: repr. Graz. 1956), 1055 (index): and *Die ara—bischen Überserzungen aus dem griechischen* (Leipzig. 1896; repr. Graz, 1956), 390 (index); H. Suter, *Die Mathematiker and Astronomer der Araber* (Leipzig. 1900), 20-23: M. Steinschneider, "Die europaischen Übersetzungen aus dem arabischen," *Sitzungsberichte der Akademie der Wissenschaften in Wien*. Phil.-hist. KL, **149** . no. 4; and **151** , no. i (1905). photorepr. (Graz. 1956), 98 (index); G. Bergstnisser, *Hunain dm Ishak und seine Schule* (Leiden, 1913); G. Gabrieli, "Hunayn ibn Ishāq." in *Isis*, **6** (1924). 282-292; M. Meyerhof. "New Light on Hunain ibn Ishāqand His Period," *ibid.*, **8** (1926). 685-724; and "Les versions syriaques el arabes des écrits galéniques." in *Byzantion* **3** (1926). 35-51: and G. Sarton, *Introduction to the History of Science*, I (Baltimore, 1927; repr. 1950), 611-613. A long biography of Hunayn and an analysis of his working methods are in the intro. to M. Meyerhof. *The Book of the Ten I realises on the Eye Ascribed to Hunain ibn Ishaq* (Cairo, 1928).

See also C. Brockelmann, *Geschichte der arabisehen Literatur*, I (Leiden. 1943)- 224-227, and supp. I (Leiden. 1937). 366-369; F. Rosenthal's review of R. Walzer. ed., *Galen on Medical Experience*, in *Isis*, **36** (1945-1946). 253 AT.; and The *Technique and Approach of Muslim Scholarship* (Rome. 1947). *passim*; and G. Graf. *Geschichte der chrisilich—arabisehen Literatur*, II (Vatican City, 1947), 122-129, which analyzes particularly the philosophical and theological works.

The most recent works are G. Strohmaier, "Hunain b. Ishak alaʿlbādī "in Encyclopedia of Islam, new ed. III . 578-581; Arabica.21, fasc. 3 (1974), 229-330. a special issue that contains ten articles prepared for the colloquium on Hunayn held at Paris during the 29th International Congrèss of Orientalists in July 1973: Yūsuf Habbī, Hunayn b. Ishāq (Baghdad, 1974). in Arabic; and Ephrem—Hunayn Festival (Baghdad. 1974); Actes of the Congrèss, which includes sixteen articles on Hunayn: four are in English (those by A. Vööhus. G. Strohmaier. W. F. Macomber. and D. M, Dunlop). and the rest in Arabic.

G. C. Anawati