

# *The Fihrist of al-Nadīm*

A TENTH-CENTURY SURVEY OF MUSLIM CULTURE

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## *The Seventh Part*

*of the book Al-Fihrist, with accounts of the ancient and modern scholars, who were authors, with the names of the books they composed. The composition of Muḥammad ibn Ishāq al-Nadīm, known as Abū al-Faraj ibn Abi Ya'qūb al-Warrāq.*

In the name of Allāh, the Merciful, the Compassionate

## *The Seventh Chapter*

*of the book Al-Fihrist, which includes accounts of the philosophers, the ancient sciences, and the books composed about them, in three sections.*

## *The First Section*

*with accounts of the philosophers of the natural sciences and of logic, with the names of their books and translations of these [books] and explanations about them: Which of them are extant, which have been recorded but are no longer extant, and which of them used to exist, but have later disappeared.<sup>1</sup>*

<sup>1</sup> The title follows MS 1934. The first few lines, "The Seventh Part . . . known as Abū al-Faraj ibn Abi Ya'qūb al-Warrāq," are on a separate page in the manuscript. The phrase "an imitation of the handwriting of the author, His servant, Muḥammad ibn Ishāq" is written under this heading, on the left-hand side of the page. "The chapter of philosophers of the book *Al-Fihrist*" is written on the right-hand side. In MS 1135, the title for Chapter VII is erroneously given as "The Second Section." There are not many variations in wording between MSS 1135 and 1934, but the latter seems to be more accurate. See the Introduction for the parts of *Al-Fihrist* covered by the various manuscripts.

Statements at the Beginning of the Chapter [Quoted] from the Scholars in Their Own Words

Abū Sahl [al-*Fadl*] ibn Nawbakht said in the book *Two Things Seized Upon*:<sup>2</sup>

The types of sciences, the kinds of books, and the forms of questions have increased, as have the sources from which things indicated by the stars are derived. This [increase] was from what existed before the reasons [for these things] were made clear, and human knowledge about them was described by the Babylonians in their books, learned from them [the Babylonians] by the Egyptians, and applied by the Indians in their country.

These things dealt with the original created beings, their defilement<sup>3</sup> by evil, their commission of sins, and their falling into such depths of ignorance that their minds became confused and their visions made to err. For as mentioned in the books about their affairs and actions, things reached a point at which their minds were perplexed, their visions confused and their religion destroyed. Thus they became bewildered and erring, understanding nothing.

They [the original created beings] remained in this state for a period of time until some of their successors coming after them, their offspring and the seed of their loins, obtained help in remembering, understanding, and perceiving phenomena.<sup>4</sup> [They also received] knowledge of the past about the circumstances of the world, about its condition, the directing of its origin, the arrival at its intermediate status, and the issue at its end. [They also learned about] the condition of the inhabitants, and the positions of the heavenly bodies and their routes, degrees, minutes, and stations, both high and low, and with their courses and all of their directions. This was the period of Jam ibn Awjihān, the king.<sup>5</sup>

The scholars were acquainted with this learning, recording it in books and explaining what they wrote down. Together with this recording they described the world, its grandeur, the origin of its causes, its foundation, its stars, kinds of drugs, remedies, charms, and other things which

<sup>2</sup> See Chap. VII, sect. 2, n. 67.

<sup>3</sup> Flügel gives *muqārafah* ("defilement"), probably correct, although the manuscripts give *mufāraqah* ("separation").

<sup>4</sup> Literally, "these matters."

<sup>5</sup> This was a legendary king of Persia. He was called *Jamshīd* ibn Tahmūras ibn Hūshang (Awjihān).

are devices for people and which they describe as suitable to their wants, both good and bad. Thus they continued for a period of time, until the reign of al-*Daḥḥāk* ibn Qayy (Kai).

From other than the words of Abū Sahl, it is said, "'*Dah āk*' means 'ten vices,' but the Arabs turned it into al-*Daḥḥāk*." We now return to the words of Abū Sahl:

[Al-*Daḥḥāk*] ibn Qayy, during the season (share) of Jupiter and his period, turn, dominion, and power in controlling the years, built a city in al-Sawād,<sup>6</sup> the name of which was derived from that of Jupiter. He gathered into it the science of the scholars and built there twelve palaces, according to the number of the signs of the zodiac, calling them by the names [of these signs]. He stored the scholars' books in them and caused the scholars themselves to live in them.

From other than the words of Abū Sahl: "He built seven shrines, according to the number of the seven stars, assigning each of these dwellings to a [wise] man.<sup>7</sup> The Shrine of Mercury he assigned to *Hermes*, the Shrine of Jupiter to *Tinkalūs*, and the Shrine of Mars to *Ṭinqarūs*."<sup>8</sup>

We return to the words of Abū Sahl:

The people obeyed them [the seven wise men] and were submissive to their command, so that they managed their affairs. They [the people] appreciated their superiority over them in different forms of learning and modes of living, until a prophet was sent during that period. Because of his appearance and what reached them about his mission, they refused the wisdom [of the seven wise men]. Many of their ideas became confused, their cause was broken up, and there were differences regarding their aims and coming together. So each of the wise men sought a city in which to dwell, so as to become a leader of its people.

<sup>6</sup> Al-Sawād here signifies ancient Chaldea. The city was Babylon; see Yāqūt, *Geog.*, I, 448 l. 12, 449 l. 14.

<sup>7</sup> The seven shrines of Babylon were almost certainly seven small temples inside a sacred enclosure, consecrated to the sun, the moon, and the five known planets. They very likely formed a semicircle facing the ziggurat. Cf. the 12 shrines in the sacred enclosure at Harrān as described in Chap. IX, sect. 1, n. 50, and the 12 shrines at Sumatar as described by Segal, *Anatolian Studies*, III (1953), 97-103, 107.

<sup>8</sup> Hermes is evidently Trismegistus. Nakosteen, p. 218, spells the next two wise men "Tingrous" and "Tuklous." For these two, see Chap. VII, sect. 2, n. 30.

Among them there was a wise man named *Hermes*. He was the most thoroughly intelligent, the most strikingly wise, and the most refined in discernment among them. He went to the land of Egypt, where he ruled over the inhabitants, making the land prosperous, improving the conditions of the people, and manifesting his wisdom among them.

This situation lasted, in Babylon in particular, until *Alexander*, the king of the Greeks, set forth from a city of the Greeks named Macedonia to invade Persia. Then when he [*Darius III*] refused to pay the tribute still imposed upon the people of Babylon and the kingdom of Persia, he [*Alexander*] killed him, *Dārā* ibn *Dārā* the king [*Darius III*], taking possession of his kingdom, destroying his cities, and razing the ramparts built by devils and giants.<sup>9</sup> His destruction [ruined] whatever there was in the different buildings of scientific material, whether inscribed on stone or wood, and with this demolition there were conflagrations, with scattering of the books. Such of these things, however, as were gathered in collections and libraries in the city of *Iṣṭakhr*<sup>10</sup> he had transcribed and translated into the Greek and Coptic tongues. Then, after he had finished copying what he had need of, he burned the material written in Persian. But there was a book called *Al-Kushtaj*<sup>11</sup> from which he took what he needed of the science of the stars, as well as of medicine and the natural sciences. This book and the scientific material, riches, and treasures which he hit upon, together with the scholars, he sent to the land of Egypt.

In the regions of India and China there were left some things which the kings of Persia had copied at the time of their prophet *Zoroaster* and the wise man *Jāmāsb*. They cared for them in those places, as their prophet *Zoroaster* and *Jāmāsb* had warned them of the actions of *Alexander*, with his conquest of their land and destruction of as many of their books and scientific materials as possible, and of his transferring them to his own country.

After that, learning was wiped out and torn to pieces in al-'Irāq, while the scholars disagreed and decreased in number and the people became the exponents of partisanship and division. For each of their sects there was a king. They called them [the kings] the Kings of the Tribes.<sup>12</sup>

<sup>9</sup> This refers to *Alexander's* invasion of Persia and overcoming of *Darius III*. The translation is a free one, as the Arabic text is difficult to render literally.

<sup>10</sup> This was ancient *Persepolis*; see Jackson, *Persia Past and Present*, pp. 294-95; *Yāqūt, Geog.*, I, 299.

<sup>11</sup> This may come from the Persian *kushtaj* ("palm fibers"). See Flügel edition of *Al-Fihrist*, p. 13 nn. 7, 10.

<sup>12</sup> For the Kings of the Tribes, see the Glossary.

After the division, disagreement and quarreling which they had before the time of King *Alexander*, the rule<sup>13</sup> of the Greeks formed one kingdom. Thus they became one force, whereas the regime of Babylon continued to be broken, weakened, and corrupted. Her people continued to be oppressed and subjugated, unable to prevent lawlessness or to ward off injury, until the reign of *Ardashir* ibn *Bābak* of the lineage of *Sāsān*. He changed their disagreements into unity, joining together their divisions and conquering their enemies. He became master of their land, seizing for himself the rule over them. Thus he did away with their schisms, assuming for himself the sovereignty. Then he sent to India and China for the books in those directions, and also to the Greeks. He copied whatever was safeguarded with them, even seeking for the little that remained in al-'Irāq. Thus he collected what was scattered, gathering together the things dispersed.<sup>14</sup>

*Shāpūr*, his son, followed his example, so that there were transcribed into Persian all of those books, such as the ones of *Hermes* the Babylonian, who ruled Egypt; *Dorotheus* the Syrian; *Phaedrus* the Greek from the city of Athens, famous for learning; *Ptolemy* [*Ptolemaeus Alexandrinus*]; and *Farmāsib* the Indian.<sup>15</sup> They explained them [the books], teaching the people about them in the same way that they learned from all of those books, which originated in Babylon.

Then after the time of these two [*Ardashir* and *Shāpūr*] there appeared *Chosroes Anūshirwān*, who collected, edited, and worked over them [the books] because of his interest in learning and his love for it. Thus for the people of every time and age there is new experience and a renewal of scholarship as foreordained by the stars of the zodiac, which is the master of time's destiny as commanded by Allāh, exalted be His majesty. Here ends the account of *Abū Sahl* [*al-Faḍl* ibn *Nawbakht*].

<sup>13</sup> Although the Flügel version has the plural form "kings" (*mulūk*), MS 1934 has the singular "rule" (*mulk*). The words translated "formed one kingdom" are literally "assembled to one kingdom."

<sup>14</sup> For the disturbed period of history at the end of the Parthian period and the restoration by *Ardashir* the *Sāsānian*, see Sykes, *History of Persia*, I, 410-30.

<sup>15</sup> Instead of *Farmāsib*, *Ṭabarī, Annales*, Part I, pp. 1052 n. b, 1053 l. 10, give *Farmīsha*. *Gutschmid, ZDMG*, XXXIV (1880), 746, sect. 371, suggests *Pulukésha*. This name is not included in the *Biog. Index*, as the identification is uncertain. The name should also be compared with *Pulakesin I*, founder of the *Chalukya* Dynasty in India, A.D. 550 (see "Chalukya," *Enc. Brit.*, V, 812), and with *Viktamāditya* (see "India," *Enc. Brit.*, XIV, 399). As translation from Indian into Persian and then from Persian into Arabic involved difficulties of transliteration, the names were inevitably confused.

*Iṣḥāq al-Rāhib* relates in his history that when *Ptolemy* Philadelphus, who was one of the kings of Alexandria, reigned, he made a search for books of learning, placing a man named *Zamīrah*<sup>16</sup> in charge. According to what is related, he collected fifty-four thousand one hundred and twenty books. Then he said, "Oh, King, there are still a great many more [books] in the world, in *Ṣind*, *India*, *Persia*, *Georgia*, *Armenia*, *Babylon*, *al-Mawṣil*, and among the *Greeks*."

#### Another Account

*Abū Ma'shar* [*Ja'far ibn Muḥammad*] said in his book about the variations of astronomical tables:<sup>17</sup>

Because of their care in preserving [the books about] the sciences, their eagerness to make them endure throughout the ages, and their guarding them from celestial happenings and earthly damages, the kings of *Persia* actually chose for them the writing material<sup>18</sup> which was the most durable in case of accident, the longest lasting in time, and the least prone to decay or effacement. This [writing material] was the bark of the white poplar tree, the bark being called *tūz*. The peoples of *India*, *China*, and the neighboring countries imitated them. They also selected this [material] for their bows with which they shot, because of its hardness, smoothness, and durability in the bows during a long period of time.

Then, after they [the kings of *Persia*] had obtained the best writing materials in the world to preserve their sciences, they desired [to store the books about] them in the place which among all of the regions of the earth and the towns of the provinces had the cleanest soil and the least amount of decay, being also the furthest removed from earthquakes and eclipses, as well as possessing the most cohesive clay with the quality of construction, which would endure the longest throughout the ages. After they had made a complete survey of the lands and regions of their kingdom, they were unable to find under the vault of the heavens any place

<sup>16</sup> This is probably a misspelling for *Demetrius Phalereus*. The erroneous spelling is in all of the versions of *Al-Fihrist*, so that the name was evidently copied from an older source. The Arabic *Z M Ī R* (*Zamīrah*) and *D M Ī R* (*Demetrius*) might easily be confused.

<sup>17</sup> The great astronomer *Abū Ma'shar* wrote numerous books about the astronomical tables; see *Chap. VII*, sect. 2, near n. 87, and the titles of *Qifṭī*, pp. 152-54.

<sup>18</sup> The Arabic word translated "writing material" is *makātib*, a plural form. It usually means "schools." *Tūz shajar al-khadank* is the inner bark of the *khadang* or white poplar tree. As a rule it was used for wrapping bow strings.

possessing these advantages to a greater extent than did *Iṣbahān*.<sup>19</sup> Then as they examined the districts of this locality, they did not find any spot in it that could excel *Rustāq Jayy*.<sup>20</sup> Furthermore, in *Rustāq Jayy* they did not find any place more completely like what they desired than the locality in which, later on, the city of *Jayy* was marked out during the time of *Dāhir*.

Then they went to the *quhunduz*,<sup>21</sup> which is inside the city of *Jayy*, to make it the depository for their sciences. This [depository] was called *Sārwayh* (*Sārūyah*)<sup>22</sup> and it has lasted until our own time. In regard to this building, the people knew<sup>23</sup> who the builder was, because many years before our time a side [of the building] became ruined. Then they found a vault in the cleft-off side, built without mortar, and in which they discovered many books of the ancients, written on white poplar bark (*tūz*) and containing all of the sciences of the forefathers written in the old Persian form of writing.

Some of these books came into the possession of a man interested in them. Upon reading them, he found among them a book related to the ancient kings of *Persia*. In it it was mentioned that *Tahmūrath*, the king who loved the sciences and scholars, was forewarned of an atmospheric phenomenon in the west, in the form of a series of rains which were to be excessive in both duration and abundance,<sup>24</sup> surpassing the [normal] limit.

From the first day of the years of his reign, to the first day when this phenomenon in the west began, was two hundred and thirty-one years and three hundred days. From the beginning of his reign the astrologers led him to fear that this occurrence might pass from the west to the eastern regions. So he ordered the engineers to reach an agreement for the selecting of the best place in the kingdom, with regards to soil and atmosphere. They chose for him the site of the building which is known as *Sārwayh* and still exists at the present time within the city of *Jayy*.<sup>25</sup> So he commanded the construction of this well-guarded building. When it was

<sup>19</sup> Unlike the other versions, the Flügel edition has *Iṣfahān*.

<sup>20</sup> *Jayy* was an old town near *Iṣbahān*, also called *Shahrastān*. *Rustāq* signified a military encampment. See *Yāqūt, Geog.*, II, 181; III, 342 bottom; IV, 452, 1045 l. 9.

<sup>21</sup> This was the Persian name for a fortress inside a city.

<sup>22</sup> The fortress called by Zoroastrians *Jem-gird* and later *Sruwa*, famous as the building where early Persian records were discovered; see "*Iṣfahān*," *Enc. Brit.*, XIV, 869.

<sup>23</sup> The *Tonk MS* has a variation from *darā* ("knew").

<sup>24</sup> The manuscripts give *al-dawm*, whereas Flügel has *al-dāwām*; both forms mean "abundance." There are unimportant other variations.

<sup>25</sup> For the proper names, see nn. 20, 22.

completed there was moved to it from his libraries a great deal of scientific material of various sorts, copied for him on white poplar bark (*tūz*) and placed in a part of the building so that it might be preserved for mankind until after the phenomenon should come to an end.

There was in it [the building] a book which was related to some of the ancient sages and which contained [knowledge of] the years and known cycles for deriving the intermediate positions of the stars and the reasons for their motions. The people of the time of Ṭahmūrath and those who lived earlier than they did in Persia called these the cycles of thousands (*adwār al-hazārāt*). The wise men, the kings of India who were on the face of the earth, the former kings of Persia,<sup>26</sup> and the ancient Chaldeans, who were tent dwellers belonging to the earliest Babylonian period, reckoned the intermediate positions of the seven stars from these years and cycles.<sup>27</sup> He [the king] gave special care to this [book] from among the astronomical tables of his time, because he and his contemporaries found upon examination that it was the best and briefest. The astrologers of the period, therefore, derived from it the astronomical tables, which they called the *Astronomical Tables of al-Shahriyār*.

This is the end of the statement of Abū Ma'shar.

Thus saith Muḥammad ibn Ishāq [al-Nadīm]: A reliable authority once told me that during the year three hundred and fifty after the Hijrah [A.D. 961/62], another vaulted building cracked open. As it had appeared solid on the surface, the location [of the books] did not become known until after it had become a ruin. Many books were discovered in this place, but nobody found out how to read them.

A thing which I saw and witnessed myself was [the occurrence] when, some time after the year forty [A.D. 951/52],<sup>28</sup> Abū al-Faḍl ibn al-'Amīd sent here some torn books which he had found at Iṣbahān, in boxes in the wall of the city. As they were in Greek, suitable authorities like Yuḥannā [al-Qass] and others deciphered their contents, [which dealt] with the names of the troops and the amounts of their wages. The books had the worst possible stench, as bad as though the skins had been freshly tanned. But after they

<sup>26</sup> The words "wise men" and "of Persia" are found only in the Flügel edition.

<sup>27</sup> The seven stars probably refer to the sun, moon, and five known planets.

<sup>28</sup> As al-Nadīm was young at this time, he probably saw the books somewhat later, after they had been brought to Baghdād for translation.

had been at Baghdād for a time they dried and changed, so that the smell left them. Even at the present time some of them are with our shaykh, Abū Sulaymān [*Muḥammad* ibn Bahrām]. It is said that the Sārwayh<sup>29</sup> is one of the solid ancient buildings, with such marvellous construction that it is compared in the East with the pyramids, which are in Egypt in the land of the West, both in magnificence and wonder of structure.

#### Another Account

In ancient times learning was forbidden, except for those who were scholars<sup>30</sup> or known to be able to receive it [learning] by natural genius. Philosophers examined the times of birth of those who sought learning and philosophy. If it was ascertained that a person when born was endowed with it [the genius for learning and philosophy] at birth, they enlisted his services, imparting to him learning, but if not, then no.

Philosophy appeared among the Greeks and Romans before the religious code of the Messiah, for whom be peace. When the Byzantines became Christians, they prohibited it. Some of the books about it they burned, but some they treasured. They, moreover, prevented people from speaking about anything in philosophy which was opposed to the prophetic doctrine. Then, later, the Byzantines returned to the schools of philosophical thought. This was due to the Byzantine king Julian,<sup>31</sup> who used to stay at Antioch and whose minister was *Themistius*, the commentator on the books of Aristotle.<sup>32</sup>

When Shāpūr dhū al-Aktāf [Shāpūr II] sought him [Julian] out, he was overcome by Julian. This was either in battle, or else it is

<sup>29</sup> See n. 22.

<sup>30</sup> Literally, "from its people."

<sup>31</sup> In the Arabic it is Liyūliyānus, a corruption for Ayūliānus, derived from the Greek name for the Emperor Julian.

<sup>32</sup> The following story is evidently quoted from an old legend about Shāpūr II. In the legend, Shāpūr II traveled into the Byzantine Empire in disguise, was recognized and imprisoned, but freed by a girl. He returned to the city Jundī-Shāpūr in time to defeat the invading Byzantine emperor, Julian. For this story, see Firdawsī, *Shahnama*, VI, 337 ff; Sykes, *History of Persia*, I, 444 ff; "Shāpūr," *Enc. Islam*, IV, 314-15.

said because Shāpūr was recognized and caught when he went to the Byzantine country to seize its rule. The accounts about this are confused. Julian invaded Persia, coming to Jundi-Shāpūr,<sup>33</sup> where until our own day there is a breach known as the Breach of the Byzantines. When the chiefs of the Persians, the cavalry leaders, and the rest of the king's guard arrived, the attack against it [Jundi-Shāpūr] became prolonged. Entering it was difficult.

Shāpūr had been imprisoned in the Byzantine country, in the palace of Julian, whose girl (daughter) fell in love with him and released him. He secretly crossed the land until, reaching Jundi-Shāpūr, he entered it. Then the spirits of his companions who were there were so revived that they immediately set forth to attack the Byzantines, regarding the rescue of Shāpūr as a good omen. They took Julian prisoner and killed him, so that the Byzantines were disrupted.

Constantine the Great<sup>34</sup> was in the host of the army, but the Byzantines differed as to whom they should make their ruler, being weak from their lack of support for him. As Shāpūr was solicitous for Constantine [Jovian] and his succession [to rule] over the Byzantines, for his sake he was kind to them, arranging for them a means of withdrawing from his [Shāpūr's] country. This, however, was on condition that Constantine [Jovian] would make an

<sup>33</sup> Jundi-Shāpūr (Jundaysābūr) became a center of learning when, in A.D. 489, the Emperor Zeno closed the school at Edessa and King Kobad of Persia gave some of the professors refuge. Then, when the Neo-Platonist school at Athens was closed, A.D. 529, King Chosroes *Anūshirwān* gave a number of the philosophers his patronage in Persia. As Jundi-Shāpūr was the center of these émigrés, it became a point of exchange for the learning of Persia, India, Greece, Rome, and Syria. Scholars from there contributed a knowledge of science to the 'Abbāsīd caliphs, as accounts in this chapter of *Al-Fihrist* explain. The city fell into ruin, but before he died in 1963, Dr. Allen O. Whipple identified its site in Southern Persia. For the history of this city, see Campbell, *Arabian Medicine and Its Influence in the Middle Ages*, I, 46; Sarton, I, 435; Yāqūt, *Geog.*, II, 130; Whipple, *Annals of Medical History*, New Ser., 8 (July 1936), pp. 313-23; "Djundai-Sābūr," *Enc. Islam*, I, 1064.

<sup>34</sup> This is an obvious mistake. The king referred to was of course not Constantine but *Jovian*, who was with the Byzantine army in Persia when *Julian* was killed. Because of the collapse of morale caused by Julian's death, Jovian was obliged to make an ignominious peace. See Smith, *GRBM*, II, 615. It was Jovian who re-established Christianity as the state religion in the Byzantine Empire, after the pagan regime of *Julian* the Apostate.

olive tree to grow in the place of each palm tree cut down in al-Sawād<sup>35</sup> and in his domains and, also, that he would send him Byzantines to build up what Julian had destroyed when he moved the war equipment from the Byzantine country.<sup>36</sup> He kept his pledge with him. Christianity, moreover, returned to its [former] status, the prohibition of philosophical books and the treasuring of them being renewed in the form that it is in at the present time.

In ancient times the Persians translated portions of books about logic and medicine into Persian. Then, later, 'Abd Allāh ibn al-Muqaffa' and others translated this material into Arabic.

#### Another Account

*Khālid* ibn Yazīd ibn Mu'āwiyah was called the "Wise Man of the Family of *Marwān*." He was inherently virtuous, with an interest in and fondness for the sciences. As the Art [alchemy] attracted his attention, he ordered a group of Greek philosophers who were living in a city of Egypt to come to him. Because he was concerned with literary Arabic, he commanded them to translate the books about the Art from the Greek and Coptic languages into Arabic. This was the first translation in Islām from one language into another.

Then at the time of al-*Hajjāj* [ibn Yūsuf] the registers, which were in Persian, were translated into Arabic.<sup>37</sup> The person who translated them was *Ṣāliḥ* ibn 'Abd al-Rahmān, a protégé of the Banū Tamīm.<sup>38</sup> The father of *Ṣāliḥ* was one of the prisoners from Sijistān.<sup>39</sup> He [*Ṣāliḥ*] used to write for *Zād Infarrūkh* ibn Yabrā, the secretary of al-*Hajjāj*, doing his writing in Persian and Arabic under his supervision. As al-*Hajjāj* grew to like him, *Ṣāliḥ* said to *Zād Infarrūkh*, "You are my contact with the governor, who I notice has come to like me. I am not sure, but he may raise me

<sup>35</sup> This was similar to ancient Chaldaea.

<sup>36</sup> Probably this refers to moving stores and equipment into the enemy's territory, so that he could pillage for supplies and destroy obstacles to his military movements.

<sup>37</sup> This account should be compared with Balādhurī, *Origins*, p. 465 ff. When the Muslims first conquered the eastern provinces, they used Persian for the tax accounts and government records.

<sup>38</sup> See "Tamīm," *Enc. Islam*, IV, 643. Only the Flügel edition includes "Banū."

<sup>39</sup> During the year A.D. 650/51 al-*Rabi'* ibn Ziyād invaded Sijistān, taking many prisoners; see Yāqūt, *Geog.*, IV, 728 l. 18.



above you, so that you will lose your position." He [Zād Infarrūkh] replied, "Do not imagine that, for he is more in need of me than I am of him. There is nobody except myself who is satisfactory for keeping his records." Then he [Ṣāliḥ] said, "By Allāh, if he wishes to change the accounts into Arabic, I will change them." So he [Zād Infarrūkh] said, "Change some lines for me to see." This he did. Then it was said to him, "Feign sick, feign sick."<sup>40</sup> When al-Ḥajjāj sent him his physician, Theodorus,<sup>41</sup> he found that he had no illness. This reached Zād Infarrūkh, who ordered him to appear [back at work].

It happened, during the revolt of Ibn al-Ash'ath, that as Zād Infarrūkh was leaving some place to go to his house, he was killed. Then al-Ḥajjāj appointed Ṣāliḥ to be the secretary in his place. When he [Ṣāliḥ] told him about what had taken place between his associate and himself in connection with the translation of the records, al-Ḥajjāj decided upon the plan [to translate the records into Arabic], making Ṣāliḥ responsible for it.

Mardān Shāh ibn Zād Infarrūkh then said to him [Ṣāliḥ], "What will you do with *dahwīyah* and *shashwīyah*?" He replied, "I shall write *'ushr* (ten) and *nuṣf 'ushr* (half of ten)." Then he [Mardān Shāh] said, "How will you deal with *al-wīd*?" He answered, "I shall write *wa-ayḍān* (and likewise)." Then he went on to say, "*Al-wīd*, *al-nayf*, and *al-ziyādah* signify 'something more (increase).'" He [Mardān Shāh] retorted to him, "May Allāh cut off your seed from the earth, as you have cut off the basis of Persian!"<sup>42</sup>

The Persians offered him [Ṣāliḥ] one hundred thousand silver coins (s., *dirham*) on condition that he would appear to be incapable of translating the records. But refusing to give up the translation, he

<sup>40</sup> The Arabic text, as translated in Balādhurī, *Origins*, p. 465, indicates that Zād Infarrūkh said "feign sick." But it is more reasonable to believe that the friends of Ṣāliḥ told him to pretend illness so as to escape the anger and jealousy of Zād Infarrūkh.

<sup>41</sup> This name seems to be a mistake. *Theodocus* was the name of al-Ḥajjāj's physician.

<sup>42</sup> Cf. Balādhurī, *Origins*, p. 466. Mardān Shāh hoped to succeed his father as the secretary, using Persian. He was jealous when Ṣāliḥ persuaded the governor to use Arabic for the records and accounts, making his own knowledge of Persian unnecessary. For this and the next sentence, see Flügel edition, p. 242, nn. 7, 8.

actually did translate them. 'Abd al-Ḥamīd ibn Yaḥyā said, "What an excellent man Ṣāliḥ is! How great is his graciousness to the secretaries!" Al-Ḥajjāj, moreover, honored him greatly.

The records at Damascus were in Greek. The man who kept them in writing for *Mu'āwīyah* ibn Abī Sufyān was *Sarjūn* (Sergius) ibn Maṣṣūr; later it was *Maṣṣūr* ibn Sarjūn. The records were translated during the time of *Hishām* ibn 'Abd al-Malik.<sup>43</sup> Abū Thābit *Sulaymān* ibn Sa'd, a protégé of al-Ḥusayn, translated them. He was in charge of the correspondence during the days of 'Abd al-Malik. It has [also] been said that the records were translated during the time of 'Abd al-Malik. When he asked Sarjūn to do some of the work, he desisted from it. This angered 'Abd al-Malik, so that he consulted Sulaymān, who said to him, "I will translate the records (*diwān*) and be responsible for them."<sup>44</sup>

#### Mention of the Reason Why Books on Philosophy and Other Ancient Sciences Became Plentiful in This Country<sup>45</sup>

One of the reasons for this was that al-Ma'mūn saw in a dream the likeness of a man white in color, with a ruddy complexion, broad forehead, joined eyebrows, bald head, bloodshot eyes, and good qualities sitting on his bed. Al-Ma'mūn related, "It was as though I was in front of him, filled with fear of him. Then I said, 'Who are you?' He replied, 'I am *Aristotle*.' Then I was delighted with him and said, 'Oh sage, may I ask you a question?' He said, 'Ask it.' Then I asked, 'What is good?' He replied, 'What is good in the mind.' I said again, 'Then what is next?' He answered, 'What is good in the law.' I said, 'Then what next?' He replied, 'What is good with the public.' I said, 'Then what more?' He answered, 'More? There is no more.'" According to another quotation: "I [al-Ma'mūn] said, 'Give me something more!' He

<sup>43</sup> The Tonk MS omits part of the sentence. It is not certain who al-Ḥusayn was. Compare this account with Balādhurī, *Origins*, pp. 301 ff.

<sup>44</sup> Literally, "I will translate the records and undertake them."

<sup>45</sup> Compare this account with Qifṭī, p. 29, which gives variations. The Arabic text uses "said" throughout, but to make the passage readable, other words are substituted. In the first sentence of the following paragraph, MS 1934 omits "color" and gives "eye" in the singular.

[Aristotle] replied, 'Whosoever gives you advice about gold, let him be for you like gold; and for you is oneness [of Allāh].'<sup>46</sup>

This dream was one of the most definite reasons for the output of books. Between al-Ma'mūn and the Byzantine emperor there was correspondence, for al-Ma'mūn had sought aid opposing him.<sup>47</sup> Then he wrote to the Byzantine emperor<sup>48</sup> asking his permission to obtain a selection of old scientific [manuscripts], stored and treasured in the Byzantine country. After first refusing, he complied with this. Accordingly, al-Ma'mūn sent forth a group of men, among whom were al-Ḥajjāj ibn Maṭar; Ibn al-Baṭriq; *Salmān*, the director of the Bayt al-Ḥikmah; and others besides them. They brought the books selected from what they had found. Upon bringing them to him [al-Ma'mūn], he ordered them to translate [the manuscripts], so that they made the translation.

It was said that Yūḥannā ibn *Māsawayh* was one of those who went to the Byzantine country. Thus saith Muḥammad ibn Ishāq [al-*Nadīm*]: Among those who were concerned with the bringing of books from the Byzantine country there were *Muḥammad*, *Aḥmad*, and al-*Hasan*, the grandsons of Shākir al-Munajjim.<sup>49</sup> There will follow an account about them and their liberality with gifts, sending *Hunayn* ibn Ishāq and others to the Byzantine country to bring them rare books and unusual compositions about philosophy, geometry, music, arithmetic, and medicine. *Qusṭā* ibn Lūqā al-Ba'labakkī also brought some material with him, which he translated, it also being

<sup>46</sup> This whole conversation between al-Ma'mūn and Aristotle endorses the idea that reason (good in the mind) and revelation (good in the law) can be combined for the good of the public. As al-Ma'mūn shocked the orthodox authorities by upholding Greek science and the rationalistic tenets of the Mu'tazilah, he needed endorsement of this kind. In the final sentence of this paragraph, there is a play on the word *dhabab*, which means "gold," but also gives the connotation of adopting a doctrine, such as that of the Mu'tazilah. The oneness of Allāh evidently refers to the Mu'tazilah, who were called the People of Justice and Oneness.

<sup>47</sup> "Had sought aid opposing him" (*istazhar 'alā*) is perhaps literally "had overcome him." But it was not until the end of his reign that al-Ma'mūn started a war which resulted in defeat for the Byzantines. Qifṭī, p. 29, gives the form "exalted himself over him."

<sup>48</sup> He was Leo the Armenian. See Nicholson, *Literary History of the Arabs*, p. 359; Hitti, *Arabs*, p. 310.

<sup>49</sup> See *Muḥammad* ibn Mūsā ibn Shākir, *Aḥmad* ibn Mūsā ibn Shākir, and al-*Hasan* ibn Mūsā ibn Shākir in the Biog. Index.

translated for him. Abū Sulaymān al-Manṭiqī al-Sijistānī [*Muḥammad* ibn Bahrām] said that the sons of al-Munajjim [Banū *Mūsā*] supported a group of translators, among whom there were *Hunayn* ibn Ishāq, *Ḥubaysh* ibn al-Ḥasan, *Thābit* ibn Qurrah, and others besides them. Each month the translation and maintenance amounted to about five hundred gold coins (s., *dīnār*).<sup>50</sup>

Thus saith Muḥammad ibn Ishāq [al-*Nadīm*]: I heard Abū Ishāq ibn *Shahrām* tell in a general gathering that there is in the Byzantine country a temple of ancient construction.<sup>51</sup> It has a portal larger than any other ever seen with both gates made of iron. In ancient times, when they worshipped heavenly bodies and idols, the Greeks exalted this [temple], praying and sacrificing in it. He [Ibn *Shahrām*] said, "I asked the emperor of the Byzantines to open it for me, but this was impossible, as it had been locked since the time that the Byzantines had become Christians. I continued, however, to be courteous to him, to correspond with him, and also to entreat him in conversation during my stay at his court."

He [Ibn *Shahrām*] said, "He agreed to open it and, behold, this building was made of marble and great colored stones, upon which there were many beautiful inscriptions and sculptures. I have never seen or heard of anything equaling its vastness and beauty. In this temple there were numerous camel loads of ancient books." He exaggerated to the extent of a thousand camel [loads]. "Some of these [books] were worn and some in normal condition. Others were eaten by insects." Then he said, "I saw there gold offering utensils and other rare things." He went on to say, "After my exit the door was locked, causing me to feel embarrassed because of the

<sup>50</sup> For the translators, see Hitti, *Arabs*, p. 310 ff; O'Leary, *How Greek Science Passed to the Arabs*, pp. 163-75.

<sup>51</sup> According to Shujā' and Smith (below), Ibn *Shahrām* was sent as an envoy to Basil II, the emperor at Constantinople, by 'Aḍud al-Dawlah. As Basil II ruled A.D. 976-1025, and 'Aḍud al-Dawlah ruled A.D. 949-83, it seems this event must have taken place between 976 and 983. On the other hand, *Al-Fihrist* says, in the following paragraph, "That was during the days of Sayf al-Dawlah," who ruled at Aleppo as a member of the Ḥamdān Dynasty, A.D. 944-67. Either there is a mistake, or else Ibn *Shahrām* was sent to Constantinople on two occasions. For dates and further details, see Shujā', VI, 23 (29); Smith, *GRBM*, I, 469.

favor shown me." He said, "That was during the days of *Sayf al-Dawlah*." He believed that the building was a three-day journey from Constantinople. The people of the district were a group of Chaldean Šābians, whom the Byzantines left alone in connection with their doctrines, but they collected tribute from them.<sup>52</sup>

#### The Names of the Translators from [Foreign] Languages into the Arabic Tongue<sup>53</sup>

*Stephen* al-Qadīm, who translated books on the Art [alchemy] and other subjects for *Khālīd* ibn Yazīd ibn Mu'āwiyah.

*Al-Baṭrīq*, who was contemporary with al-*Maṣṣūr*, who ordered him to translate some of the ancient books.

His son, Abū Zakariyā' Yahyā ibn al-*Baṭrīq*, who belonged to the group of al-*Ḥasan* ibn Sahl.

*Al-Ḥajjāj* [ibn Yūsuf] ibn Maṭar, who interpreted for al-*Ma'mūn* and was the person who translated the *Almagest* and Euclid.

<sup>52</sup> It is probable that Ibn Shahrām journeyed by sea. In that case the building was very likely three days by boat from Constantinople, near Ephesus or Miletus. By the tenth century, the great temple of Apollo Didymaeus at Branchidae near Miletus and the famous library at Pergamum were almost certainly in ruins. It is likely, therefore, that this library was a second-century building at Ephesus with the famous temple of Diana nearby. The library at least may have been in fairly good condition. Magie, *Roman Rule in Asia Minor*, I, 584 and II, 1583, describes this library: "The most famous of all the gifts to Ephesus during this period was perhaps the great library dedicated to the memory of Tiberius Julius Celsus Polemaeanus, a native of the city, who after having held various administrative posts, had been proconsul of Asia [about A.D. 106]. The building was erected and endowed in the early second century by Polemaeanus' son and completed by the latter's heirs. Contemporary with it was another large structure, fronting on one of the streets leading to the harbor and consisting of a great hall with a room at either end, which has been regarded as either the Mouseion . . . or a sort of bazaar."

For the Chaldean Šābians, see "Šābians" in Glossary. This term may refer to a group of persons from Harrān or southern 'Irāq who belonged to one of the sects of Šābians in those regions, residing in Asia Minor for trade. It also may simply refer to a group of pagans, permitted to live in Asia Minor and called Chaldean Šābians by the Arabs because they were accustomed to think of the undisturbed pagans in their territories as Šābians. One school of thought believes that the name "Šābian" comes from the word to "baptize," so that they see a connection between John the Baptist and the Šābian of ancient Chaldea. People holding such views might connect the Šābians mentioned here with the disciples of John at Ephesus; see Acts 19:3. This relationship with John, however, seems very farfetched.

<sup>53</sup> See Hitti, *Arabs*, pp. 311-16; Leclerc; "Syriac Literature," *Enc. Brit.* (9th ed.), XXII, 824-56.

Ibn *Nā'imah*, whose name was 'Abd al-Masīh ibn 'Abd Allāh al-Ḥimṣī al-Nā'imī.

*Salām* al-Abrash, who was one of the early translators at the time of the Barmak family, and among whose translations there is the *Natural Hearing* [*Physica auscultatio*], according to the statement of our lord Abū al-Qāsim 'Isā ibn 'Alī ibn 'Isā, may Allāh strengthen him.

*Ḥabīb* ibn Bahrīj, the metropolitan bishop of al-Mawṣil, who interpreted a number of books for al-*Ma'mūn*.

*Zadwiyā* ibn Mā Ḥawah al-Nā'imī al-Ḥimṣī.<sup>54</sup>

*Hilāl* ibn Abī Hilāl al-Ḥimṣī.

*Tadhārī*.

*Photios*.<sup>55</sup>

Abū *Naṣr* ibn Mārī ibn Ayyūb.

*Basil*, the metropolitan bishop.<sup>56</sup>

Abū Nūḥ [*Ibrāhīm*] ibn al-Ṣalt.

*Eustathius*.

*Heron*.<sup>57</sup>

*Stephen*, son of Basil.

Ibn *Rābiṭah*.

*Tūfīl* (Theophilus).

*Shamlī*.

'*Isā* ibn Nūḥ.

*Quwayrī*, whose name was Ibrāhīm, surnamed Abū Ishāq.

*Tadhrus* al-Sinḡal.

*Dārī'* al-Rāhib.

*Ḥayyā*.<sup>58</sup>

*Pethiōn*.

*Ṣalībā*.

*Ayyūb* al-Ruhāwī.

*Thābit* ibn Quma'.

*Ayyūb* and *Sam'an*, who translated Ptolemy's astronomical tables and other ancient books for *Muḥammad* ibn Khālīd ibn Yahyā ibn Barmak.

<sup>54</sup> This name is taken from MS 1934; the Arabic is perhaps a transliteration of the Syriac name Zadōi ibn Mār Ḥawah. Flügel has Zarūbā ibn Marjāwah.

<sup>55</sup> MS 1934 inserts Photios (Futhyūn) with Abū Naṣr, but these two names undoubtedly refer to different persons.

<sup>56</sup> This name is garbled. Basil is a guess.

<sup>57</sup> The way in which Heron and Eustathius are written in MS 1934 suggests that Abū Nūḥ translated their works. See Smith, *GRBM*, II, 119, 437.

<sup>58</sup> Unlike the Flügel edition, MS 1934 separates this name from the one which follows.

*Basil*, who served [*Tāhir* ibn al-Ḥusayn] dhū al-Yamīnayn.<sup>59</sup>  
Ibn *Sahdā* al-Karkhī, who translated badly from Syriac into Arabic.

Among the works which he translated there was *Hippocrates'* book on embryos.<sup>60</sup>

Abū 'Amr *Yūhannā* ibn Yūsuf al-Kātib, who was one of the translators.  
He translated Plato's book on the training of boys.<sup>61</sup>

*Ayyūb* ibn al-Qāsim al-Raqqī, who translated from Syriac into Arabic.  
Among his translations was the book *Isagoge*.<sup>62</sup>

*Midlājī* (Marlāhī), who during our own time has a good knowledge of Syriac, but stammers in pronouncing Arabic. He has translated from Syriac into Arabic, and served 'Alī ibn Ibrāhīm al-Dahakī. Ibn al-Dahakī improved his translation.<sup>63</sup>

*Dādisho'* (Dādishū'), who interpreted from Syriac into Arabic for *Ishāq* ibn Sulaymān ibn 'Alī al-Hāshimī.

*Qusṭā* ibn Lūqā al-Ba'labakkī, who was skilled in translating and had a good literary style in Greek, Syriac, and Arabic. He translated some things and corrected many [other] translations. Mention of him will be made in the proper place among the scholars who were authors.<sup>64</sup>

*Hunayn* [ibn *Ishāq*].

*Ishāq* [ibn *Hunayn* ibn *Ishāq*].

*Thābit* [ibn *Qurrah*].

*Hubaysh* [ibn al-Ḥasan al-A'sam].

'*Isā* ibn *Yahyā*.

Al-*Dimashqī* (Dimishqī).

*Ibrāhīm* ibn al-Ṣalt [Abū *Nūḥ*].

*Ibrāhīm* ibn 'Abd Allāh.

*Yahyā* ibn 'Adī al-Nafīsī.<sup>65</sup>

If Allāh Almighty so wills, we shall deal thoroughly with these men later on, for they were composers of books.

<sup>59</sup> This means "ambidextrous" and refers to *Tāhir* ibn *Ḥusayn*, who was appointed as governor in *Khurāsān* A.D. 820.

<sup>60</sup> Probably *De resectione foetus*.

<sup>61</sup> Although this might refer to the second and third sections of the *Republic*, about the education of guardians and rulers, it more likely refers to the dialogue *Laches*.

<sup>62</sup> Almost certainly the well-known book of *Porphyry*.

<sup>63</sup> At this point there is a space in MS 1934, evidently left for other names to be filled in.

<sup>64</sup> In MS 1934, written perpendicularly over *Lūqā*, the following phrase is found: "From the handwriting of Ibn al-Kalbī: 'He was surnamed Abū Sa'id.'"

<sup>65</sup> Only the *Tonk* MS gives this name clearly as al-Nafīsī.

The Names of the Translators from Persian into Arabic

Ibn al-*Muqaffā'*, who has already been mentioned in the proper place.

The family of *Nawbakht*, most of them.<sup>66</sup> Mention of them has already been made and [more] will follow if Allāh so wills.

*Mūsā* and *Yūsuf*, the sons of *Khālid*, who served *Dā'ūd* ibn 'Abd Allāh ibn *Ḥumayd* ibn *Qaḥṭabah*, translating for him from Persian into Arabic.

Al-*Tamīmī*, whose name was 'Alī ibn *Ziyād*, surnamed Abū al-Ḥasan. He translated from Persian into Arabic. Among the works which he translated, there were the *Astronomical Tables of al-Shahriyār*.

Al-*Ḥasan* ibn *Sahl* [ibn *Nawbakht*], mention of whom will be made in the proper place with accounts of the astrologers.

Al-*Balādhuri*, *Aḥmad* ibn *Yahyā* ibn *Jābir*, who has already been mentioned and who translated from the Persian tongue into Arabic.

*Jabalah* ibn *Sālim*, the secretary of *Hishām*,<sup>67</sup> who has already been mentioned. He translated from Persian into Arabic.

*Ishāq* ibn *Yazīd* translated from Persian into Arabic. Among the works which he translated there was a book about the record of Persia, known as *The Book of Choice* (*Ikhtiyār Nāmāh*).<sup>68</sup>

Among the Translators of Persia

*Muḥammad* ibn al-*Jahm* al-*Barmakī*.

*Hishām* ibn al-*Qāsim*.

*Mūsā* ibn 'Isā al-*Kisrāwī*.

*Zādwayh* ibn *Shāhwayh* al-*Iṣbahānī*.

*Muḥammad* ibn *Bahrām* ibn *Miṭyār* al-*Iṣbahānī*.

*Bahrām* ibn *Mardān* *Shāh*, the priest of the city of *Nisābūr*, which was one of the cities of Persia.

'*Umar* ibn al-*Farrukhān*, whom we shall mention in more detail among the authors.

Translators of India and the Nabataeans

*Mankah* [*Kankah*] al-*Hindī*, who was one of a group [employed by] *Ishāq* ibn *Sulaymān* ibn 'Alī al-*Hāshimī*. He translated from the Indian language into Arabic.<sup>69</sup>

<sup>66</sup> This probably means that most of them translated Persian books. The *Tonk* MS has a variation.

<sup>67</sup> This was probably *Hishām* ibn al-*Qāsim*.

<sup>68</sup> The title is corrected on the margin of MS 1934. See "choices" in Glossary.

<sup>69</sup> *Qifṭī*, p. 265, calls him *Kankah*, and devotes two pages to him.

Ibn *Dahn*, al-Hindī, who administered the Bīmārīstān (Hospital) of the Barmak family. He translated from the Indian language into Arabic. Ibn *Waḥshīyah*, who translated from Nabataean into Arabic. He translated many books, as is recorded. Mention of him will follow, if Allāh so wills.

#### The First to Speak about Philosophy<sup>70</sup>

Abū al-Khayr ibn al-Khammār [al-*Hasan* ibn Suwār] told me in the presence of Abū al-Qāsim ‘Isā ibn ‘Alī, when I asked him who the first person was to speak about philosophy, that *Porphyrus* of Tyre asserted in his book, *History*, which was in Syriac, that the first of the seven philosophers was *Thales* ibn Mālis al-Amlīsī.<sup>71</sup> Two chapters of this book were translated into Arabic. Abū al-Qāsim said, “So it was,” not denying it.

Others have said that the first person to speak about philosophy was Pythagorus, who was *Pythagorus* son of Mnesarchus, one of the people of Samos. *Plutarch* said that Pythagorus was the first person to call philosophy by that name. He wrote epistles known as *The Golden*, which were called by this name because *Galen* wrote them with gold so as to glorify and ennoble them.

The books of Pythagorus which we have seen are the following: His epistle to the tyrant (rebel) of Sicily; his epistle to Sifānus,<sup>72</sup> The Derivation of Meaning; his epistle, Rational Politics.

These epistles have come down with the commentary of *Malchus*.

He said that after that *Socrates*, the son of Socrates<sup>73</sup> of Athens, a city of scholars and wise men, spoke about philosophy with statements about which not a great deal is known. What has come from his writings are *Discourse about Politics* and his epistle, *The Beautiful Life*, which is said to be authentic as his own.

<sup>70</sup> In the following accounts of Greek and Latin philosophy and science, the references have been limited to a few standard works, available in modern libraries.

<sup>71</sup> MS 1934 gives Mālis, Flügel gives Mällis. Mālis and Amlīsī may both be corrupted forms for “Milesian,” as Thales’ father lived at Miletus. His parents were named Examyus and Cleobuline.

<sup>72</sup> The Arabic name suggests Staphanus, but cannot be identified.

<sup>73</sup> His father was really Sophroniscus.

#### Another Account

“Socrates” means “holding health (truth) (*māsik al-ṣaḥḥah*).” He was an Athenian, ascetic, eloquent, and wise. The Greeks killed him because he disagreed with them. Information about him is well known. The king in charge of his death was Artakhasht.<sup>74</sup> *Plato* was one of the associates of Socrates.

From what is written in the handwriting of *Ishāq* ibn Ḥunayn: “Socrates lived nearly as long as Plato lived.” Also from the handwriting of *Ishāq*: “Plato lived for eighty years.”

#### Plato

From the book of *Plutarch*: “*Plato* was the son of *Ariston*.” The meaning [of his name] is “breadth.”<sup>75</sup> *Theon* states that his father was called *Astūn* [*Ariston*] and that he was one of the aristocrats of the Greeks. In his early life he [*Plato*] became interested in poetry, from which he derived a large share [of good fortune]. Then, when he attended the sessions of *Socrates*, he saw that he [*Socrates*] did not approve of poetry, but from him also he derived a large share [of good fortune].<sup>76</sup> After that he went over to the doctrine of *Pythagoras* about rational phenomena. According to what has been said, he lived for eighty-one years. *Aristotle* learned from him and succeeded him after his death. *Ishāq* [ibn Ḥunayn] states that he learned from *Hippocrates*.

*Plato* died during the year in which *Alexander* was born, which was the thirteenth year of the reign of *Lawkhus*.<sup>77</sup> *Aristotle* followed him. In those days the king of Macedonia was *Philip*, the father of *Alexander*.

<sup>74</sup> Perhaps Artakhasht is meant to be Artaxerxes. In that case, some early writer probably said that Socrates’ death occurred during the reign of Artaxerxes II in Persia and then a later writer inferred that Artaxerxes was responsible for Socrates’ death. Actually, the principal accusers of Socrates were Meletus and Anytus. Polyeuctus pronounced the sentence.

<sup>75</sup> This name refers to the breadth of his shoulders or his forehead, or possibly to the breadth of his style; see “Plato,” *Enc. Brit.*, XXI, 808. For the name of his father in the sentence which follows, see *Diogenes Laërtius*, p. 113; *Smith, GRBM*, III, 392.

<sup>76</sup> The translation is taken from MS 1934 and the Tonk MS. Flügel and MS 1135 do not repeat “he derived a large share.” Instead they give “he left it.”

<sup>77</sup> *Plato* died 347 B.C., whereas *Alexander* was born 356 B.C. *Diogenes Laërtius*, p. 127, says that *Alexander* was born during the 13th year of the reign of *Philip* of

From what is written in the handwriting of Ishāq [ibn Ḥunayn]: "Plato lived eighty years."

The Books He Composed according to What *Theon* Recorded and Arranged in Sequence<sup>78</sup>

The Republic (Al-Siyāsah), which Ḥunayn ibn Ishāq explained; The Laws (Al-Nawāmis), which Ḥunayn translated, as did also *Yahyā* ibn 'Adī.

Theon said, "Plato wrote his books as dialogues in which were discourses with people, and he named each book with the name of the person with whom the composition was related." Among these there were:

A dialogue which he called Theages, about philosophy; a dialogue which he called Laches, about courage; a dialogue which he called Erastae, about philosophy; a dialogue which he called Charmides, about temperance; two dialogues which he called Alcibiades, about the beautiful; a dialogue which he called Euthydemus; a dialogue which he called Gorgias; two dialogues which he called Hippias; a dialogue which he called Ion; a dialogue which he called Protagoras; a dialogue which he called Euthyphro; a dialogue which he called Crito; a dialogue which he called Phaedo; a dialogue which he called Theaetetus; a dialogue which he called Clitophon; a dialogue which he called Cratylus; a dialogue which he called Sophistes.

Macedon; perhaps Lawkhus has been confused with Philip. Or perhaps it is meant to be Lagus, the father of Ptolemy and the husband of one of Philip's concubines; see Smith, *GRBM*, II, 712. Another possibility is that, as the *kh* in the name is not designated in MS 1934, the form may be a corruption of Louīs, the month in which Alexander was born. See Plutarch, *Lives*, IV, 242; Qifī, p. 18.

<sup>78</sup> These titles, although many are spelled incorrectly, check remarkably well with the modern list of Plato's works; see "Plato," *Enc. Brit.*, XXI, 811 ff.; Plato, *The Dialogues of Plato* (Jowett); Plato, *The Republic of Plato* (Jowett). Some titles have been attributed erroneously to Plato, and several of his works are omitted, including numerous dialogues; cf. Plato, *The Dialogues of Plato* (Jowett). *Critias* is probably omitted because it was regarded as part of *Timaeus*. *Lysis*, *Philebus*, the *Apology*, and *Symposium* are also omitted. As Theon ends his list with the *Politicus*, it seems reasonable to suppose that the first title which he gives, *Al-Siyāsah*, refers to the *Republic* rather than to the *Politicus*. Most authorities question the authenticity of *Alcibiades*, *Hippias*, *Theages*, *Erastae*, *Clitophon*, *Minos*, *Hipparchus*, and *Menexenus*, although Jowett includes *Alcibiades I*, the *Lesser Hippias*, and *Menexenus* with Plato's works. The lists of Plato's works in *Al-Fihrist* should be compared with Qifī, pp. 17 ff.

I read what was written in the handwriting of *Yahyā* ibn 'Adī, "*Ishāq* [ibn Ḥunayn] translated the *Sophistes*, with the commentary of *Olympiodorus*."

A dialogue which he called *Timaeus*, which *Yahyā* ibn 'Adī corrected; a dialogue which he called *Parmenides*, the compilation of which was made by *Galen*; a dialogue which he called *Phaedrus*; a dialogue which he called *Meno*; a dialogue which he called *Minos*; a dialogue which he called *Hipparchus*; a book which he called *Menexenus*; a book which he called *Politicus*.

From Other Than the Statement of Theon

From what I myself have seen and from the information of a reliable person about what he has seen:

*Timaeus*; three dialogues which Ibn al-Batriq translated, and which Ḥunayn ibn Ishāq either translated or else Ḥunayn corrected what Ibn al-Batriq had translated;<sup>79</sup> *Relationship*,<sup>80</sup> [taken from] the handwriting of *Yahyā* ibn 'Adī; book of Plato to the Cretan about the laws, [taken from] the handwriting of *Yahyā* ibn 'Adī; *Oneness* (Al-Tawhīd), with his dialogue about the soul (al-nafs), the intelligence (al-'aql), the elemental substance (al-jawhar), and the dependent properties (al-'ard);<sup>81</sup> *Sense Perception and Pleasure*, a dialogue;<sup>82</sup> *Timaeus*, about which Plutarch spoke, according to [what is written in] the handwriting of *Yahyā* [ibn 'Adī]; *Theaetetus*,<sup>83</sup> which *Olympiodorus* translated, according to the handwriting of *Yahyā*; *Education of Young Men* (Ta'dīb al-Aḥdāth).<sup>84</sup>

He also wrote epistles, which are extant. Theon said, "Plato arranged his writings for reading. Each group, consisting of four

<sup>79</sup> The three dialogues were the *Timaeus*, the *Critias*, and the unfinished *Hermocrates*.

<sup>80</sup> Flügel is probably correct in suggesting that this is the *Cratylus*, with its references to the relationships in language.

<sup>81</sup> Although Qifī, p. 18, gives the title as simply *Oneness*, the manuscripts and Flügel are probably correct in connecting it with the phrase of explanation which follows. This book seems to refer to the *Timaeus*, which deals with the four emanations mentioned in the title, and ends with the words, "the only begotten universe." See Plato, *Dialogues*, III, 614, 617, 676. For *al-'ard*, see Lane, *Lexicon*, I, Part 5, 2008.

<sup>82</sup> This is probably *al-ḥass* ("sense perception"), although it would fit Plato's dialogue more accurately if it was *al-ḥusn* ("beauty" or "goodness"). "Pleasure" is *al-ladhdhah*. This dialogue is almost certainly *Philebus*.

<sup>83</sup> The texts are unclear. This title might be, instead, *Sophistus*.

<sup>84</sup> This is most likely the *Laches*.

books, he called a tetralogy.”<sup>85</sup> *Ishāq* the Monk said, “Plato became known and his work became famous during the days of *Artaxerxes* [I] known as ‘the Long Hand.’” Thus saith Muḥammad ibn *Ishāq* [al-*Nadīm*]: This king [Artaxerxes] belonged to Persia, so that there was no connection between him and Plato. It [probably] was Hystaspes, the king to whom Zoroaster presented himself; it is Allāh who knows.<sup>86</sup> Book of Plato: *The Roots of Geometry*, which *Qusfā* translated.<sup>87</sup>

#### Account of Aristotle

The meaning [of his name] is “lover of wisdom,” or, it is said, “the excelling, the complete,” there also being given “the perfect, the excelling.”

He was *Aristotle*, the son of *Nicomachus* son of *Machaon*, one of the descendants of *Aesculapius*, who invented medicine for the Greeks. *Ptolemy* the Foreign (al-*Gharīb*) recorded and said: “His mother’s name was *Phaestias* and she traced [her lineage] to *Aesculapius*. He came from a city of the Greeks named *Stageira*. His father, *Nicomachus*, served as a physician to *Philip*, the father of *Alexander*. He himself was one of the pupils of *Plato*.”<sup>88</sup> *Ptolemy* also said, “His submission to *Plato* was because of a revelation from the god in the *Pythian* temple.” He went on to say, “He continued to teach<sup>89</sup> for twenty years, and when *Plato* was absent in *Sicily*, *Aristotle* took his place in the court of instruction.”<sup>90</sup>

<sup>85</sup> Although *Aristophanes* of *Byzantium* arranged some of *Plato*’s works in trilogies, *Thrasylus* formed tetralogies. *Theon* evidently accepted this latter arrangement; see *Smith*, *GRBM*, III, 395.

<sup>86</sup> *Zoroaster*’s date is uncertain, but the best authorities think that he lived about 660–583 B.C. The King *Hystaspes* converted by *Zoroaster* was probably a provincial prince; see *Browne*, *Literary History of Persia*, I, 95–96. *Al-Nadīm* is obviously wrong also.

<sup>87</sup> This book was probably not written by *Plato*. The name of the translator is garbled. *Flügel* suggests that it is meant to be *Qusfā* ibn *Lūqā*.

<sup>88</sup> *Aristotle*’s mother’s family lived at *Stageira* (*Stagira*) where *Aristotle* was born, 384 B.C. After spending twenty years with *Plato*, 367–347 B.C., he served as tutor to *Alexander*, 343–335 B.C. Then he spent 12 years in the *Lyceum* before he died, 322 B.C.

<sup>89</sup> This might be, instead, “He continued with instruction.”

<sup>90</sup> For *Plato* in *Sicily*, see *Smith*, *GRBM*, III, 393. The story of the oracle at *Delphi* is probably a legend.

It is said that he studied philosophy after he had lived for thirty years. He was the master of eloquent style among the Greeks and among their excellent writers. After *Plato*, he was the most honored of their scholars, holding the highest rank in philosophy among the ancients.<sup>91</sup> He also had an exalted position among the kings. Matters used to be administered in accordance with his opinion by *Alexander*, to whom he addressed a quantity of letters and communications about politics and other subjects.

Among these there was an epistle on politics which began,<sup>92</sup> “As for wondering about your good qualities, the evidences for them have become dissipated, they are out-of-date, forgotten, no longer new or causing astonishment. What the populace says about you is true: ‘He who praises you is not a teller of falsehood.’” There is in the same epistle: “When people are saddened by misfortunes, they are moved [to turn] to whatsoever is for their benefit. But if they attain security, they turn to evil, stripping off the bridle of caution. Thus, during a time of safety and calm, people are in the greatest need of the law.”

There is also in it: “Treat enemies with injury;<sup>93</sup> those who have absolution with forgiveness; confessors with compassion; those who assault with opposition; troublemakers with social amenity;<sup>94</sup> the envious with anger; the insolent with magnanimity; assailants with dignity; the seditious with disdain; those who vex (sting) with caution; ambiguous matters with postponement; things that are clear with firmness; affairs that are confused with investigation; and association with kings with confidential secrecy, guidance about affairs, praise and assiduity, for what they desire for themselves is praise, while demanding servitude from the people.” This is a saying of utmost wisdom, eloquence, and fullness of meaning, in

<sup>91</sup> This is a free translation of an idiom.

<sup>92</sup> This quotation may come from one of *Aristotle*’s short prose works, which he learned to write during his association with *Plato*, and some of which are well known. See “*Aristotle*,” *Enc. Brit.*, I, 503; *Smith*, *GRBM*, I, 332.

<sup>93</sup> The manuscripts have *bi-al-adhā* (“with injury”), whereas *Flügel* gives *bi-al-idhn* (“with permitting”).

<sup>94</sup> MS 1934 has *bi-al-mudākhashah* (“with social amenity”). *Flügel* has *bi-al-munāqadah* (“with contention” or “with disputation”).

spite of being translated from one language to another. How great it must have been in the language of its utterance!

It is said that when Philip died and when, upon becoming king, Alexander turned his attention to wars against the nations, Aristotle withdrew, becoming ascetic. He went to Athens and established a place for teaching, the place with which the Peripatetics are associated. He turned his attention to the interests of the people, the aiding of the weak, and restoration of the buildings of the city of Stageira. The accounts about him are many; we have given only a few of them.<sup>95</sup>

Aristotle died at the age of sixty-six, during the end of the period of Alexander, or it is said at the beginning of the reign of *Ptolemy Lagus*. His sister's son, *Theophrastus*, followed him in his teaching.<sup>96</sup>

#### The Will of Aristotle

Al-Gharib<sup>97</sup> said, "When death attended him, he [Aristotle] stated: I have made Antipater my executor permanently over all that I have left behind. Until *Nicanor* arrives, let Aristomedes, Timarchus, Hiapparchus, and Dioteles be responsible for seeking whatever there is need to seek for, and for handling whatever there may be need to take care of, on behalf of the people of my house and Herpyllis, my servant, as well as for the rest of my slave girls and slaves and those whom I have left behind.

If it is easy and feasible for *Theophrastus* to join them in this affair, he should also be one of their number. When my daughter gains maturity, let *Nicanor* have charge of her. In case she should happen to die before she marries, or afterwards before having a child, the responsibility for my son, *Nicomachus*, falls to *Nicanor*. My charge to him in this case is that he shall manage the affairs which he handles in a way both desirable and seemly.

<sup>95</sup> The Tonk MS adds the words "for information."

<sup>96</sup> Aristotle died 322 B.C., a year after Alexander died, at the time when *Ptolemy I Soter*, son of *Lagus*, founded his dynasty in Egypt.

<sup>97</sup> Al-Gharib was *Ptolemy Chennus*, see *Ptolemy the Foreign* in the *Biog. Index*. As most of the names mentioned in the will have nothing to do with the cultural topics of *Al-Fihrist*, only *Nicanor*, *Nicomachus*, and *Theophrastus* are included in the *Biog. Index*. The version of the will given in Arabic should be compared with *Diogenes Laërtius*, p. 185, as there are numerous variations. Most of the Greek names are greatly garbled in *Al-Fihrist*. The translation gives the proper spelling of these names and on the whole follows MS 1934, which differs from the Flügel text only in minor ways.

In case *Nicanor* dies before he marries my daughter, or after her marriage but before she has a child, I charge that whatever *Nicanor* bequests in a will shall be valid and authoritative. In case *Nicanor* dies without a will and if it is convenient for *Theophrastus*, I should like to have him serve as his substitute in caring for my children and others whom I have left behind. But in case this is not agreeable to him, then let the executors whom I have named return to *Antipater*, so as to ask for his advice about what they should do with all that I have left. Then let them manage the affair in accordance with what they agree upon.<sup>98</sup>

Let the executors and *Nicanor* take care of *Herpyllis*<sup>99</sup> for me. She deserves that from me, because of what I have seen of her solicitude in my service and her diligence in connection with what fulfilled my desires. Let them give her all she needs and, if she desires to marry, let her take only a man who is virtuous. Let there be given her in addition to what she possesses a talent of silver, which is one hundred and twenty-five rottles, as well as three female slaves whom she shall choose in addition to the handmaid she already has and her servant boy. If she desires to reside at *Chalcis*, she may live in my house, the guest house on the edge of the garden. Or if she chooses to live in the city of *Stageira*, let her dwell in the house of my fathers. Whichever one of the houses she may select, let the executors provide there for her what she records that she needs.<sup>100</sup>

With regards to my family and children, I do not need to give a charge for their protection and the care of their affairs. Let *Nicanor* look after *Myrmex*, the slave boy, until he sends him with all his possessions to his town, in the way that he longs for. Let him set free my handmaid *Aubracis*. In the event that, after being emancipated, she offers to serve my daughter until she marries, give her five hundred drachmae and her slave girl.

Let there be given to the girl *Tales*, whom we have recently acquired, a young man from among our slaves and one thousand drachmae. Let the price of a slave boy be paid to *Timon* so that he can purchase for

<sup>98</sup> Evidently *Antipater* was an important man who was permanent executor of the will, with the other local persons mentioned to handle the practical details for him, but it is not certain that he was the regent of Macedonia who was living at the time.

<sup>99</sup> She was a slave, the mother of Aristotle's son *Nicomachus*, so that she had a place of special importance in his household.

<sup>100</sup> Aristotle was born at *Stageira*. When he retired from the Lyceum, he went to *Chalcis*, where he died. *Stageira* (*Stagira*) was in the *Chalcidice Peninsula* of Macedonia, whereas *Chalcis* was on the west coast of the island of *Euboea*.



himself someone in addition to the boy whose price has already been paid to him. Let there also be given to him whatever the executors may see fit.

When my daughter marries, let there be set free my slave boys Tychon, Philon, and Olympius. Let not the son of Herpyllis be sold, let none of the boys who have served me be sold, but let them be continued in service until they reach the maturity of manhood. Then when this stage is reached, let them be enfranchised, with arrangements made to give them what they deserve, if God Almighty so desires.

From what is written in the handwriting of *Ishāq* [ibn Ḥunayn], and in his own words, "Aristotle lived for sixty-seven years."

The Order of His Books on Logic, the Physical Sciences, Metaphysics, and Ethics<sup>101</sup>

Statement about His Books on Logic: Eight Books

Categoriae, which means "definitions"; De interpretatione, which means "expressions";<sup>102</sup> Analytica, which means "analysis of the syllogism";<sup>103</sup> Apodeiktikos, which is the second Analytica and means "proof"; Topica, which means "argument"; Sophistici, which means "those in error"; Rhetorica, which means "oratory"; Abūṭiqā, which is called Poetica and which means "poetry."<sup>104</sup>

Account of the *Categoriae* with the Translation of Ḥunayn ibn Ishāq

Among those who explained it and wrote commentaries about it there were *Porphyry*, *Stephanus* the Alexandrian, *Aelianos*, *Yaḥyā al-Naḥwī*, *Ammonius*, *Themistius*, *Theophrastus*, and *Simplicius*. A man known as *Theon* has made both Syriac and Arabic [translations]. From the commentary of *Simplicius* there is an addition to the supplement. Among the odd<sup>105</sup> commentaries, there is a fragment

<sup>101</sup> The word translated "metaphysics" is often used for "theology." In the original manuscript, some of the titles by Greek authors, such as those below, are Arabic transliterations of the Greek. Unless there is no Latin equivalent, these titles are given in the more familiar Latin.

<sup>102</sup> In Greek transliteration this is *Peri Hermēneias*.

<sup>103</sup> This title and the one which follows were the *Analytica priora* and the *Analytica posteriora*.

<sup>104</sup> As there is no letter *p* in Arabic, the name *Abūṭiqā* was evidently used as a corrupt way of writing *Poetica*.

<sup>105</sup> The Arabic, *gharīb*, might refer to Ptolemy al-Gharīb (the Foreign), but since the article is omitted, "odd" is probably the meaning.

ascribed to *Iamblichus*. Shaykh Abū *Zakariyā*<sup>106</sup> said, "It is likely that this was falsely ascribed to *Iamblichus*, as I saw among the supplementary words, 'Alexander says.'" Shaykh Abū Sulaymān said that Abū *Zakariyā* worked over the translation of this book with the commentary of *Alexander of Aphrodisias*; [it amounted to] about three hundred leaves.

Among those who explained this book there were Abū Naṣr al-*Fārābī* and Abū Bishr *Mattā*. The book has the abridgments and compilations, both tabulated and not tabulated,<sup>107</sup> of a group including Ibn al-*Muqaffā*, Ibn *Bahrīz*, Al-*Kindī*, *Ishāq* ibn Ḥunayn,<sup>108</sup> *Aḥmad* ibn al-Ṭayyib, and al-*Rāzī*.

Account of the *De interpretatione*

*Ḥunayn* [ibn Ishāq] translated it into Syriac and *Ishāq* [ibn Ḥunayn] into Arabic, the distinctive part.<sup>109</sup>

The Commentators

*Alexander* [of Aphrodisias]: not extant. *Yaḥyā al-Naḥwī*; *Iamblichus*; *Porphyry*, a compilation;<sup>110</sup> *Stephanus*; *Galen*, a commentary which is rare and not to be found; *Quwayrī*; *Mattā*, Abū Bishr; al-*Fārābī*; *Theophrastus*.

Among the Abridgments

[Those of] *Ḥunayn*, *Ishāq*, Ibn al-*Muqaffā*, al-*Kindī*, Ibn *Bahrīz*, *Thābit* ibn Qurrah, *Aḥmad* ibn al-Ṭayyib, al-*Rāzī*.

Account of the *Analytica priora*

*Theodore* [the Commentator] translated it into Arabic. It is said that he showed it to Ḥunayn, who corrected it. Ḥunayn translated a portion into Syriac and *Ishāq* translated also into Syriac what was left.

<sup>106</sup> See Qifī, p. 363 l. 18, where Yaḥyā ibn 'Adī is called Shaykh Abū *Zakariyā*. In the following sentence, Abū Sulaymān was probably *Muḥammad* ibn Bahrām al-Sijistānī, and MSS 1934 and 1135 have different forms for "worked over."

<sup>107</sup> The Arabic word refers to diagrams arranged like family trees. For simplification it is translated "tabulated."

<sup>108</sup> The Tonk MS has *Ḥunayn* ibn Ishāq and also contains other errors due to careless copying.

<sup>109</sup> MS 1934 has *al-faṣṣ* ("distinctive part"). Flügel has *al-naṣṣ* ("text"), with a note to question its accuracy.

<sup>110</sup> Flügel places "compilation" with *Stephanus*, probably wrongly. The manuscript suggests that it goes with *Porphyry*.

## The Commentators

*Alexander* made two commentaries as far as *al-ashkāl al-jumliyah*, one of them more complete than the other. Themistius wrote a commentary on the two sections together. *Yahyā* al-Nahwī made a commentary as far as *al-ashkāl al-jumliyah* and *Quwayrī* wrote a commentary as far as *al-thalathah al-ashkāl*. *Abū Bishr Mattā* made a commentary on the two sections together and *al-Kindī* also wrote a commentary on this book.<sup>111</sup>

Account of the *Apodeiktikós*, which is the *Analytica posteriora*, in two sections

*Ḥunayn* translated part of it into Syriac and *Ishāq* translated it in complete form into Syriac. *Mattā* translated the version of *Ishāq* into Arabic.

## The Commentators

Themistius made a complete exposition of this book. *Alexander* also explained it, but his work is not extant. *Yahyā* al-Nahwī commented upon it. *Abū Yahyā* al-Marwazī, with whom *Mattā* studied, had a statement about it, while *Abū Bishr Mattā*, *al-Fārābī*, and *al-Kindī* wrote explanations of it.

Account of the *Topica*

*Ishāq* [ibn *Ḥunayn*] translated this book into Syriac, while *Yahyā* ibn 'Adī translated into Arabic what *Ishāq* had rendered. *Al-Dimashqī* translated seven of its sections, the eighth being translated by *Ibrāhīm* ibn 'Abd Allāh.<sup>112</sup> There also existed an ancient translation.

<sup>111</sup> The expression *al-ashkāl al-jumliyah* is probably either "universal syllogisms" or "composite syllogisms"; see Aristotle, *Prior and Posterior Analytics*, pp. 369, 414. The term *al-thalathah al-ashkāl* probably refers to syllogisms in the third figure; *ibid.*, p. 362. These two terms are subjects dealt with in the *Analytica priora*. Themistius' commentary was evidently about the two books which compose the *Analytica priora*.

<sup>112</sup> In the Greek edition there are eight sections and in the Latin edition eight books. See Aristotle, *Opera omnia*, I, 172.

## The Commentators

*Yahyā* ibn 'Adī said at the beginning of the commentary on this book, "I find no commentary on this book by any predecessor except for *Alexander's* commentary on part of the first section, and also the fifth, sixth, seventh, and eighth sections. There is also the commentary of *Ammonius* on the first, second, third, and fourth sections. For what I sought in my commentary, I relied upon what I understood in the commentaries of *Alexander* and *Ammonius*. I also improved the diction of the translators of those two commentaries." The book, with the commentary of *Yahyā*, has nearly one thousand leaves.

From an account other than that of *Yahyā*: *Ammonius* explained the first four sections and *Alexander* the last four, as far as the twelfth topic in the eighth section.<sup>113</sup> *Themistius* explained the topics in it, while *al-Fārābī* also wrote a commentary on this book, with an abridgment of it. *Mattā* made a commentary on the first section, *Ishāq* translated what *Ammonius* and *Alexander* commented upon in the book, and *Abū 'Uthmān al-Dimashqī* translated this book.

Account of the *Sophistici*

It means "falsified wisdom." Ibn *Nā'imah* and *Abū Bishr Mattā* translated it into Syriac, while *Yahyā* ibn 'Adī translated it into Arabic from [the version of] *Theophilus*.<sup>114</sup>

## The Commentators

*Quwayrī* wrote a commentary on this book and *Ibrāhīm* ibn *Bakūs* al-'Usharī translated into Arabic what Ibn *Nā'imah* rendered, with corrections. *Al-Kindī* also wrote a commentary on this book, and it is said that a commentary on the book by *Alexander* was found at al-Mawṣil.<sup>115</sup>

Account of the *Rhetorica*

It means "oratory." There has come down an ancient translation. It is said that *Ishāq* translated it into Arabic and that *Ibrāhīm* ibn 'Abd Allāh also made a translation.

<sup>113</sup> There were fourteen topics. For the twelfth, see Aristotle, *Categoriae et topica*, p. 196.

<sup>114</sup> This was probably *Tūfil* ibn Thūmā.

<sup>115</sup> The reference to Mawṣil is omitted in MS 1135.

Al-Fārābī, Abū Naṣr, wrote a commentary on it, and I saw, written in the handwriting of Aḥmad ibn al-Ṭayyib, "In an ancient translation this book had about one hundred leaves."

Account of *Poetica*, Which Means Poetry

Abū Bishr Mattā translated it from Syriac into Arabic, and Yahyā ibn 'Adī also translated it. It is said that in it there was a statement by Themistius, but it is also said that this was falsely claimed to be his. Al-Kindī wrote an abridgment of this book.

Account of the *Natural Hearing* [*Physica Auscultatio*],<sup>116</sup> with the Commentary of Alexander: Eight Sections

Thus saith Muḥammad ibn Ishāq [al-Nadīm]: The portion of the commentary of Alexander of Aphrodisias which is extant is the first section, which was [taken] from the text of Aristotle's statement and is given in two parts, one of which with a portion of the other still exists. Abū Rawḥ al-Ṣābī translated it and the translation was then corrected by Yahyā ibn 'Adī. The second section from the text of Aristotle's statement is given in one section, which Ḥunayn translated from Greek into Syriac, and Yahyā ibn 'Adī translated from Syriac into Arabic. The third section has no exposition of the text of Aristotle's treatise.

The fourth section has been commented upon in three divisions. The first part, the second, and a portion of the third, as far as the statement about time, are extant.<sup>117</sup> Although Qusṭā [ibn Lūqā] translated this, what is actually known is the translation of al-Dimashqī. The fifth section from the treatise of Aristotle is in one unit, which Qusṭā ibn Lūqā translated. The sixth section is also one unit, a little over half of which is extant. The seventh section is one unit, which Qusṭā translated. The eighth section is one unit, only a few leaves of which exist.<sup>118</sup>

<sup>116</sup> In Arabic this is *Al-Samā' al-Ṭabī'ī*. See Aristotle, *Opera omnia*, II, 248. In Latin this book is sometimes also called *Naturalis auscultationis*.

<sup>117</sup> This is very likely as far as the tenth topic of the fourth section; see Aristotle, *Opera omnia*, II, 298.

<sup>118</sup> This passage is very confused, because the word *al-maqālah* is used both to refer to the original eight sections in Aristotle's own work and also to the parts or chapters into which the translations and commentaries were divided by the medieval scholars. The English translation is an attempt to make the meaning clear. The word *al-kalām* is also used in a confusing way. It is translated as "treatise" and "statement."

Account of the *Natural Hearing* [*Physica auscultatio*], with the Commentary of Yahyā al-Naḥwī of Alexandria

Thus saith Muḥammad ibn Ishāq [al-Nadīm]: The part of this book which Qusṭā [ibn Lūqā] translated is in the form of precepts, but the part which 'Abd al-Masīḥ ibn Nā'imah translated is not in this form of precepts.<sup>119</sup> Qusṭā translated the first half, which is in four sections, and Ibn Nā'imah the last half, also four sections.

Account of the *Natural Hearing* [*Physica auscultatio*], with the Commentaries of a Varied Group of Philosophers

*Porphyry's* commentary on the first, second, third, and fourth sections is extant. Basil translated it. Abū Bishr Mattā wrote an explanation in Syriac of *Themistius's* commentary on this book. Part of the first section in Syriac is extant. Abū Aḥmad ibn Karnīb wrote a commentary on part of the first section and part of the fourth section, as far as the statement on time.<sup>120</sup> Thābit ibn Qurrah made a commentary on part of the first section, while [Abū Nūḥ] Ibrāhīm ibn Ṣalt translated the first section of this book. I saw it written in the handwriting of Yahyā ibn 'Adī. Abū al-Faraj Qudāmah ibn Ja'far ibn Qudāmah also wrote a commentary on part of the first section of the *Physica auscultatio*.

Account of the Book *Heaven and Earth* [*De coelo*]<sup>121</sup>

It has four sections. Ibn al-Baṭrīq translated this book, while Ḥunayn [ibn Ishāq] corrected it. Abū Bishr Mattā translated part of the first section and Alexander of Aphrodisias made an exposition of part of the first section of this book. *Themistius* wrote an exposition of the entire book. Yahyā ibn 'Adī either translated or corrected it and Ḥunayn wrote something about it [entitled] *The Sixteen Questions*. Abū Zayd al-Balkhī explained the first part of this book for Abū Ja'far al-Khāzin.<sup>122</sup>

<sup>119</sup> The Arabic word translated "precepts" is *ta'ālīm*, which may signify "concepts" or, more specialized, "mathematical propositions."

<sup>120</sup> See n. 117.

<sup>121</sup> In Arabic, *Kitāb al-Samā' wa-al-'Ālam*. See Aristotle, *Opera omnia*, II, 367.

<sup>122</sup> Cf. Qifṭī, p. 40 ll. 4, 5.

Account of the Book *Being and Corruption* [*De generatione et corruptione*]<sup>123</sup>

*Hunayn* translated it into Syriac and *Ishāq* into Arabic, as did also *al-Dimashqī*. It is recorded that *Ibn Bakūs* [*Ibrāhīm*] translated it, too. *Alexander* wrote an exposition of the entire book, *Mattā* translated it, and *Qusṭā* [*ibn Lūqā*] translated the first section. *Olympiodorus* wrote an exposition of *Eustathius'* translation. *Mattā* *Abū Bishr* translated this and, after examining it, *Abū Zakarīyā*<sup>124</sup> corrected it, that is, the translation of *Mattā*.

A commentary by *Themistius* on *De generatione et corruptione* has recently been found. It consists of two expositions, one large and one small. *Yahyā al-Nahwī* wrote a complete exposition of *De generatione et corruptione*, but the Arabic is inferior in excellence to the Syriac.

Account of the *Signs on High* [*Meteorologica*]<sup>125</sup>

*Olympiodorus* wrote a long exposition. *Abū Bishr* [*Mattā* and *al-Ṭabarī*] translated it.<sup>126</sup> There was an exposition by *Alexander*, which was translated into Arabic, but was not translated into Syriac. Later, *Yahyā ibn 'Adī* translated it<sup>127</sup> into Arabic from the Syriac.

Account of the Book *The Soul* [*De anima*]<sup>128</sup>

It is in three sections. *Hunayn* [*ibn Ishāq*] translated all of it into Syriac. *Ishāq* [*ibn Hunayn*] translated all but a small part of it. Then

<sup>123</sup> In Arabic *Kitāb al-Kawn wa-al-Fasād*. See Aristotle, *Opera omnia*, II, 432.

<sup>124</sup> This was probably *Yahyā ibn 'Adī*, a translator of scientific books.

<sup>125</sup> In Arabic *Kitāb al-Āthār al-'Ulwiyyah*; see Aristotle, *Opera omnia*, III, 553; "Aristūtālīs," *Enc. Islam*, I, 433, where the title is given as *Al-Āthār al-'Alawīya*. In MS 1135 parts of these passages are misplaced.

<sup>126</sup> The name *Olympiodorus* can be questioned, as the Arabic original is not properly written. Here, it is given in MS 1934 as *Alamfidūrus*, but the consonant mark on the letter written as *f* is omitted. In numerous passages which follow, this letter is clearly marked as *q*. *Wenrich*, p. 294, has *Macidorus*, but *Pauly*; *Smith*, *GRBM*; *Sarton*; *Diogenes Laërtius*; and the *Encyclopaedia Britannica* do not mention a man of this name. What is likely is that some scribe wrote what should have been *f* as *q*, placing two dots over the letter instead of one. It was easy for the Arabs to use *f* for *p*, as they did not have *p* in their alphabet. Usually *b* represents *p*, but not always. As *Olympiodorus* was well known and wrote a commentary on the *Meteorologica* (see *Smith*, *GRBM*, III, 25), it seems reasonable to identify this man as *Olympiodorus*.

<sup>127</sup> This probably refers to the *Meteorologica* rather than to the commentary.

<sup>128</sup> In Arabic, *Kitāb al-Nafs*. See Aristotle, *Opera omnia*, III, 431.

*Ishāq* translated it a second time in its entire form, with improvements. *Themistius* wrote an exposition of the whole book; two chapters on the first [section], two chapters on the second, and three chapters on the third. *Olympiodorus* wrote a commentary which I read written in Syriac in the handwriting of *Yahyā ibn 'Adī*. There has been found an excellent commentary in Syriac ascribed to *Simplicius*, which he wrote for *Athāwālīs*.<sup>129</sup> An Arabic edition has also been found.

The Alexandrians had an abstract of this book, about one hundred leaves in length, and *Ibn al-Baṭriq* made compilations of the book. *Ishāq* said, "I translated this book into Arabic from a manuscript which was in poor condition. Then after thirty years, when I found a manuscript in the best possible condition, I compared it with the first translation, which was of the exposition of *Themistius*."<sup>130</sup>

Account of the Book *Perception and the Perceived* [*De sensu et sensibili*]<sup>131</sup>

It is in two sections. No translation which can be relied upon is known or recorded. What is recorded is a small portion which *al-Ṭabarī* derived from *Abū Bishr Mattā ibn Yūnus*.

Account of the *Book of Animals*: Nineteen Sections<sup>132</sup>

*Ibn al-Baṭriq* translated it, and there was also an old Syriac translation, which was better than the Arabic one. From what I have read written in the handwriting of *Yahyā ibn 'Adī*, "In the catalogue of his books there was; moreover, an ancient compilation." Then according to what is written in the handwriting of *Yahyā ibn 'Adī*, "*Nicolaus* wrote an abridgment" of this book. *Abū 'Alī ibn Zur'ah* commenced to translate it into Arabic, as well as to correct it.

<sup>129</sup> This is probably meant to be *Ammonius* son of *Hermeas*, the master of *Simplicius*. See *Smith*, *GRBM*, I, 146. For *Olympiodorus*, see n. 126.

<sup>130</sup> This quotation should be compared with the rendering in *Qifṭī*, p. 41.

<sup>131</sup> In Arabic *Al-Ḥiss wa-al-Mahsūs*. See Aristotle, *Opera omnia*, III, 476, in which there are seven chapters instead of two sections.

<sup>132</sup> The nineteen sections probably include *Historia animalium*, *De partibus animalium*, and *De animalium generatione*. These works total nineteen sections; see Aristotle, *Opera omnia*, III, 1-430, 517-26. The small treatises, *De animalium motione* and *De animalium incessu*, were probably not a part of this work.

Account of the Book of Letters known as the *Divine Things* [Metaphysica]<sup>133</sup>

The arrangement of this book was according to the sequence of the Greek letters, the first of which was the lesser *A*. *Ishāq* [ibn Ḥunayn] translated it. The work is extant as far as the letter *M*, which letter [section] was translated by Abū Zakariyā' *Yahyā* ibn 'Adī. The letter *N* was extant in Greek in the commentary of *Alexander*. *Eustathius*, moreover, translated these letters [sections] for al-Kindī, who gives information about it.<sup>134</sup>

Abū Bishr *Mattā* translated into Arabic the letter *L*, the eleventh letter, with a commentary by *Alexander*. *Ḥunayn* ibn *Ishāq* translated it into Syriac. *Themistius* wrote a commentary as far as the letter *L*, and Abū Bishr *Mattā* translated it with the commentary by *Themistius*. *Shamli* also translated it. *Ishāq* ibn Ḥunayn translated a number of the letters and *Syrianus* wrote a commentary as far as the letter *B*. It appeared in Arabic and was catalogued in the handwriting of *Yahyā* ibn 'Adī in the catalogue of his books.

From among the Books of Aristotle as Copied from What Is Written in the Handwriting of *Yahyā* ibn 'Adī, from the Catalogue of His Books:

*Ethics*<sup>135</sup>—*Porphyry* wrote a commentary on twelve sections which were translated by *Ishāq* ibn Ḥunayn. A number of the sections, together with the commentary of *Themistius*, were in the possession of Abū Zakariyā' [*Yahyā* ibn 'Adī] and written in the handwriting of *Ishāq* ibn Ḥunayn. It was written in Syriac. The *Visage*<sup>136</sup>—al-*Hajjāj* ibn Maṭar translated it. *Theology* (*Theologia*),<sup>137</sup> about which al-*Kindī* wrote a commentary.

<sup>133</sup> In Arabic, *Kitāb al-Alahiyāt*. The thirteen sections are designated by letters *A* through *N*. The "lesser *A*" is the last part of the first section. See Aristotle, *Opera omnia*, II, 468; *Metaphysica*, I, 1-310; *Aristotle's Metaphysics*, Vols. I and II.

<sup>134</sup> *Hajjī Khalifah*, V, 51, and *Qifī*, p. 42 l. 2, have variations. It is likely that *Eustathius Romanus* did provide al-*Kindī* with a translation.

<sup>135</sup> In Arabic *Al-Akhlāq*. As this included twelve sections, it probably consisted of the ten sections of the *Ethica Nichomacheia* and two sections of the *Magna moralia*. See Aristotle, *Opera omnia*, II, 1-183; *Ethics of Aristotle*, p. 6 ff.

<sup>136</sup> The Arabic word *al-marā'ah* indicates something envisaged. *Hajjī Khalifah*, V, 149, calls this book *Liber de Speculo*, which probably signifies the Latin *De divinatione per somnium*. See Aristotle, *Opera omnia*, III, 507 ff.

<sup>137</sup> An abridged paraphrase of part of the *Enneads* of *Plotinus*, believed by al-*Kindī* and others to belong to *Aristotle*. See "Aristūṭālīs," *Enc. Islam*, I, 433 sect 5.

### *Theophrastus*

He was one of the disciples of Aristotle, and his sister's son. He was also one of the executors whom Aristotle appointed. After his [Aristotle's] death, he succeeded him at the court of learning.<sup>138</sup> Among his books there were:

The Soul [De anima], one section;<sup>139</sup> Signs on High [De meteoris], one section;<sup>140</sup> Morals [Theophrasti de moribus], one section; Sense and Objects of Sense [Theophrasti de sensu et sensibili], four sections translated by *Ibrāhīm* ibn Bakūs; *Metaphysics* [De metaphysica], one section, which Abū Zakariyā' *Yahyā* ibn 'Adī translated; The Causes of Plants [De causis plantarum], which *Ibrāhīm* ibn Bakūs translated—the part of it which is extant is a commentary of part of the first section;<sup>141</sup> a work attributed to him, which is a commentary on the book "Categoriae."

### Diadochus Proclus from the People of Attaleia,<sup>142</sup> the Platonist

Definitions of the Origins of Natural Phenomena [Elementa physica];<sup>143</sup> The Eighteen Questions [Duodeviginti quaestiones siva argumenta Christianos], which *Yahyā* al-Nahwī refuted; Exposition of Plato's Statement that the Soul Is Not Essence [Commentarius in Platonis dialogum de anima immortalitate]; *Theology* [Institutio theologica],

<sup>138</sup> It was an Arab tradition that he was Aristotle's nephew. The court of learning was of course the Lyceum. For a list of books of Theophrastus, see *Diogenes Laërtius*, p. 197.

<sup>139</sup> See *Smith*, *GRBM*, III, 1088-90, for the first, second, fourth, and fifth titles.

<sup>140</sup> For this title, see *Diogenes Laërtius*, p. 197; for the following, *ibid.*, p. 199.

<sup>141</sup> See *Theophrastus*, I, 331; II, 201.

<sup>142</sup> *Al-Fihrist* gives this place name as Aṭātriyah, although *Qifī*, p. 89, gives Aṭātūlah. As Proclus was brought up at Xanthus, this may be the large city nearby called Attaleia, near Biblical Perga, modern Antalya.

The following note is written sideways on the margin of MS 1934, but incorporated into the text in MS 1135 and Flügel: "*Yahyā* al-Nahwī mentioned in the first section of his refutation of his, [Proclus', work] that he [Proclus] lived during the Coptic period of Diocletian, at the beginning of the third century after his reign. This is true." This statement is wrong, as Diocletian reigned A.D. 284-305, and Proclus lived 412-85. See Flügel, p. 255 l. 3; "Chronology," *Enc. Brit.*, VI, 316. For a modern book about Proclus, see Rosán, *The Philosophy of Proclus*.

MS 1135 becomes regular at this point, after omissions and confusion, with the exception that the passage omitted in the account of Aristotle's *De generatione et corruptione* is erroneously inserted into the account of Proclus.

<sup>143</sup> This list of books should be compared with *Wenrich*, p. 288. In the third title, the Arabic word translated "essence" is *al-ma'iyah*. *Qifī*, p. 369 n. c, substitutes a better-known form, *mahiyah*, which is like the Greek οὐσία; see *Sprenger*, p. 131 ff.

which pertains to God;<sup>144</sup> Commentary on the Golden Testaments of *Pythagoras* [In Pythagorae aurea carmina commentarius]—it is about one hundred leaves and extant in Syriac. He wrote it for his daughter. *Thābit* [ibn Qurrah] translated three of its leaves, but [then] died, so that he did not complete it.<sup>145</sup>

The Sublime Elements;<sup>146</sup> book of *Proclus* called *Diadochus*, that is, “the follower of Plato,” about the Ten Questions [De decem quaestionibus, sive dubitationibus circa providentiam]; The First Good;<sup>147</sup> The Ten Difficult Questions [Decem dubitationes circa providentiam]; The Atom Which Cannot Be Divided;<sup>148</sup> The Illustration Which Plato Gave in His Book Entitled “Gorgias” [De parabola, quam Plato in dialogo, qui Gorgias inscribitur, protulit], in Syriac; Commentary on the Tenth Section about Happening, appearing in Syriac;<sup>149</sup> book of *Proclus*, the Platonist, entitled the *Smaller Stoicheiosis*;<sup>150</sup> book of *Proclus* on a commentary on the “Phaedo,” about the soul—*Abū ‘Alī* [‘*Īsa* ibn *Ishāq*] ibn *Zur‘ah* translated a small part of it into Arabic.

#### *Alexander of Aphrodisias*

He lived during the days of the Kings of the Tribes, after *Alexander* [the Great]. He learned from *Galen* and associated with him.<sup>151</sup> He nicknamed *Galen* “Mule Head,” and between them there were differences and disputations. In our account of *Aristotle* we have mentioned his expositions of *Aristotle*’s books.

*Abū Zakariyā* ‘*Yahyā* ibn ‘*Adī* said:

*Alexander* wrote an exposition on all of the *Hearing* [*Physica auscultatio*] and also of *The Proof* [*Analytica posteriora*], which I have seen among the things left by *Ibrāhīm* ibn ‘*Abd Allāh al-Nāqīd*, the Christian. The two expositions were offered to me for sale for one hundred and twenty gold

<sup>144</sup> See *Wenrich*, p. 288, and *Sarton*, I, 404.

<sup>145</sup> This was a composition ascribed to *Pythagoras* and called “golden” because *Galen* was supposed to have copied it with gold ink; see text near n. 71.

<sup>146</sup> This was very likely *Procli Diadochi in Platonis Timaeum commentaria*.

<sup>147</sup> This book cannot be identified and is probably not known in modern times.

<sup>148</sup> This book cannot be identified.

<sup>149</sup> This may be *De providentia et fato*.

<sup>150</sup> This was very likely an abridgment of *Institutio theologica*.

<sup>151</sup> For the Kings of the Tribes, see the Glossary. In the following two sentences, the man referred to is *Galen*, the great medical authority, who died A.D. 199, about the time *Alexander of Aphrodisias* became director of the Lyceum. For “Mule Head,” see *Smith*, *GRBM*, II, 217.

coins (s., *dīnār*). I went to fetch the coins and upon returning found that the people had sold the two expositions along with other books to a man from *Khurāsān* for three thousand gold coins.

Another person whom I can trust said to me, “These books used to be carried in the sleeve.”

*Abū Zakariyā* ‘*Yahyā* ibn ‘*Adī* said that he offered fifty gold coins (s., *dīnār*) to *Ibrāhīm* ibn ‘*Abd Allāh* for a copy of the *Sophistici*, a copy of the *Oratory* [*Rhetorica*], and a copy of the *Poetry* [*Poetica*], as translated by *Ishāq*, but he would not sell them. At the time of his death he burned them.

Among *Alexander*’s books there were:

The Soul [De anima], one section; Refutation of *Galen* about Possibility [Alexandri Aphrodisiensis contra Galenum de possibili dissertatio], one section<sup>152</sup>—also one section refuting him about time and place; Vision (Sights) [Visum], one section; The Sources of Providence [De providentia], one section; Contradiction of Premises [De praemissorum inversione], one section; The Origins of the Whole according to the Opinion of *Aristotle* [De universalibus];<sup>153</sup> What Exists Is Not Homogeneous with the Ten Categories;<sup>154</sup> Providence [De fato], one section; The Difference between Primordial Matter and Genus [De materiae a genere differentia]; Refutation of Whoever Says that Nothing Exists Except from Something Else [Refutatio illorum, qui adserunt nihil ex nihilo fieri]; That Visual Perceptions Do Not Exist Except by Rays Traced from the Eye and a Refutation of Whoever Speaks of Diffusion of the Rays [Refutatio illorum, qui contendunt, visum non nisi ope radiorum ex oculis emanantium effici], one section; Color [De coloribus], one section;<sup>155</sup> Differentiation according to *Aristotle* [De differentia ex Aristotelis sententia], one section; Theology [De theologia], one section.

<sup>152</sup> The word for “possibility” is not given correctly in the Arabic. It is not entirely certain that the Latin title applies in the book which follows.

<sup>153</sup> The Latin title seems to fit the Arabic one, but the identification is not certain.

<sup>154</sup> *Alexander* wrote numerous commentaries on *Aristotle*’s works. The Latin for this commentary is not identified.

<sup>155</sup> *Qiftī*, p. 55 top, and MS 1135 have *al-kawn* (“existence”). *Alexander* wrote a book with this title which is called *De generatone*. *Flügel* and MS 1934 have *al-lawm* (“color”), as given in the translation. These titles should be compared with *Wenrich*, p. 273 ff.

*Porphyry*

He came after *Alexander* [of Aphrodisias], but before *Ammonius*,<sup>156</sup> and was one of the people of the city of Tyre. Coming after the time of *Galen*, he expounded the books of *Aristotle*, as we have mentioned in the place where we have given an account of *Aristotle*. His additional books were:

*Isagoge* [Porphyrii isagoge], an introduction to books on logic;<sup>157</sup> Introduction to the Categorical Syllogisms [Introductio in syllogismos categoricos], translated by Abū 'Uthmān al-*Dimashqī*; Intelligence and the Intelligible [De intellectu atque intelligibili], in an old translation; two books addressed to *Anebo* [Ad Anebonem];<sup>158</sup> refutation of *Longinus* in connection with "Intelligence and the Intelligible" [De intellectu atque intelligibili], seven sections in Syriac; Seeking an Explanation, one section in Syriac;<sup>159</sup> Accounts of the Philosophers [Philosophorum historia]—I have seen its fourth section in Syriac; Abridgment of *Aristotle's* Philosophy [Philosophiae Aristoteleae compendium].

*Ammonius*<sup>160</sup>

In his history *Ishāq* ibn *Hunayn* said that he [Ammonius] was one of the philosophers who lived after the time of *Galen*. He wrote commentaries on the books of *Aristotle*. We have already mentioned the ones among them which are extant when we were recording the books of *Aristotle*. Among his other books there were:

Exposition of *Aristotle's* Doctrines About the Creator; *Aristotle's* Aims in His Books; *Aristotle's* Proof of Oneness.

*Themistius*

He served as secretary to *Julian*, the apostate from Christianity who [supported] the doctrine of the philosophers, later than the time of

<sup>156</sup> Alexander of Aphrodisias lived during the late second and early third century A.D.; Ammonius lived three centuries later.

<sup>157</sup> For the *Isagoge*, see Sarton, I, 335; Wenrich, pp. 280–81; "Isāghūdī," *Enc. Islam*, II, 527; Porphyry, *Isaghūjī*.

<sup>158</sup> See Anebo in the Biog. Index. Cf. Chap. VII, sect. 3, n. 173.

<sup>159</sup> MS 1934 has *istafsār* ("seeking an explanation"). The other versions omit or confuse the title. Another possibility is that the word is meant to be *ikhtisār* ("abridgment") and is an unfinished title; the title *Abridgment of Aristotle's Philosophy* ("Ikhtisār Falsafah Aristātālīs") is given as the last entry in the list in MS 1135. It is omitted in Flügel and MS 1934.

<sup>160</sup> For Ammonius and Themistius, see Wenrich, pp. 286, 289.

*Galen*. We have already mentioned the commentaries which he [Themistius] wrote about the books of *Aristotle* in the proper place. Among his [other] books there were:

Book to *Julian*, Administration; The Soul [De anima], two sections; Epistle to *Julian* the Emperor.

*Nicolaus*

He was a commentator on the books of *Aristotle*.<sup>161</sup> We have already mentioned his commentaries in their proper place. In addition to these there were among his books:

On the Beauty of *Aristotle's* Philosophy about the Soul [Summa philosophiae Aristoteleae], one section; Plants [De plantis]—a number of its sections have appeared; Refutation of Whoever Makes Action and the Enacted the Same Thing [Refutatio illorum, qui intellectum et intelligibile unum esse statuunt]; Abridgment of *Aristotle's* Philosophy [Compendium philosophiae Aristoteleae].

*Plutarch*

Opinions of Nature [De placitis philosophorum physicis],<sup>162</sup> which includes the opinions of the philosophers about natural phenomena, in five sections—*Qusṭā* ibn Lūqā al-Ba'labakkī translated it; Morals [Moralia], about what he pointed out in connection with the treatment of an enemy and the way to benefit by him;<sup>163</sup> Anger [De ira]; Self-Training [De virtutis exercitio], one section in Syriac; The Soul [De anima], one section.<sup>164</sup>

*Olympiodorus*<sup>165</sup>

He was a commentator on the books of *Aristotle*. Mention has already been made of the commentaries which he wrote, in the passage giving an account of *Aristotle*. Nothing particular from his works has fallen into our hands.

<sup>161</sup> MS 1934 has "commentary" instead of "commentator," evidently a mistake. These titles should be compared with Wenrich, p. 294.

<sup>162</sup> This passage should be compared with Wenrich, p. 255.

<sup>163</sup> This is probably *De Capienda ex inimicis utilitate*, bound with other treatises to form *Moralia*. See Plutarch, *Moralia*, I, xxxii–xxxiv.

<sup>164</sup> This may be confused with the treatise on *Aristotle's De anima* which was not written by the famous Plutarch, but by the Athenian; see Biog. Index., *Plutarch* son of Nestorius.

<sup>165</sup> For this name see n. 126.

*Hippocrates*

From [what is written in] the handwriting of *Yaḥyā* ibn 'Adī: [He wrote] *Epistle to Democritus about Proofs of the Creator*.<sup>166</sup>

*Epaphroditus*

From what I read written in the handwriting of *Yaḥyā* ibn 'Adī, there was among his books *Commentary on Aristotle's Account of the Halo of the Moon and the Rainbow*. *Thābit* ibn Qurrah translated it.

*Plutarch, Another One*<sup>167</sup>

Among his books there was *Rivers, Their Peculiarities, the Wonderful Things in Them, Mountains, and Other Things*.<sup>168</sup>

Account of *Yaḥyā* al-Naḥwī

*Yaḥyā* was a pupil of *Sāwārī*<sup>169</sup> and a bishop over some of the churches of Egypt, upholding the Christian sect of the Jacobites. Then he renounced what the Christians believe about the Trinity, so that the bishops assembled and debated with him. As he got the better of them, they conciliated him, treating him courteously and asking him to relinquish his point of view and to abandon his declarations.<sup>170</sup> As, however, he maintained his position, refusing

<sup>166</sup> In the Arabic the name is Dyocrates, but it is probably meant to be Hippocrates. Both Hippocrates of Cos and Hippocrates of Chios were contemporary with Democritus and one of them was a personal friend; see Diogenes Laërtius, p. 393. The name which follows is probable though not certain.

<sup>167</sup> This may have been the son of the famous Plutarch, but was more likely Plutarch son of Nestorius of Athens.

<sup>168</sup> After this short statement about the other Plutarch, the Tonk MS terminates with the following inscription: "The second section of the book *Al-Fihrist* has ended, with the help of Allāh, the Almighty, and with His kindness. If Allāh Almighty so wills, there will follow it in the third section an account of *Yaḥyā* al-Naḥwī. *Ḥunayn* ibn 'Abd Allāh, the nephew of *Yaḥyā* al-Jawharī, has written it, thanks be to the Lord of the Knowing." The sections mentioned do not coincide with those of the more authentic manuscripts. The name mentioned is undoubtedly that of the copyist. As this *Ḥunayn* ibn 'Abd Allāh and his uncle, *Yaḥyā* al-Jawharī, must have lived some time after *Al-Fihrist* was first written, their names are not included in the Biog. Index.

<sup>169</sup> Qifṭī, p. 354, gives the teacher's name as *Shāwārī*.

<sup>170</sup> Qifṭī, p. 354 ff, gives an account of the legend about the apostasy of *Yaḥyā*. What is very likely is that he refused to accept the Monothelite doctrine of the Trinity, which the Emperor *Heraclius* was trying to force upon the Coptic Church, using persecution. The Bishop of Alexandria welcomed the Muslim invasion as a means of avoiding this persecution; see Hitti, *Arabs*, p. 165; Smith, *GRBM*, III, 321.

to back down, they deposed him. He lived until Egypt was invaded by 'Amr ibn al-'Āṣ, who, when he went to him, honored him and found a position for him.

He wrote commentaries on the books of *Aristotle*. I have mentioned the commentaries which he wrote in their proper place. His additional books were:

Refutation of *Proclus*, eighteen sections; That Every Body Is Finite, So That Its Force<sup>171</sup> Is Also Finite, one section; Refutation of *Aristotle*, six sections; Commentary on What Occurred to Aristotle, the Ten;<sup>172</sup> a dissertation in which he refuted *Nestorius*; book in which he refuted people who do not profess [their beliefs], two sections; another treatise in which he refuted another group.

He also had some explanations of some of *Galen's* books on medicine, which we shall mention when we give an account of *Galen*. In the fourth section of his commentary on *Natural Hearing* [*Physica auscultatio*],<sup>173</sup> in the statement about time, *Yaḥyā* al-Naḥwī mentioned a comparison, saying, "Like this year of ours, which is the three hundred and forty-third Coptic year of *Diocletian*." This indicates that between us and *Yaḥyā* al-Naḥwī there are more than three hundred years. It is reasonable to suppose that the writing of the commentary on this book was at the beginning of his life, because he lived during the days of 'Amr ibn al-'Āṣ.<sup>174</sup>

## The Names of the Philosophers of Natural Science

Their periods and order of sequence are not known. They are:

*Ariston*

Among his books there was *The Soul* [*De anima*].

<sup>171</sup> Qifṭī, p. 356, has "death" instead of "force."

<sup>172</sup> See Qifṭī, p. 356, where the word translated "the ten" is omitted. "The ten" may be instead "the tenth" (*al-'āshir*), in which case it might refer to the last section of the *Categoriae*, or to the last of ten books. *Ḥajjī Khalifah*, III, 620, says that the commentary of *Yaḥyā* was in ten volumes. On the other hand, "the ten" may refer to the ten categories themselves.

<sup>173</sup> Already mentioned in the passage on *Aristotle's Physica auscultatio*.

<sup>174</sup> The Coptic year of *Diocletian* dates from the accession of the emperor, A.D. 284, so that 343 years later would be A.D. 627. 'Amr ibn al-'Āṣ invaded Egypt A.D. 640, at which time he befriended *Yaḥyā*. For the Coptic year of *Diocletian*, see "Egypt," *Enc. Brit.*, IX, 89.



Pantuleius<sup>175</sup>

Among his books there was *Secrets of Nature*, one section.

## Turius

Among his books there was *The Dream*, one section.

## Artemidorus

He was the author of *The Dream*. He also wrote *Interpretation of a Dream*, in five sections, translated by *Humayn* ibn Ishāq.

## Gregorius

He was the Bishop of Nyssa. Among his books there was *The Disposition of Man*.

## Ptolemy the Foreign (al-Gharīb)

He admired *Aristotle* and divulged his good qualities. Among his books there was *Account of Aristotle, His Death, and the Sequence of His Books*.

## Theon

He was a zealous partisan of *Plato*. Among his books there was *Sequence of Reading Plato's Books and the Titles of His Compositions*.

On the back of a piece [of manuscript] I found written in an ancient handwriting the names of persons whose names have come down to us from among [those of] the commentators on the books of the philosopher [Aristotle] in connection with logic and other branches of philosophy. They are *Theophrastus, Eudemus, Herminus, Jovian*,<sup>176</sup> *Iamblichus, Alexander, Themistius, Porphyry, Simplicius, Syrianus, Maximus, Aedesius, Lycus, Nicostratus, Plotinus*.

<sup>175</sup> This name fits the Arabic letters better than any other name that can be found, but no philosopher of this name is recorded, so that the Arabic may be garbled.

<sup>176</sup> In Arabic this is Yūānūs. This may be the Emperor Jovian, or some philosopher of minor importance. Compare Mas'ūdī, II, 324, for identification of the name. It is impossible to be sure of the scholars indicated by the Arabic names in this list, but see the Biog. Index for the persons probably referred to.

## Account of al-Kindī

He was Abū Yūsuf Ya'qūb ibn Ishāq ibn Šabbāh ibn 'Amrān ibn Ismā'il ibn Muḥammad ibn al-Ash'ath ibn Qays al-Kindī ibn Ma'dī Karīb<sup>177</sup> ibn Mu'āwiyah ibn Jabalah ibn 'Adī ibn Rabī'ah ibn Mu'āwiyah ibn al-Ḥārith ibn Mu'āwiyah ibn Kindah, who was Thawr ibn Marta<sup>178</sup> ibn 'Adī ibn al-Ḥārith ibn Murrah ibn Adad<sup>179</sup> ibn Zayd ibn al-Humaysa' ibn Zayd ibn Kahlān ibn Sabā ibn Yashjub ibn Ya'rub.<sup>180</sup>

He was the distinguished man of his time and unique during his period because of his knowledge of the ancient sciences as a whole. He was called "the Philosopher of the Arabs." His books were about a variety of sciences, such as logic, philosophy, geometry, calculation, arithmetic, music, astronomy, and other things. He was miserly.<sup>181</sup>

We are mentioning him with the natural philosophers so as to indicate his preeminent position in science. We shall mention everything that he compiled about all of the sciences if Allāh Almighty so wills.<sup>182</sup>

Names of His Philosophical Books<sup>183</sup>

Elementary (First) Philosophy, introductory to natural phenomena and unity;<sup>184</sup> Intrinsic (Inner) Philosophy, Logical and Difficult Questions,

<sup>177</sup> See Durayd, *Geneal.*, p. 219 bottom, for this element of the name.

<sup>178</sup> This name is very likely incorrect. Flügel spells it with a double *t*. Compare variations in Qifṭī, p. 366 l. 16; Durayd, *Geneal.*, p. 212 l. 2; "Al-Kindī," *Enc. Islam*, II, 1018-19.

<sup>179</sup> See "Al-Kindī," *Enc. Islam*, II, 1018, where this name is written "Udad."

<sup>180</sup> See Durayd, *Geneal.*, p. 217.

<sup>181</sup> For an amusing description of the miserly traits of al-Kindī, see Jāhīz, *Le Livre des avares*, pp. 115-33.

<sup>182</sup> Compare this account of al-Kindī with Qifṭī, pp. 366-78; Ṭūqān, *Turāth al-'Arab*, p. 175; Mieli, *Science arabe*, pp. 80, 81; Hajar, *Lisān al-Mizān*, Part 6, p. 305; Khallikān, I, 351, 355. Compare the lists of al-Kindī's works which follow with McCarthy, *Al-Tasānif*, p. 81 ff; Ṭurayḥī, *Al-Kindī*, p. 64 ff.

<sup>183</sup> It is probable that the epistles written by al-Kindī were similar to modern essays. The word *fī* ("about" or "on") is often placed after "his epistle" in the Arabic; it is omitted in the translation. Compare the following list of philosophical books with Kindī, *Rasā'il al-Kindī al-Falsafiyah*.

<sup>184</sup> Islām did not regard spirit and matter as two existences, but insisted upon the oneness of creation. This was a difficult subject for the philosophers, influenced by Greek thought, to discuss.

and Metaphysics (the Supernatural); his epistle on the subject that philosophy cannot be acquired except with a knowledge of mathematics; Encouragement for the Learning of Philosophy; Arrangement of the Books of *Aristotle*; about the intention of Aristotle in the "Categoriae," what they [the categories] aim at, and their subject matter; The Essence of Science and Its Divisions; The Divisions of Human Learning; his long epistle, Scientific Evaluation; his epistle epitomizing scientific evaluation; That the Works of the Creator, May His Name Be Glorified, Are All Just, There Being No Injustice in Them; about the Essence of the Phenomenon<sup>185</sup> Which Has No Termination, and in What Way It Is Said That It Has No Termination.

His epistle, Evidence that the Firmament of the World Cannot Be without Termination and That This Is [Known] by Power [of Intellect]; about Agents and the Things Acted upon among the First Natural Phenomena; about Explanations of the Combinations of Thought (al-Jawāmi' al-Fikriyah); Questions Asked about the Benefit of Mathematics; about investigating the statement of one claiming that natural objects produce uniform action due to the inevitability of their creation; about the Origins of Perceptible Phenomena; epistle, Benevolence in the Arts;<sup>186</sup> epistle about the procedure for letters to the caliphs and viziers; epistle, Division of the Law;<sup>187</sup> epistle, The Essence of the Mind,<sup>188</sup> with an explanation of it.

#### His Books about Logic

His epistle on an introduction to logic, with a full discussion of it; his epistle on an introduction to logic, with abridgment and summary; his epistle, The Ten Categories;<sup>189</sup> his epistle about the clarification of *Ptolemy's* statement at the beginning of his book "Almagest"<sup>190</sup> in connection with what Aristotle said in the "Analytica"; his epistle about choosing of the four books;<sup>191</sup> his epistle, Guarding against the Deceits of the

<sup>185</sup> This may refer to the spiritual force active in matter; see "al-Kindi," *Enc. Islam*, II, 1020.

<sup>186</sup> All of the texts have *taraffaq* ("benevolence").

<sup>187</sup> *Division of the Law* ("Qismat al-Qānūn") does not seem appropriate in a list of philosophical books. Perhaps the title is meant to be a reference to the Canon of Euclid, or to musical divisions of the dulcimer (*qānūn*).

<sup>188</sup> For the word translated "essence," see n. 143.

<sup>189</sup> This must refer to the *Categoriae* of Aristotle, dealing with the ten highest and most comprehensive generic ideas.

<sup>190</sup> See Chap. VII, sect. 2, n. 20.

<sup>191</sup> This title appears only in MS 1934.

Sophists; his epistle with summary and abridgment about the logical proof (proof of logic); his epistle on the five sounds;<sup>192</sup> his epistle on "Hearing of Existences" [*Physica auscultatio*];<sup>193</sup> his epistle on the action of a [sense] organ for the derivation of a union of premises.<sup>194</sup>

#### His Arithmetical Books

His epistle, An Introduction to Arithmetic, five sections; his epistle, The Use of Indian Arithmetic, four sections; his epistle, Clarification of the Numbers, which *Plato* mentioned in his book "The Republic"; his epistle, The Composition of Numbers; his epistle, Oneness, from the point of view of numbers; his epistle, The Derivation of the Concealed and Conceived; his epistle, Divination and Augury, from the point of view of numbers; his epistle, Redaction<sup>195</sup> and Multiplication by Sha'ir Countings;<sup>196</sup> his epistle, Added Quantity; his epistle, Relativities of Time; his epistle, Numerical Artifices and Knowledge of Them.<sup>197</sup>

#### His Books on Spherics<sup>198</sup>

His epistle, That the World and All the Things In It Are Spherical in Shape;<sup>199</sup> his epistle explaining, That None of the Original [Heavenly] Bodies or Remote Firmaments Are Other than Spherical; his epistle, That the Sphere Is the Largest of Bodily Forms and that the Circle Is the Greatest of All Plane Shapes; his epistle, That the Surface of the Water of the Sea Is Spherical; his epistle, Spreading Out the Sphere to a Plane Surface; his epistle, Spherics; his epistle, Calculating the Azimuth on a Sphere; his epistle, Formation of the Six Zones and Their Functions.<sup>200</sup>

<sup>192</sup> This may refer to the five vowel sounds, as it is not included with the books on music.

<sup>193</sup> Here the Arabic is *Sam' al-Kiyān*, whereas the *Physica auscultatio* of Aristotle is as a rule entitled *Al-Samā' al-Ṭabī'i* ("Natural Hearing").

<sup>194</sup> For "organ" see Goichon, *Vocabulaires comparés d'Aristote et d'Ibn Sinā*, p. 2 no. 31. For "union of premises," see Rescher, *Studies in the History of Arabic Logic*, pp. 35 n. 18, 36.

<sup>195</sup> Both Qifī, p. 370, and Flügel have *khuṣūf* ("lines"), but the manuscripts do not give a consonant sign over the first letter, and the word makes more sense as *huṣūf* ("redaction of a fraction").

<sup>196</sup> *Al-sha'ir* is defined as a measure of weight equal to a barley grain, or of length equal to six mule hairs, side by side. See Lane, *Lexicon*, Book I, Part 4, p. 1561.

<sup>197</sup> MS 1934 adds an extra title which is too badly written to be sure of its meaning.

<sup>198</sup> Flügel gives *al-kariyāb*, which is not a usual form and does not make sense. Qifī, p. 370, and the manuscripts have *al-kuriyāt*, which in modern times is used for spherules, but formerly may have been used in a more general way for spheres.

<sup>199</sup> Qifī, p. 370, omits the word "shape."

<sup>200</sup> This title probably refers to the spaces between the seven heavenly bodies.

## His Musical Books

His long (great) epistle, Composition; his epistle, The Ordering of Melody according to the Heavenly Bodies, and the Similarity of Their Composition;<sup>201</sup> his epistle, An Introduction to the Art of Music; his epistle, Information about the Art of Composition;<sup>202</sup> his epistle, Making Melody; his epistle, The Arts (Works) of the Poets; his epistle, Accounts of the Art of Music.<sup>203</sup>

## His Astronomical Books

His epistle, That Visibility of the New Moon Cannot Be Determined Accurately, a Statement about It Being Approximate; his epistle, Questions Which Are Asked about the States of the Stars; his epistle, The Answers to Questions of Physics about Astronomical Procedures; his epistle, Projection of the Rays; his epistle, The Two Divisions;<sup>204</sup> his epistle, How Each One of the Countries Is Related to One of the Signs of the Zodiac and to One of the Stars; his epistle, What Has Been Asked as an Elucidation Regarding How Variation Has Taken Place in Connection with the Forms of the Newly Born; his epistle, What Is Said about the Age of People in Ancient Times and the Difference in Our Time; his epistle, Verifying the Operation [of Calculations] for Nativities, Labor, and the Star Predominant at Birth;<sup>205</sup> his epistle, An Explanation of the Cause of the Retrogression of the Stars.

His epistle, The Speed Appearing with the Movement of the Stars, When on the Horizon, and Their Slowness after They Have Risen; his epistle, A Clarification of the Diversity Existing among the Heavenly Bodies; his epistle, The Rays; his epistle, The Difference between al-Tasyir<sup>206</sup> and the Operation for [the Projection of] the Rays; his epistle, The Causes for the Positions (Settings) of the Stars; his epistle related to the heavenly bodies designated as beneficial and inauspicious; his epistle,

<sup>201</sup> Farmer, in *Annual of Leeds University Oriental Society*, II (1959–61), p. 46, translates this title as *The Arrangement of Pleasing Melody according to the Sublime Corporeal Natures*.

<sup>202</sup> The word translated "information" is probably *khbar* or *khubr*, but is not clearly written. Qifṭī, p. 370, has *akhbār*, the plural form.

<sup>203</sup> For al-Kindī's articles about music, see Kindī, *Mu'allafāt al-Kindī al-Mūsīqīyah*, pp. 8, 9 ff.

<sup>204</sup> This may refer to the seasons; see Sprenger, p. 1139 top.

<sup>205</sup> See the Glossary for "calculations for nativities" and "labor and the star predominant at birth."

<sup>206</sup> *Al-tasyir* is also spoken of as "directic" and "theoria planetarium." For an understanding of this term as applied to astrology, see "Al-Tasyir," *Enc. Islam*, IV, 694; "Astrology," *Enc. Islam*, I, 496; and Sprenger, p. 663.

The Causes of Forces Related to the Heavenly Bodies Which Indicate Rain; his epistle, The Causes of Accidents in the Heavens; his epistle, The Reason Why Rain Rarely Falls in Certain Places.

## His Geometrical Books

His epistle, Explanations of the Book of *Euclid*;<sup>207</sup> his epistle, Correction of the Book of Euclid; his epistle, Reversal of Observations; his epistle, How the Ancients Related Each of the Five Polyhedra to the Elements; his epistle, Approximating *Archimedes'* Statement about the Measuring of the Diameter of a Circle from Its Circumference; his epistle, Establishing the Form of the Medians; his epistle, Approximating the Chord of a Circle; his epistle, Approximating the Chord of a Ninth;<sup>208</sup> his epistle, Areas of Vaulted Chambers; his epistle, Division of the Triangle and the Square and Calculating Both of Them; his epistle, How to Form a Circle Equal to the Surface of a Designated Cylinder; his epistle, The Risings and Settings of the Stars by Means of Geometry.

His epistle, Dividing the Circle into Three Parts; his epistle, Correction of the Fourteenth and Fifteenth Propositions of the Book of *Euclid*; his epistle, The Proofs from Surface Measurements of What Is Shown by Astronomical Calculations; his epistle, Correction of the Statement of Anaxilaus<sup>209</sup> about Risings [of Heavenly Bodies]; his epistle, Reversal of Observations in a Mirror;<sup>210</sup> his epistle, Laying Out an Astrolabe by Means of Geometry; his epistle, Determination of the Meridian and the Direction of the Qiblah by Means of Geometry; his epistle, Making a Sundial by Means of Geometry; his epistle, Determination of the Hours on a Hemisphere by Means of Geometry;<sup>211</sup> his epistle, Determination of the Hours by a Sundial Which Is Set on a Plane Parallel to the Horizon, and Is Better than Any Other Method; his epistle, Auspicious Auguries.<sup>212</sup>

<sup>207</sup> Both Flügel and Qifṭī, p. 371, have *aḡhrād* ("purposes"), whereas the manuscripts give *a'rād* ("explanations"). Two titles following, *Reversal of Observations* should be compared with the fifth title in the following paragraph, about reversed reflections in a mirror.

<sup>208</sup> A chord is a line between two points on the circumference of a circle. Here it probably refers to the line marking a segment equal to a ninth of the circumference. The word "areas" in the title which follows is uncertain.

<sup>209</sup> The manuscripts do not have the letter *n* in this name. Qifṭī, p. 71, gives an account of Anaxilaus. This scholar was very likely *Anaxilaus* of Larissa.

<sup>210</sup> A written page, for instance, held before a mirror reads backwards.

<sup>211</sup> This probably refers to a hemispherical sundial.

<sup>212</sup> Qifṭī, p. 71, and Flügel have *sawāniḥ*, which means "auspicious auguries." It may also mean "accidents," or it may imply "obliqueness," such as that of a solid having an axis which is not perpendicular, or the obliqueness of an obtuse angle.

## His Cosmological Books

About the Impossibility of Measuring the Surface of the Farthest Sphere, Which Governs the [Other] Spheres; his epistle, The Nature of the Celestial Sphere Is Different from the Natures of the Four Elements, Being a Fifth Nature;<sup>213</sup> his epistle, Manifestations of the Celestial Sphere; his epistle, The Most Remote World (Extreme Universe); his epistle, Worship of the Most Remote Sphere of Its Creator; his epistle, Refutation of the Manichaeans in Connection with the Ten Questions about Subjects Related to the Cosmos;<sup>214</sup> his epistle, Forms;<sup>215</sup> his epistle, It Is Impossible that the Sphere of the Cosmos Should Be without Termination; his epistle, Celestial Objects of Observation;<sup>216</sup> his epistle, The Impossibility for the Most Remote Sphere to Change; his epistle, Ptolemy's Art of Cosmology;<sup>217</sup> his epistle, Termination of the Sphere of the Cosmos; his epistle, The Essence of the Celestial Sphere and the Inherent Azure Color Perceived in the Direction of the Heavens; his epistle, The Essence of the Celestial Sphere, Bearing in Its Nature the Characteristics of the Four Elements;<sup>218</sup> his epistle, Proof of the Moving Body<sup>219</sup> and the Essential Quality of Lights and Darkness; his epistle, The Concealed.<sup>220</sup>

## His Medical Books

His epistle, Hippocratic Medicine; his epistle, Nutrition and Deadly Medicine; his epistle, Vapors Which Cleanse the Atmosphere from

<sup>213</sup> The four elements are earth, air, fire, and water. The fifth is ether. See Sarton, I, 87, 93 bottom.

<sup>214</sup> Cf. nn. 146, 189.

<sup>215</sup> "Forms" is *ṣuwar*, which might also mean "inclination." Another possibility is *ṣawar*, which might signify "constellations."

<sup>216</sup> "Objects of observation" is *manāẓir*, which can also mean "equals" or "things similar."

<sup>217</sup> In this title the word "art" might also indicate "work." For the cosmology of Ptolemy, see Smith, *GRBM*, III, 575-77.

<sup>218</sup> The word translated "characteristics" is *alwān*, which as a rule means "colors," but here more likely refers to the characteristics of earth, air, fire, and water.

<sup>219</sup> MS 1135 has a different form. The translation follows MS 1934 and Qiftī, p. 372.

<sup>220</sup> The translation follows MS 1135, which gives *al-maghfiyāt* ("things concealed"). Flügel and MS 1934 give *al-mu'fiyāt* ("things given"). The translation follows MSS 1934 and 1135 in placement of the title; Flügel places it elsewhere in the list. Qiftī omits the title. "Things concealed" probably refers to the invisibility of certain heavenly bodies at certain times.

Pestilences; his epistle, Medicines Which Give Healing (Protection) from Harmful Odors; his epistle, How to Facilitate (Lubricate) Medicines and Compound the Humors;<sup>221</sup> his epistle, The Cause (Disease) of Spitting Blood; his epistle, Remedies for Poisons; his epistle, The Regime of the Healthy; his epistle, The Cause of Vertigo with Acute Diseases;<sup>222</sup> his epistle, The Soul, the Principal Part of Man, with an Explanation of Man;<sup>223</sup> his epistle, The Procedure of the Brain (How the Brain Works).

His epistle, The Cause (Disease) of Leprosy and Its Remedies; his epistle, The Bite of a Mad Dog; his epistle, The Secretion Which Occurs Due to Catarrh, and the Cause of Sudden Death; his epistle, Pain in the Stomach and Gout; his epistle to a man concerning a disease (cause) about which he complained to him; his epistle, Types of Fevers; his epistle, Remedy for a Spleen Hardened by Black (Bilious) Secretion; his epistle, The Bodies of Animals, When Decomposed; his epistle, Determining the Usefulness of the Art of Medicine; his epistle, Making Foods from [Other than] Their Elements; his epistle, Regulating of Foods.<sup>224</sup>

His Astrological Books<sup>225</sup>

His epistle, Offering Knowledge about Questions by Indication of the Heavenly Bodies; his first, second, and third epistles about forming [astrological] judgments by division;<sup>226</sup> his epistle about an introduction to astrology in accordance with questions; his epistle, Questions;<sup>227</sup> his epistle, Indications of the Two Maleficent [Planets] in the Sign of

<sup>221</sup> "Compound the humors" is *injidhāb al-akhlāt*. It probably means drawing together of the four bodily humors—blood, phlegm, yellow bile (choler), and black bile (melancholy).

<sup>222</sup> *'Illat bahārīn* is translated the "cause of vertigo." In this connection "cause" makes better sense than the alternative translation, "disease." Dozy, *Supplément*, I, 53, suggests "fainting" for *bahārīn*, while Richardson, *Dictionary*, p. 244, gives "turns of distemper."

<sup>223</sup> Qiftī, p. 372, gives *nafs* ("soul") without the article and with part of the remaining title in parenthesis. *Nafs* evidently refers to the soul as the principal existence in the body. Flügel gives the last word of this title as *al-albāb* ("quint-essences"). This seems to be an error and MS 1934 is apparently correct in giving *al-insān* ("man" or "individual").

<sup>224</sup> MS 1135 has *tadbīr* ("regulating"). *Taghayyar* ("changing") is given by Qiftī, p. 372, and Flügel. MS 1934 is incomplete.

<sup>225</sup> Cf. Khaldūn, *Muqaddimah* (Rosenthal), III, 133-37.

<sup>226</sup> The word for "division" is *al-taqāsīm*, which in this connection evidently has a more technical astrological meaning.

<sup>227</sup> See Glossary; MS 1135 omits this title.

Cancer;<sup>228</sup> his epistle, Determining the Usefulness of Choices;<sup>229</sup> his epistle, Determining the Usefulness of the Art of Astrology, and Who the Man Is Who Is Deservedly Called an Astrologer; his abridged epistle, The Ordinances of Nativities; his epistle, Revolution (Transfer) of the Years of Nativities;<sup>230</sup> his epistle, Obtaining Indications about Happenings from Eclipses.

#### His Books of Disputations<sup>231</sup>

His epistle, Refutation of the Manichaeans; his epistle, Refutation of the Dualists; his epistle, Guarding against the Deceit of the Sophists; his epistle, Confuting the Questions of the Heretics; his epistle, Confirmation of the Apostle, for whom May There Be Peace; his epistle, That the First Agent Is Perfect and the Second Agent Figurative;<sup>232</sup> his epistle, *Istiā'ah* and the Period of Its Existence; his epistle, Refutation of Whoever Thinks that There Is Arresting of Motion for Bodies in Their Descent in the Sky; his epistle, The Falsehood of the Statement of Whoever Thinks that There Is Rest between Natural and Accidental Motion; his epistle, It Is a False Conception that, When First Originated, a Body Is Neither at Rest Nor in Motion; his epistle, Oneness, with explanations; his epistle, Falsity of the Statement of Whoever Thinks that an Atom Is Indivisible; his epistle, Essences of Bodies (Substances); his epistle, Beginnings (Origins) of a Body (Substance); his epistle, The Difference between the Sects about Oneness and [the Fact that] although They Are All for Oneness, Each Has Disagreed with Its Associate; his epistle, Glorifying [God]; his epistle, Proof.

#### His Books about the Souls<sup>233</sup>

His epistle, The Soul Is an Uncombined Essence, Imperishable, Affecting Bodies (Substances); his epistle, The Essence of Man and His Principal Part; his epistle, Information about the Agreement of the Philosophers Regarding the Signs of Passionate Love; his epistle, That of Which the

<sup>228</sup> These planets are Saturn and Mars; see Dozy, *Supplément*, II, 645.

<sup>229</sup> See Glossary for "choices."

<sup>230</sup> See Glossary for this subject.

<sup>231</sup> "Disputations" (*al-jadaliyāt*) evidently refers to the argumentative compositions of al-Kindī.

<sup>232</sup> To understand this title, see "al-Kindī," *Enc. Islam*, II, 1020. The first agent, the intelligence, was the first emanation, called in Arabic *al-'aql*. The second one, the world-soul or *nafs*, was not clearly distinguished by al-Kindī from the first. Qifī, p. 373, has a somewhat different rendering of this title.

<sup>233</sup> Here, "souls" is *nafsiyāt*, a rare form.

Soul Was Mindful, When in the Realm of Intellect, before Its Existence in the Realm of Sense; his epistle, The Cause of Sleep, Dreams, and What the Soul Manifests.

#### His Books about Politics (Government)

His long (great) epistle, Politics (Government); his epistle, Facilitating the Ways of the Virtues; his epistle, Averting the Making of Grief; his epistle, The Government (Politics) of the Common People; his epistle, Ethics; his epistle, Calling Attention to (Admonition regarding) the Virtues; his epistle, Information about the Virtue of *Socrates*;<sup>234</sup> his epistle, The Words of Socrates; his epistle, A Dialogue Taking Place between Socrates and *Aeschines*;<sup>235</sup> his epistle, Information about the Death of Socrates; his epistle, What Passed between Socrates and His Guards;<sup>236</sup> his epistle, Goodness of the Intellect.<sup>237</sup>

#### His Books on Ontological Occurrences<sup>238</sup>

His epistle, An Explanation of the Creative Cause Related to Being and Corruption, about corruptible phenomena (*al-ka'ināt al-fāsīdāt*); his epistle, The Reason Why It Is Said that Fire, Air, Water, and Earth Are the Elements of All Corruptible Phenomena and Why These and Other Things Are Transmuted, One to the Other; his epistle, The Diversity of the Times in Which the Potency of the Four Original Principles Appears; his epistle, The Relativity of Time; his epistle, The Reason for the Diversity of the Seasons of the Year;<sup>239</sup> his epistle, The Essential Nature of Time (*al-Zamān*), Limited Time (*al-Ḥin*), and Eternity (*al-Dahr*).

His epistle, The Reason Why the Highest Part of the Sky Is Cold, While the Part Near the Earth Is Warm; his epistle, The Happenings in the Sky; his epistle, The Object (Sign) Which Appears in the Sky and Is called a

<sup>234</sup> In this paragraph there is a word which can be either *khabr* ("information") or *khayr* ("goodness") mentioned three times. In the title about the death of Socrates the consonant is indicated, so that it is "information," but in the other cases there are no consonant signs to mark which of the two meanings is indicated.

<sup>235</sup> Although the Arabic texts have an *r* in this name, it is almost certainly "Aeschines," who was one of those taking part in the dialogue *Phaedo*.

<sup>236</sup> The manuscripts have *al-hurrās* ("guards"). Qifī, p. 374, and Flügel have "the Ḥarrānīyīn," which must be a mistake.

<sup>237</sup> Although Flügel has *khabr* ("information"), the unmarked form found in the manuscripts, *khayr* ("goodness"), is probably correct.

<sup>238</sup> The word translated "ontological" is *aḥdāthīyāt*. Sprenger, p. 278, gives *aḥdāth*, the noun form, as synonymous with "being."

<sup>239</sup> The word translated as "seasons" usually means "species." It is omitted in MS 1135.

Star;<sup>240</sup> his epistle, The Intensely Hot Star;<sup>241</sup> his epistle, The Star Which Appeared and Was Observed for Some Days, until It Disappeared; his epistle, The Cause of Coldness, Which Is Called the Cold of al-'Ajūz;<sup>242</sup> his epistle, The Reason for the Forming of Clouds and the Causes Altering This [Formation] during Its Periods; his epistle, What Was Observed about the Great Object (Sign) during the Year Two Hundred and Twenty-Two of the Hijrah.<sup>243</sup>

#### His Books about Distances

His epistle, The Distances of Journeys in the Regions [of the Earth];<sup>244</sup> his epistle, Habitations; his longer (greater) epistle, The Inhabited Quarter;<sup>245</sup> his epistle, Information about the Distances of [Heavenly] Bodies; his epistle, Calculation of the Distance of the Station (Center) of the Moon from the Earth; his epistle, Calculation and Making an Instrument<sup>246</sup> with Which to Calculate the Distances of the [Heavenly] Bodies; his epistle, The Making of an Instrument with Which to Ascertain the Distance of Objects of Observation (Things Apparent); his epistle, Ascertaining the Distance of Mountain Summits.

#### His Books about Premonitions<sup>247</sup>

His epistle, The Secrets of Anticipating Knowledge; his epistle, Anticipating Knowledge about Happenings;<sup>248</sup> his epistle, Anticipating News; his epistle, Anticipating Items of News; his epistle, Anticipating Knowledge by Indication of the Heavenly Bodies.

<sup>240</sup> This title and the two which follow evidently refer to comets.

<sup>241</sup> Instead of *dhuwābah* ("intensely hot"), the Arabic may refer to Abū Dhawā'ib, the name of a comet; see Dozy, *Supplément*, I, 483. Qifī, p. 374, omits the word.

<sup>242</sup> *Al-'ajūz* means "feebleness," but here probably refers to part of the winter. For particulars, see Lane, *Lexicon*, Book I, Part 5, p. 1961 bottom.

<sup>243</sup> This was between December 14, A.D. 836, and December 2, A.D. 837. The object was almost certainly Halley's Comet. The comet appears approximately every 76 years; it was seen in 1066, and figuring from that date brings it to late 837 or early 838. See "Comet," *Enc. Brit.*, VI, 762.

<sup>244</sup> For "regions" (*al-aqālīm*), see Yāqūt, *Geog.*, I, 25 ff.

<sup>245</sup> Qifī, p. 375, gives *al-kaum* ("existence") instead of *al-kubrā* ("longer," "greater"), which would make the phrase "his epistle, *Existence in the Inhabited Quarter*."

<sup>246</sup> The word translated "instrument" may refer to some small astronomical instrument, or perhaps to a large construction for observation such as those still preserved in several places of India.

<sup>247</sup> The word translated as "premonitions" is *al-taqdīmīyāt*, which implies "things going before" and here seems to refer to things known before they happen.

<sup>248</sup> *Taqdīmāh* is translated as "anticipating." It may indicate offering knowledge before events occur.

#### His Miscellaneous Books<sup>249</sup>

His epistle, The Kinds of Jewels, Precious Ones and Others; his epistle, The Kinds of Stones; his epistle, The Shining of Glass; his epistle, That Which Dyes and Gives Color; his epistle, Kinds of Swords and Iron; his epistle, That with Which Swords and Iron Are Treated So That the Edges Are Not Blunted and They Are Not Dulled;<sup>250</sup> his epistle, Domestic Birds; his epistle, Crossbreeding the Dove;<sup>251</sup> his epistle, Setting on Eggs; his epistle, Species of the Bee and Its Nobles;<sup>252</sup> his epistle, The Making of a Vessel for Mixing;<sup>253</sup> his epistle, Perfume and Its Varieties; his epistle, The Alchemy of Perfume; his epistle, The Making of Foods from Other than Their Elements; his epistle, Names That Are Obscure (of Obscure Places); his epistle, Warning of the Deceit of Alchemists; his epistle, The Principles of Mechanics; his long (large) epistle, Bodies Plunged in Water; his epistle, The Two Traces Perceived in Water; his epistle, The Flow and the Ebb; his epistle, Falling (Descending) Bodies; his epistle, Making Mirrors Which Produce Flame.<sup>254</sup>

His epistle, The Heat of (Produced by) a Mirror;<sup>255</sup> his epistle, Pronunciation (Dialects), in three sections: first, second, and third; his epistle, Al-Ḥasharāt Muṣawwir 'Uṭāridī;<sup>256</sup> his epistle, The Science of the Winds in the Bowels of the Earth, Which Produce Many Earthquakes and Terrors;<sup>257</sup> his epistle about an answer to fourteen questions of natural science about which some of his brothers asked him; his epistle about an answer to three questions about which he was asked; his epistle, The

<sup>249</sup> The word translated "miscellaneous" is *al-anwā'iyāt*, which usually means "species." MS 1135 shows variations in this paragraph, but they are unimportant.

<sup>250</sup> MS 1934 omits *hattā'*, evidently an error. It is translated "so that."

<sup>251</sup> MS 1934 gives a form which appears to be *tamzīj* and probably means in this connection "crossbreeding." Qifī, p. 375, has *tamwāj* ("trembling"), while Flügel has *tamwīkh* ("calming"). MS 1934 is probably correct, as the other forms are not included in the dictionaries.

<sup>252</sup> The word translated "the bee" is *al-naḥl*, a generic noun for bees. It is possible that the various versions have omitted the sign over the third letter and that it is meant to be *al-nakhl* ("palm tree"). In that case the title would be *Species of the Palm and Its Noble Qualities*.

<sup>253</sup> The word translated "vessel" is *qumqum*. Instead of *al-nabbāj* ("mixing"), Qifī, p. 375, has another word, which is probably an error.

<sup>254</sup> For this title, see Sarton, I, 170, 183, 427.

<sup>255</sup> Flügel gives *al-su'ār* ("heat"), which is probably correct, although MS 1934 gives a word which might be *al-shuffār* ("subtleties").

<sup>256</sup> The meaning of this title is not clear. *Al-ḥasharāt* ("reptiles," "small creeping things") may be instead *al-ḥashwāt* ("quiltings"). *Muṣawwar* means "formed" or "painted," and *'uṭāridī* means "ingenious."

<sup>257</sup> MS 1934 and Flügel have *'ilm* ("science"). Qifī, p. 376, gives *'aml* ("action").

Story<sup>258</sup> of the Man Pretending to be a Philosopher by Silence; his epistle, The Cause of Thunder, Lightning, Snow, Cold, Thunderbolts, and Rain; his epistle, The Falsity of the Contention of Those Who Claim to Make Gold and Silver, and Their Deceit; his epistle, Completion (Al-Wafā'),<sup>259</sup> his epistle, Explanation that the Diversity Existing among the Heavenly Bodies Is Not Responsible<sup>260</sup> for the Primordial Reactions, as It Is for What Is Subject to Generation and Corruption.

#### The Disciples of al-Kindī and His Scribes

*Hasanuwayh*, *Naftuwayh*, *Salmuwayh*, and others with this [name] formation.<sup>261</sup> Among his disciples there was *Aḥmad* ibn al-Ṭayyib, whom we shall mention in what follows. Abū *Ma'shar* [Ja'far ibn Muḥammad] also derived knowledge from him.

#### *Aḥmad* ibn al-Ṭayyib

He was Abū al-'Abbās *Aḥmad* ibn Muḥammad ibn Marwān al-Sarakhsī. He was, moreover, one of those who traced a start in life to al-*Kindī*, with whom he studied and from whom he learned. We mention him in this place because of his relationship to him [al-*Kindī*].

He was learned in many of the sciences of both the ancients and the Arabs, with an excellent knowledge, fine genius, eloquent speech, and an ability for compilation and composition. At first he was the teacher of al-*Mu'taḍid*.<sup>262</sup> Then he became his intimate companion, devoting himself to his service. He [al-*Mu'taḍid*] used to tell him about his confidential matters and consult him about the affairs of the kingdom. The preeminence of *Aḥmad* ibn al-Ṭayyib, however, was due to his learning rather than to his intelligence.

The reason why al-*Mu'taḍid* executed him was because of his intimacy with him, for he confided to him a secret which had to do

<sup>258</sup> Instead of *qiṣṣāh* ("story"), Qifṭī, p. 376, has *faḍl* ("excellence").

<sup>259</sup> MS 1135 and Qifṭī, p. 376, omit this title. It may refer to completing a contract, to the termination of life, or to success in alchemy.

<sup>260</sup> The words rendered as "responsible" and "reactions" are questionable.

<sup>261</sup> These were evidently young slaves or apprentices to whom al-*Kindī* gave Arabic names with Persian ending *-wayh*. Very often the apprentices of a great scholar became scholars, too.

<sup>262</sup> He evidently was tutor to al-*Mu'taḍid* before that prince became the caliph, A.D. 892.

with al-*Qāsim* ibn 'Ubayd Allāh and with *Badr*. This *Badr* was a young man attached to al-*Mu'taḍid*. Its [the secret's] divulgence and becoming known was because of a famous trick played on him [Aḥmad] by al-*Qāsim*. Then al-*Mu'taḍid* turned him over to these two men, who chose the best of his possessions and then committed him to the grain cellars.

At the time when al-*Mu'taḍid* set forth to invade Āmid and to fight with *Aḥmad* ibn 'Isā ibn Shaykh,<sup>263</sup> there escaped from the cellars a group of the *Khawārij* and others, whom *Mu'nis* al-*Fahl* happened upon. He [Mu'nis] was chief of the guard and deputy of al-*Mu'taḍid* at the court. Aḥmad stayed in his place, hoping that he would be safe, but his remaining there was the cause of his death.

Al-*Mu'taḍid* ordered al-*Qāsim* to confirm [the names of] a group of persons whom it was necessary to execute so that he could relax from anxiety in his heart about them. When he confirmed [the names], al-*Mu'taḍid* signed [an order] for their execution. Since al-*Qāsim* entered the name of Aḥmad along with the others, he was executed. When al-*Mu'taḍid* inquired about him, al-*Qāsim* recorded his death, producing the confirmation, so that he [the caliph] did not question it.

So this man passed away during the year ———, after he had reached the sky in rank.<sup>264</sup> Among his books there were:

Abridgment of the Book "Categoriae"; Abridgment of the Book "De interpretatione"; Abridgment of the First Book of "Analytica"; Abridgment of the Second Book of "Analytica";<sup>265</sup> the large book, Gathering Together and the Operation of Calculating;<sup>266</sup> the small book, Gathering Together of the Operations and Calculating; Pleasure of Souls, which did not appear in its complete form; Amusement, Instruments for

<sup>263</sup> He was the chief of the regions of Āmid and Diyār Bakr, and revolted against al-*Mu'taḍid*. For Āmid on the Upper Tigris, see Yāqūt, *Geog.*, I, 66; for Diyār Bakr, see "Diyār Bakr," *Enc. Islam*, I, 928.

<sup>264</sup> Aḥmad ibn al-Ṭayyib was director of weights and measures, so that he may have been corrupt and have amassed an unreasonably large fortune. Perhaps for that reason the caliph allowed his officers to confiscate his estate and execute him. See Mas'ūdi, VIII, 179; Qifṭī, p. 77.

<sup>265</sup> These of course were works of Aristotle's. The last two were the *Analytica priora* and *Analytica posteriora*.

<sup>266</sup> In this title the term "gathering together" comes from the Arabic *'ashsh*, which refers to building a bird's nest.

Singing, Singers, Court Companions, Sitings Together, and Varieties of Stories and Anecdotes; the large book, Government (Politics); the small book, Government (Politics); Introduction to the Art of Astrology; the large book, Music, two sections which have not been equaled for excellence and greatness; the small book, Music; Arithmetic, about numbers, algebra, and equation.

Roads and Kingdoms; Animals of Prey and Hunting Them; Introduction to the Art of Medicine, in which he refuted *Ḥunayn* ibn Ishāq; The Questions; The Virtues of Baghdad and Historical Traditions about It; Cooking, which he composed according to months and days for al-*Mu'tadid*; Provision for Travelers and the Service of Kings, a delightful book in two sections; Introduction to the Science of Music; Training of Kings; Companions and [Social] Sessions; his epistle about the reply of *Thābit* ibn Qurrah to the question addressed to him; his treatise about spots on the skin<sup>267</sup> and moles; The Poor and the Manner of Belief of the Populace;<sup>268</sup> The Benefit of the Mountains; his epistle describing the doctrines of the Šābians (Šābiyūn);<sup>269</sup> about [the Subject that] in the Process of Creation, Created Bodies Are Neither Moving Nor at Rest.

#### Quwayrī

His name was Ibrāhīm and he was surnamed Abū Ishāq. He was one of those by means of whom the study of logic was learned, and he was also a commentator. *Mattā* ibn Yūnus<sup>270</sup> studied with him. Among the books of Quwayrī there were:

Commentary on the "Categoriae," tabulated [with designs]; De interpretatione, tabulated; Analytica priora, tabulated; Analytica posteriora, tabulated.<sup>271</sup>

His books are unpopular and rejected, as his style lacks fluency and is hard to understand.

<sup>267</sup> For "spots on the skin" this translation follows MS 1934 and Flügel; MS 1135 has instead *al-bahaj* ("leprosy").

<sup>268</sup> The translation follows MS 1934, which gives *tarīq i'tiqād al-'ammah* ("manner of belief of the populace"). Flügel gives *tarīf i'tiqād al-'ammah*, which might mean either "new belief of the populace" or possibly "new acquisition of an estate of the populace."

<sup>269</sup> See "Šābians" in Glossary.

<sup>270</sup> MS 1934 and MS 1135 have Yūnān, which is a form of Yūnus.

<sup>271</sup> The proper names in these titles are transliterations from the Greek. It is possible that the word "commentary" is meant to be understood before the Greek titles. For these books, see the account of Aristotle's works.

#### Ibn Karnīb

He was Abū Aḥmad al-Ḥusayn ibn Abū al-Ḥusayn Ishāq ibn Ibrāhīm ibn Yazīd, al-Kātib, who was known as Ibn Karnīb. He was one of the most eminent of the theologians, upholding the doctrines of the natural philosophers. His brother, Abū al-'Alā', was interested in the science of geometry. We are mentioning him in his proper place. Abū Aḥmad was extremely virtuous, learned, and skilled in the natural sciences of the ancients. He died ———. Among his books there were:

Refutation of Abū al-Ḥasan *Thābit* ibn Qurrah's Denial of the Necessity for the Existence of Two States of Rest between Two Contradictory Movements;<sup>272</sup> Treatise about Types and Species, concerning matters of a general nature.

#### Al-Fārābī

He was Abū Naṣr Muḥammad ibn Muḥammad ibn Muḥammad ibn Ṭarkhān. His origin was in al-Fāriyāb in the land of Khurāsān.<sup>273</sup> He was one of the leaders in the field of logic and the ancient sciences. Among his books there were:

Grades of the Sciences; Commentary on a Portion of Aristotle's Book of Ethics [Ethicorum Nicomacheorum].

Al-Fārābī wrote commentaries on Aristotle's books, which are extant and in circulation among the people. They are:

Analogy—Categoriae; The Proof—Analytica posteriora; Oratory—Rhetorica; Those in Error—Sophistici.

They were in the form of compilations. He also wrote discerning compilations on the books of logic.

#### Abū Yaḥyā al-Marwazī

Abū Bishr *Mattā* ibn Yūnus studied under him. Although an excellent man, he was a Syrian, so that everything he wrote about logic and other things was in the Syriac tongue. He was also a well-known physician in the City of Peace [Baghdād].

<sup>272</sup> MS 1135 and Qifī, p. 169, have a variation for "two contradictory movements"; the translation follows MS 1934 and Flügel.

<sup>273</sup> *Al-Fihrist* traces al-Fārābī to al-Fāriyāb in Khurāsān, whereas Qifī, p. 277; Khallikān, III, 310; Hitti, *Arabs*, p. 371 n. 2, and other works connect him with Fārāb in Turkestan. For these two towns, see Yāqūt, *Geog.*, III, 833, 840.



## Abū Yaḥyā al-Marwazī

He was another man whom I have mentioned, as this point [in the book] requires his inclusion. He was a physician who was also learned in geometry.

## Various Books of a Number of Miscellaneous People

The Obscure Way (Mind), about the secret of the Creator; *Bryson* on the Management of the Home, by *Apollonius*.<sup>274</sup>

## Mattā ibn Yūnus

Abū Bishr Mattā ibn Yūnus was a Greek and one of the people of Dayr Qunnā, one of those who matured in the School of Mar Mārī.<sup>275</sup> He studied under *Quwayrī*, *Theophilus*, *Benjamin*,<sup>276</sup> and Abū Aḥmad ibn *Karnīb*.

He translated from Syriac into Arabic. The leadership of the logicians of his period culminated with him. Among his commentaries there were:

Commentary on the Three Last Sections of the Commentary of *Themistius*; translation of the book "The Proof" [Analytica posteriora], the main text; translation of "Sophistici," the main text; translation of the book "Being and Corruption" [De generatione et corruptione], with the commentary of *Alexander* [of Aphrodisias]; translation of the book "Poetry" [Poetica], the main text; translation of "Respect for the Sciences and Inquiring about the Subjects,"<sup>277</sup> by *Themistius*; translation of the book which is the commentary of *Alexander* about the book "Heaven" [De coelo]—Abū Zakariyā' *Yaḥyā* ibn 'Adī corrected it.

<sup>274</sup> In the manuscripts this second title is garbled. Rūfus is the first name, and the last is not clear, but they are probably intended to be *Bryson* and *Apollonius*, as translated. See Plessner, pp. 4–5, 8, 144 ff.

<sup>275</sup> For Dayr Qunnā and Dayr Mar Mārī, see Yāqūt, *Geog.*, II, 687, 700. *Dayr* means "monastery." *Mar* is probably meant for the Syriac *mār* ("saint").

<sup>276</sup> This name, written Banyāmīn, may refer to *Benjamin* Nahawāndī, the well-known scholar who lived in Persia during the late 8th and early 9th century. No other man of this name has been identified.

<sup>277</sup> Instead of "sciences" (*al-ḥikam*), perhaps this should be "authority" (*al-ḥukm*). This book does not seem to be known in modern times.

Mattā also wrote commentaries on all of the four books of logic, upon which people rely for their reading. Among his books there were [also]:

A section on the introductions preliminary to the book "Analytica"; Conditional Analogies of Estimation.

## Yaḥyā ibn 'Adī

He was Abū Zakariyā' *Yaḥyā* ibn 'Adī ibn Ḥumayd ibn Zakariyā' the logician, who became the foremost of his group in our time. He studied under Abū Bishr *Mattā* [ibn Yūnus], Abū Naṣr *al-Fārābī* and a group of scholars. He was unique during his period. He belonged to the Jacobite Christian sect.

One day when I spoke earnestly with him about the great amount of material which he had transcribed, he spoke to me with regards to those who are copyists (*warrāqīyūn*), saying: "Wherefore now do you wonder at my patience? In my own handwriting I have transcribed two copies of the *Commentary* of *al-Ṭabarī*,<sup>278</sup> which I have taken to the kings of distant regions. I have transcribed so many books of the theologians that they cannot be counted. It is my agreement with myself that I should copy a hundred leaves every day and night, which I feel to be too little."

He also said to me, "My birth was during the year ———." He died in the year ———. Among his books, commentaries, and translations there were:

A commentary on *Aristotle's* book "Topica"; his treatise about the four investigations;<sup>279</sup> his epistle refuting the arguments which someone<sup>280</sup> set forth in support of the statement of those who say that actions are the creation<sup>281</sup> of Allāh Almighty and an acquisition for his servant [man].

<sup>278</sup> See *Ṭabarī*, *Tafsīr*.

<sup>279</sup> Cf. *Qifṭī*, p. 363 l. 11. Flügel does not separate this phrase from the one preceding it, as is done by the manuscripts.

<sup>280</sup> The word translated "someone" is not clear in the manuscripts. Flügel has *al-ra'īs* ("headman"); it may be a proper name.

<sup>281</sup> "The creation" is given by the manuscripts but not by Flügel. "Almighty" is omitted by the manuscripts but included by Flügel.

Abū Sulaymān al-Sijistānī

He was Abū Sulaymān *Muḥammad* ibn Ṭāhir ibn Bahrām al-Sijistānī, whose birth was during the year ———. Among his books there was a treatise about the degrees of man's ability and how warnings inform the soul of what takes place in the world of phenomena.

Ibn Zur'ah

He is Abū 'Alī 'Īsā ibn Ishāq ibn Zur'ah ibn Murqus ibn Zur'ah ibn Yuḥannā. He is contemporary with our time, and one of the leaders in the science of logic as well as in the philosophical studies. He is also one of the accurate translators. His birth was at Baghdād during Dhū al-Ḥijjah [the twelfth Muslim month] in the year three hundred and thirty-one [A.D. 942/43]. Among his books there were:

An abridgment of *Aristotle's* book about the inhabited parts of the earth, one section;<sup>282</sup> The Aims of *Aristotle's* Books about Logic, one section; The Meaning of the "Isagoge," one section;<sup>283</sup> The Meaning of a Portion of the Third Section of the Book "Heaven" (*De coelo*), one section; about the mind, a treatise which did not become known; The Amulet, a treatise which he translated;<sup>284</sup> what he translated from the Syriac; "Historia animalium" of *Aristotle*; "Uses of the Parts of the Animal," according to a commentary of *Yahyā al-Naḥwī*;<sup>285</sup> a discourse about ethics, which is not extant; five chapters from the book of *Nicolaus* [of Laodiceia] about the philosophy of *Aristotle*;<sup>286</sup> "Sophistici" of *Aristotle*, the main text.

Ibn Khammār

He is Abū al-Khayr al-Ḥasan ibn Suwār ibn Bābā ibn Bahrām, and is living in our own time. He is one of the best of the logicians who studied under *Yahyā* ibn 'Adī, having the greatest intelligence, comprehension, and ability for the sciences of his associates. His

<sup>282</sup> This may have been falsely assigned to *Aristotle*.

<sup>283</sup> See n. 157.

<sup>284</sup> Qifī, p. 246 top, has *al-tamimah* ("amulet"), whereas Flügel gives *al-namimah* ("calumny"). The manuscripts lack consonant signs.

<sup>285</sup> This probably refers to *De partibus animalium*; see *Aristotle, Opera omnia*, III, 218.

<sup>286</sup> *De summa philosophiae Aristotelicae*; see Smith, *GRBM*, II, 1192 bottom.

birth was in the month of Rabi' al-Awwal [third Muslim month], during the year three hundred and thirty-one [A.D. 942/43].

Among his books there were:

Formless Matter, one section; Agreement between the Opinions of the Philosophers and the Christians, three sections; a commentary on the "Isagoge," explained;<sup>287</sup> a commentary on the "Isagoge," abridged; The Friend and Friendship; Biography of the Philosopher [*Aristotle*], one section; Pregnant Women, a treatise about medicine; about diabetes, which means emission, drop by drop, one section; Apparitions Imaged in the Sky as a Result of Water Vapor—they are the halo of the moon, the rainbow, and the mists, one section; his translations from Syriac into Arabic; The Heavenly Signs, which he translated;<sup>288</sup> The Confused in the Four Books of Logic;<sup>289</sup> the "Questions" of *Theophrastus*, which he translated; Discourse on Ethics, which he translated.

Al-'Awwaqī [al-'Ūqī]

He is one of the people of al-Baṣrah and is living in our own time. His name is ———, and his books are: ———.

<sup>287</sup> See n. 157.

<sup>288</sup> Very likely the *Meteorologia* of *Aristotle*.

<sup>289</sup> The word "confused" is taken from Flügel, as the manuscripts are not clear. The words "the found from that" are added at the end of the title. This probably signifies the logic in four of the books of *Aristotle's Organon*.