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TEDD D. BEAVERS

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1972

ARABIC CONTRIBUTIONS TO EDUCATIONAL THOUGHT

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IN MEMORIAM
dedicated
to
My Loving Daughter
MONTEZ ELIZABETH ELLEN

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ARABIC CONTRIBUTIONS TO EDUCATIONAL THOUGHT

CHAPTER I

INTRODUCTION

Interesting Aspects of Arab Origin: The Theater of Near-Eastern Philosophy

The civilization of any peoples has always been shaped by the natural conditions of the environment. Since historians have maintained that migrations of various peoples were caused largely by economic and climatic factors, then likely philosophers could operate upon the hypothesis that natural lines of communications among such peoples determined direction of those migrations and, therefore, the course of history.¹ Certain assumptions have been necessarily imposed upon this consideration of a people's development. Basic would be the assumption that history has given clues to their characteristics. Those characteristics have shaped the culture. Therefore, to understand why a Semitic group,

¹Anatole Mazour and John Peoples, A World History: Men and Nations (2d ed.; New York: Harcourt, Brace, and World, Inc., 1968), pp. 35-36.

such as the Arabs, produced a philosophy and lived by it, one must use the background, incorporate early history into the total composition. Thus, the stage is to be set for this Arabian drama.

What is the theater which is to be used? Arguments about how the Semitics came into being or how they arrived at this particular location are unimportant to this thesis. The geographical unity of Arabia, Syria-Palestine, and Mesopotamia has been taken together to form the theater for the first act. By this maneuver, the parts for the actors are inevitably assigned by the natural conditions found in such an area.

The aspects of Arab antiquity have always fascinated historians. Hitti argued that the original home of the Semites was the Arabian peninsula, while Old Testament traditionalists maintained that Mesopotamia was the abode.² The Mesopotamian theory would mean that the Semites went from river agricultural development to a nomadic stage, which reverses sociological law. Likely, if one has considered the ethnic relationship between Hamites and Semites, he would suppose that eastern Africa was the home, although

²Philip Hitti, History of the Arabs (5th ed., rev.; London: Macmillan & Co., Ltd., 1953), pp. 10-13.

of the four great ancient families of the Middle East, the Sumerians, Semites, Indo-Europeans, and Egyptians, this treatise is concerned with Semitic expansion and the dissemination of their philosophy. They were, at first, nomadic pastoral inhabitants of the desert, which constituted a linguistic and ethnical region of protection. Branches of this family--Amorites, Akkadians, Chaldeans, and Assyrians--dominated these Tigris and Euphrates river lands, while other Semites migrated to areas along the eastern borders of the Mediterranean Sea. They were Syrians, Hebrews, Phoenicians, and Canaanites.³

Undertaking this study, one assumed that history and background were essential for explaining the culture and philosophy, as well as customs and early rituals, of a people, homogeneous in habitat, culture, and language. All the Semites common ancestors were the original Arabs--Arab being a Semitic term for desert dweller--from the tribe of Shem, son of Noah.⁴

. . . the earliest mass settlement of Arabs took place in Yemen under the kingdom of Yarab, a fifth generation descendant of Sem. Then, when this corner of the Arabian peninsula became too small to contain a growing population, the first Arab migration set out around 3500 B.C. along the west coast of Arabia, through

³P. T. Welty, Man's Cultural History: A World History (Philadelphia: J. B. Lippincott Co., 1965), pp. 155-162.

⁴Genesis 10: 21-32.

Hejaz and Sinai, into Egypt, where the Semites mixed with the Hamites to produce the Egyptians of history and absorbed those elements of science and culture which are the basis of our civilization.⁵

With them went pride in personal freedom, language, a love of poetry and story-telling but also tribal loyalty. The interrelation among Arameans, Assyrians, and Hebrews is evident by language similarities.

Other migrations progressed along the eastern shores of Arabia into the Euphrates Valley, encountering non-Semitic Sumerians. Before 3000 B.C. the Sumerians had metal tools, were adept at sculpting, carving, and engraving, had already established city-states, and were preserving records on clay tablets.⁶ These combinations of wedge-shaped signs, cuneiforms, consisted of some 600 ideograms, phonograms, and pictograms.⁷ Their greatest architectural achievement was the ziggurat, which was a temple with four straight sides built in layers. The temple, one hundred fifty feet high was surmounted by a shrine where the city god would alight from his "boat of heaven" to receive sacrifices.⁸

⁵Anthony Nutting, The Arabs: A Narrative History from Mohammed to the Present (New York: New American Library, Mentor Book, 1964), p. 15.

⁶Mazour and Peoples, Men and Nations, p. 39.

⁷Ibid., p. 39.

⁸Ibid., p. 38.

Not until 1929 did Professor Woolley exhume the primeval city of Ur from an eight-foot layer of silt deposit, and ruins of Nippur were discovered at a depth of sixty-six feet. Cuneiforms indicated Mesopotamia's struggle against Semites from Kish c. 4500 B. C., site of the oldest culture along the Euphrates. Research showed that mentors of this area were teaching astronomy and astrology and had even "correctly calculated the length of the year within 26 minutes."¹⁰

Historic account of Semitic invasions are fraught with violence and punishment exacted for retaliation. By 2300 B.C. the new invaders, who called themselves Babylonians, derived from their new capital city of Babylon, were well established. About 1700 B.C. their greatest leaders, Hammurabi, who considered himself a "pastor, savior, and good protecting shadow,"¹¹ burst forth to administer the kinds of harsh punitive action still prevalent on the desert today. "If a man caused another to lose an eye, then his own eye was put out. If a son struck his father, his hand was cut off."¹² One can observe later in this paper how philosophers suffered reprisals, often for imagined crimes.

¹⁰Mazour and Peoples, Men and Nations, p. 46.

¹¹Ibid., p. 41.

¹²Ibid. (In pre-philosophic days of the Muslim, such punitive measures were taught and accepted as inevitable and just.)

Cruel punishment was a heritage of the Arabs. A great military leader was the Semitic, Sargon I, who established the kingdom of Akkad two hundred miles northwest of the Sumerian city-states. He invaded many cities and killed many men, and felt torture was a good way to get at the truth. Upon reaching the Mediterranean, he was able to establish the first great empire in history.

Conquests customarily led to sacking the city, killing most citizens, but leaving a few to spread the word of what had happened. Usually crimes were punished with blinding, mutilation, maiming, and branding. Common modes of execution were hanging head down, impaling on sharp sticks, stoning, poisoning, smothering with hot ashes, crushing between huge stones, crucifixion, and an extremely barbarous rite called the boats, which consisted of placing the criminal between two like boats, smearing him with honey and milk, and waiting for the insects to devour him.¹³

By 2500 B.C. the Phoenicians and Amorites were scattered into the area of present Syria and Palestine, and some thousand years later, the nomadic Hebrews came to Palestine. Almost simultaneously Syria was invaded by the Arameans who established Damascus, the oldest surviving city. The Arameans lost to the Assyrians who carved an empire covering Babylonia

¹³Plutarch, Artaxerxes, in Lives, iii (New York: E. P. Dutton, Everyman Library Division, 11 v., 1914-1926), p. 464.

(Iraq), Armenia, and Phoenicia (Lebanon), while the Medians took over Persia and Pakistan. In the Mesopotamian area seal-making was notable because writing was indistinctive, so documents were signed with engraved scenes or inscriptions.

By 600 B.C. the Sabaeans, called the Phoenicians of the south, became such lucrative business leaders that they

. . . developed a highly profitable re-export business and carrying trade for the frankincense, cloth and silks of China, the pearls from the Persian Gulf, and the fabrics of India, as well as for their own home-grown spices and perfumes¹⁴

However, around 250 B.C., Ptolemy II of Egypt reopened a disused canal between the Red Sea and the Nile whereby Roman and Egyptian ships could ply directly to the Orient for goods, reducing Arab commerce to a trickle.

Limitations Necessarily Entailed in This Anthology

Major figures have been allotted space to the exclusion of many minor ones, and within this major-actor category, both east and west Muslims were chosen. This anthology was never intended to be a full-fledged study of medieval philosophy, for space forbids a complete discussion even of the Islamic influence.

In order to understand the Arabs' relation in history, one must consider chronological limitations and temporal bounds. There can be no exact parallel between medieval

¹⁴ Anthony Nutting, The Arabs, p. 16.

civilization and modern culture, since the factors of such influence in the Middle Ages had different meanings to the present ones. However, the background given here helps one understand how Greek contributions fell upon fertile soil.

The medieval philosophy with which this writer worked might be viewed as a reaction during the Middle Ages, and the diffusion of philosophical ideas at that time was due chiefly to the interest and ingenuity of the Arabs. The impact of the Islamic religion upon Islamic philosophy cannot be denied, but this paper dealt with it only as it had direct bearing upon some indispensable phase of the discussion. Thus, criticism of Arab-speaking philosophers was taken in and for itself, considering it from within its internal structure with due regard for its particular significant attachment to the ideas of this enactment upon the stage.

A search has also been made for those Arabic ideas best applicable to the present by the unique harmony that binds thought from one century to another. Therefore, a common basis for comparison has been the worth of human nature which remains essentially the same throughout time. Moral judgment was avoided, therefore, for individual value was considered for a given time. Additionally, different spellings of philosophers' names were used in quotations because each author had spelled these phonetically as he desired.

The sources of this dissertation are largely based upon English translations. In the final chapter in which the author summarized his findings, he could not agree that the general rejection of so much of medieval thought by recent writers was altogether sound. This writer agreed with Weinberg:

. . . an understanding of the history of thought from the fourth to the fifteenth century is indispensable to an understanding of modern philosophy and science. Moreover, while there is no guarantee that past errors will not be repeated in new and improved ways, a knowledge of what earlier philosophers have said may provide some protection against mistakes. History is what men are assumed to have experienced, and to learn from this experience, it is necessary to retain and to re-examine it incessantly.¹⁵

The Greco-Roman Heritage: Directors of This Drama During the Middle Ages

Mohammed's teachings brought about the union of small isolated entities throughout Arabia. At his birth in 571, Arabs still lived in fear of jinns (demons), weighed with superstitions about all manner of material objects. In Mecca, which is the Sabaeen word for sanctuary, was the chief caravan station and a pilgrimage center for all kinds of idolatrous worship.

The Kaaba contained no less than three hundred idols

¹⁵Julius Weinberg, A Short History of Medieval philosophy (Princeton, N. J.: Princeton University Press, 1964), p. 293.

catering to every taste. Decisions often involving matters of life and death were taken by drawing lots with ritual arrows.¹⁶

Mohammed, after his mother's death, was passed to an uncle, Abu Talib, who was likely sympathetic toward Mohammed's dim view of Meccan degeneration, but, as a merchant, he realized that such ways in Mecca promoted good business.¹⁷ Likely this influence of traveling in his uncle's commercial caravan and meeting monks gave him a background for his belief in the one God. He often had long talks with the prophet Bahira in Syria. Because the Arab's daily material and social life is inseparable from his spiritual life, the writer felt it was necessary to cite some background of the educational and religious movement as it swept throughout Arabia, along the Mediterranean, and even across the Atlantic.

Being of strong business stature and marrying a wealthy widow enabled Mohammed to influence many and still have time for much contemplation.

In the solitude of a quiet desert cave outside of Mecca, free from the distractions of man, he sometimes spent whole nights wrestling with the mysteries of the divine. Then, as he described it later, one night while he was deep in meditation, God spoke to him through the voice of an angel. "Read!" the angel said. "I cannot read," Mohammed answered. "Read!" the angel said again. Mohammed replied the second

¹⁶Anthony Nutting, The Arabs, p. 25.

¹⁷Ibid., p. 27.

time, "I cannot read." "Read!" the angel commanded the third time. Mohammed then asked, "What shall I read?"¹⁸

And the answer came that he should read from God's word. From that time Mohammed dictated for all Muslims rules about every detail of their lives, recorded in the Koran, which the Arabs consider The Word of God and even their legal codes are set by these writings.

With radiant, fiery black eyes and a persuasive tongue, he incited his small membership. Legends spread, for "Myth was the special language form through which basic convictions were expressed in the ancient Near Eastern cultures."¹⁹ He decided to make superstitions useful by extolling many of the relics of ancient paganism, such as the famous black stone of Mecca. All he taught was being committed to memory, really written down, by disciples on sheepskins, stones, and palm-leaves.²⁰ Whenever possible he used mediation, but he did not hesitate to employ the sword.

With their expansion, by 750 reaching from Khurasan to Northern Spain, went their Koranic rules for all aspects of family and social interrelationships. Conquering Persia in

¹⁸Paul Welty, Man's Cultural Heritage, p. 183.

¹⁹Cornelius Loew, Myth, Sacred History, and Philosophy (New York: Harcourt, Brace & World, Inc., 1967), p. 42.

²⁰Sabatino Moscati, Ancient Semitic Civilization, p. 208.

641, they fell heir to a rich Persian and Greek heritage. These works were translated into Arabic. With the conquest of Syria, the early Islamic culture came into contact with Greek philosophy and science which the Arabs assimilated while foreign converts to Islam found it necessary to master Arabic in order to study the Koran. The greatest centers, Baghdad, Cairo, Cordova, and Damascus, became learning citadels and showplaces, for the Arabs brought their fondness for books, poetry, music, and study as well as knowledge of gardening, architecture, and irrigation.

Consequently, there were two schools of Arabic-language philosophers--those of Spain and those in the East. The Arabs eagerly developed Greek ideas adding much original thought of their own in the process. Such commentary did further scientific thought in the West, just as Islamic religion exercised a profound influence upon Christianity.

"It has been said, with considerable truth, that Western Civilization walks on two legs, one of which is Greek and the other Hebrew."²¹ The gap between religion and philosophy was to be filled by commentaries of the Arabs themselves. The Koran and Aristotle's Organon formed the basis for the study of Muslim humanities.

²¹Gerrit Judd, A History of Civilization (New York: Macmillan Co., 1966), p. 31.

The brightest chapter in European intellectual history was written by Muslims in Spain. Philosophy formed the strongest chain, for the Muslims had harmonized science, religion, and Aristotle which for them was the truth. With their age of refinement came fine literary taste and love of knowledge.

During the Abbasid period, c. 800, the translators working in Mesopotamia, Egypt, and Syria, conquered by the Muslims, were mostly Jacobite and Nestorian Christians. Al-Ma-mun housed a large staff of translators in his "House of Wisdom" (Bayt al-Hikmah) in Baghdad where rather literal Arabic translations were made of Greek originals or of earlier Syriac or Persian versions in which literalness was preferred to style. This famous house was a combination academy, library, and translation bureau "which in many respects proved the most important educational institution since the foundation of the Alexandrian Museum in the first half of the third century B. C."²² All Aristotle's works were translated apparently except Politics and Dialogues, along with commentaries by Themistius and Theophrastus.

In the elementary schools girls were welcomed to study the Koran. Memorization was lauded and scholars who mastered lessons well were given a holiday. Slaves also attended.

²² Philip Hitti, History of the Arabs (London: Macmillan & Co., Ltd., 1953), p. 310.

Arguments about human freedom and determinism likely began with dialectical theologians (Mutakallimun). These Arabic translations transmitted Greek works to Jewish and Christian worlds. Arabic-speaking translators rendered such Platonic creations as Timaeus, Republic, Laws, Crito, and Phaedo. Both Proclus' Elements of Theology and Plotinus' Enneads were attributed to Aristotle. In fact, all Hellenistic teachings became ultimately to be viewed by Muslim believers as one major philosophy, no matter who the author might be.

By so drawing upon the notions of Aristotle, Stoics, Plato, Epicurus, and others, the Mutakallimun, both Mutazilites and Ash-arites, erected an eclectic type of philosophy. Both groups strove for philosophic clarification of Koranic doctrines. Strict codes even penetrated the schools. The rod was considered necessary. Even caliph's approved its use on palace children. Avicenna in Risalat spoke of using the hand as a valuable aid to the educator's art.

Rewards and punishments did figure prominently in the way of life. Since Aristotelianism (falsafah--as all Greek philosophy came to be called) was intermingled with neoplatonic and sundry other Greek thoughts, the Muslims were familiar with ideas of one God, usually described with negative attributes, the substance of soul, the ideal state, and philosopher kings.

During the Middle Ages, Greeks and Hebrews might have been far apart in culture and expression, but they were close in intent. For instance, "deterministic intellectualism in Greece as against moral struggle in the Bible, the quest of harmony as against the sense of moral infinity, and classification and generalization as against the individual and the particular,"²³ show these distances.

Greek philosophers regarded the intellect as a moral guide. Aristotle knew that the will needed moral fortification to overcome passions, but he placed scientific-intellectual virtues higher than practical ones, for aim should be higher than means. Only the wise man could locate this middle road, so one needed education to develop judgment because duty involved obedience to reason.

Rationalistic ethics were extrinsic, concerned with quest of happiness which is the highest good, and deterministic, showing that knowledge determined the acts of man. The Hebrew word osher (happiness) occurred only once in the Bible: "And Leah said, 'Happy am I, for the daughters call me blessed'." ²⁴

²³Israel Efros, Ancient Jewish Philosophy: A Study in Metaphysics and Ethics (Detroit: Wayne State University Press, 1964), p. 142.

²⁴Genesis 30: 13.

The concept of infinite morality made man the legislator of laws, and did not force itself upon man from the outside. Protagoras taught that individual man was the measure of all things; Socrates declared that concepts have objective authority; and Plato created the Idea; Aristotle, Forms--all are the same. In schools, individual differences were recognized. The gifted recited quickly and were given rewards. Al-Ghazali urged special attention for the less gifted.²⁵ With slower learners the teacher (mudarris) made use of repeaters, the smarter youngsters, who read the lecture again after class, explaining points.

Evidently, certification from the caliph came about 900 in most sections, for some treatises of Al-Zarnufi on pedagogy refer to such early documents. He quoted an old Arab adage: "I am the slave of him who hath taught me even one letter."²⁶

Aristocrats used private tutors. Instructions given by Al-Rashid c. 786 to his son Al-Amin's tutor:

Be not strict to the extent of stifling his faculties or lenient to the point of making him enjoy idleness and accuse himself thereto. Straighten him as much as thou canst through kindness and gentleness, but fail not to resort to force and severity should he not respond.²⁷

²⁵Hitti, History of the Arabs, p. 410.

²⁶Ibid., p. 409.

²⁷Ibid.

The tyranny of logic, Plato's logic, was that all things were reflections of ideas, and it was in the state that he saw all men's essence. Thus, ethics was political. Aristotle emphasized that the state, being as a class was more valuable than its parts. Man could not commit suicide for he would thereby deprive the state. Conversely, the Jews taught that to destroy a soul destroyed the whole world. Hebraic spirit protected the individual while the Greeks abandoned him in favor of the state,²⁸ since the Jews taught that ethics, like experience, was identical with religion.

A presumption might be made that several kinds of philosophy emerged during the Middle Ages because there were three major religions--Christianity, Judaism, and Islam. However, all three are practical and share like views about monotheism, problems about creation, relationships of the individual to the deity, and goals of human life. An example of such common ground is shown in the ideas of "Avicenna the Muslim, Maimonides the Jew, and Thomas Aquinas the Christian (who) present the proof for the existence of God which argues to the being of a necessary existent from the experienced fact of contingent existences."²⁹

²⁸Israel Efros, Ancient Jewish Philosophy, pp. 150-151.

²⁹Arthur Hyman and J. J. Walsh, eds., Philosophy in the Middle Ages (New York: Harper and Row, 1967), p. 2.

Such commonality was brought about largely as the result of Neoplatonism and Aristotelianism which exercised an early influence in all three religions.

Neoplatonism, with its emanation of all beings from a single divine unity, lent itself more easily to philosophical interpretation of the religious conceptions of the immortality of the soul and the creation of the world than did Aristotelianism Aristotle's doctrines that the soul is the form of the living body . . . were reinterpreted along neoplatonic lines, yielding the views that the soul is an independent being bringing life and thought to the body and that the hierarchy of processes emanates from the activity of the divine intellect.³⁰

Thus, Falsafah became philosophy in the Greek tradition. The Asharites and Mutazilites made use of the weapons of Aristotelian logic in their educational debates. Early in its development, Falsafah appeared positively dangerous to Mutakallimun theology, but "no thoughtful man, such as Avicenna or Al-Farabi, could fail to be impressed by the depth of understanding and power of reasoning evident in the writings of the Greek philosophers especially Plato and Aristotle."³¹

As Al-Ghazali attempted to synthesize religion and philosophy, so did others in different religions. Criticism was strong because much of medieval political controversies centered upon powers of church and state. However, Islamic laws

³⁰Hyman and Walsh, Philosophy in the Middle Ages, p. 3.

³¹Albert Hourani, Averroes (London: Messrs. Luzac & Co., 1962), p. 3.

were wedded to religious beliefs, so no such distinction between law and religion developed. For the Muslims Plato's Republic and Laws became educational basis, while his Politics was basic for Christians. The Greco-Roman heritage has been related to specific Arab commentaries. Critiques of Organon showed Arabs to be creative logicians.

Major Arab Philosophers: The Chief Actors in This Drama of the Middle Ages

By the eighth century, Arabs held a leading position everywhere by forming a military aristocracy, while care of sciences and arts were left mostly to non-Arabs, of which the Arabs were quite tolerant. "Mohammedanism still represents about one-seventh of mankind, and its adherents are spread out from Morrocco to the Philippines."³² Since Mohammed had appointed no successor, the Muslim leaders elected Abu Bekr as the first Caliph of Islam (emir al-muninin) who proclaimed:

Be just, be valiant; die rather than yield; be merciful; slay neither old men, nor women, nor children. Destroy no fruit tree, grain, or cattle. Keep your word, even to your enemies. Molest not those religious persons who live retired from the world, but compel the rest of mankind to become Moslems or pay us tribute. If they refuse these terms, slay them.³³

³²Frederick Artz, The Mind of the Middle Ages, 3rd ed. rev. (New York: Alfred A. Knopf, 1966), p. 132.

³³G. Finlay, Greece Under the Romans (New York: Everyman Library, E. P. Dutton, n.d.), p. 367.

Reasons for victories have been numerous. Their physical stamina was remarkable as were their military tactics.

Arab cavalry was generally superior, in flat terrain, to the infantry of their opponents. Their camel caravans provided swift logistic support. Strategically, they quickly gained naval control of the Mediterranean. In addition, they used the desert much as a naval force uses the sea. They usually set up military bases (like sea-ports) in towns on the edge of the desert, which then served as convenient mediums of communication and supply.³⁴

Another asset was the boost to morale brought about by their new firm belief. Also, their opponents were weak and unprepared for such assaults. Many of their enemies were discontent with their way of life, so they soon fell in with the Arabs, whose preferential mating in parallel-cousin marriages made for strong tribal relationships.³⁵

However, by 732, they were halted at the Battle of Tours in the Loire Valley. Even so, they had created a cultural unity and set an intellectual atmosphere for all Islam, for they furthered educational enterprises of all kinds--Muslim and non-Muslim. Colleges sprang into being, and each Muslim town had its mosque, and each mosque, its library. Mohammed had urged the pursuit of knowledge: "He who leaves his home in search of knowledge walks in the path of God . . . and the

³⁴Judd, A History of Civilization, p. 115.

³⁵Ralph Beals and Harry Hoijer, An Introduction to Anthropology, 3rd ed (New York: Macmillan, 1965), p. 522.

ink of the scholar is holier than the blood of the martyr."³⁶ The Arabs introduced paper to Europe from captured Samarkand in 712. Students could be found everywhere hawking books, copying manuscripts, and writing to please a patronage of wealthy men. Teachers were honored, even revered, by their pupils. Lectures on any variety of subjects were offered at principal mosques throughout the day.

When Abu Bekr died in 634, the second caliph Omar was mainly concerned with the propagation of the faith through education. He advised that each child memorize the Koran. Being a severe puritan, he demanded strict virtue, whipping infringers of the code. Each father was expected to teach the Koran to his children before they entered the madrasa.

One of the few accounts of Arab destruction of books was of the conquest of Alexandria, but the Caliph Omar decreed:

If these writings of the Greeks agree with the book of God, they are useless and need not be preserved: if they disagree, they are pernicious and ought to be destroyed.³⁷

Actually, many of these "heathen" manuscripts had been burned by Christians in 392.

Now into the foreground on the stage of history have come the main characters, the Arab-speaking philosophers of the

³⁶Syed Ameer Ali, The Spirit of Islam (Calcutta: Mukhopadhyay, 1900), p. 331.

³⁷Edward Gibbon, The Decline and Fall of the Roman Empire, ed. by D. M. Low (New York: Harcourt Brace, 1960), p. 696.

Middle Ages, propagators of wisdom and knowledge. Al-Kindi, Ibn Miskawaih, Al-Hazen, and Avicenna were Neo-Platonic Aristotelians of the East. The Muslims in the West, such as Avempace, Abubacer, and Averroes, were more interested in natural sciences, medicine, and geography than in philosophy. Some of their works were not marked by high originality, but certainly Avicenna and Averroes were more than "mere commentators."³⁸ The Arabs carried to the East unusual intellectual contributions both original and Greek. A direct contribution was Averroism (followers were called Latin Averroists and heterodox Aristotelians), which crept into the Christian world when Albertus Magnus and Thomas Aquinas were harmonizing Arab commentaries with religious dogma. Without the insertion of reason, science would still be held back by the orthodoxy of church fathers. Duns Scotus and his student, William of Occam, taught Averroism and Avicennaism. Original works as Ibn Bay-tars pharmaceutical treatise, Simplicia (still being printed in 1758), Avicenna's Canon (which became the textbook for medical studies throughout Europe), Al-Razi's and Jabir's chemical and medical texts (cited by Roger Bacon as major influences in his career), insured for the first time the teaching and furtherance of the sciences in universities. Because of the music and poetry of Al-Farabi and Al-Kindi, Spain became a land of refinement.

³⁸ Bertrand Russell, History of Western Philosophy (New York: Simon and Schuster, 1945), p. 427.

CHAPTER II

AL-KINDI

His Preparation for Science and Philosophy

Islam's first major philosophical figure was Al-Kindi (Abu Yusuf Yaqub ibn Ishaq al-Kindi) born about 803 in Kufa, a city of South Arabia, where his father was governor. Of course, he was given the best possible education at Basra and Baghdad. Being curious about all things, he tried to determine laws of speed for falling objects, reduce music and medicine to mathematical relations, and fit Plato into Muslim style.

Being a most astute scholar, he followed the Arab maxim, which has survived in America, that globetrotting, travel, and observation are good ways to gain knowledge. The science of geography owed much to Al-Kindi's Ptolemy translations in the ninth century. These aided Al-Khwarizmi in producing a geography, The Image of the Earth, which became Yaqut's guide-book. Into his study went all the knowledge of the geography

of the time but also information on history and the ethnical origins of the peoples involved. Such works influenced another great traveler, Al-Masudi, whose Meadows of Gold and Mines of Gems probed Muslim, Jewish, Indian, and Roman history with the new biographical technique. This history and that of Ibn Khaldun, Muqaddamah, were studied throughout Europe by the fourteenth century.

Earlier in his career, he was respected as a scholar because a new rationalism had won over many thinkers. Dogma was cracking over the dispute about whether the Koran was created or eternal. Heretics fanned the Near Eastern air in debates on predestination, free will, and the nature of Christ. For the first time in history, men began to reason fearlessly even about divine laws. Al-Kindi lectured about interpreting the codes allegorically, labeling passages as poetic anthropomorphism. Such was the first breakthrough for reasoning against dogma, for all Europe still kneeled to the pope, without question. Since Al-Kindi was a translator, teacher, and philosopher in the courts of Al-Mamun and Al-Mutassim, he felt rather secure with his Hellenic thoughts because his rulers were educated, liberal-minded men. Just as the religious leaders, Mohammed, Abu Bekr, and Omar knew they must incorporate indigenous superstition and ritual, Al-Kindi also played to his audience. The primitive superstitions of the early religion

of the Arabs ascribed to worship of the moon, sun and fixed stars. Because he steered by stars on his nocturnal treks, he named them and worshipped them. Even children learned the twenty-eight parts of the moon's zodiac, and "some metaphysical powers were necessary to sustain the transmigration of souls and the resurrection of bodies: a camel was left to perish on the grave, that he might serve his master in another life."¹ Always a faithful Muslim, Al-Kindi taught his students the doctrine of Kaaba worship, encouraging pilgrimages. This sanctuary in Mecca is perpetually crowded with pilgrims. Still the stone is kissed, and the animal sacrificed. "A pilgrim points the beast's head toward Mecca, chants, 'In the name of Allah! God is most great!' and slits its throat. He may eat the better cuts; the rest goes to the poor."²

Aiming to please, Al-Kindi, eclectic in his method, was intent upon combining the views of Plato and Aristotle with his views as a Muslim. The word falasifah or hukama (sages) came to apply to philosophers whose speculations "were not limited by religion, reserving the term mutakallimun (dialecticians) for those whose system was conditioned by subordination to revealed religion."³

¹Edward Gibbon, The Decline and Fall of the Roman Empire, p. 659.

²Sheikh, Abdul, "From America to Mecca on Airborne Pilgrimage," National Geographic, CIV, 1, July, 1953, p. 53.

³Hitti, History of the Arabs, p. 370.

His Neoplatonic Eclecticism

He was recognized as the great exponent of Arab theology and philosophy, as well as science and mathematics, earning the title "Philosopher of the Arabs."⁴ He has been charged with mediocrity in the field of logic, but only about a fifth of his work is extant, none of which is logic.⁵ As he wrote to please his readers, many titles, Justice of God's Actions, God's Unity, and First Philosophy, the last of which he addressed to Caliph Al-Mu-tassim, showed Mu-tazilite leanings.⁶

He defined philosophy as "the knowledge of the realities of things, according to human capacity," and metaphysics (which he called first philosophy) as the "knowledge of the First Reality which is the Cause of every reality."⁷ He explained that knowledge is nobler the greater the extent of knowledge toward the causes. These causes were four: the

⁴Majid Fakhry, A History of Islamic Philosophy (New York: Columbia University Press, 1970), p. 84.

⁵Richard Walzer, Greek into Arabic (Cambridge: Harvard University Press, 1962), pp. 175-205.

⁶M. Abu Rida, Al-Islam Din al-Ilm wa-l-Madaniyah, Cairo, 1964, (as quoted in) Fakhry, A History of Islamic Philosophy, p. 85.

⁷Abu Rida, quoted in Fakhry, (Abu Rida's critical edition of 24 of Al-Kindi's works of different size, vol I: Cairo, 1950; vol. II: Cairo, 1953).

material, formal, moving, and final. Al-Kindi wrote that the philosopher inquires into "the whether, the what, the which, and the why"⁸ or the existence, species, and final cause.

Cardan, a philosopher of the Renaissance, on the basis of these inquiries, considered him among the twelve most subtle-minded thinkers of the Middle Ages. Al-Kindi taught that nature was beyond man's power and that man's sensations were closely related to stimuli. Early psychology was seen in his teachings about the importance of the senses to man's attitude.

Al-Kindi has been accused of not being able to distinguish between Plato and Aristotle.⁹ This writer calculated after much research that Al-Kindi, so eager to naturalize Greek philosophy in the Islamic world, knew exactly what he was about. Whether he recognized, as he and Harran translated the apocryphal Theology of Aristotle, that he dealt with a forgery is debatable. That it made both seem Neoplatonists was important to him; so, if he knew, he kept quiet for this served his purpose. At last Plato and Aristotle could be stated as viewing life from the same platform. He supposed spirit has three grades--God, creative Logos, and its emana-

⁸Abu Rida, Rasa-il, as quoted in Fakhry, A History of Islamic Philosophy, p. 86.

⁹Albino Nagy, The Book of Alkindi on the Subject of the Intellect, quoted in Dagobert Runes, Treasury of Philosophy (New York: Philosophical Library, 1955), p. 38.

tion, the soul of man; if man trains toward the right knowledge, he will achieve deathlessness.¹⁰ Like Aristotle, he made a distinction between active (divine) and passive (man's capacity for thought) intellects, placing him with Mutazilites and endangering his life. With his students he discussed Habit as the actual possession of the soul and that all pupils' knowledge of things came from outside them. This doctrine of the spirit passed from him into Christian philosophy.

Al-Kindi's School

The word "school" is misleading, perhaps supervision of translators would be apropos. Information is scarce about the teaching of philosophy. Even the beginnings of Aristotelian translation movements in Islam are obscure. However, the translation movement in Baghdad (where Al-Kindi lived his adult life) had three phases.

The first, beginning with Ibn al-Muqaffa or his son under al-Mansur, included Ibn Ma-imah and Eustathius, both of whom translated for al-Kindi, the student of John of Damascus and Bishop of Harran, Theodore abu Qurrah, the Sabian mathematician Thabit ibn Qurrah and ibn al-Bitriq, a member of the circle of the Caliph al-Mamun. The reign of the liberal, Mutazilite-leaning Mamun (A.D. 813-833) who founded a research center in Baghdad marks the water-

¹⁰T. J. DeBoer, The History of Philosophy in Islam, tr. by Edward Jones (New York: Dover Publications, Inc., 1967), p. 101. (Dr. Boer not only classifies Al-Kindi as a Mutazilite dialectician and Neo-Pythagorean natural-philosopher but also as the first Peripatetic in Islam).

shed between the older, more literal type translations, the Islamic veteres, and the more polished versions done in the school of Humayn ibn Ishaq (d. A.D. 876) which was directly connected with the study and practice of medicine in Baghdad and environs, and whose translation activity embraced Galen and the Greek physicians, as well as Aristotle.¹¹

All the writer's investigation confirmed the essentially private nature of philosophical instruction. The traditional madrasah showed no classes. All sessions for Hunayn and Al-Kindi seemed to be in medical education. "Educational ground becomes somewhat firmer ca. A.D. 900 with the arrival from Harran of the remnants of what was a continuation of the philosophical faculty at Alexandria."¹² The popularity of doxographies (the literary device for gathering philosophical sayings by subject matter) and gnomonologies (aphorisms and maxims) with Greeks, Syrians, and Arabs, probably prompted Al-Kindi's collection, Treatise on the Soul Abridged from the Books of Aristotle and Plato, which he may have used as a teaching device, when he lectured in court circles often. Naturally, he was in the court circles where the intellectual climate was dominated by Mutazilite thinkers, but he was more a polyhistor and a polymath than a theologian. Always appreciative of his inheritance, he urged his students to receive truth gratefully no matter what the source. They were nota-

¹¹F. E. Peters, Aristotle and the Arabs (New York: New York University Press, 1968), pp. 59-60.

¹²Ibid., p. 74.

ble for their encyclopedic interests, history, ethics, science, logic, and metaphysics.

We owe great thanks to those who have imparted to us even a small measure of truth, let alone those who have taught us more, since they have given us a share in the fruits of their reflection and simplified the complex questions bearing on the nature of reality. If they had not . . . we would have been unable, . . . to find those true primary principles from which the conclusions of our obscure inquiries have resulted, and which have taken generation upon generation to come to light heretofore.¹³

According to biographical sources, only three philosophers studied at the "school," Al-Sarakhsi, Al-Amiri, and Al-Kindi himself, but among his pupils were the geographer Abu Zayd Al-Balkhi, the astronomer Abu Ma-shar Al-Balki, and the encyclopedist Ibn Farighun.¹⁴ Al-Kindi was the first scholar to center his viewpoint around scientific rather than purely theological interests. Greeks were his authorities; he was thought of by his contemporaries as a natural philosopher. He strived to make mathematics useful as an instrument of scientific understanding. For instance, in his "Epistle on the Finitude of the Universe," arguing, like Aristotle in De Caelo, I, against the impossibility of an infinite body, he shifted the reasoning.¹⁵ Aristotle's argumentation relied

¹³Abu Rida, Rasa-il, p. 102, quoted in Majid Fakhry, A History of Islamic Philosophy, p. 87.

¹⁴F. E. Peters, Aristotle and the Arabs, pp. 158-159.

¹⁵N. Rescher and H. Khatchadourian, "Al-Kindi's Epistle on the Finitude of the Universe," Isis, vol. 57 (1966), pp. 426-433.

upon weight and motion, while Al-Kindi's is premised on geometrizing elaboration, as the treatise in the concentric structure of the cosmos. Upon this, he lectured at his school.

Notable Arguments

Confusion about the five eternal principles: creator, soul, matter, time, and space with Pythagorean dicta, was propagated by Al-Razi who attributed the doctrine, at one time, to Democritus, while maintaining it was from the Harranians at other times. Favorite methods of proof taught to students in palace schools which he directed were reductio ad absurdum, Platonic dichotomy, argumentum ad hominem, and propaedeutic disciplines (mathematics), the last of which he used in his two treatises, On the Structure of the Universe, to show that the universe is spherical, and On the Platonic Solids, in which considerable use is made of factors, such as matter, form, motion, generation, stability of state and intelligent action.¹⁶ Homilies are used to prove the existence of God and that his chief attribute is unity; therefore, if God is perfect, then the compounds of the earth's elements--heat, cold, moisture, and dryness--cause corruption and generation.¹⁷

¹⁶Nicholas Rescher, Studies in Arabic Philosophy (Pittsburgh: University of Pittsburgh Press, 1966), pp. 1-37.

¹⁷Majid Fakhry, A History of Islamic Philosophy (New York: Columbia University Press, 1970), pp. 82-112.

Al-Kindi himself discussed kinds of proof, saying that physics, rhetoric, and history needed assent, sense perception, consensus, or representation, while metaphysics and mathematics required demonstration. Speaking of sense experience, he stated that the act of sensation resulted in formation of images, committed to retention and thereby acquire a form of permanence. Cognition and sensation were concerned with particulars (material existence), but immaterial entities that could not be objects of representation might be perceived as in conjunction with matter. Thus, he arrived at a twofold distinction between material and immaterial entities which he broadened to two divisions in philosophy called the science of created objects and that of the divine.

His preoccupation with the concept of infinity as applied to motion, magnitude, and time recurred often (On the Infinity of the Body of the World, The Nature of What Can Be and What Cannot Be said To Be Infinite, and The Unity of God and the Finitude of the body of the World are examples), not because of idle theoretical considerations, but because of concern about destruction of the earth as God willed.

On the Subject of Intellect¹⁸ showed that his general theory of intellect reaffirmed the Aristotelian idea of cog-

¹⁸Albino Nagy, The Book of Alkindi on the Subject of Intellect, quoted in Dagobert Runes, Treasury of Philosophy, p. 39.

nitition. The four types were active which were the cause of all that was comprehended, a second intellect potentially in the mind, the third became an efficient agent by virtue of the mind's power, and the fourth called demonstrative which approximated sensation. Some confusion has arisen over translation of the Arabic aql, which was rendered Geist (spirit) and intellectus (reason). The four spirits were the cause and essence of all that is spiritual, reasoning capacity, habit, and activity.¹⁹ "Al-Kindi, writing a thousand years ago, developed a theory (of four types of 'spirit') that nothing in the 20th century psychology could easily refute."²⁰ He supposed heavenly bodies possessed intelligence also.

For, since the two faculties of hearing and sight were said to be necessary to the acquisition of knowledge and virtue, to maintain that the heavenly bodies did not possess intelligence would amount to saying that the possession of the two faculties in question is in vain.²¹

He compared the earth to mankind in bulk demonstrating how infinitesimal man is. He fused the tripartite Platonic concept of Soul. Some souls must undergo purification before rejoining the intelligible world beyond after shedding its physical body. "Others who assert that man has been well described as

¹⁹T. J. Boer, The History of Philosophy in Islam, p. 103.

²⁰Rom Landau, The Philosophy of Ibn Arabi (London: George Allen & Unwin, 1959), p. 35.

²¹Fakhry, A History of Islamic Philosophy, pp. 99-100.

a microcosm claim that the saying is an exhortation to know man, and that since man is a microcosm it commands him only to philosophize . . . proceeding from our own perception to the contemplation of the Whole," which was the Delphic saying supposedly leading Al-Kindi to link the definition of philosophy as self-knowledge with the microcosm motif.²² Other critics decided that Alexander's work on the soul was the origin of much Al-Kindi did on intellect and definition of soul.²³

He reminded his scholars that much understanding depends on background. If no predecessor had examined intellectual reasoning, all persons would have to make such an examination from the beginning.

For it is difficult or impossible for one man to find out by himself and from the beginning all that he needs of a subject, as it is difficult for one man to discover all the knowledge that he needs of the kinds of legal reasoning; indeed this is even truer of knowledge of intellectual reasoning.²⁴

Al-Kindi also introduced a system in psychology that was developed by neo-Platonists, propagated by Syriac philosophic students, and continued by his successors. He introduced metaphysics to the Muslim world.

²² Porphyry, On Know Thyself (quoted in Alexander Altmann, Studies in Religious Philosophy and Mysticism, Ithaca, N. Y.: Cornell University Press, 1969), pp. 21-22.

²³ David Knowles, The Evolution of Medieval Thought (New York: Vintage Books, 1962), pp. 214-215.

²⁴ Kindi, Kitab al-Kindi ilal-Mutasim (ed. A. F. Ahwani, Cairo, 1948), pp. 79-80, quoted in George Hourani, Averroes (London: Messrs. Luzac & Co., 1962), p. 46.

CHAPTER III

AL-RAZI

His Early Works

Abu Bakr Muhammad ibn Zakaria al-Razi (865-923 or 932), better known to Europeans as Rhazes, was born in Raiy (Rhazes), but left Persia in his early youth to study medicine in Baghdad. This greatest clinical genius among Islamic physicians of his time came to be called the Galen of the Muslim world. When quite young, he began a career as singer, musician, and poet, but soon turned to medicine as a discipline and became quite an independent critical thinker.¹ This librepenseur was made head of a hospital in his hometown before thirty-two years of age, and later this former lute player became an administrator with a large hospital in Baghdad.² "In selecting a new site for the great hospital at Baghdad, of which he was chief physician, he is said to have hung up shreds of meat in different places, choosing the spot where they showed the least signs of putrefaction."³

¹Hitti, History of the Arabs, p. 366.

²Afnan, Avicenna: His Life and Works, p. 35.

³Fakhry, A History of Islamic Philosophy, p. 115.

One felt while reading translations of Al-Razi's manuscripts that his works of alchemy and medicine overshadowed philosophic output, but he was original in thinking in all areas. Most fun of all was to read how he shocked all associates in such fields, much of which came from excerpts of his autobiography. A foremost neo-Pythagorean natural philosopher in his day, he along with Al-Kindi employed various Pythagorean numerological notions, some, such as the four earth elements of fire, air, water, and terra, derived from Plato's Timaeus. Al-Razi viewed Timaeus as Plato's most important work.⁴

Of his one hundred and thirteen major and twenty-eight minor efforts, twelve deal with alchemy.

One of his principal works on alchemy, The Book of Secrets (Kitab al-Asrar), after having passed through numerous editorial hands was rendered into Latin by the eminent translator Gerard of Cremona (1187) and became a chief source of chemical knowledge until superseded in the fourteenth century of Jabir's works.⁵

His treatise on smallpox and measles was a boon to medical science for it was the earliest of its kind, and was one of Al-Razi's best known monographs.⁶ First translated into

⁴Max Meyerhof, "The Philosophy of the Physician al-Razi," Islamic Culture, XV (1941), pp. 45-58.

⁵Hitti, History of the Arabs, p. 366.

⁶Al-Razi, Al-Judari w-al-Hasbah, tr. by W. A. Greenhill A Treatise on the Small-Pox and Measles (London: St. Martins, 1848).

Latin in 1565, this treatise established Al-Razi as the finest clinician of his age. His most important work, Continens (al-Hawi), was an encyclopedia of medical information summing up knowledge of Persian, Hindu, and Greek medicine possessed at that time. "Printed when printing was still in its infancy, these medical works of al-Razi exercised for centuries a remarkable influence over the minds of the Latin West."⁷

Al-Razi often gave demonstrations in chemistry at court and appeared before philosophical societies. In the field of chemistry and other physical sciences, he introduced to the scholars the objective experiment. He enjoyed the dialectic and argumentative method of teaching.

Although Socrates, Plato and Aristotle, Hippocrates and Galen can, in his view, not be surpassed, he does not hesitate either to modify their philosophical conclusions if he believes that he knows better, or to add to the store of accumulated medical knowledge what he has found out by his own research and observation.⁸

For instance, when he treated a disease, he would summarize all information about it, then he formed his opinion. Various writers have praised his exceptional studiousness, generosity, industry, and kindness.⁹ His works were of alchemy, grammar, theology, medicine, philosophy, logic, and

⁷Hitti, History of the Arabs, p. 367.

⁸Walzer, Greek into Arabic, p. 15.

⁹Fakhry, A History of Islamic Philosophy, pp. 116-117.

several other disciplines.

In such days when a woman's esteem depended upon her fertility, Al-Razi dared offer abortives. "A piece of old matting lying in a corner," said Mohammed, "is better than a barren wife."¹⁰ However, in harems, contraception and abortion were widely practiced. In Quintessence of Experience, he prescribed twenty-four mechanical or chemical means of preventing conception.¹¹ Only about half of the two hundred manuscripts he described in his autobiography survive today.

He introduced many new remedies: the seton was the placing of a few horsehairs beneath the skin to produce an artificial ulcer for the discharge of pus, the use of animal gut in sutures, and mercurial ointment. Al-Razi's comprehensive work in chemistry gave impetus to later treatises. Such scholars as Jabir had given him the same encouragement, now he in turn worked with base metals and left his medical text, Mansuri, used for hundreds of years in universities which described hundreds of diseases astounding the Latin West.¹²

¹⁰Al-Ghazali, Kimiyae Saadat, tr. as The Alchemy of Happiness, C. Field (London: Occult Publishers, 1910), p. 93.

¹¹N. E. Himes, Medical History of Conception (Baltimore: Taplinger Publishers, Gamut, 1936), p. 136.

¹²Sarton, George. Introduction to the History of Science, I. (Baltimore: Williams and Wilkins, 1927), p. 609.

Philosophical Endeavors

Most of what remained of his philosophical writings were destroyed when he was declared a heretic near the end of his life. He developed no definite trend in his thinking that this writer could notice. Some critics felt that he projected social implications for his age. If one might be so bold as to suggest some philosophic thought by way of hindsight, one would note that philosophers always reflect societal modes. Plato in his Republic showed parallelism between class structure and an individual's aspirations. The allegory of the cave explained that philosophers, knowing the realities, are poorer at dealing with shadows than non-philosophizers. The Greek tradition helped determine philosophers' places in Islamic society. But this fascinating thinker fell outside the mainstream of thought, and had to maintain a polemical attitude. He impugned Dahrites, agnostics, and Unifiers of God, who could not countenance association with eternity, space or time.¹³ Naturally, he made enemies. He tried to controvert Al-Kindi's reproof of alchemy declaring it the "marvel-mongering" philosophy of the time.¹⁴ This first generation of writers, Al-Kindi, Al-Razi, and Al-Farabi, were trained by Syrians.

¹³De Boer, The History of Philosophy in Islam, p. 80.

¹⁴Ibid., p. 105.

Al-Razi accepted the Platonic tripartite concept of Soul, for he said a great deal about control of the passions by reason.

God gave us reason . . . it is the greatest of God's gifts; . . . By reason we are superior to the brute beasts; . . . we apprehend all that elevates us, . . . we learn how to build and sail ships . . . we acquire the medical art . . . we know the shape of earth and sky, . . . In short, without Reason our condition would be that of beasts, children and madmen.¹⁵

Despite this tribute, he showed no inkling of interest in politics. He defended himself against consorting with princes, "by pointing out that he has held no appointment in the army or civil service, but has merely treated the prince's body when he was ill, and given him counsel in health."¹⁶

This free-thinker was totally fearless. He would say anything, challenging his students. At literary salons (*majalis al-adab*) or even in aristocratic homes, he incited disputes. He sometimes conducted poetical contests, religious debates, and literary conferences before caliphs. He even professed metempsychosis, transmigration of souls, which astounded Muslims. He adopted the un-Islamic views of Galen and Plutarch "that creation of an orderly world, a cosmos

¹⁵Montgomery Watt, Muslim Intellectual, freely translated (Edinburgh: Edinburgh University Press, 1963), p. 35.

¹⁶Ibid., p. 36; cf. A.J. Arberry, The Spiritual Physick of Rhazes (London: Hillary, 1950), p. 31.

was not ex nihilo, but from preexisting, indeed eternal matter."¹⁷ The esoteric character of Pythagoreanism was able to encompass both Oriental withdrawal and the search for security for the Soul during this era of upheaval; for, at this time, a secret philosophico-religious propagandist movement had contributed to the eclipse of caliphs' reigns and decline of Muslim intellectual splendor by the end of the tenth century. This society called the Brethren of Purity (Ikhwan al-Safa) which produced a compendium and fifty-two epistles containing the philosophical sciences current at that time placed astrology and mathematics in a primary position.¹⁸

Al-Razi stood out against the religio-philosophical landscape as a solitary searching silhouette. An important area of dissent from Al-Kindi and Al-Farabi was his denial of the possibility of religio-philosophic reconciliation; but, oddly enough, he was no atheist, though in a final analysis his theism was not considered sufficient.¹⁹

Al-Razi, claiming his notion came from early pre-Aristotelians, produced his most interesting theme of the five

¹⁷Rescher, Studies in Arabic Philosophy, p. 17; cf. Walzer, Greek into Arabic, p. 16.

¹⁸Fakhry, A History of Islamic Philosophy, pp. 185-186.

¹⁹Afnan, Avicenna: His Life and Works, p. 34.

eternal substances, that is, God, Matter, Soul, Time, and Space. Some commentators have attributed this theme to the Harranians, but Ibn Taimiya stated that Al-Razi acquired it from Democritus. Being particularly unorthodox, the view annoyed Islamic theologians especially, but he upset them even more by rejecting the metaphysics of the Falasifah with its emanation cycles.²⁰

Indeed "his freethinking seems to have led him into pessimism. In fact he found more evil than good in the world, and described inclination as the absence of disinclination,²¹ and pleasure as "nothing but a return to the normal state."²² If the relation between the body and soul is to be determined by the soul, then the medical man must be a physician, Dietetic of the Soul.²³ He was contrary to the views of his teacher, Iranshahri, when he spoke of infinite space and also partial and absolute space which is the void, and of two kinds of time, one independent of celestial revolution, co-existent with eternity, and limited time.²⁴

²⁰Afnan, Avicenna, p. 35.

²¹De Boer, The History of Philosophy in Islam, p. 78.

²²Afnan, Avicenna, p. 34.

²³De Boer, The History of Philosophy in Islam, p. 78.

²⁴Afnan, Avicenna, p. 34.

Ibn al-Nadim wrote his bibliographical dictionary (al-Fihrist) in 987, ascribing to Proclus a treatise as well as Elementatio Theologica, which were probably in circulation among Islamic philosophers because he also credited to the great naturalist Al-Razi the Arguments against Proclus.²⁵ Likewise, with his sources for Al-Razi's five principles, Indian influences are ascribed. "The problem is complicated, however, by the circumstance that al-Razi has had to pay the classic price for his intellectual boldness: the consignment of most of his literary output to oblivion."²⁶

Similar to Al-Kindi's Art of Dispelling Sorrow, which reflects the moral ideas of early Islam, Al-Razi often closed with a paragraph or short treatise on some ethical ideas.²⁷

Despite his own actions to the contrary, he asserted that good morals and deportment could be taught youngsters. He favored parables and fables for the young. He eulogized temperance, courage, and liberality in treatises.²⁸ The Platonists and Stoics, not to mention Al-Kindi and Avicenna, in different ways, had accepted traditional religion, and

²⁵Fakhry, A History of Islamic Philosophy, p. 40.

²⁶Ibid., p. 46.

²⁷Ibid., p. 216.

²⁸Ibid., p. 118.

were more welcome to Muslims,

. . .whereas Ar-Razi's attitude amounts to heresy and comes near to the later Western slogan of 'the three great impostors, Moses, Jesus and Muhammad.' Like Epicurus, he does not believe that philosophy is only accessible to the select few, as Plato's aristocratic conception of philosophy and its dignity had proclaimed and as most Islamic philosophers, following in Plato's footsteps, unanimously asserted.²⁹

One essay, The Signs of Worldly Advancement and Political Power, is a departure from his general view. Rather fatalistic, it marked certain people for rulers, because Al-Razi stated that nature endowed some with the noble characteristics of leadership.³⁰ This idea of something being fixed by nature was not consistent with most other ideas.

When he was criticized for his intellectual existence, he replied that his philosophy allowed him to be significant, and, as for being worldly, he said that Socrates, dubbed by him 'our Imam', had been no ascetic, so why should he be one.³¹

²⁹Walzer, Greek into Arabic, p. 15.

³⁰Watt, Muslim Intellectual, p. 36.

³¹Afnan, Avicenna, p. 34.

CHAPTER IV

AL-FARABI

Humble Beginnings

Al-Farabi (Muhammad ibn-Muhammad ibn-Tarkhan abu-Nasr al-Farabi) was born in Transoxiana at Farb near the end of the ninth century. His father was a captain of Persian or Turkish origin. This famous systematic philosopher, the founder of Neo-Platonism, began his study in Damascus, "where he devoted himself to reading philosophical books at night by the 'watchman's torch,' while working as garden keeper by day."¹ A wandering Turk, he had first gone to Baghdad, but knowing little Arabic kept him from enjoying the intellectual life of that city. Somehow he was initiated into the study of logic by the Christian physician Matta ibn Yunus and later journeyed to Harran, "where he met the Christian philosopher Yuhanna ibn Khailan, and continued to work at logic under his direction."² This grandson of a

¹Ibn Abi Usaybiah, Uyun, II, cited in Fakhry, A History of Islamic Philosophy, p. 126. (Usaybiah was a thirteenth-century historian of philosophy).

²O'Leary, Arabic Thought and Its Place in History, p. 144.

pagan Turk never could attain the social stature of Al-Kindi. Though he had come to Baghdad as a youth, he was always regarded as a Turk.³ "No Musulman ever reached in the philosophical sciences the same rank as he, and it was by the study of his writings and the imitation of his style that Avicenna attained proficiency and rendered his own works so useful."⁴ Perhaps because his teachers were leaders of that day, he won favor with the Hamdanite court in Aleppo and was called "the second teacher," Aristotle being the first.⁵ Prince Sayfu-l-Dawla (918-967) "had a great regard for Al-Farabi, but was exasperated on occasion by his outlandish attire and his boorish manner, as well as by the fact that, despite his ascetism and modesty, he frequently indulged in a certain degree of showmanship"⁶

Intellectually, he was tireless, and, in thought, not lacking in originality. Though he wrote only in Arabic, he left a valuable heritage for all thinkers after him. He wrote on philology, mathematics, physics, chemistry, politics,

³Afnan, Avicenna, p. 26.

⁴Ibn Khallikan, III, p. 307, of the Biographical Dictionary, tr. M. de Slane, Paris, 1843, quoted in O'Leary, Arabic Thought and Its Place in History, p. 143.

⁵Afnan, Avicenna, p. 26.

⁶Fakhry, A History of Islamic Philosophy, p. 126.

economics, and various other subjects. In addition to an interest in political science, he thought a prophet should be an intellectual leader as well as a spiritual guide. He eclipsed Al-Kindi, because he was better informed about both classic and Hellenistic Greek philosophy.

Only thirty-nine of his writings survived, and most of them are commentaries on Aristotle, but traces of Stoic logic are enough in evidence in "Abridgement of Logic" and "Introduction to Logic" to cause Ibn Taimiya's designation of "the greatest of the Falasifah in the exposition of Logic and its Branches."⁷ Some of his best known logical treatises are Commentary on Analytica Posteriora, Commentary on Analytica Priora, Commentary on Sophistica, Necessary and Existential Premises, and Propositions and Syllogisms Employed in All the Sciences. As recently as 1958 four manuscripts of Al-Farabi's were located in a mosque in Istanbul; these were in the original Arabic.⁸ Thousands of such manuscripts might still be hidden in mosques throughout the Middle East. In his Analytica Priora comments, he pointed out syllogistic arts to be used in five types of argument which are demonstrative, dialectical, sophistical, rhetorical, and poetical;

⁷Ibn Taimiya, Al-Radd ala al-Mantiqiyyin, p. 41, quoted in Afnan, Avicenna, pp. 26-27.

⁸Nicholas Rescher, Al-Farabi on Aristotle's Prior Analytics (Pittsburgh: University Press, 1963), p. 34.

and his four principles for establishing such statements were (1) a universal substituted for a universal, (2) a universal substituted for a particular, (3) a particular substituted for a universal, and (4) an example or a particular substituted for a particular.⁹

He was trained as a physician, but never practiced his skill, preferring to be a Sufi or mystic at court. He was also a mathematician, scientist (even of the occult arts), and a musician. He was considered the greatest of all Arabic music theorists, and devoted three major works to this subject, of which the leading is the Great Book of Music (Kitab al-Musiqi al-Kabir).¹⁰ In the presence of his patron, he is said to have been able to play his lute "so as to cast his hearers into a fit of laughter, draw tears from their eyes or set them all asleep, including even the doorkeepers."¹¹ Ancient chants attributed to Al-Farabi are still sung by the Mawlawi dervishes.¹² The Brethren of Sincerity (Ikhwan) had a chapter in Baghdad, meeting on Fridays, when Al-Farabi might

⁹Rescher, Al-Farabi on Aristotle's Prior Analytics, p. 37.

¹⁰Hitti, History of the Arabs, pp. 371-372.

¹¹Ibn Khallikan, II, 501, quoted in Hitti, History of the Arabs, p. 372. (Khallikan's dictionary of national biography in 1282 was the first of its kind in Islam).

¹²Hitti, History of the Arabs, p. 372.

have come to present his views on music. This school of eclectics heard poet-philosopher, Al-Maari; arch-heretic, Al-Tawhidi; and mathematicians, astronomers, and geographers render readings in their fields.

His Major Philosophical Ideas

Several historians thought that Al-Farabi's main interest was logic. This writer has found that he was more interested in instructing about writing philosophy so that it could be comprehended as well as general rules for teachers. Some of his finest work was social, such as Ideal State and The Ideas of the People of the Virtuous City, both quite enjoyable, but one could not say that morality concerned him greatly. Gems of Wisdom and Sources of Questions were attributed to him, but the material did not "sound" like ideas of Al-Farabi when read by this writer. The distinction between essence and existence so important in Christian philosophy did not seem to be his either,¹³ but early critics attributed this to him. Al-Medina al-Fadila (Ideal City) described the law of nature as the organism's perpetual struggle against everything. The creature saw in all other things a means to its ends; the wise one would be he who could bend others to his will.

¹³Weinberg, A Short History of Medieval Philosophy, p. 104.

Both "Rousseauians" and "Nietzscheans" among the Muslims asked how human society emerged from this jungle law. Though some believe society began in an agreement with a good many restraints through law, others supposed it was the result of the strong regimenting the weak. "Nietzscheans" maintained that such was natural for states to compete, and ascendancy through power was inevitable.¹⁴ At this point it was that Al-Farabi appealed to men to build a society upon love and reason, finally recommending a strong religious monarchy.

Continuing his ideas of political society in Political Regime, he stated that man needs his fellowmen to attain perfection; and opposed to the model state, in which man can do this, are the ignorant state, the perverted state and the mistaken state.¹⁵ Society is either perfect or imperfect, Al-Farabi emphasized. The highest in perfect society was the whole inhabited earth coming under one political organization; the intermediate was a nation occupying a specific place of the inhabited earth; the lowest was a city which represented a fraction of the territory of a nation.¹⁶

¹⁴De Boer, The History of Philosophy in Islam, p. 123.

¹⁵Robert Hammond, The Philosophy of Alfarabi and Its Influence on Medieval Thought (New York: Hobson Book Press, 1947), p. 51.

¹⁶Ibid., p. 52.

Commentators considered Ideas of the Inhabitants of the Virtuous City his most representative work because he maintains that "it is by way of emanation from God's own essence that all existent things come to be."¹⁷ This work is modelled after Plato's Republic, but with Plotinian and Aristotelian ideas intermixed. He used theodicy; the first being was the first cause giving all existence, but different in substance from all others. "His oneness is his actual essence;" he was an intelligence in actu, his being transcending everything.¹⁸

Being a teacher, the writer naturally was most interested in What Must Precede the Study of Philosophy. First, he said the student should be acquainted with the natural sciences, for, "human nature requires a gradual rise from the imperfect to the perfect."¹⁹ Logic was used in order to learn to distinguish the true from the false. Philosophy was for obtaining a knowledge of God as the Creator, and the student should know the philosophies, "such as the philosophy of Peripateticism, which was discussed with students while walking up and down a garden," matching the works with

¹⁷Afnan, Avicenna, pp. 32-33.

¹⁸Ibid., p. 33.

¹⁹Al-Farabi, What Must Precede the Study of Philosophy, quoted in Hammond, The Philosophy of Al-Farabi and Its Influence on Medieval Thought (New York: Hobson Press), 1947.

the authors.²⁰ The teacher must not be too strict nor too lenient; avoid excess. He should see that the student perseveres, for "the drop wears away the stone," mastering well only a subject at a time.²¹

Early psychology is attributed to Al-Farabi, but his work on sensory processes in relation to soul, death, and immortality is quite muddled and was dwelt with summarily. His epistemology and psychology seemed to represent a blend of the Neo-Platonists with Aristotle. Apparently such a blend was not confusing enough, so he stirred it with mysticism, sprinkling the intellectual system generously with spiritual content. The human soul was divided into three certain powers: vegetative, sensitive, and intellective, all of which could become multiplicative.²² Early Islam was tied to a heritage of animism--life was due to a substantial soul. Such animism was the explanation of all movement: the flying arrow has a "soul" in it "so long as it moves, it ceases to move when this soul goes away or desires to rest."²³ Immortality is not involved, nor are personalities.

²⁰Al-Farabi, What Must Precede a Study of Philosophy, quoted in Hammond, The Philosophy of Al-Farabi, n.p.

²¹Ibid., Hammond, Introduction to Al-Farabi, n.p.

²²Al-Farabi, The Gems of Wisdom, quoted in Hammond, The Philosophy of Al-Farabi, p. 37.

²³O'Leary, Arabic Thought, p. 149.

In The Letter Concerning the Intellect, he investigated the definition of "intellect" posed by ordinary people, the Mutakallimun, and Aristotle in his sixth book of Ethics, his Posterior Analytics, De Anima, and Metaphysics.²⁴ He gave each an interpretation of his own. For instance, when Aristotle spoke of intellect as four senses: soul, which is the ability to think would become potentiality; then there was intellect in actuality, agent intellect, and acquired intellect. After studying Alexander's commentary on Aristotle, Al-Farabi decided that when the intellect abstracted the intelligibles from substances within the material world, it became actual. This intellect in actuality could think the intelligibles within itself, thereby becoming acquired. Finally, required causal changes necessitated the agent intellect, which is the lowest self-existent intellect.²⁵ "If a man's imagination is directly connected with the 'active intellect,' he has prophetic powers," in other words, the soul's perfection.²⁶ Naturally this discussion led to the prophetic powers that a ruler must exhibit. "Man, thus,

²⁴Al-Farabi, Risalad fi-l-Aql, quoted in Hyman and Walsh, Philosophy in the Middle Ages, pp. 215-232. (Arthur Hyman translated Letter Concerning the Intellect and Attainment of Happiness for this volume).

²⁵Ibid., pp. 212-213.

²⁶Walzer, Greek into Arabic, p. 22.

becomes wise and a philosopher through that which reaches his passive intellect and then his mind works to perfection, and he becomes the prophet through that which reaches his imagination."²⁷ According to Al-Farabi, this degree of felicity was the first characteristic required of the ideal ruler. He must be a good orator in order to impress his subjects' imagination and guide them to happiness.

Al-Farabi's Contention with Avicenna, Al-Kindi,
Al-Razi and Others

This writer's opinion was that crafty Al-Farabi knew well the different views on the nature of being held by his two mentors, Plato and Aristotle; but he did not wish to burden his readers with such distinctions. Except for Sergius' translation of the De mundo, the Syrians Logica Vetus covered only the Categoriae, Eisagoge, and the De interpretatione. Al-Farabi reasoned that they went no farther because their readers were not ready. "The reason they stopped here, al-Farabi explains, was that they felt that to read the rest of the work would be prejudicial to their faith."²⁸

Both Ibn Sina (Avicenna) and Al-Farabi conceived the two divisions, theoretical and practical philosophy, as com-

²⁷Walzer, Greek into Arabic, p. 22.

²⁸Peters, Aristotle and the Arabs, p. 58. (Prejudicial is misspelled in the quote).

plementary. Regardless of any differences, philosophy was a quest for knowledge and Soul gratification upon its acquisition. Avempace, like Avicenna expressed the unity of the spiritual or intellectual condition with the supermundane agency as "contact or conjunction," while the Sufis (such as Al-Farabi) attacked this eschatological problem of unity as culminating stages with personal aspects.²⁹ All skirted around immortality, or the destiny of the Soul in the after-life.

Avicenna admitted he owed much to Al-Farabi, saying that he never understood the Metaphysica until he read Al-Farabi's commentary of it.³⁰ Perhaps Al-Farabi understood his subject very well; he read the De Anima over two hundred times, the Physics forty times, and other writings of Aristotle, with his students, often.³¹ He led a secluded life. Much time was spent along streams or in shady gardens where he talked with students.

This "second" teacher, after Aristotle, formed a short catechism for higher education consisting of music, poetry, Arabic grammar, history, philosophy, and the Koran. His several music books dealt with rhythmic modes (iqa) and melodic modes (nagham). Students were urged to set poetry to music which was full of local color, desert elements, and

²⁹Fakhry, A History of Islamic Philosophy, p. 291.

³⁰Peters, Aristotle and the Arabs, p. 71.

³¹O'Leary, Arabic Thought and Its Place in History, pp. 144-145.

provincial. . . . Of such Spanish had its beginning . . . joy in exquisite diction, the euphony of words . . . love ballads and everywhere their (music and song) alliance with poetry.³²

The Arabs had a passion of poetic composition, used laureates in their courts, and from such fantasy ideas years later for Cervantes' Don Quixote arose. The sestet began here.

Such arguing is comparable to much of that between the Sufis and other philosophers during the Middle Ages. Some sufis doubtless were sincere, but the suf, a woollen robe, also warmed many charlatans and fanatics. After Al-Farabi was branded a heretic, he became a devout Sufi for the remainder of his life. The Sufi believed in strict bodily discipline with purifying devotionals; he loved God for His own sake. He felt a true knowledge of all things would come through meditation. Thus, Al-Farabi became "the most indifferent of men to the things of this world," says Ibn Khallikan; "he never gave himself the least trouble to acquire a livelihood or possess a habitation."³³ The prince settled a daily allowance on him of four dirhems (two dollars), and provided for him a house at Aleppo. Ibn Arabi said man loved God because He was beautiful, but Al-Farabi saw His beauty in the order that permeated such a lovely,

³²Hitti, History of the Arabs, pp. 428, 559, 561.

³³Ibn Khallikan, Biographical Dictionary, III, p. 318.

God-created universe.³⁴ "The Sufis, said Averroes, maintain that the knowledge of God is found in our own hearts, after our detachment from all physical desires, and the concentration of the mind upon the desired object."³⁵ Some Sufis asserted that they saw God in everything: the loveliness of the earth, the murmur of water, the crashing of thunder. Some came to believe God is all, or each soul is God. When Sufi Husein al-Hallaj declared, "I am He whom I love I am He Who drowned the people of Noah . . . , " he was scourged with a thousand stripes and burned to death.³⁶ In 922 the Sufis made him a saint.

About this time philosophy in Islam was divided into three groups; the materialists said the world had always existed with no Creator while naturalists studied the world of nature as evidence of God's creation. Both Avicenna and Al-Farabi fell into the third group, theists, the modern followers of Aristotle. Al-Ghazali attacked both, listing twenty errors in their logic.³⁷ Aristotelians held that God knew only universals. To Al-Ghazali such amounted to

³⁴Landau, Philosophy of Ibn Arabi, p. 65.

³⁵Avicenna Canon Medicinæ, p. 118, quoted in Corbin, Avicenna and the Visionary Recital, p. 103.

³⁶Hitti, History of the Arabs, p. 438.

³⁷Al-Ghazali, The Incoherence of the Philosophers, quoted in W. M. Watt, The Faith and Practice of Al-Ghazali (London: George Allen and Unwin Ltd., 1953), pp. 37-38.

denial of individual providence.

Plotinus felt that Plato was a religious genius, sublime artist, and a prince of philosophy. Because Avicenna and Al-Razi felt this religious element, they were nearer to the inner spirit of Plato's thought than Ibn Rushd (Averroes) and Al-Farabi. Averroes consistently followed the Alexandrian exegesis of Aristotle, as Al-Farabi did, so he did not agree with some of Avicenna's tenets. He vigorously defended philosophy against Al-Ghazali's attack, with The Incoherence of the Incoherence bolstered with all the Aristotelian philosophy he could bring to bear.³⁸

But one may compare Al-Kindi, in this respect, with Al-Ghazzali, who after having ceased to identify himself with philosophy and having ultimately become a mystic, reaffirmed the exceptional position and superiority of prophecyAl-Kindi's attempt to introduce Greek philosophy into the Islamic world as the handmaiden of theology may then have been more in keeping with the true Islamic way of life than the attempts of Al-Farabi and Ibn Sina and Ibn Rushd to understand prophecy and revelation in exclusively philosophical terms

In the longest treatise recovered from the Istanbul ms., the first book of Al-Kindi's First Philosophy God is described in purely negative terms as the First and the One . . . in a more rigid and more consistent neo-Platonic manner than can be found in any of the later Muslim philosophers from Al-Farabi to Averroes--who combined the Aristotelian conception of God as the supreme Mind with the neo-Platonic description in purely negative terms: God is neither soul nor intellect.³⁹

³⁸Walzer, Greek into Arabic, p. 27.

³⁹Ibid., pp. 180, 188.

Al-Farabi hinted that he became a Sufi to give himself more time for his writings. Avicenna did not withdraw from common life to become immersed in Aristotelian commentators, but strove to construct a philosophy of his own blending oriental wisdom with Greek science.⁴⁰ Al-Kindi and Al-Farabi both believed that there were several stages in the development of intellect in man; while Al-Farabi was interested in thinking for its own sake, Avicenna was more concerned with the soul.⁴¹ Chiefly by the influence of Al-Farabi and Avicenna did Maimonides in the middle of the twelfth century reconcile Aristotle with the Old Testament. Avempace departed little from Al-Farabi in logic. "He conforms almost entirely to Farabi, the quiet, solitary Eastern."⁴² So each is indebted to Farabi, the great instigator of the authority of Aristotle throughout all Islam.

In an argument that appears to have been taken over by all writers from al-Farabi on, al-Kindi urges that if the author of the world were more than one, each one of its associates would share in a common characteristic with the others and would be differentiated from them by some distinguishing attribute or property.⁴³

⁴⁰De Boer, The History of Philosophy in Islam, p. 133.

⁴¹Ibid., 139.

⁴²Ibid., 177.

⁴³Abu Rida, Rasa-il, I, p. 160, quoted in Fakhry, A History of Islamic Philosophy, p. 94.

Others of the falasifah agreed with Al-Farabi that the chief aim of man to become like God would need some rules of self-improvement. Al-Farabi gave these in abundance: the improvement within man, the family, the political unit, and even the autocratic government he proposed because Arabs at that time wanted to be told what to do. "This autocratic trend is in accordance with a deep political tradition in the Middle East"44 Several of the Falasifah, with the exception of Avempace, "held that happiness can be found only in the political community and that the intellectual life can be perfected only within the community."45 Generally, they agreed that the aim was intellectual perfection, and they assumed that whatever existed free from matter was intellect.

In summation, both Al-Kindi and Al-Farabi devoted treatises to intellect. They agreed intellect could have different meanings. When the common man says someone is intelligent, he does not mean the kind of intelligence a theologian usually speaks of. The Aristotelian meaning of intellect was discussed in Analytica Priora; in Ethics he used a different illustration of intelligence. In Metaphysics, he produced yet another type of intellect. The human

⁴⁴Watt, Muslim Intellectual, p. 93.

⁴⁵Weinberg, History of Medieval Philosophy, p. 108.

soul had a reasoning faculty responsible for acts, making intellect a faculty of the soul, according to Aristotle.

Intellect is, however, distinct from the soul which is an entity entirely separate from the body, yet--contrary to Plato--it could not have existed before it, nor can it transmigrate by metempsychosis which is a conception abhorrent to the Islamic mind.⁴⁶

This writer, despite quotations earlier about systematism, found no distinct, clear-cut philosophy from the few fragments of his works remaining.

Because of so many citations from later authors, the works of Al-Farabi have become rather well known around the world. His writings directly influenced the thinking of Christian scholastics because several of his treatises had been translated into Latin in medieval times. He was listed with Averroes, Avicenna, Ibn Khaldun, and Al-Ghazali as being the most influential writers in Islam.⁴⁷

"Having attained a considerable renown and influence, al-Farabi died at a great age, in 950, reportedly killed by robbers in the neighborhood of Damascus, while on a journey."⁴⁸

⁴⁶Afnan, Avicenna, p. 29.

⁴⁷Rescher, Al-Farabi on Aristotle's Prior Analytics, (Pittsburgh: University of Pittsburgh Press, 1963), p. 10.

⁴⁸Ibid.

CHAPTER V

AVICENNA

The Child Prodigy

Avicenna (Abu Ali al-Husayn ibn Sina) was born in 980 in Afshana in the Bukhara district of southern Russia, probably of Persian ancestry. Some accounts exist of his early life, his own autobiography, dictated to a secretary, among them. Likely because this autobiography is only partially extant, some confusion has occurred. Two sources explained that pupils usually took the dictation, which was completed by a student, Abu Ubayd al-Juzjanl.¹ He stated that Avicenna's father had been governor of a small province, Kharmayta, but he returned to Bukhara, the original home of his family, and there Avicenna received his education. Under the Samanid kings, Bukhara rivaled even Baghdad as a center of learning. Descendants of a Zoroastrian noble, Saman, founded a dynasty in 874 that took over Transoxiana until 999.

¹O'Leary, Arabic Thought and Its Place in History, pp. 168-169. Also see Afnan, Avicenna, pp. 58-59.

Avicenna was the elder of two sons, and these boys must have been fascinated by the bustle of this intellectual area. "Bukhara, an old Iranian city known to the Chinese as Pu-ho, also (was) the seat of a large Buddhist monastery and since the Arab conquest a centre of Islamic studies that produced some eminent theologians."² Undoubtedly Avicenna did not exaggerate when he asserted that his learning was prodigious: "After surpassing his teachers in the study of the religious sciences, logic, geometry, and astronomy, he proceeded to master medicine and philosophy."³ Avicenna's father was converted by Isma'-ilian missionaries from Egypt who taught Avicenna philosophy, geometry, arithmetic, and Greek, (for he already had memorized all of the Koran and could read and write in Persian and several Arabian dialects, by ten years of age).⁴ When he was still quite young he had mastered the Koran and much poetry. He had also, he bragged, gained a great deal in the fields of arithmetic, algebra, and theology.⁵

²Afnan, Avicenna, p. 57.

³John Wippel and Allan Wolter, Medieval Philosophy (New York: Free Press, 1969), p. 227.

⁴Avicenna, A Compendium on the Soul, tr. Edward van Dyck, Introduction, quoted in Runes, Treasury of Philosophy, p. 93.

⁵Ibn Khallikan, Biographical Dictionary, I, 440, quoted in Hitti, History of the Arabs, p. 372.

Though his father, who had become a prominent money-changer, hired private tutors for his son, Avicenna began to study medicine by himself and practice his skill free. He was called upon at sixteen to minister to his ailing potentate and soon had him feeling so much better that he insisted Avicenna use his voluminous library, one of the finest in the world.⁶ Of course, being very interested in medicine, he began to systematize such knowledge, as well as accumulating thoughts on astronomy, theology, philology, art, and geometry. "Endowed with extraordinary powers of absorbing and retaining knowledge, this Moslem Persian scholar devoured the contents of the royal library and at the early age of twenty-one was in a position to embark on his career of writing."⁷

Among his best scientific compilations are the Book of Healing (Kitab al-Shifa) and The Canon of Medicine (al-Qanun fi al-Tibb). The former is a philosophical encyclopedia in the Aristotelian tradition modified by Muslim theology and Neo-Platonic influences. The Qanun codified all of the known Greco-Arabic medical thought and was published in Rome in 1593 making it one of the first Arabic books printed.

⁶Afnan, Avicenna, p. 61.

⁷Hitti, History of the Arabs, p. 367.

Avicenna's Escape from Death

No science fiction could leave a reader more awe-struck than episodes in Avicenna's life. Naturally, when he apparently cured the sultan after many physicians had tried and failed, he came into contact with a succession of viziers and many of the most influential men of his day. All his associations were short-lived, and he formed no close friendships. "He moved from the court of the Samanid sultan to that of the Buwayhids, from Bukhara to Rayy and to Hamadan, reluctant to settle in one place because of perhaps simple restlessness or the fear of being persecuted for his Isma'ili sympathies."⁸ His lack of modesty coupled with his nomadism, drinking, and orgies led this writer to believe Avicenna suffered satyriasis and manic-depression. "His own health eventually deteriorated as a result of over-indulgence in drink and sex."⁹ So often he rose after a night of carousing at daybreak because his students came to his apartment. He said he most enjoyed the instruction in logic. He maintained that there were three procedures for proving something. One is syllogism, the second was induction and what accompanies it, and the third

⁸Fakhry, A history of Islamic Philosophy, p. 149.

⁹Ibid.

was analogy and its accompaniment. Always, he said in his autobiography, students followed with equipment for taking notes and always he gave them something worth hearing. Mahmud, a rival sultan, built a mosque with an excellent library.

It had an immense nave, in which 6000 servants of God might fulfill their duties without inconvenience to one another. And he raised near it a college, and supplied it with a library, and rare volumes And to those pure walls came students, professors, and divines . . . and from the endowments of the college they received their daily sustenance, and all necessities, and a yearly or monthly salary.¹⁰

To this alleged paradise, Avicenna refused to go. Al-Biruni, a noted philosopher, and the poet Firdausi went willingly, but Avicenna escaped into the desert with a fellow scholar, Masihi. One might suppose that his refusal stemmed from his belief that Al-Biruni would have the ear of the prince. The question having often been raised about how many of his ideas a philosopher actually believes, one might surmise from his writing of *acquired Reason* that Avicenna thought himself better than the prince because he was a thinker; therefore, he should be able to choose his court and not be ordered to it. Masihi died during a terrible dust storm in the desert, but Avicenna was able to make his way to the court of Qabus where he took service.

¹⁰Saladin and Migeon, Manuel d'art musulman, I, 441, 2 v. (Paris: A. Renaudet, 1907).

Qabus protected Avicenna when Mahmud demanded that he come to his caliphate in order to work with Firdausi and Al-Biruni.¹¹ Unfortunately, Qabus was soon murdered, but even so poor Avicenna was able to escape to the Emir of Hamadan who happened to be ailing. When Avicenna succeeded in making him feel stronger, the Emir was so grateful he gave his physician, Avicenna, vizierate duties including supervision of the army. His men disliked him so much that they captured him, pillaged his home, and planned to kill him. For forty days he hid in the home of a druggist. When the Emir suffered another attack of colic, Avicenna was summoned and reinstated as vizier. Though his duties left him little time, he would rise before dawn to write some pages of his Shifa and started also his Qanun. In addition to all this administrative work, he instructed his pupils of the court each day. Several accounts still exist of his extraordinary industry and varied interests.¹²

"Evidently he did not hesitate to display publicly his love of music and wine, and to share them with those who partook also of his intellectual pleasures."¹³

¹¹Afnan, Avicenna, p. 64.

¹²Afnan, Avicenna, pp. 57-82. See also O'Leary, Arabic Thought and Its Place in History, pp. 168-180.

¹³Afnan, Avicenna, pp. 68-69.

One could well imagine while reading these accounts how insecure Avicenna's position was after the Emir died during a military campaign. Though the son became ruler and asked Avicenna to stay, he had been secretly corresponding with the prince of Isfahan, but why he offered his services to such a remote court is not clear. One of his enemies betrayed his hiding place and he was put in a fortress prison for four months, where he wrote many pages a day on such texts as the Shifa, The Book of Guidance (Kitab al-Hidaya), The Treatise of Living, the Son of the Vigilant (Risalat Haiyibn Yawzan), and The Book of Colic (Kitab al-Qulanj). Though the prince tried to make amends, Avicenna was able to slip from town with friends, all dressed as Sufis. Even during such tribulations, he carried paper and ink. One student reported that he often wrote merely from memory on all kinds of topics, pondering on every question. Each day he wrote some fifty leaves upon all subjects from natural sciences to metaphysics. He was fond of instructing his followers, especially in prayer and the conduct of daily life.

Never one to be outdone Avicenna sought revenge after a scholar at Isfahan, in the presence of the Emir, said he thought Avicenna's expressions in Arabic were poor. This rebuke annoyed Avicenna so much that he took samples of

three different Arab writers and put them into one volume, which he had rewritten full of rare Arabic expressions. He rubbed and soiled the binding pretending he had found it while hunting. Much to Avicenna's satisfaction, the scholar, when presented the work before the Emir, had never heard of it and was totally baffled.¹⁴ But such a rebuke made him feel uneasy with his knowledge of Arabic, so he began to study day and night on Arabic grammar and literature. He was composing The Language of the Arabs (Lisan al-Arab) when he began to suffer more strenuous attacks of the colic. He treated himself with unorthodox methods, none of which seemed to help. On a military expedition with his patron in 1037 he succumbed at the age of fifty-seven.

His Major Contributions

Avicenna's literary output was quite voluminous, and luckily much of it has now been located. "A Dominican scholar, Father G. C. Anawati, has drawn up an inventory of 276 of Ibn Sina's writings, in print and in manuscript."¹⁵ Apart from Greek commentators, Avicenna seemed to be most

¹⁴Afnan, Avicenna, p. 72

¹⁵Fakhry, A History of Islamic Philosophy, p. 150, citing Anawati, Essai de bibliographie avicennienne, Cairo, 1950.

influenced by the Epistles of the Brethren of Purity and Al-Farabi's writings. He read Aristotle's Metaphysics some with his students, but when Al-Farabi's commentary really enabled him to comprehend it, he was so grateful he dashed out into the street and scattered alms, for he said he had despaired of ever learning of it.¹⁶ Aristotle was always his ideal; he stated his own philosophy in his Shifa and summarized it in The Book of Salvation (Kitab al-Najat) in which he repeated that God was the unmoved First Mover, existing by his own nature and who eternally generated the first created being--pure intelligence--by a creative act of thought. The First Intelligence created the Second Intelligence and the first celestial sphere and its soul; the Second Intelligence produced the Third Intelligence, and so the process continued to the Tenth Intelligence, the giver of forms. His delight at classification and categorization was noticed in all works. He classified souls as vegetable, animal, and human, but the human soul could reproduce, motivate, grow, perceive and reason. Reason had two faculties: the theoretic and the practical. The Theoretic could develop to the stage of actual intellect, activated by the Tenth Intelligence; then knowledge consisted of discovering necessary relations between universals.

¹⁶D. Saliba, Etude sur la metaphysique d'Avicenne (Paris: Les presses universitaires de France, 1926), p. 21

There were five external senses and five internal senses. The internal senses were recollection, estimation, representation, imagination, and common sense.¹⁷ Apparently, Avicenna based his theory of intelligences on Aristotle's theory of the movers of the spheres. This idea was to reappear later in Christian medieval philosophy with the intelligences as angels, but Christians rejected his idea of intermediaries in the process of creation. Some identified with his doctrine of the separate active intellect, which exercised the function of illuminating the human mind and linked this with Augustine's theory of illumination, but others rejected, as Aquinas did, the idea of this separate active intellect.¹⁸

Many scholastics adapted Avicenna's metaphysical approach to divinity.¹⁹ Every thing has an essence or certitude, for the truth of the thing is known by the intellect, and every being involves necessity, "for it has an essence through which it is necessarily what it is . . . , a being with the essence of a triangle is necessarily a triangle."²⁰

¹⁷F. Rahman, Avicenna's Psychology (London: Oxford University Press, 1952), pp. 30-39.

¹⁸Frederick Copleston, Medieval Philosophy (New York: Harper & Brothers, 1961), p. 64.

¹⁹Armand Maurer, Medieval Philosophy (New York: Pan-dom House, 1962), p. 95.

²⁰Ibid.

He classed metaphysics as the primary science because its subject was primary with the necessary properties of being and its major divisions, such as substance and accident. God is the divine science, and the goal of metaphysics was to know Him.²¹ For Avicenna each thing must have a cause. For him a cause of motion was not the same as a cause of being. Whereas a cause of being gave a thing its existence, the former gave it only motion.²² Each possible thing must have a cause of its existence, but such causes could not be infinite. A First Cause, receiving existence from no prior cause, was in itself not only a possible but rather a necessary being. Essential to this proof was the assertion that an infinite series of causes of being was impossible.²³

Critics doubt that some recent discoveries entitled Oriental Philosophy could be fragments from his uncompleted text because his treatises throughout showed a homogeneity and continuity of thought that was almost unmistakable. Every Islamic philosopher faced the same difficulty of determining whether universals existed apart from individual

²¹Maurer, Medieval Philosophy, p. 95.

²²Ibid.

²³Ibid., p. 96.

things. He taught that ideas existed before things in God's mind, within the things in which they appear, and after things as abstractions in the human mind.²⁴ Therefore, universals could not exist in the natural world separate from individual things. A century later, Aquinas and Abelard were to give the same reply.

Latins were, two centuries after Avicenna, to syncretize into Scholasticism his teachings. He had restated both Al-Farabi and Aristotle on causes, contingencies, matter, form, and necessity, but fretted over how such multiplicity of mortals would be able to flow from the changeless one.²⁵ So, like Plotinus, he postulated an intermediate Active Intelligence.

He spoke often about human and animal behavior. The function of the practical intelligence in man must control irrational tendencies by not allowing them to get the upper hand, and he compared the good and moral aspects with the practical. He was anticipating Freud's theoretical notion of ego, superego, and id in human personality. He maintained the idea of motivation when he talked of drive and urge.²⁶

²⁴Afnan, Avicenna, pp. 137-138.

²⁵Ibid., p. 138.

²⁶Ibid.

If man has a choice between good and evil on earth, then he has freedom. This individuality with unique drives and motivation lets him learn at his own pace.

But events developed without God's direction by an internal teleology. These events have purposes within themselves; therefore, God could not be responsible for evil because that is the price one paid for freedom of will. Here, in Avicenna's psychology, individuality reared its head, opposed to Mutazilite dialecticians' preachings that God could do no evil nor be irrational. Now God was in a position only to effect that which was in its own nature possible.²⁷

Possibly he realized no one would read eighteen volumes of the Shifa containing for the most part his philosophy and psychology about the healing of the soul. He went through all this work glossing--making marginal notations--for Najat, an abridgement which was fully preserved. Of the Shifa, the Logica and Naturalia adhered strictly to the Aristotelian framework, but the Mathematica was compiled from Euclid and Ptolemy. The latter part of Theologia showed Neo-Platonic strains and Aristotelian pseudopigraphica (apocryphal constructs).²⁸

²⁷De Boer, The History of Philosophy in Islam, pp.136-8.

²⁸Peters, Aristotle and the Arabs, pp. 106-107.

Oriental Philosophy seemed to play an important part in Avicenna's last years. In recently discovered material, he mentioned that he divided scholars into two groups, Orientals and Occidentals, in his Letter to al-Kiya and various dialogues between Ibn al-Tayyib and himself.²⁹ Though he was not on the best terms with this current leader of the Peripatetic renaissance in Baghdad, Ibn Al-Tayyib, and did not belong to their school formally, he became an obvious product of the Peripatetics by using some of their views. He probably viewed the contemporary kalam as primitive, but knew his work must cater to the courts where he lectured.³⁰ Later in this paper, his influence upon Albert the Great and Roger Bacon is discussed. He said that Orientals would criticize the Occidentals until the truth was reached and an arbitration made. Some confusion has existed about just which groups Avicenna had in mind.³¹ Apparently he thought of the Occidentals as the Peripatetics of Baghdad and envisioned Al-Tayyib as his specific opponent.

²⁹A. Badawi, Aristu ind al-Arab (Cairo, 1947), pp. 119-122, quoted in Peters, Aristotle and the Arabs, p. 167.

³⁰Peters, Aristotle and the Arabs, p. 229.

³¹Henry Corbin, Avicenna and the Visionary Recital, tr. by W. R. Trask (New York: Pantheon Books, 1960), p. 272.

Similarities between Writings of
Avicenna and Al-Farabi

Al-Farabi pointed out that one could conceive what something was without knowing whether it existed. From this Avicenna took his notion of the distinction between essence and existence. For both "a creature in itself is a possible being; that is to say, it is an essence which can exist when given existence by its cause. Its existence, then, is not identical with its essence, nor is it one of the essential properties following upon the essence . . ."³² When Avicenna stated that God knew all possible things in general but not in particular and that freedom of will for each one was possible, orthodox Muslims denounced Avicenna as a liar and one who would--with rationalism--cheat a man out of heaven.³³

By using Aristotle's Theology, Al-Farabi tried to take an intermediate position about the world being eternal by explaining in Neo-Platonic fashion the successive stages of emanation.³⁴ In order to sidestep the problem of whether matter was eternal (Aristotle) or created (theologians),

³²Maurer, Medieval Philosophy, p. 97.

³³Ibid.

³⁴Afnan, Avicenna, pp. 126-127. Translations of these problems of metaphysics are from Avicenna's Najat.

Avicenna realized distinctions must be made to satisfy both conditions, so he explained expansively between eternal in essence and eternal in time. Also "created" could have different meanings: "'it is that for whose essence there was an origin by which it exists'; and in the other 'it is that for the age of which there was a beginning, and there was a time when it did not exist.'"³⁵ Farabi spent much energy expounding the ideas of occidental philosophers. Avicenna lauded philosophy as such but considered himself as an oriental individual thinker.

For all practical considerations, the human soul was the equivalent of intellect for Avicenna. In epistemology, he followed Al-Farabi:

The individual human intellect is capable of receiving and cataloguing sense-impressions, and of making estimative and practical judgments, partly by the memory of experiences in the past and partly by an intuition of principles, but the final act of intellection, by which the mind abstracts the universal form, which if the object of intellectual knowledge and the basis of all philosophy and science, is due to illumination by the single Active Intelligence external to the individual 'possible' or 'passive' intellect, and this active intelligence illuminates the essences or forms of things in so far as the individual intellect is ready to receive them.³⁶

³⁵Avicenna, Najat, p. 218, quoted in Afnan, Avicenna, p. 127.

³⁶Knowles, The Evolution of Medieval Thought, "Arabian and Jewish Philosophy," p. 198.

Many Islamic philosophers, including Al-Farabi, maintained with the great Stagirite that the heart was the seat of sensus communis and, therefore, memory and imagination, but Avicenna treats each as a separate faculty, such as retentive, recollective, and estimative faculties. In man there was a regular hierarchy among faculties. In psychology, Avicenna continued Al-Farabi's reflections about organs and intellect. At the age of forty, he stipulated, body members began to lose strength, but not necessarily the rational faculty. As in the cases of illness or old age, one should remember that the soul has a twofold duty, "one in relation to the body in the form of governance and control, and another in relation to itself and its principles in the form of intellection."³⁷ Thus, the soul could become engrossed with sensibles and is kept away from intelligibles--"fear keeps away hunger, appetite hinders anger, and anger makes one forget fear."³⁸ Consequently, the soul is not in the body, nor does it die with it.

Both were similar in their ideas about natural sciences, medicine, and music. They devoted much space to time approaching it from diverse angles. Islam dictated

³⁷Avicenna, Najat, p. 295, quoted in Afnan, Avicenna, P. 146.

³⁸Ibid.

that time was a created thing to measure other created things. Kindi, representing the Falasifah, said time was a "period determined by movement and of which the parts are not fixed."³⁹ Al-Farabi's was the Aristotelian conception, that is, the motion of the spheres; but Avicenna insisted that time was older than the initial movement. For Avicenna, as for Aristotle, the central position of the earth was a necessary assumption. This geocentric theory of the universe corresponded to Aristotle's Meteorologica, and many accurate descriptions of aqueous mixtures and geological insight are presented in sections of Shifa and Najat. He named mineral substances and their properties, dividing mineral bodies into stones, fusibles, salts, and sulphurs. He made vast recordings of natural phenomena and gave explanations for each. For example, the black marks or reddish disks around certain stars were gases burning because of constant motion. If the fire burned fiercely enough, it formed a tail producing a comet. Neither Al-Farabi nor Avicenna regarded astrology as a worthy science, but both contributed treatises in astronomy, as well as mathematics. Avicenna considered mathematics a distinctive branch of learning for a philosopher. Al-Farabi differentiated between theoretical and applied

³⁹Avicenna, Tis'a Rasa-il, in Afnan, Avicenna, p. 215.

arithmetic and continued to subdivide. Avicenna produced a commentary on Euclid's Elements and the principles of geometry in a section of the Shifa. Another section was on arithmetic, "which includes a description of the Indian methods of addition and subtraction, learnt, as he tells us, when as a young boy he was sent by his father to work in a grocery shop specially for that purpose."⁴⁰

Both considered music a mathematical science. On music theory in the introduction of Grand Book of Music, Al-Farabi's legacy has been declared "certainly equal, if not superior, to anything that has come down to us from Greek sources."⁴¹ Avicenna was first to introduce the Persian names of some of the modes which were later adopted, and it was Avicenna, after Al-Farabi, who made the most valuable contribution to the theory of music.

⁴⁰Afnan, Avicenna, p. 226.

⁴¹H. G. Farmer, The Legacy of Islam, p. 367, quoted in Afnan, Avicenna, p. 229.

CHAPTER VI

AL-GHAZALI

His Youthful Interests

Abu Hamid Muhammad ibn Muhammad al-Ghazali, better known as Algazel, (1058-1111), who was orphaned at an early age, was reared by a guardian. In order to be sure of a good education for Al-Ghazali and his younger brother, the guardian engaged a Sufi school master, who had been a friend of the father.

As a child, he studied in his native city and then went to Jurjan where he studied for some years. His early religious life began in orthodox fashion as an Ash-arite, but, while still an adolescent, he turned to Sufism. Young Al-Ghazali showed great intellectual promise while studying with the most noted theologian of the age, Al-Juwayni. Such an outstanding student was brought to the attention of the all-powerful vizier, Nizam Al-Mulk. He spoke about this young man to the Turkish sultan of the Abbasid caliphate of Baghdad, who was impressed enough to appoint Al-Ghazali a professor at the university, Nizamiya madrasa of

Baghdad. "Thus at the age of thirty-three he had attained to one of the most distinguished positions in the academic world of his day."¹ Here he gained great influence in government circles while teaching Shafi law and writing polemics against the Isma-ilis.

Though Ash-ari scholasticism had won acceptance by the learned (ulama) at this time, they still were quite suspicious of the Sufis. "Credit for being the catalyst in the new religious synthesis of the eleventh century A.D. must be given to Al-Juwayni's brilliant pupil, Abu Hamid Al-Ghazali, a man whose intellect, orthodoxy and sincerity were above serious suspicion, and whose arguments were able to disarm hostility."²

The following section on eschatology is a good example from Al-Ghazali showing what the ulama thought appropriate for common people to know of doctrine:

. . . God would not accept the faith of a creature, so long as he did not believe in that which the Prophet narrated concerning things after death he should believe in the Balance. . . . deeds are weighed by the power of God most High; and its weights on that day will be of the weight of motes and mustard seeds. . . . the Bridge is a Verity; it is a bridge stretched over the

¹Montgomery Watt, The Faith and Practice of Al-Ghazali, (London: George Allen and Unwin Ltd., 1953), p. 11.

²John A. Williams, Islam (New York: George Braziller, 1962), p. 196.

back of Hell, sharper than a sword and finer than a hair. The feet of the unbelievers slip upon it, by the decree of God, and fall with them into the Fire. But the feet of believers stand firm upon it, by the grace of God, and so they pass into the Abiding Abode.³

The Greatest Muslim after Mohammed

"This 'father of the church in Islam; has since become the final authority for Sunnite orthodoxy. Moslems say that if there could have been a prophet after Muhammad, al-Ghazzali would have been the man."⁴

Al-Ghazali has sometimes been acclaimed in both East and West as the greatest Muslim after Muhammad, and he is by no means unworthy of that dignity. His greatness rests above all on two things: (1) He was the leader in Islam's supreme encounter with Greek philosophy--that encounter from which Islamic theology emerged victorious and enriched, and in which Arabic Neoplatonism received a blow from which it did not recover. (2) He brought orthodoxy and mysticism into closer contact; the orthodox theologians still went their own way, and so did the mystics, but the theologians became more ready to accept the mystics as respectable, while the mystics were more careful to remain within the bounds of orthodoxy.⁵

While lecturing, Al-Ghazali became a skeptic. He had spent his first years in Baghdad in a private study of philosophy before he became such a popular lecturer that he

³Williams, Islam, pp. 203-204, quoting from Al-Ghazali, Ihya Ulum al-Din on Theology.

⁴Hitti, History of the Arabs, p. 431.

⁵Watt, The Faith and Practice of Al-Ghazali, Introduction, pp. 14-15.

attracted over three hundred students.⁶ The greatest thing about Al-Ghazali was his personality, and such charisma, perhaps comparable to that of the late Abdul Nassir of Egypt, has rarely been seen in international figures.

Notwithstanding, Al-Ghazali enjoyed no peace of mind. After only four years of student adoration, he said in his autobiography, Al-Munqidh min ad-Dalal (literally, What Delivers from Error), "I examined my motive in my work of teaching, and realized that it was not a pure desire for the things of God, but that the impulse moving me was the desire for an influential position and public recognition."⁷

Wrestling with the hypocrisy of orthodox teaching might have caused his mental collapse. After some four years of teaching and lecturing, he suffered a near breakdown, and could not return to his lecturing for several years,⁸ (pronunciation of certain sounds had become difficult for him).

He fell into some months of indecision, resigned his position because attempting to lecture was embarrassing, and left ostensibly for a Mecca pilgrimage which never

⁶Hyman and Walsh, Philosophy in the Middle Ages, pp. 264-265.

⁷Williams, Islam, p. 197, quoting Al-Ghazali, Deliverance from Error.

⁸Ibid.

materialized. He relinquished not only his position at the academy, of course, but also his influence and wealth, so perhaps the means was never again available.

One could ascertain from his writing that he suffered spiritual debility, and he saw the pilgrimage as his major ablution.

The aim of the itinerary which he now purposed, in the course of which he was to submit himself to the most rigorous of ascetic disciplines, was to follow the Sufi path to 'the light of unveiling' and to discover a 'knowledge' which had eluded him while he was employed with the categories of systematic theology.⁹

Actually, he might have resigned because of political pressure rather than concern for his soul. Nevertheless, the philosophical world benefited by his decision despite what many historians said about his blows against philosophy in the name of theology. Just such reflections about reason have given philosophy its finest hours.

His monumental theological work, The Revival of the Religious Sciences (Ihya Ulum al-Din), was written while he was living as an ascetic c. 1096 in Damascus. His plan for this magnum opus was four quarters of ten books each. The beginning Worship contained an epistemological introduction. The second was titled Personal Behavior; the third dealt

⁹Al-Ghazali, The Book of Fear and Hope, tr. by William McKane, (Leiden: E. J. Brill, 1965), Introduction, p. ix.

with Mortal Sins; and the fourth which is concerned with The Means of Salvation included the popular Book of Fear and Hope.

The next decade was passed in roaming as a mystic (Sufi) involved with daily meditation and spiritual exercises. Since the orthodox Ash-arites now accepted Sufism, Al-Ghazali's conversion was a great victory for the mystics. Exponents of Islamic law and doctrine (Mullah) still controlled the legal world and official religious rites, but the dervishes, saints, and Sufi monks dominated the field of religious thought. Through gifts, many religious orders became wealthy. "Formerly," a Syrian sheik complained about 1250, "the Sufis were a fraternity dispersed in the flesh but united in the spirit; now they are a body well clothed carnally, and ragged in divine mystery."¹⁰ Worshippers were awed by sincere devotees and attributed to them great deeds and powers. "Mohammedanism, like Christianity, was a developing and adjustable religion, which would have startled a reborn Mohammed or Christ."¹¹ As worship became more fervent, non-Muslims had to endure further acts of

¹⁰Sa'di, The Gulistan, in R. Gottheil, Literature of Persia, II (London: Oxford University Press, 1919), p. 25.

¹¹W. Muir, The Caliphate (London: Verry, Lawrence, Inc., 1965), pp. 146-148.

discrimination. They had to ride asses or mules; and non-Muslim children could not attend Muslim schools but could and did have schools of their own.¹²

Although the son of his former benefactor persuaded him to lecture in 1105 at the Nizamiya (Nazimite Academy) at Nishapur, he soon retired to his native Tus where he established a Sufi monastery. He died there in 1111.

Called the "Renewer of Islam," he has been regarded as the greatest of its theologians, with over four hundred works attributed to him dealing with Islamic law, polemics, philosophy, beliefs and practices of Sufism, theology, and others.¹³ In Tahafut al-Falasifah (The Incoherence of Philosophers), he refuted some Aristotelian doctrines as he understood them from the writings of Avicenna and Al-Farabi. His critique was "not simply a pietistic attack on the study of philosophy, but a reasoned attempt to show what philosophy could do and what it could not do."¹⁴ After a period of complete skepticism, he decided that rejection of philosophy was unwarranted. He wrote such an impartial summary of Aristotelianism, Maqasid al-Falasifah (The Intentions of

¹²Muir, The Caliphate, p. 146.

¹³Hyman and Walsh, Philosophy in the Middle Ages, excerpts from Algazali, p. 265.

¹⁴Ibid., p. 263.

the Philosophers) that Christian scholastics supposed he favored Avicenna's views. Al-Ghazali always regarded natural sciences, logic, and mathematics highly. Of the twenty propositions used to refute Aristotelians, most of them deal with metaphysics, a field in which he felt the philosophers had not defended their ideas well. Those who affirmed such propositions could be no better than heretics at the least or infidels at the most. Particularly objectionable were the denial of individual providence--God knows only universals), denial also by the philosophers of bodily resurrection--they admitted spiritual immortality, and their affirmation of creation with emanation--the world is eternal.¹⁵

To this writer the Tahafut was paradoxical. To please the sultan and satisfy his readers, the critique spoke of the destruction of philosophy, but a finer piece of reasoning has seldom been seen. After careful scrutiny, the humble opinion of this writer differed from historians. The blow to philosophy in Islam was meant to stand as a touchstone of thought for modern readers. Al-Ghazali was extremely clever; he knew that theologians of that time would read superficially, and he also knew that his work would stand the test of time. One can smile smugly when

¹⁵Watt, Faith and Practice of Al-Ghazali, pp. 36-43.

reading such assertions as "he could not help but state that many propositions were contrary to religious teachings,"¹⁶ for these historians recorded just what Al-Ghazali supposed they would, but he knew a philosopher would dig deeper into his thoughts. This hypothesis is based on other writing as well. He worded his refutation of the Aristotelians so impartially in The Intentions that Christians considered him an exponent. He wrote that pilgrimages were good for the soul with a long individual itinerary though he likely never seriously intended to take such a journey. He told his readers that his mental breakdown was caused by his wrestling with his soul, while historians have showed that his resignation was forced politically. Again it seemed that he catered to the understanding of his readers in that era.

Of all the literature studied, only one commentary voiced an affirmation of the writer's hypothesis.

A destruction of philosophy would presumably involve a destruction of the philosophical method. . . . Al-Ghazali proceeds to the attack not as a theologian but as a philosopher inter pares; the propositions are shown to be bad philosophy. Whatever al-Ghazali may have intended, the implication of the Tahafut is clear for all to see: by meeting the philosophers, principally Ibn Sina, on their own terms, the battle was shifted to a ground where the opponents of philosophy could not hope to win,

¹⁶Hyman and Walsh, Philosophy in the Middle Ages, pp. 263-264.

and post-Ghazali kalam is, in fact, nothing more than philosophy's progressive occupation of territory already tacitly ceded by al-Ghazali, a Saint Thomas malgré lui.¹⁷

Most of his books were written on a personal level, as if one were talking to a modern-day counselor. He advised his readers about backbiting, envy, breaking promises, jesting, hypocrisy, and other sundry items that made enjoyable reading. He could be likened to an early-day Carl Rogers, more a psychologist than a philosopher.

The moment he admitted that logic was not the prerogative of philosophers but could be usefully employed by everybody, he lost his case against reasoning. Mainly he attacked the Falasifah, using Avicenna and Al-Farabi as representative figures, in the metaphysical field for stating that religious laws are traditional conventions and not of divine origin.¹⁸ He explained that Avicenna had attached "undue importance to his division of beings into the possible, the impossible and the necessary."¹⁹ He insisted that God's prophets were informed directly and not through any reasoning; therefore, prophets and not philosophers become one with God. He carried Porphyry's

¹⁷Peters, Aristotle and the Arabs, p. 230.

¹⁸Afnan, Avicenna, p. 238.

¹⁹Ibid., p. 237.

"know thyself" formula two steps farther. He exhorted his followers with, "He who knows himself knows his Lord," and, "He among you who knows himself best knows his Lord best."²⁰

Al-Ghazali was fond of the microcosm motif, and Kitab al-Imla offered a list of correspondences between microcosmic man and the macrocosmic world. But how did knowledge of the macrocosm through introspection yield a knowledge of God? His position is summarized:

Man is essentially intellect. He is created in the image of the Merciful One, which we take to signify the supernal intellect or Vicegerent. In the act of union the mystic becomes identical with this supernal intellect and, like it, by virtue of the intellect's self-knowledge knows his Lord.²¹

He warned, however, that mystics became so engrossed that they might mistake the intellect for Allah himself.

In his Munqidh (Deliverance from Error), he divided philosophers into three schools and told how the defect of unbelief affected them all. He explained that many sects were in each group. The first group, Materialists (Dahriyun), consisted of irreligious nonbelievers who denied the Creator. The second, Naturalists (Tabi-iyun), sought answers through nature and denied that the soul returns to

²⁰Al-Ghazali, Mishkat al-Anwar, tr. by Gairdner, Cairo, 1903, pp. 75-76, quoted in Altmann, Studies in Religious Philosophy and Mysticism, pp. 1-13.

²¹Ibid., p. 13.

life. They did not believe that there were rewards and punishments from God. Such assertions angered Al-Ghazali.

"With the curb removed they give way to a bestial indulgence of their appetites."²² The third group, Theists (Ilahiyyun), included Socrates, Plato, and Aristotle who exposed the defects of the Materialists and Naturalists "so effectively that others were relieved of the task."²³ Nonetheless, the materialists were the ones that brought the new learning into Mutazilite circles by propagating a "completely naturalistic world without creator and subject only to the laws of nature and the movement of the spheres."²⁴

So, when Al-Ghazali challenged the Falasifah in general and Avicenna in particular, in the name of Islamic orthodoxy, the issue between reason and faith was irrevocably joined. Al-Ghazali was as likely to eradicate Falasifah as Basil of Caesarea was to stamp out Hellenism.

Falsafah as such was further weakened, but in its place stood the scholastic kalam, faithful in principle to the revelation of the Qur-an, but unmistakably the product, in shape and procedure, of the Hellenic tradition in philosophy, orthodox and at the same time Aristotelian.²⁵

²²Al-Ghazali, Al-Munqidh min ad-Dalal, quoted in Watt, The Faith and Practice of Al-Ghazali, p. 31.

²³Ibid., p. 32.

²⁴Al-Khawarizmi, Mafatih al-ulum, p. 35, quoted in Peters, Aristotle and the Arabs, p. 139.

²⁵Peters, Aristotle and the Arabs, p. 187.

From the Koran nothing could be deduced by the use of argument; all speculation lay under a ban, for it was contrary to use any philosophical methods. "Al-Ghazali tells us in his 'Confessions' that some sincere Muslims felt themselves bound to reject all the exact sciences as of dangerous tendency, and so repudiated scientific theories as to eclipses of the sun and moon."²⁶

Since Al-Ghazali became in his later years a mystic, he turned to a type of ethics called mystico-psychological. Its exponents considered contentment, endurance, and resignation as virtues. Moral philosophers were physicians, and vices were treated as maladies of the soul.²⁷ He refuted such ideas as acquisition of knowledge being the object of education and emphasized the necessity of stimulating the moral consciousness of students. He was the first author in Islam "to bring the problem of education into organic relation with a profound ethical system."²⁸ He defended the use of music and song in education. His defense caused music to play an important role in Sufi rituals. Most of his technical treatises on Arabic music have been lost.

²⁶O'Leary, Arabic Thought and Its Place in History, p. 209.

²⁷Hitti, History of the Arabs, p. 401.

²⁸Al-Ghazali, Ihya al-Walad, I, 43-49, quoted in Hitti, History of the Arabs, p. 411.

One of his best illustrations of refutation was his attack on causality in order to substantiate miracles. He held that God is the only real cause and all alleged causal connections are due to His direct action. But Al-Farabi and Avicenna held that connection between causes and effects was one of logical necessity; existence of a cause without its appropriate effect was impossible.²⁹ However, Al-Ghazali held that cause and effect each has its own individuality. Any connection need not be a necessary connection. One was not the other, that is, cause was not effect, so neither the existence or non-existence of one is implied in the negation or affirmation of the other. Observation of combustion when a flame contacts a piece of cotton proved only simultaneity, not causation, for Al-Ghazali.

He encouraged mysticism and orthodoxy at the expense of philosophy, but one cannot agree with historians that his critiques caused any decline in philosophical speculation as far as an over-all, worldly view is concerned. Perhaps he anticipated Hume in suggesting that causal belief is associated with habit. He reduced causality to mere sequence seven centuries before Hume.

Then, what, in effect, did Al-Ghazali accomplish?

²⁹Weinberg, A Short History of Medieval Philosophy, pp. 122-124.

He used all the arts of reason against reason itself. This transcendental dialectic, much like Kant's, was employed to argue for moral order, immortality, a stern deity, and other ideas he felt were good for the people. Without such eloquence the treatises would have been ignored. He was compared to Augustine by Christians for pietistic expositions.

He made "the individualistic aspect of religion intellectually respectable."³⁰ In practice, he effected a "genuine integration of individualism and communalism."³¹ He seemed to establish Sufism, keeping it free from the rigidity of Islam; and this orthodox mysticism still lives in Yemen.

Though he rendered philosophy subordinate to theology, he popularized its use. Even into the educated he cast a fear of God and a renewal of faith. To posterity, he left his autobiographical account of spiritual development which can rightly be placed beside St. Augustine's Confessions.³²

³⁰Watt, Muslim Intellectual, p. 180.

³¹Ibid.

³²De Lacy O'Leary, Arabic Thought and Its Place in History, pp. 223-225.

CHAPTER VII

AVERROES AND IBN TUFAIL

Averroes' Legal Training

Averroes or Mohammed ibn Ahmed ibn Mohammed ibn Rushd (1126-1198) was born into a family of Cordovan lawyers. He likewise studied law and became a judge as his father had been. In addition to his legal training, he studied philosophy, mathematics, theology, and medicine. After serving as judge for some years, he turned to the medical profession, influenced probably by his good friend, Abu Marwan ibn Zuhr of Seville. Ibn Zuhr, known to the medical profession as Avenzoar, wrote a book about therapeutics and diet (Kitab al-Tasir) at Averroes' request. This friendship developed from mutual admiration. Ibn Zuhr considered Averroes the greatest philosopher of his age, and Averroes called Ibn Zuhr the best-qualified physician since Galen. But as he left the legal profession, he neglected his medical practice in order to study philosophy and write his commentaries, for which he became known in the Middle Ages as "the Commentator."

Though he was a good friend of the physician Ibn Tufail, he never studied philosophy with him. Averroes depended upon Arabic translations of Aristotle because he did not read Greek. He had much in common with his predecessor, Avicenna. Both were prodigious scholars. Both wrote interpretations of Aristotle's philosophy. Although they wrote in Arabic and were Muslims, they were not Arabs. Avicenna was a Persian, and Averroes, a Spaniard.

His philosophical education is not well documented. Some historians list his mentors as Ibn Tufail and Ibn Bajjah, but the latter died when Averroes was only twelve. Although Ibn Tufail was a friend of Averroes, he was likely too busy as chief physician to the sultan to have time to teach Averroes. Most biographers credit Abu Jafar Harun with being the instructor that lighted that intellectual fire of Aristotelian philosophy in Averroes.

In addition to early philosophic comments, he wrote four books on law and several on medicine of which Al-Kulliyat fit-tibb (General Medicine) was met with great enthusiasm. His knowledge of jurisprudence was not wasted, for the caliph appointed him qadi (judge) of Seville in 1169 and two years later of Cordova where he served for some years.¹

¹Hitti, History of the Arabs, p. 582.

How Averroes Became the Best Aristotelian
Commentator in Islam

Ibn Tufail introduced Averroes to the caliph, Abu Ya-qub Yusuf. Some confusion was noted about Averroes' age among biographies. This well-recorded meeting was said to have taken place in 1153, 1169, and even as late as 1182.² However, the meeting must have been after Averroes had done some writing because the caliph had heard of his work. He was appointed body-physician to the new caliph, Abu Yaakub, which would necessarily be later than simply an introduction to the prince.

When I was presented to the Prince of Believers I found him alone with Ibn Tufail, who . . . sounded my praises to him with compliments that I did not deserve . . . The Emir opened the conversation by asking, "What opinion did the philosophers hold about the heavens? Are they eternal, or did they have a beginning?" I was overcome with terror and confusion, and sought some pretext for not answering . . . but the Emir, perceiving my trouble, turned to Ibn Tufail, and began to discourse with him on the question, recalling the opinions of Plato and Aristotle and other philosophers, and the objections that had been made to them by Moslem theologians; all with such fullness of memory as I should not have expected even of professional philosophers. The Emir put me at my ease, and tested my knowledge. When I had retired he sent me a sum of money, a riding horse, and a costly robe of honor.³

²Fakhry, A History of Islamic Philosophy, p. 303.

³E. Renan, Averroes et l'averroisme: essai historique 3rd ed. (Paris: Calman-Levy, 1866, reprinted, 1948), p. 16. (The original was *Al-Mujib fi Akhbar al-Maghrib*).

In the eleventh century the latitude for reflection and speculation had narrowed so much that warning notes were sounded from Eastern and Western Islam.

Since those so-called scholars have denounced as infidels those who know the science of created things, the seekers after the how and why have become silent . . . , so that ignorance has overmastered all the people . . . nobody now remains who is capable of uniting the science of true religion, which is a product of the Holy Ghost, with the science of creation, which is an appendage of philosophy. For the philosopher relegates these so-called scholars to the rank of the beasts, and on account of their ignorance despises the religion of Islam; while these so-called scholars declare the philosopher to be an infidel. As a result, neither true religion nor philosophy remains any more in this land.⁴

In addition, Al-Ghazali's Tahafut al-falasifah was being read throughout Islam. Also in his autobiography, Kitab al-munqidh min ad-dalal, he told in a more personal way how philosophy had failed him. No one challenged him in the East, and eighty years were to pass before Ibn Rushd rose against the great Imam's attack in the West. About the middle of the twelfth century (1146-7) the Almohades overthrew another Berber group called the Almoravides and conquered their Andalusian provinces. The conqueror, Abd al-Mu-min, was a scholar and during his reign the books of

⁴Nasir-e Khosraw, Kitab jami al-hikmatayn, tr. by A. J. Arberry, Revelation and Reason in Islam (London, 1957), p. 72, quoted in George F. Hourani, Averroes (London: Luzac & Co., 1961), Introduction, p. 4.

Ash-arite theologians and Al-Chazali first became so widely familiar to the educated of the West. Sufism prospered at Almeria. The doctrines must have been a direct transmission between Ibn Arabi and Ibn Masarra because they were pantheistic and Neoplatonic. The intellectual tendencies of Al-Mu-min intensified in his son Abu Yaqub Yusuf, an extremely learned traditionalist, familiar with the Koran. He set many to work on compilations, book collecting and philosophical discussions. He began his Councils with discussion of a learned question with both city and tribal scholars. How Averroes became involved in these discussions and won the prince's favor is quite interesting. Ibn Tufail summoned Averroes to ask him for clarification of Aristotle's expression.

. . . if you have in you abundant strength for the task, perform it. I expect you will be equal to it, from what I know of the excellence of your mind, the purity of your nature, and the intensity of your application to science. I myself am only prevented from this undertaking by my age, as you see, my occupation with government service, and the devotion of my attention to matters which I hold more important.⁵

With his Aristotelian commentaries in the seventies, he aroused extra murmurs about useless speculation and treatments of corruption against honest Muslims.

⁵Marrakushi, Mu-jib: Abd al-Wahid al-Marrakushi, 2nd ed. P. Dozy (Leiden, 1885), p. 174, quoted in Hourani, Averroes, p. 13.

Averroes' Major Contributions to Scientific Thought

Averroes considered Aristotle the greatest of all philosophers stating that nature produced him as a perfect specimen. With few exceptions, the commentaries were lost in the Arabic original, but several were translated into Latin and Hebrew which were important medieval and Western Latin Aristotelian studies. For more than three hundred years Western scholars understood Aristotle through Averroes' commentaries.

His views on religion and philosophy are in close accord with Al-Farabi's belief in the primacy of reason, but he often disagreed with Avicenna. Avicenna argued that creation is necessary and eternal, but Averroes denied the idea of creation as a religious innovation. "Averroes also rejected the distinction between essence and existence, saying that there is no real distinction between them (such as led Avicenna to distinguish between the possible and active intellects), but only a logical distinction for purposes of analysis."⁶

Mainly his defense was against two groups in Islam, philosophers like Al-Farabi and Avicenna who had distorted true philosophy and Muslim theologians who attacked philosophy. He considered the worst enemy to be Al-Ghazali,

⁶S. E. Stumpf, Socrates to Sartre (New York: McGraw-Hill, 1966), p. 181.

who attempted to refute Aristotle's doctrines in The Incoherence of the Philosophers. In rebuttal, Averroes upheld philosophy as the highest truth with The Incoherence of the Incoherence. The main problems of Muslim theology are weighed with philosophy presented as the only suitable answer. "The eternity of the world, the Creator and First Cause, the attributes of God, God's knowledge and providence are discussed in this lengthy and exhaustive work."⁷ The search for truth with Al-Ghazali quoted in full is presented with subtlety and fairness. He used many analogies in Tahafut at-tahafut:

But when the wicked and ignorant transgress and bring poison to the man for whom it is really poison, as if it were nourishment, then there is need of a physician who through his science will exert himself to heal that man, and for this reason we have allowed ourselves to discuss this problem in such a book as this, and in any other case we should not regard this as permissible to us . . . And since it is impossible to avoid the discussion of this problem, let us treat it in such a way as is possible in this place for those who do not possess the preparation and mental training needed before entering upon speculation about it.⁸

Averroes thought that the soul was material and as such did not survive death. Man's special status, then, is his unity through knowledge with the supreme intellect.

⁷Walzer, Greek into Arabic, p. 27.

⁸Averroes, Tahafut at-Tahafut, tr. S. Van den Bergh (London, 1954), 2 vols., quoted in Hourani, Averroes, p. 37.

Both Avicenna's and Averroes' doctrines are interpretations of Aristotle influenced by Neo-Platonism, but the Averroes' view of human intellect was the one that rocked Western Christendom. Avicenna's theory was based on Aristotle's idea of the movers of the spheres. In the Christian medieval philosophy, these Intelligences became angels. Christians rejected his idea of intermediaries in creation and his Neo-Platonic idea of creation as a necessary process. "Aristotle had distinguished in man the active intellect, which 'abstracts' the forms or essences of things, from the passive or potential intellect which receives these forms as concepts or ideas."⁹ Scholastics thought that Averroes said that both the active and passive or potential intellects are separate intelligences that enter into a "temporary connection with individual human beings."¹⁰ This interpretation was inaccurate because it implied that the passive and active intellects were distinct. He meant that the active intellect, in all men, produced, by its contact with the passive, a kind of combination of both, a material intellect. He identified the latter as a particular activity of the separate active intellect in the person.

⁹Frederick Copleston, Medieval Philosophy (New York: Harper and Brothers, 1952), p. 65.

¹⁰Ibid.

This concept, of course, brought about all the trouble with Christians. He said only one principle intellect was immortal and that was the numerical one in all men entering each as an illuminating activity. Then no individual intellect could survive death, and, needless to say, this idea could not harmonize with orthodox Mohammedan theology either. Apparently he had misinterpreted Aristotle's De anima, which he could read only from the Arabic.

His Aristotelian commentaries fell into three categories: the great commentaries, the middle commentaries, and the paraphrases. He preferred paraphrasing, editorializing with few verbal reproductions of the original. He did not hesitate to omit obscurities and irrelevancies in Abu Bishr's translation of Poetica.¹¹ This venerable pedagogical device of free paraphrasing led to syncretizing. Though some of the Arabic epitome literature showed extensively reworked passages and was second-hand, it offered the Arab intellectual several approaches to classical works with introductory remarks and summaries of contents being quite detailed and informative.¹²

Averroes knew that Truth had been given him through his Divine Teacher, Aristotle. Being Muslim, he had to

¹¹Peters, Aristotle and the Arabs, p. 97.

¹²Ibid., pp. 96-98.

to fly two banners. This "double truth" he explained by developing a proposition that could be theologically true but philosophically untrue, and vice versa. "In reality, Averroes taught that there is one eternal truth, which, according to the various levels of education, can be formulated and comprehended in two ways, namely, the way of revelation, by the Koran, or the way of natural knowledge, with the aid of Aristotle and other philosophers."¹³

He explained that both religion and philosophy had functions since they served different kinds of persons. He divided people into three main groups. (1) The majority live by imagination rather than reason, being "kept virtuous through fear communicated by eloquent preachers."¹⁴ But philosophers are motivated by knowledge. Because religion and philosophy communicate different contents, they instill different truths which do not necessarily contradict each other. (2) Theologians attempted to devise intellectual supports for religion but are prejudiced with inflexible assumptions. (3) The small third group was philosophers who knew truth directly. "Actually, Averroes thought that religious beliefs had a social function in that

¹³Averroes, Metaphysics, Fourth Treatise, Introduction, quoted in Runes, Treasury of Philosophy, p. 90.

¹⁴Stumpf, Socrates to Sartre, p. 181.

they made philosophical truths accessible to minds that were incapable of philosophical thought."¹⁵ Since religion, according to Averroes, was by nature a deviation from reason, theologians should have known better than to use such sophisticated reasoning with the masses.

In his treatise, Kitab fasl al-maqal wa taqrir ma bayn ash-shari-a wal-hikma min al-ittisal (The Book of the Decision of the Discourse, and a Determination of Connection between Religion and Philosophy), he proposed the remedy for the ill caused by theologians:

So whoever wishes to remove this heresy from religion should direct his attention to the precious Book, and glean from it the indications present concerning everything in turn that it obliges us to believe, and exercise his judgement in looking at its apparent meaning as well as he is able, without interpreting any of it allegorically, except where the allegorical meaning is apparent in itself, i.e. commonly apparent to everyone.¹⁶

His undemocratic view of higher education, limiting it to the privileged elite might be criticized today. But quite likely he would retort with displeasure at present-day university products classing them as dialecticians, rhetoricians, and sophists.¹⁷ With his belief in a strong, aristocratic tradition in philosophy, he considered the in-

¹⁵Stumpf, Socrates to Sartre, p. 182.

¹⁶Averroes, Kitab fasl al-maqal, p. 25, quoted in Hourani, Averroes, p. 36.

¹⁷Hourani, Averroes, p. 36.

tellectual elite (al-khawass) philosophers.

In his De animae beatitudine, Averroes wrote, " . . . all philosophers agree that the ultimate felicity of man is in his apprehension of the separate intellects."¹⁸ To him being is used for the true being in mente and also for that which has quiddity and essence extra mentem, irrespective of whether essence is conceived.¹⁹

Averroes' Canones de medicinis laxativis was not taken off the list of medical books required for examination in universities until 1567, and Avicenna's Canons were lectured upon until the seventeenth century. However, these excellent works were not the main basis for the transmission in Europe of Arab thought. Although the University of Montpellier was founded by Arabic physicians driven from Spain and Arab authorities were chiefly used, the real home of Averroism was the University of Bologna from whence it spread all over Italy, including the universities at Venice and Ferrara. Averroism was the precursor of anti-Catholic feeling and the first presentation of rationalism that so influenced the Protestants during the Renaissance. There is no telling how long religious orthodoxy would have reigned without this.

¹⁸Altmann, Studies in Religious Philosophy and Mysticism, p. 73, quoting Ibn Rushd, De animae beatitudine (Venice, 1572), p. 150.

¹⁹Altmann, Studies in Religious Philosophy and Mysticism, p. 121, discussing ideas of Averroes, Metaphysics.

Chiefly, the contribution Averroes made for Albert and Aquinas was to break the stranglehold religion had upon the medieval mind. Much of Averroes' view agreed with Thomism, in that he elaborated upon the hierarchy of God's self-intellectualization as thinking in its noblest and highest mode.²⁰

St. Thomas Aquinas by using philosophical arguments and textual analysis wished to correct two errors in Averroes' views. He sought to prove that possible intellect is not a substance that is separate in its being by the authority of Aristotle, arguments from reason, and other Peripatetics like Alexander, Theophrastus, and Themistius. He established that the possible intellect was not one in all men by arguments from Aristotle and refutations of the adversaries' arguments.²¹

But in the controversial tract Against Those Famous Men in Philosophy, Albert and Thomas, Siger de Brabant argued that Averroes had interpreted Aristotle justly. "He concluded with Averroes that the world is eternal, that natural law is invariable, and that only the soul of the species survives the individual's death."²²

²⁰Averroes, Long Commentary on Metaphysics, paraphrased in Altmann, Studies in Religious Philosophy, p. 201.

²¹Averroes, On the Harmony of Religion and Philosophy, tr. by G. F. Hourani (London: Luzac & Co., 1961), pp. 72-75.

²²Thomas Aquinas, St., On the Unity of the Intellect Against the Averroists, Tr. by Beatrice Zedler (Milwaukee: Marquette University Press, 1968), 83 pages.

Averroism spread rapidly throughout university sections. Even evidence of the strength of the Averroistic movement was shown in 1269 when the Bishop of Paris thought it necessary to repeat his denunciation by condemning as heresies thirteen propositions taught by some professors at the University of Paris. The Bishop accused Thomas Aquinas, Siger of Brabant, Boethius, and Roger Bacon of teaching some of these propositions which were so contrary to Catholicism that they could not be countenanced.

That there is only one intellect in all men
 That the world is eternal That there never was
 a first man That the will of man wills and
 chooses from necessity That God does not know
 individual events That human actions are not
 ruled by Divine Providence.²⁴

St. Thomas was actually fanning the flames of Averroism when he refuted the Arab's errors. He so greatly admired this last great Islamic interpreter of Greek philosophy that he always kept Averroes' commentaries by his side and referred to them often. Though Averroes' ideas seemed heretical, he was really telling Europeans that they could use the empirical method, they could count the horse's teeth.²⁵

²⁴E. Renan, Averroes et l'averroisme (Paris: Calman-Levy, 1866), p. 268.

²⁵Weinberg, Short History of Medieval Philosophy, p. 139.

CHAPTER VIII

AVEMPACE

The Young Poet-Scientist-Minister

Avempace (Abu Bekr ibn Bajja) was born in Saragossa in 1106. In early youth he showed much proficiency in science, philosophy, music, poetry, and medicine. When still quite young he was chosen minister by the Almoravid governor of Saragossa. Philosophy was surviving precariously in the courts of rulers who privately enjoyed speculations which they considered dangerous for the people.

This was the worst time in history for a philosopher. Avempace's beloved Andalusia was disappearing into a system of petty states, threatened from the North by poorly civilized Christian knights. As the Almoravid Berbers came to the rescue, they brought with them a firmness in faith that banished all speculation. "Only traditionalists, of the strictest rite, ventured to make a public appearance, while philosophers, unless they kept concealed, were persecuted or put to death."¹

¹De Boer, History of Philosophy in Islam, p. 176.

His Chief Theories

He was particularly devoted to speculative studies in logic, natural philosophy, and metaphysics. Like Al-Farabi, he was not given to systematizing, and his original treatises are few consisting mostly of expositions of Aristotelian philosophical works. In his search for truth he revealed a personal search for unity and joy which he admitted he was never able to attain. He thought Al-Ghazali dismissed the effort of the search for truth too easily by saying that one could be happy only in full possession of truth comprehended by means of divine illumination. Avempace explained that the philosopher must be strong enough to renounce the sensuous images of religious mysticism. "Only pure thinking, undisturbed by any sensuous desire, is privileged to behold the supreme Godhead."²

His wit and versatility in his teens added him in becoming an intimate of Abu Bekr ibn Ibrahim, the brother-in-law of the Almoravid prince Ali. Ibrahim was made governor of Saragossa, and Avempace, despite his youth, was brought along to court.

He was the first Andalusian philosopher that made direct use of the writings of Aristotle and Plato. He was considered the first important Islamic philosopher in

²De Boer, The History of Philosophy in Islam, p. 177.

Spain. Dates of birth vary from around 1070 to 1106, but he died in 1138.³ Two writings of importance remain, parts of which have only recently been translated. They are The Conduct of the Solitary also called The Hermit's Guide (Tadbir al-Mutawahhid) and Treatise on the Union of the Intellect with Man (Ittisal al-Aql bi-l-Insan).⁴

He believed only the privileged few would be able to achieve intellectual progression from the condition of potentiality to actuality and finally to acquisition of active intellect. The Tadbir discussed forms of direction, such as political, personal, and divine. As Plato and Al-Farabi had shown, the virtuous state was within the framework of virtuous existence, which needed no judges. But if this virtuous state degenerated into one of the four corrupt forms mentioned by Plato and Al-Farabi, the philosopher's living became acute and he was forced to live as a stranger among his own associates. For Al-Farabi and Avicenna the quest for knowledge is equated with philosophy. Conversely, for Avempace and Ibn Tufail the ultimate goal must be "contact" with the universal mind (active intellect) not enlightenment. The Sufis supposed that the Soul might

³Weinberg, Short History of Medieval Philosophy, p.125, (1070).

⁴ Ibn Bajja, Regime of the Solitary, Introduction, tr. by Dunlop, Journal of Royal Asiatic Society, 1945, pp. 61-81.

be able to partake of this condition (gratification of the soul's desire for happiness) in this life. Whereas the Sufis emphasized personal aspects referring to culminating stages as union, the philosophers considered speculative stages calling them "contact."⁵

Ibn Bajja was almost alone in "holding that the quest for happiness must be the result of the philosopher's own efforts."⁶ Because human actions determined ends, the solitary philosopher should set his goal as perceiving spiritual things.

Altogether there are four kinds of spiritual forms: the Intelligences which move the spheres; the active and emanated intellect; the forms of material things, which are abstracted from physical objects; and finally the ideas of the common sense (sensus communis), of imagination, and of memory.⁷

He found his views at variance with the falasifah because he held that philosophical knowledge quite likely could be achieved outside existing society and could be achieved rationally without the benefit of Islam.

This solitary one (philosopher) would be able to rise to a condition of immateriality which was characteristic of

⁵ Fakhry, History of Islamic Philosophy, pp. 10, 291.

⁶ Weinberg, Short History of Medieval Philosophy, p. 125.

⁷ Ibid., p. 126.

all spiritual forms. Only this spiritual one is truly happy; "the 'corporeal man' is too engrossed in the pleasures of the body to desire anything beyond them." ⁸ In

Tadbir he explained:

there is a sense of loneliness: the philosophers are called "weeds" (nawabit), like the grass that springs up among the crops; they are strangers in their own country, one of an exceedingly small number. A philosopher may even find no kindred spirit in his country, in which case he will have to live in solitude or emigrate. ⁹

Ibn Bajja's published works placed him in affiliation with Baghdad Peripateticism and made him the first great Spanish Peripatetic. Not only did he work directly in the Al-Farabi and Ibn Sina tradition but he also did glosses on Al-Farabi's commentaries and a series of Aristotelian commentaries, some thirty of which remain. ¹⁰ Through Avempace scholastics knew Philoponus' theory of projectile motion which was in opposition to Aristotle's notion that air must be the mover keeping the projectile airborne. When bodies passed close to one another, they were not deflected by air from their courses, but by their collision.

Of course, his general code of ethics was found in The Hermit's Guide which was used by Averroes, Moses of Narbonne, Albertus Magnus and Aquinas.

⁸ Fakhry, A History of Islamic Philosophy, p. 293.

⁹ Hourani, Averroes, Introduction, p. 9.

¹⁰ Peters, Aristotle and the Arabs, p. 217.

CHAPTER IX

AL-HAZEN

The Engineer and Mathematician in His Youth

Abu Ali Al-Hazen Ibn Al-Haitham was born in Basra in 965, and the first great discoverer of optic principles since Ptolemy. He was not, however, the Alhazen who translated (with comments) Ptolemy's Almagest early in the tenth century. This brightest name in Muslim science in Africa was fascinated, like most of his medieval contemporaries, by Aristotle's formulation of a rational synthesis of knowledge. He studied Aristotle's treatises and commented upon his logic and metaphysics, but all these works of Al-Hazen have been lost. No less than a hundred works in medicine, philosophy, astronomy, and mathematics are ascribed to him.¹ Previously, Al-Kindi had worked in optics, but Al-Hazen's method and report were considered much more scientific.

The early Fatimid caliphs were outstanding patrons of learning. They gathered about them littérateurs and

¹Mustafa Nazif, Ibn Al-Haytham (Cairo, 1942), pp. ix-xiv, quoted in Hitti, History of the Arabs, pp. 628-629.

scientists to serve their courts. In 1005 Al-Hakim constructed a Hall of Science where books were repaired, and manuscripts copied, and naturally the Shi-ite doctrine propagated. In addition to Dar Al-Ilm, he built two stone towers for mounting an astrolabe-like copper instrument with which to measure the signs of the zodiac. "Al-Hakim was personally interested in astrological calculations; he built on al-Muqattam an observatory to which he often rode before dawn on his grey ass."²

His hall, also called Dar al-Hikmah, attracted such notables as Egypt's greatest astronomer, Ali Ibn Yunus, and Al-Hazen, whom his patron prized as a fine physicist and optician. Al-Hazen bragged before the caliph that he could regulate the inundations of Nile which annually flooded the crops, especially near the mouth in Egypt. When his efforts proved futile, he was publicly disgraced and withdrew from court, some say into hiding from the caliph at the edge of the city while others said remaining in the hall but feigning madness until Al-Hakim's death in 1021.³

²Hitti, History of the Arabs, p. 628.

³De Boer, History of Philosophy in Islam, p. 149; Hitti, Philip, The History of the Arabs, p. 628. (In quoting from Arnold and Guillaume, The Legacy of Islam (Oxford, 1931), p. 333, said "hiding"). Hitti and De Boer said "madness."

After that time, he devoted himself mainly to scientific writing until his death in 1038.

Kitab Al-Manazir and Other Documents

His Book of Optics (Kitab Al-Manazir) was highly praised at the time. He studied refraction of light by way of several transparencies. He came so close to discovering the magnifying lens that Roger Bacon and Witelo credited him with the basis for the microscope and the telescope. Witelo translated Optics into Latin in 1270, and it was later published by F. Risner (1572). Some of his writings on geometrical subjects were found in the Bibliothèque Nationale de Paris in 1834 by E. A. Sédillot. Other manuscripts have been preserved in the library in Leiden and the Bodleian library at Oxford.

Actually, Al-Hazen substituted his physics for that of Aristotle's De caelo and Ptolemy's Hypotheses planetarum for the construction of figures in his celestial system with diversification of the number of spheres for each of the planets.⁴ Ptolemy confined himself to considering the celestial spheres under "their mathematical aspect of ideal circles representing the motions of the heavenly bodies."⁵

⁴Corbin, Avicenna, p. 96 and also footnotes 120 and 121 on that page.

⁵Ibid., p. 96.

The theory of epicycles and eccentrics (a field in which Avempace did much work) destroyed Aristotle's celestial physics entirely. Al-Hazen first introduced Aristotle's concept of solid spheres, a definition later universally accepted, into the realm of pure astronomy.

The celestial sphere is a completely spherical body, limited by two spherical surfaces having the same center--that is, the center of the world. Now, each of these orbs (delimited by the two homocentric spherical surfaces) contains an eccentric sphere, surrounded by two surfaces having the same center as the eccentric sphere itself; this is called the deferent orb. Between the two parallel surfaces that delimit this orb--that is, in the thickness of the deferent orb-- is lodged the epicyclic sphere, that which bears the body of the planet, which is as it were enchased in it. In its turn this epicyclic sphere moves circularly about its own center and about two particular poles.⁶

All Al-Hazen's thinking was expressed in a mathematical style. "The Substance of a body consists, according to him, of the sum of its essential attributes, just as a whole is equal to the sum of its parts, and a concept to the sum of its marks."⁷ In his youth, he decided that the doctrines of all men were more or less aims toward the truth. He viewed philosophy as the basis of all science. Aristotle's attempt to bring sense-perception into a coherent whole was revered by him. He worked with vigor to enhance his own intellect and to aid mankind.

⁶Corbin, Avicenna, p. 96.

⁷De Boer, History of Philosophy in Islam, p. 150.

To hunt for truth was his aim in philosophical study. Moreover "truth for him was only that which was presented as material for the faculties of sense-perception, and which received its form from the understanding, being thus the logically-elaborated perception."⁸ So Optics had to do with such perception which was a compound process of (1) sensation, (2) recognition, and (3) sensation comparisons. From present sensations, he thought, the memory-image was formed upon the soul. Comparison and recognition are not sense activities but receptors that are passive. The whole process passed unconsciously with reflection being necessary to bring them to consciousness and to separate them into component parts.⁹

The oftener the perception is repeated, the firmer the memory would become. Every sensation was attended by a sense-organ change demanding time between stimuli and responses.

That it needs time, for example, to perceive a colour, is proved by the rotating circle of colours, which shows us merely a mixed colour, because on account of the rapid movement we have no time to perceive the individual colours.¹⁰

⁸De Boer, History of Philosophy in Islam, p. 150.

⁹Ibid., p. 151.

¹⁰Ibid., p. 152.

He did not agree with Euclid and Ptolemy that vision resulted from a ray leaving the eye and reaching an object. He said the form of the perceived object passed into the eye, transmitted by the lens, and he presented experiments checking angles of reflection and incidence.¹¹ Not only were early medieval authors influenced by Al-Hazen's Opticae thesaurus but also Leonardo da Vinci and Johann Kepler, in addition to Roger Bacon and others, often referred to him. His Optics was long used as a text in Iraq.

Astronomy was a popular study of the day. He worked out complicated mathematical formulas of the action of light upon parabolic and other mirrors, correlations between atmospheric density and weights of objects. He used the rotary of two colors to teach mixtures much as flicker frequencies are set up in laboratory experiments now. He set up hypotheses for his students to test. He warned against hasty conclusions. A child choosing the finer of two apples is drawing a conclusion. When working with an axiom, he explained, one should be on guard and trace it back to its source.¹²

¹¹Hitti, History of the Arabs, p. 629.

¹²De Boer, The History of Philosophy in Islam, p. 152.

CHAPTER X

MAIMONIDES, SAADIA, AND MISKAWAIH

Moral Philosophers

Maimonides (Abu Imran Musa ibn-Maymun) or Moses Ben Maimon in Hebrew was born in Cordova in 1135. He ranked second only to Averroes among the philosophers of the Middle Ages, and he was the most famous of the Hebrew physicians of the whole Arabic epoch.¹ Because of the Muwahhid persecution (when many philosophers were being crucified head down), he, with his family, fled to Cairo in 1165. There he became the court physician to Salah-al-Din and his son Al-Malik. In 1177 he was elevated to the chief religious office of the Jewish community at Cairo, where he died in 1204. His eight-hundredth anniversary was celebrated throughout the world.

He was revered not only by his Jewish compatriots but by all who have enjoyed his writings. He was accused of professing Islam openly but practicing Judaism secretly. He contributed much to the thinking of Muslims and Chris-

¹Hitti, History of the Arabs, p. 584.

tians as well as Jews.

In accordance with his will his body was carried by hand over the route once taken by Moses and buried in Tiberias, where his unpretentious tomb is still visited by throngs of pilgrims. Ailing people among the poor Jews of modern Egypt still seek their cure by spending the night underground chamber of the synagogue of Rabbi Mosheh ben Maimon in Cairo.²

Throughout the centuries an adage has been, "From Moses to Moses there is none like unto Moses."³ So he has been regarded as the greatest figure in Jewish history since "the man who delivered the Ten Commandments to the Jewish people."⁴ Understanding Judaism would be impossible without reading of this commentator, codifier, and judge of the Talmud.

His main work was Moreh Nebuchim or Guide of the Perplexed, in Arabic Dalalat al Hairin in which he proved, at least to his satisfaction, that there are no conflicts between Judaism and philosophical thinking, only misinterpretations.

In medical treatises he anticipated modern medicine by supposing that some physical afflictions might be caused

²Hitti, History of the Arabs, p. 584.

³Maimonides, Code, Hilkot De'ot, tr. Benzion Halper, Post-Biblical Hebrew Literature, Code Introduction (Philadelphia: Jewish Publication Society of America), quoted in Runes, Treasury of Philosophy, p. 771.

⁴Ibid.

by psychic factors, such as allergies, rashes, epilepsy, and nervous disorders.⁵ His leading medical work of the day was Al-Fusul fi Al-Tibb (Aphorisms of Medicine) in which he advanced ideas on hygiene, suggested that hemorrhoids were because of constipation, described an improved method of circumcision, and worked out some vegetarian diets. "His medical science was the standard Galenism of his time derived from Al-Razi, ibn Sina, and ibn-Zuhr and enlivened by rational criticism based on personal observation."⁶

Above all else, he was a philosopher, but he also distinguished himself as a theologian, astronomer, and physician. He was educated by his father and Arabian seers. Therefore, his work was written in Arabic, but some treatises, though written in Arabic, had Hebrew characters. His work was so popular that much of it was translated into Latin and Hebrew even in his own time.

He displayed a debt to Aristotle in the treatise, "The God of the Philosophers," which is part of the Guide of the Perplexed, by affirming through Aristotle that the world is eternal but disagreeing about primary causes:

⁵Hitti, History of the Arabs, p. 585.

⁶Maimonides, Code, Introduction, Runes, Treasury of Philosophy, p. 771.

. . .the heaven is not subject to generation and corruption. For according to him, movement is not subject to generation and corruption; . . . every movement is necessarily preceded by another movement . . . and that what is thought with regard to living beings--namely, that their local movement is not preceded at all by another movement--is not correct. For the cause . . . goes back finally to things calling for this local movement . . . alteration of temperament . . . imagination . . . opinion.⁷

Saadia or Saadya (ibn Yusuf Al-Fayyumi) was born in 892 at Dilaz, a Faiyumi village. He preceded Maimonides by some two hundred fifty years and Miskawaih, about two hundred. The purpose of this chapter has been to bring to light their major ethics, for they were known in the Middle Ages as moral philosophers. He grew up in Egypt and married there in his teens. By 915 he had migrated to Palestine, and went later to Iraq. He was an apt student and must have been a good professor because he was made Gaon (president of the college) at Sura by the age of thirty-six.

He, like the other two, studied and wrote mostly in Arabic. He was a mathematician, philologist, theologian, lexicographer, and philosopher. He composed the first Jewish prayer-book and the first Hebrew dictionary. Most of his philosophy had to do with Judaism, and as he began to formulate his ideas, a contemporary explained the spir-

⁷ Moses Maimonides, The Guide of the Perplexed, Part II, tr. Shlomo Pines (Chicago: University of Chicago Press, 1963) pp. 248-252.

itual atmosphere of the times:

Muslims, Jews, Christians and Magicians, they all are walking in error and darkness. There are two kinds of people left in the world: the one group is intelligent but lacking in faith, the other has faith but is lacking in intelligence.⁸

Saadia protected Hebrew theology by using industry and skill; ⁹ he followed the methods as well as the argumental details of the Muslim mutakallimun. He was quite prolific in recording Jewish thought. His Book of Philosophical Doctrines and Beliefs (Kitab al-Amanat) finished in 933 was also called Summa contra Gentiles. The oldest Hebrew grammar is his Kitab al-Lugah or Book of Language and his Agron was the first Aramaic dictionary.

His frequent quarrels injured Jewry. When he argued with Exilarch David ben Zakkai in 930, he was excommunicated. He then excommunicated David. He was quite strict in his instruction of the catechism saying that character is built by close adherence to God's laws. He taught children that freedom of will came from love of God. He was precursor of "as the twig is bent, so grows the tree."¹⁰ He explained that Judaism was compatible with all truth, no matter what its source.

⁸Saadia, Polemic Against Hiwi al-Balkhi, tr. Israel Davidson (New York: 1915), quoted in Runes, p. 1037.

⁹Runes, Treasury of Philosophy, p. 1037

¹⁰Ibid.

The date of Miskawaih's birth is not certain, but he was quite influential in philosophy during his time and shortly thereafter (d. 1030)¹¹ None of Abu Ali Miskawaih's writings remain in the original. His ethics were translated into the Tahdhib al-Akhlak (On the Improvement of Character) which proved to be influential with Islamic authors. His contemporary, Avicenna, was scornful of him and they both suffered from some sharp exchanges.¹² He did not apply himself well as a youth but did attend the lectures of Sajistani in Baghdad. He was described by a friend Tawhidi as being incapable of understanding philosophy. He also considered Miskawaih worldly, mean, and not particularly intelligent.¹³ His ethics were based upon Persian traditions, from which stock he sprang in a line of Zoroastrians. In Eternal Wisdom (Javidan Khirad) he compared the concept of wisdom among Indians, Greeks, Arabs, and Persians.

In the Tahdhib, he used a popular version of Plato discussing in detail his four cardinal virtues--wisdom, justice, temperance, and valor--and the threefold division

¹¹Encyclopedia Britannica, "Arabic Philosophy," II, p. 190, lists 1130 as death; Afnan, Avicenna, p. 53, has 1030.

¹²Afnan, Avicenna, p. 53.

¹³Ibid.

of the soul favored by Plato. To these virtues he added some subordinate ones that he thought up, using the Aristotelian means-between-extremes classification.

He related philosophers to God as disciples to teacher. For the first time in Aristotelian philosophy he called God a spiritual father, but he continued with the Neo-Platonic God-like attributes.

Muslim theologians did not condemn Miskawaih for his view that the agreement between theism (philosophy) and divine law was absolute. Al-Farabi thought religious law could best be approached through symbols, all religions being fundamentally the same.

Miskawaih spent much of his life in disagreement with other writers, but on ethics he followed Saadia's ideas rather closely. After some bitterness, Tawhidi wrote an essay revealing both personalities.

Tawhidi with all his accomplishments and wide interests finds himself neglected and almost destitute; and Miskawaih, far less gifted, but in a secure and lucrative post, is able to talk patronizingly to him, chide him for self-pity and recommend forgiveness as a cure. Tawhidi asks why those who preach contentment are so greedy themselves; why jealousy is far worse among the learned than among simple people; why the ignorant pretend to greater knowledge; and why slim men and women are usually more virtuous than the fat.¹⁴

Avicenna, also an immodest man with a violent temper, ridiculed Miskawaih for his pitiful limitations and received in

¹⁴Afnan, Avicenna, p. 53, quoting Tawhidi, Al-Hawamil.

retort a suggestion that he try to amend his own character. Avicenna dismissed "Razi's philosophy as the lucubrations of a man who should have stuck 'to testing stools and urine.'"¹⁵

A Meshing of Their Moral Thoughts

Each wrote ethical treatises that influenced Jews, Christians, and Muslims. They were usually thought of as advocates of Judaism. They felt sympathy for the common man's hard lot, for each had suffered persecution. According to Maimonides the Torah survived only by Saadia's persistence.

For the Jew, life had always been difficult. Even children were taught that they should cultivate several skills. At least one should be manual, such as carpentry tapestry-making, or wood-carving, just in case times were so bad he could not live by a literary profession. So quite early the dualism of academic and vocational fields sprang up, in schools along the Mediterranean particularly. Maimonides' ideas lived through William of Auvergne, Alexander of Hales, and Aquinas, and through him, into modern Thomists.¹⁶

¹⁵Afnan, Avicenna, p. 77, quoting Nizam Al-Mulk, Siasat Nameh, ed. Schefer.

¹⁶Runes, Treasury of Philosophy, Introduction for "A Man Must Choose the Golden Mean," p. 771.

Like Averroes, whose ideas he incorporated in Dalalat, Maimonides knew no Greek and used Arabic translations. All three moral philosophers worked in Arabic with Arab translations. Probably he used Avicenna's theory of existence and essence, and some commentators supposed all the theory in Dalalat came from Averroes. Quite likely, he did not read Averroes' works until after 1190 when his book was finished because he wrote a letter to his good friend, Joseph ben Jehudah, praising Averroes as "hitting the mark" in treatises just arrived.¹⁷

One of the conflicts in interpretation has been that Avicenna's view was twofold. Averroes supposed he meant that God was both existence and essence in one, while Al-Ghazali thought Averroes was suggesting that God was existence without essence (form). Being a strict Aristotelian, Maimonides said essence could not exist independently; it is not a self-subsistent substance, neither is it generated. God was considered incorporeal. Philosophy was for the elite, not the commoner. Religion and faith for guidance were best for him.¹⁸

¹⁷Altmann, Studies in Religious Philosophy and Mysticism, pp. 109, 111, fn. 3 and 9, respectively.

¹⁸Maimonides, Summa Contra Gentiles, I, 4, quoted in Maurer, Medieval Philosophy, p. 107.

From Avicenna's ideas about cosmogony, he took the notion of celestial spheres with motor intelligences, identifying these with scriptural angels.¹⁹ He was the forerunner of the Christian ethics of St. Thomas, but St. Thomas rejected the doctrine of divine attributes, negative and affirmative. However, he fully accepted Maimonides' proofs of God's existence as First Mover and First Cause of the universe.²⁰

Although Saadia rejected philosophic speculations as useless, he appreciated the importance of philosophic solutions with thorny theological difficulties. In his Book of Doctrines and Beliefs, he selected justice and divine unity as major premises. He drew freely upon Aristotelian, Stoic, Platonic, and Neo-Platonic teachings which gave his writings a decidedly eclectic character. The main purpose of his philosophical arguments was to refute any doctrine at variance with Judaism and remove confusions about scriptural authority.

To distinguish true beliefs he lists four sources as inference, perception, self-evident first principles, and reliable tradition. All three of these thinkers tried to appeal to the multitude with religious creeds by which to

¹⁹Maurer, Medieval Philosophy, p. 107.

²⁰Ibid., p. 108.

live well in order to attain heaven.²¹ But Maimonides always emphasized that freedom of thought for all is an essential: "The ultimate standard is the human mind, the deductions of which indeed are held to be so universal that the possibility that even texts derived from the remote past should be in opposition to them, cannot be entertained."²²

He divided the problem of human perfection into (1) the lowest as acquisition of wealth, (2) perfection of the body, (3) moral excellence, and (4) the speculative knowledge of God.²³ When he insisted that statements in the Old Testament could be given an allegorical interpretation, he harmonized his reasoning with Philo, the eminent Jewish philosopher, but "it was too much for some of Maimonides' fellow Jews, who thought that he had sold the pass to the Greeks."²⁴

Miskawaih's Tahdhib set the stage for virtuous actions for all men. His classes of friendship, as between parents and children, philosophers and pupils, are based on the absence of passion.

²¹Carol Klein, The Credo of Maimonides (New York: Philosophical Library, 1958), pp. 38-42.

²²Leon Foth, Spinoza, Descartes & Maimonides (Oxford: Clarendon Press, 1924), pp. 71-72.

²³Maurer, Medieval Philosophy, p. 109.

²⁴Copleston, Medieval Philosophy, p. 68.

CHAPTER XI

IBN KHALDUN

Islam's Greatest Historical Philosopher

Abd Al-Rahman Ibn Khaldun (1332-1406) born in Tunis of a Spanish-Arab family tracing ancestry to the Kindah tribe migrating from Al-Yaman (Yemen) in the ninth century. He was conceited about his accomplishments, but not doubt he was most adept at pariphrasing all he studied in a most readable manner. At an early age he became familiar with philosophy, science, art, and literature which he generously mixed with statesmanship, travel, and experience to create Muqaddama al-Alamat (Introduction to the Universe).

"From my childhood, I showed myself avid of knowledge, and devoted myself with great zeal to schools and their courses of instruction."¹ Although his parents and many of his teachers died of the Black Death, he continued with many hours of study each day until at the age of twenty he

¹Ibn Khaldun, Les prolegomenes, tr. M. de Slane, 3 v. (Paris: 1934), I, p. xxx.

became secretary to the sultan at Tunis. He served in several capacities in various courts during the next few years. By twenty-five years of age he had met with some disagreements with those in high office at the sultanate in Fez and spent some time in jail before he entered into the service of Muhammad VI, the sultan of Granada, in 1361. He was forced to return to Bougie and Prince Abu Abdallah when he aroused the jealousy of Ibn Al-Khatib, the well-known historian, in the Castilian court of Peter the Cruel at Seville.²

When his master was slain, he fled to the city of Tilimsan in northern Algeria and was soon sent as an envoy to Granada but was captured by a Moorish prince who admired his work and learning so much that he kept Ibn Khaldun in his court for four years and allowed him in 1377 to retire to a castle near Oran. However, in 1382 he began another pilgrimage, one of many journeys, stopping in Cairo at the famous Al-Azhar mosque to lecture. He was already known as an international scholar, and students crowded into any area where he spoke. He had made enemies in Tunis and Oran and decided to settle in Cairo where he was given a pension and made royal judge (malekite).

²Hitti, History of the Arabs, p. 567.

When he was appointed qadi malekite (judge), he interpreted the laws strictly, was strongly disliked, and retired from office in order to spend more time writing.³ When he was restored to power, he accompanied his sultan, Nasir ad-Din Faraj, in battle against the invincible Tatar, Timur Lane. Put to flight, Ibn Khaldun sought refuge in Damascus which was besieged, but the historian, now old, came to the conqueror asking for leniency.

Ibn Khaldun was sent to negotiate a peace with Timur Lane. He left a description of how Timur Lane restored certain industrial arts that had been lost to Syria for years.⁴

Khaldun's Socio-Philosophic Views

In 1377, he finished the Muqaddamah Al-Alamat (Introduction to the Universe), also referred to as the Prolegomena, praised as a "perceptive and succinct account of the whole range of Islamic learning."⁵ In connection with this work he also wrote a History of the Berbers and The Peoples of the East, but he contributed to mysticism and scholastic theology with Lubab Al-Muhassal, Shifa Al-Sa-il, and a summary of Al-Razi's philosophical opinions. He paraphrased

³Hitti, History of the Arabs, p. 567.

⁴Ibid., p. 701.

⁵Fakhry, A History of Islamic Philosophy, p. 361.

much of Averroes' philosophy and wrote treatises on logic, mathematics, science, and physics. He broke down sciences into two main categories in the Muqaddimah: the traditional sciences were Koran, Hadith, Kalam, Sufism, and the interpretation of dreams, and the intellectual sciences were logic, mathematics, physics, and metaphysics. His subdivisions are so exhaustive they really constitute an encyclopedia for educational purposes which would make Al-Ghazali's Fatihah Al-ulum seem only a curriculum sketch.

He seemed much concerned about legal aspects of a religious leader, for in his introduction of the Muqaddimah he stressed that every Islamic ruler should consider himself a successor of the Prophet.

Thus (the caliphate) in reality substitutes for the Lawgiver (Muhammad), in as much as it serves, like him, to protect the religion and to exercise (political) leadership of the world. This should be understood and be kept in mind. . . .⁶

According to the Sunnite school, he made such caliphal qualifications as protection of the faith and Islamic territory, even declaring holy war if necessary. He was to wear the burdah (the Prophet's mantle) and have custody of Muhammad's staff, shoe, tooth, hair, and seal.⁷

⁶Williams, Islam, p. 125.

⁷Hitti, History of the Arabs, p. 186. (These relics are now in the Grand Seraglio, Istanbul).

For his time Ibn Khaldun showed remarkable insight well mingled with some good common sense. For instance, he spoke slightly of cupping and bleeding, which was termed "the Prophet's medicine," because he declared that the Prophet was sent to teach religious laws, not apply bodily medication.⁸ Even the Bedouin said, "Science is twofold: that which relates to religion and that which relates to the body."⁹

Rather than treat his history chronologically, he preferred to group his events around kingdoms, peoples, or personalities. For instance, in praising the Arab songwriter and literary figure, Al-Isfahani, he refers to his book, Kitab al-Aghani, as "the register of the Arabs" and "the final resource of the student of belles-lettres."¹⁰

A Buwayhid vizir, al-Sahib ibn-Abbad (d. 995), who is said to have been wont to take with him on his journeys thirty camel-loads of books, dispensed with them all on receiving a copy of al-Aghani, which he thereafter carried about alone.¹¹

⁸Yaqt, Adaba, vol. ii, p. 239, quoted in Hitti, History of the Arabs, p. 254.

⁹Hitti, History of the Arabs, p. 254.

¹⁰Ibn Khaldun, Muqaddamah, p. 487, quoted in Hitti, History of the Arabs, p. 404.

¹¹Ibn Khallikan, Yatimat al-Dahr, 4 vols., (Damascus, 1302), vol. ii, p. 11, cf. vol. i, p. 133, (an anthology of contemporary poets), quoted in Hitti, History of the Arabs, p. 404.

Founder of a New Philosophic Discipline

In composing his great sociological codification of civilization cycles, La-Muqaddamah, he realized that he could not be accurate about all assertions, for such a history had never been written, so he apologized for probable errors:

I confess that of all men I am the least able to traverse so vast a field. . . .I pray that men of ability and learning will examine my work with good will, and when they find faults will indulgently correct them. That which I offer to the public will have little value in the eyes of scholars . . . but one should always be able to count on the courtesy of his colleagues.¹²

He proceeded then to take some space in pointing out errors in minor writings saying that historians were prone to accept myth and fable for fact, exaggerate statistics, and use supernatural agencies for explanation. He was as culpable as those he criticized, for he supposed Aristotle always taught from a porch and Socrates from a tub.¹³ But he admitted the superiority of Greeks in scientific fields, while

At times he talks like the simplest old woman in the market place; he accepts miracles, magic, the "evil eye," the occult properties of the alphabet, divination through dreams, entrails, or the flight of birds.¹⁴

¹²Ibn Khaldun, Prolegomenes, I, p. 4, selections by Charles Issawi, London, 1950.

¹³Ibn Khaldun, Muqaddamah, III, 125.

¹⁴Ibid., Khaldun, III, 115-120.

He relied upon natural factors for explanation of historical happenings. The school-philosophy he had studied was theoretical, not conventional, and he could not fit it to his needs in explaining history as a philosophical discipline, a science. He fought astrology and alchemy on rational grounds, and mostly through personal conviction, opposed mystic rationalism. He chose to stay clear of theocracy and warned students against religious sciences as studies before proficiency in jurisprudence and against metaphysics before proficiency in Koranic studies.¹⁵

To some extent he accepted the belief that creative individuals could take the mystic road to higher spiritualism. They could pass out of action into ecstasy and from ecstasy into the psychic experience. Some were destined for this experience in order to return for communicating such revelation to others, as Moses returned from Mt. Sinai.

The human soul has an innate disposition to divest itself of its human nature in order to clothe itself in the nature of the angels and to become an angel in reality for a single instant of time--a moment which comes and goes as swiftly as the flicker of an eyelid. Thereupon the soul resumes its human nature, after having received, in the world of angels, a message which it has to carry to its own human kind.¹⁶

¹⁵ Fakhry, A History of Islamic Philosophy, p. 364, quoting Ibn Khaldun, Al-Maqaddamah, p. 517.

¹⁶ Arnold Toynbee, A Study of History, Abridgement by D. C. Somervell (London: Oxford University Press, 1946), p. 218, quoting Ibn Khaldun, Muqaddamah, II, 437.

Like Al-Ghazali, he took a qualified view of logic in employing his positivist method of codification, on the supposition that all civilizations' laws were reducible to economic, cultural, climatic, and geographic bases. He implied that no matter how many systems philosophers' dreamed up, none could ever be a substitute for religion--the best guide for human life.

Since men can never understand the world, it is better to accept the faith transmitted by an inspired legislator, who knows better than we do what is better for us, and has prescribed for us what we should believe and do.¹⁷

His naturalistic treatment of history passed through five stages: (1) the conquering nomadic tribe settled to enjoy the spoils, (2) with more complicated social relations, the chieftain must become king to maintain order, (3) decay began because of the comfort and luxury that wealth afforded, (4) a lack of patriotism coupled with a desire for pleasure and relaxation enticed other nomads to attack, (5) the established community is overcome. He concluded that the least civilized groups make the most extensive conquests.¹⁸ All civilizations are subject to such cycles.

¹⁷Ibn Khaldun, Muqaddamah, III 44.

¹⁸De Boer, History of Philosophy of Islam, p. 205.

Such ecological determinism could not be complete because Ibn Khaldun confounded his sociology with his concept of God's will as being the decisive element bringing these cyclical changes about.

What this dual determinism involved for this partly modern, partly traditionist philosopher of history is essentially the recognition of the fact that the historical process serves at best as the stage upon which the grand designs of the Almighty are realized in the world.¹⁹

He scolded Al-Farabi and Ibn Sina for ignoring historical realities and the basis of nomadic solidarity upon which a monarch's authority must rest. But the "'natural monarchy' ministers to man's natural or terrestrial needs only."²⁰ He has a short time in this world to prepare himself for the next; only then could genuine happiness come. Like Rousseau, he believed that society corrupted the human being. Basic to his civilization theory lay the Aristotelian notion of man as a naturally political animal needing assistance of his fellow and necessitating a ruler to keep security intact.

He insisted that history as a school subject should serve higher purposes of life, such as determining facts, reasoning out cause and effect, and offering guidance for the future.

¹⁹Fakhry, History of Islamic Philosophy, p. 369.

²⁰Ibid., p. 366.

CHAPTER XII

THE PROCESS OF TRANSLATION AND DIFFUSION

Mohammed's Challenge

The Arabs were such superb horsemen that nothing in early medieval armament could withstand their maneuvers. In 635 they swept through Damascus, in 636 Antioch was taken, Jerusalem, 638, and Egypt, Persia, and Syria soon followed.

Muslims were so sure that Islamic creeds offered the best of all religious revelations that they accepted all the teachings of the Koran including the traditions (Hadith) and the Prophet's customs (Sunna). They thought Mohammed excelled all other messengers of God and practiced the four duties he set forth: pilgrimage, fasting, prayer, and alms. "There is no god but Allah, and Mohammed is His Prophet," echoed throughout conquered territories.¹

The orthodox Muslim believed in heaven and hell, the resurrection of the body and soul, angels, and demons, and predestination of all events, but for a hundred years these teachings were not written down for all to read, so the Word was corrupted by embellishments of miracles and anecdotes.

¹Koran, xcvi.

At this time throughout all territories, the Arabs built mosques so charmingly adorned with mosaics of small tiles that they are still considered masterpieces today. No peoples before nor since dealt with such elegant splendor as is still presented by stucco arabesques, friezes of Kufic inscription, and delicate, carved lattices, wood inlay, and marquetry of precious stones, ivory, and mother-of-pearl.

Major intellectual contributions came through the construction of mosques where space was allotted for libraries. Caliphs, who had libraries unusually large for the time attached to their courts, seemed quite eager to further education.

Translations Contributing to the Spread of Islam

Shortly after the conquest of Egypt in 641, the Muslims attempted to subdue all northern Africa, but they encountered strong opposition from the hardy desert Berbers, so much like the Arabs' Bedouin ancestors. Headway inland was impossible as the invaders came face-to-face with these fierce Berbers, so Arab strategy centered around making the most of tribal feuds. Thus, it took about a hundred years to spread along the coast of northern Africa, down to the desert's edge where the native tribes held firm.

However, the coastal Berbers made up the majority of the fighting force in the Spanish conquest. The Umayyad dynasty of Abd Al-Rahman established an independent government. As Christianity gradually disappeared from North Africa, Berbers not only accepted Islam but embraced it fanatically.

After having reached its zenith in the Near East with Avicenna, Islamic philosophy began to focus in Egypt and North Africa along the coast and finally in Spain where Ibn Masarra (883-931) introduced Neo-Platonic emanationist schemes. Ibn Gabirol furthered this with God as the One, the logos serving as intermediary between the world and God, God as best described negatively, the soul as a substance, and final understanding as a kind of illumination.²

Somehow, notions of Al-Farabi were better distributed in Spain than those of Avicenna's Neo-Platonism, so by the twelfth century Aristotelianism as advocated by Al-Farabi two centuries earlier and later by Averroes, Avempace, and Ibn Tufail had become entrenched in Moorish philosophy.

Aristotelianism promoted logic and studies with many sciences. Platonism and Aristotelianism met common ground on the contemplative life being the highest good virtue, requiring the control of passions. The latter also contri-

²Hyman and Walsh, Philosophy in the Middle Ages, p. 206.

buted substance and accidents, properties, and the syllogism. Different intellects, the soul and its faculties, were notions founded in Aristotelianism, contributing the first psychological ideas. In metaphysics, it contributed being, essence and existence, incorporeal intelligences, potentiality and actuality, and in physics, matter and form, and the four causes--various changes, time, place, and the prime mover.³

By 1250 a direct line of thought had been formed from Averroes and Avicenna to Albert the Great and St. Thomas Aquinas and was to pass into the writings of Duns Scotus and William of Occam extending finally across the Atlantic. Averroism and Avicennaism influenced the ideas of these scholastics inciting a revolt in logic against the church. Averroes taught truth in three forms: dialectical, rhetorical, and demonstrative, but his theory of individual differences was evident when he said all children could not grasp the same thoughts and that philosophy in religion was not for all. The uneducated and slow thinkers should be taught in simple parables because only the intellectual elite could approach God's design, since God's knowledge was completely different from the common man. The intellectual aristocrats (gifted) should be given special challenges.

³ Hyman and Walsh, Philosophy in the Middle Ages, p.207.

Thus, Averroes became known as the father of the theory of the double truth whereby religion and philosophy contradict.

Intellectual Diffusion

The diffusion of knowledge which has so greatly influenced American educational development came by way of Spain. Aristotelianism represented an unbroken chain of ideas for almost twenty centuries from the philosopher's death because inevitable syncretism and individual commentators have aided the growth, thereby through contribution to the thought becoming part of it themselves.

The medieval transmission had two paths: the older oriental world of Islam centering in Baghdad and the younger Latin Peripateticism into Western Christianity through Spain. Before mid-twelfth century most of Aristotle's corpus and Logic had been translated from Arabic versions into Latin where they ran point blank into Christianity, and both the Arabic and Latin veteres were restricted to parts of the Logic applying to the study of theology.

What disturbed the equilibrium of this first Christian synthesis of Aristotle was a fresh outburst of translation activity in the centers of mixed culture: Syro-Arab Baghdad, Muslim-Christian Toledo, and Greek-Arab-Norman Palermo flashed with the striking of old flint into new tender.⁴

⁴Peters, Aristotle and the Arabs, p. 224.

Spain was the port of entry, then, for Aristotle, and as scholars became trained in Toledo, Cordova, and other Spanish centers of learning, they returned to northern universities to resume their careers of teaching and writing. Thus, with great subtlety, Arab philosophy infiltrated Christian theology. ". . . Aristotelianism, lightly wearing its Arab garb, passed in among the theologians." ⁵

Bans were up throughout Europe against the study of Aristotle. But scholars were not to be deterred.

Roger of Hereford, Alexander Neckham, and Alfred Sareshel, all connected in one way or other with Spain or Sicily, wrote on the new Aristotle in England ca. A.D. 1200; lectures on the libri naturales were begun at Oxford in the first decade of the thirteenth century by John Blund. ⁶

Just as Avicenna led the Aristotelians in the Islamic east, Averroes controlled thinking in the east where Aristotelianism became less Neo-Platonic and was largely spread by Jewish translators and teachers. Albertus Magnus, Roger Bacon, Thomas Aquinas, and Duns Scotus were influenced by Avicenna, and despite the ban Aristotle became to scholasticism at the University of Paris what Galen was to medicine. On the Iberian Peninsula Arabic was becoming mixed with Low Latin later to evolve into Spanish. Christians

⁵Peters, Aristotle and the Arabs, p. 227.

⁶Ibid., p. 226.

and Jews adopted the dress, manners, language, and even in some instances the faith, of the Arabs. Persons who could write Latin usually used Arabic letters, while Spanish kings issued coinage with Arabic characters. Toledo boasted a Jewish cultural center and Talmudic school as well as Christians' quarters. Because of limitations set by Mohammed, the Muslims were not sculptors nor painters, nor did their interests lie in Herodotus, Homer, or Greek dramatists; the full range of Hellenic culture was forbidden. Instead, the medieval renaissance centered about logic, philosophy, and science.

At this time, the Arabs came forth to recover learning, for the first section of educational history in the Middle Ages had to be content with mere crumbs from the Roman school--Bede, Isidore, and Martianus Capella. But by 1100, the Arabs presented a whole body of Greek and Arabic medicine, mathematics, astronomy, alchemy, all of Aristotle, and many writings from Persia, Syria, and India were translated from the Arabic by 1300.

Most of the translations were made by the Latins of Christian Europe and Jewish scholars; Sicily was the second most important gateway by which ancient learning reached Europe. A large Muslim population there promoted scholarship and manuscript purchases.

Adelard of Bath, one of the most prodigious in the early stream of translators, was best known for his original works on "natural questions," translations of Euclid's Elements, Al-Khwarizmi's astronomical tables, and some original writings on the astrolabe and astronomy.⁷ Plato of Tivoli was a displaced Italian who did mathematical translations in Barcelona around 1134. Al-Khwarizmi's algebra and a Latin version of the Koran, the latter requested by Peter the Venerable, were done by Robert of Chester.

Gerard of Cremona, the most prolific translator of his time, lectured in Toledo where he went to learn Arabic in order to read Ptolemy's Almagest. He remained there the remainder of his life, translating some eighty Arabic works, including Almagest in 1175. He also translated Avicenna's Canon, Aristotle, Euclid, and Galen from the Arabic versions, as well as Arabic works on mathematics, alchemy, astrology, and astronomy. His work attracted many scientists and mathematicians, one of the most noted of whom was Daniel of Morley, author of Philosophia and translator of Restoration and Equation, giving the west the word algebra.

This treatise, more than any other Arabic book on mathematics, influenced western thought, though tardily; it

⁷H. G. Good, A History of Western Education, 2nd ed, (New York: Macmillan Company, 1960), p. 87.

was translated by the Englishman, Robert of Chester c. 1140, and it was used by Leonardo of Pisa (d. c. 1240) and Master Jacob of Florence; the latter's Italian treatise, of 1307, comprises the six types of quadratic equations used by Muslim scholars.⁸

The new force in theology began with the Latin translations of Averroes, which amounted to Aristotle in a new garb, furnished by Michael Scotus in Sicily and Spain initiating a fresh reaction to Aristotle. Averroism promoted a speedier growth of Aristotelian scholarship as Europeans turned to the exegetical commentaries of Roger Bacon and Albert's paraphrases.

The church tried to suppress both Aristotle and Averroes; by 1210 such teachings were grounds for excommunication. Scholastic adjusters, Albert the Great and Thomas Aquinas, took up the task of harmonizing Greek teachings with theology, and by 1275 such teachings were admitted to the University of Paris course of study.

During the thirteenth and fourteenth centuries education was on the upswing with universities springing into action all over the continent. Coimbra, Palencia, Saragossa, Palma, Salamanca, Huesca, Seville, Valencia, Barcelona, and Alcala, the last becoming Spain's greatest educational center

⁸Margaret Deanesly, A History of Early Medieval Europe (London: Methuen & Co., Ltd., 1956), p. 209. (Chapter XI, Islam: Origins and Conquests with good chronology).

with fourteen chairs in grammar and rhetoric and twelve given to divinity. The intellectual head for Bohemians was the University of Prague founded in 1347 by Charles IV. Other educational centers were at Cracow, Vienna, Copenhagen, Basel, Wittenberg, Leipzig, Cologne, and several other cities.

Arabic interpolations of Cassiodorus, Bede, and Ammianus with many Syriac and Arab forms of terminology found their way into Germany. Some very fine forgeries of Greek works were also sold in Germany by Arabs, and today Germany has several words that can be traced directly to this influence.⁹

By Frederick II's time, Italy had Arab colonies in the south. Leonardo Fibonacci in 1202 published the first book in Italy with Arabic numerals. In France, Montpellier became the chief center for astronomical and medical studies. In eastern France, Cluny, whose abbey housed many Spanish monks, "was during the twelfth century a significant focus for the diffusion of Arab learning."¹⁰ Gorze and Cologne also provided fertile soil for the germination of such learning.

⁹Leo Wiener, A History of Arabico-Gothic Culture, III, (Philadelphia: Innes & Sons, 1920), Jordanes, pp. 65-173.

¹⁰Hitti, History of the Arabs, p. 589.

CHAPTER XIII

SOME CONCLUSIONS DRAWN ABOUT ISLAMIC CONTRIBUTIONS TO AMERICAN THOUGHT

Early Intellectual Interests of the Arabs

Even before the beginning of the crusades, Moorish Spain had developed immense irrigation projects with such new products as sugar cane, rice, pomegranates, peaches, plums, cereals, and olives. Both gold and silver mines were worked; wine, paper, glass, and wool were produced. Toledo was famous for sword-blades as Cordova was for leather goods. "Arab shipping took out cargoes of raw silk, wine, sugar, olives, dried plums and figs and weapons, textiles and pottery made in Moorish workshops."¹ The destiny of civilizations has always depended upon man's response to societal demands. Without Arabic preservation of manuscripts, the Hellenic Society would have died at its breakdown in the first century B. C. Such work lay dormant during the lapse of intellectual interest until about 500 A. D., when by trade the Persians, Arabs, and Syrians became acquainted with such documents and understood their value.

¹ Deanesly, History of Early Medieval Europe, p. 574.

Of great interest to the historian was the fact that near neighbors did not see the importance of preservation of writings and that this appreciation had to come from the "infidels" they learned to hate. But the truth is that little of Greek science, philosophy, astronomy, and logic would have been left to the world without these dedicated translators. The crusades themselves caused the first rip in the mantle of Christendom that was never mended because of doubts about traditional beliefs and Catholicism.

The crusades also stimulated thought in other ways. With or without the crusades, rise of banking and increase in commerce were bound to come because the Saracens' stronghold on the Mediterranean was already loosened; likely the crusades hastened these developments. The Franks were surprised to find the Syrian "infidels" so advanced educationally and so refined culturally. William of Tyre, the most noted historian of this Syrian culture, described the conquering lords as illiterate but poetry-loving, boastful but too soft for battle: . . . "they dressed in silken garments, perfumed their bodies, ate from silver dishes, and were served by a huge staff of native servants, but intellectually they lacked refinement."²

²Zoe Oldenbourg, The Crusades, "Frankish Syria As an Eastern Province," (New York: Random House, 1966), p. 526.

The crusades also promoted east-west contacts, helped stimulate city growth, broke down class distinctions, weakened the Arab and Byzantine powers, but they allowed the Turks to establish the Mameluke sovereignty in Egypt, the Ottomans in Asia Minor, and the Mongol Khanate in Persia, thereby impoverishing Europe with little hope of reciprocation. Basically, the writer felt that the greatest contribution was the dissatisfaction with present conditions each crusader began to experience--bestirring him toward betterment, stimulating scholarship. "The Crusaders, to some degree, adopted the Arab view that science is to be built up by observation and experiment."³ Politically, the crusades aided scholarship by strengthening the Papacy's negotiating position, weakening the barons' power over the people, and centering loyalty in European monarchies.

Revival of learning can only be partially traced to the crusades. Cultural development would have come with the influx into urban areas, anyway. Feudalism was impoverished by the loss of surplus adventurers. Merchants who had supplied the effort were granted special privileges in transport and commerce. ". . . centralization of royal

³Frederick Eby and Charles Arrowood, History and Philosophy of Education Ancient and Medieval (New York: Prentice-Hall, Inc., 1940), p. 721.

power was the natural outcome of political and military developments that would have occurred even if there had been no crusading movement."⁴

But what cultural influences were the Arabs imparting during this time? Such contributions were coming from two directions: the Spanish Moors were directing translations of their writings to be sent throughout Europe, while from Syria the crusaders were returning with Arabic ideas. Of great interest were the music, poetry, versification schemes, and rhyming. They had never before experienced such religious tolerance or such intellectual freedom.

. . . we may marvel at the degree of mutual respect which their fighting men came to feel for one another, and at the amount and importance of the cultural nourishment which Medieval Western Christendom imbibed through a Syriac channel in which the spirit and technique of an Arabic poetry were conveyed to them in a Romance language by Provençal troubadours, and the ideas of an Hellenic philosophy in the Arabic language through Muslim scholars.⁵

Additionally, the three disciplines in which Arabs excelled were shared in this literary activity of the Middle Ages--philology, lexicography, and historiography were cultivated by the Muslims because of their great love of assimilation.

⁴Arthur Watts, A History of Western Civilization, I (New York: Prentice-Hall, Inc., 1939), p. 265. (Preservation of Christian civilization depended on the arrest of the Turks).

⁵ Toynbee, A Study of History, II, p. 192.

Much about chivalric education, military science, and theories of physical fitness came from the east.

How These Contributions Have Influenced
Present Educational Thought

As the crusaders were absorbing culture from the Arabs in the East, Arabic culture blithely traipsed into the university and seminary via Albertus' and Aquinas' "Christianization" of pagan literature in the West. In theological circles the purpose was to eliminate any matter unacceptable to the Christian thinker. The massive influx caused much confusion: Aristotle arrived arm-in-arm with pseudo-Aristotelian and Neoplatonic treatises, while more actors awaited in the wings. Onto the scene pranced Averroes with his great commentary causing much stir among the players. Al-Kindi, Avempace, Al-Farabi, and Avicenna appeared in the last act giving Muslim philosophy a partly stimulating, partly disintegrating influence upon scholastic development.

. . . this literature of comment was seasoned and augmented by thick layers of Arabian and Jewish thought, while as a rider upon Aristotle came a considerable quantity of pure Neoplatonic doctrine, supported by a secondary but quite separate stream, that of the newly diffused Dionysian writings.⁶

Earlier (c. 400), St. Augustine synthesized philosophy

⁶David Knowles, The Evolution of Medieval Thought (New York: Random House, 1962), p. 221.

and theology by combining faith with Platonic elements, which he had discovered in reading Plotinus. Boethius made Aristotle available in Latin in the sixth century reviving philosophical speculation and setting into motion two lines of development, mainly between Platonists and Aristotelians. In the thirteenth century the controversy centered about Augustinians (Platonists) and Thomists (Aristotelians).⁷

The confluence of faith and reason made Aquinas exert every effort to clarify precise questions (about universals, for instance), acknowledge alternatives, and answer major objections to his Aristotelian solutions, thereby perfecting his scholastic method. "Scholastic philosophy was an attempt to put together a coherent system of traditional thought rather than a pursuit of genuinely novel forms of insight."⁸ The process relied mostly upon logical deduction expressed in disputational or dialectical form. In the meantime, Albert concluded that the Christian should use philosophy to develop his mind; he needed a variety of learning and science in all its forms. While Albert did not change anything he quoted, Aquinas used Aristotle quite creatively, interpreting as best suited his

⁷Stumpf, Socrates to Sartre, p. 185.

⁸Ibid., p. 186.

needs in mollifying the followers. "Arabic philosophical writings exerted a significant stimulative influence on the great synthesis of Christian Aristotelianism by St. Albert the Great and St. Thomas Aquinas."⁹

The next influx was the study of Averroism at Bologna and Padua during the fifteenth and sixteenth centuries.

This Italian Renaissance saw Arabic philosophy underlying Galileo's work and beginning the thrust of modern science.

. . . The Arabic writings were simply . . . a telescope through which the truths in the sciences inherited from antiquity could be discerned. Alkindi (b. c. 805), who created an Arabic home for Greek natural science; Alfarabi (b. c. 873), who did the same for Aristotelian logic; Avicenna (b. 980), who offset Aristotle's primacy with ideas drawn from Galen and the Stoics; and the great Averroes (b. 1126), a more royalist Aristotelian than King Aristotle himself---these were the 'Arabic thinkers' in whom the Latin medievals took interest.¹⁰

The final influx was the contribution in the sixteenth and seventeenth centuries to the intellectual stir among the European Protestants which helped stimulate the religious ideology of English pietism. Much literature, especially religious, hinted of Arabic themes. For instance, Ibn Tufail's Hayy ibn Yaqzan served as the basis for George Keith's English version, Barclay's Apology for the True

⁹ Rescher, Studies in Arabic Philosophy, p. 156.

¹⁰ Ibid., p. 149.

Christian Divinity, Edward Pocock's Latin translation which caused such a sensation that it was translated into Dutch, 1672; English, 1674; and German, 1726, and, of course, Defoe's Robinson Crusoe, entitled The Life and Surprising Adventures of Don Antonio de Trezzanio, 1761.

The finest Arabists of this time were Pierre Vattier, personal physician to the Duke of Orleans, who translated Avicenna's logic into Latin in 1658; the devoted Averroist Julius Caesar Scaliger and his son Joseph Justus, who were the best exponents of Aristotle's physics and metaphysics; and Edward Pocock, both elder and younger, who did Latin translations of Hayy ibn Yaqzan and Abd al-Latif's Description of Egypt.

But scholasticism had started much earlier with Albert's criticism of Averroes, followed fifteen years later with Aquinas' controversion of the Averroists, in 1271. By this time philosophy was no longer confined to the discussion of one group of scholars but was the common study in the Jewish schools, mosques, scholastic academies, and Catholic monasteries. Secondary education in Catholic countries was left almost wholly to the discretion of the Jesuits who spread scholasticism by letting all classes of students into their program. They were devoted to languages, particularly Greek, philosophy in its broadest sense including logic,

metaphysics, ethics, and physics.

The main currents of scholasticism in the Middle Ages were, respectively, Augustinism, Aristotelianism, Averroism, and Avicennaism. Probably the last was most enduring for it found its ways into almost every field of learning, not just philosophy and medicine. Its chief advocate was William of Occam (d. 1349), a student of Duns Scotus, who was considered the most important schoolman after St. Thomas.¹¹ Even the concept of Occam's razor (parsimony) could be traced to the high regard Avicenna held for conciseness in logic, and the belief that future contingents were neither true nor false, the later of which theologians considered detrimental to religious thought. With Avicenna he believed intellection and sensation separate and that every individual had a soul but opposed Averroes' notion that they all join one common soul after death.¹²

St. Anselm, the father of religious scholasticism, held that the human mind must begin with faith and approach understanding through knowledge. This idea held up well considering almost all educated persons in Europe in the thirteenth century were clerics. Lay philosophers were unknown until

¹¹Afnan, Avicenna, p. 282.

¹²Ibid., p. 284.

after the age of Dante, when the new Greco-Islamic literature began to challenge religious precepts, but even the most liberal-minded churchmen could not accept emanation. William of Auvergne, very sympathetic towards new learning had trouble with acceptance of the view that "the world began in pre-eternity and will extend and last till post-eternity."¹³

As has been shown in the conclusion, the influence of these men and their works--Augustine, Aristotle, Averroes, and Avicenna--did not end with the first sweeps of scholasticism but enjoyed revival in Western Europe's Renaissance. Especially from the teachings of Averroes and Avicenna did the world become aware of experimental science, provocative ideas, and suggestive methods of inquiry.

Conclusions and Evaluations

Before one could understand fully Arabic contributions in the modern period, one had to consider both the final, direct influences in which Arabic writings in and of themselves were unique and indirect Arabic transmissions of the Hellenic culture which have had such a strong impact upon American education. Next, one had to decide in which ways philosophy per se had influenced education, both as an aca-

¹³Afnan, Avicenna, p. 286.

demical subject, through scope and function in theories, and from its practical aspects in the administration of school policies. Finally, the most amazing of all the conclusions, after much scrutiny, was the discovery that Neo-Humanists, Academicians, Traditionalists, and Progressives--all--had much of the Greek cultural heritage as bases for their objectives--American educators en masse could ascribe most of their operations and objectives to ideas of the Greeks transmitted to Europe by the Arabs.

The Arabs tried to improve upon knowledge they came across. Unlike many of their Middle-Age counterparts, they were genuinely interested in learning and assimilating knowledge so others after them could profit. Direct intellectual gifts were many. They added to the mathematical knowledge of the Hindus, Euclid, advancing trigonometry beyond Ptolemy's fundamentals, and introduced applied and theoretical science to the western world bringing such words as algebra, zenith, zero, alcohol, and lemon. Other Arabic words loaned to English are alchemy, alkali, almanac, artichoke, bazaar, camphor, alcove, candy, lilac, jasmine, cotton, mattress, orange, sofa, syrup, sugar, cipher, tariff, and caravan. Spanish words for awning, bakery, carpet, rice, jewel, and pillow, and the Portuguese words for lettuce, tailor, and pocket came from either Arabic or Persian roots.

Their literature developed from the Persians mostly, with a love for lyrical and romantic verse abounding throughout the land. All of Islam loved a poet, and the most well-known was Omar Khayyam whose Rubaiyat has enjoyed a revival in recent years. The Arabian Nights was the most famous piece of prose in Europe during the Middle Ages though it was not translated until the early 1700's into French.

Music theory was highly developed before the Moors ever entered Spain. Instruments often used were the lyre, drum, lute, tambourine, and cymbals. Bookbinders tooling leather with much delicate mosaic art were found throughout Islam working on books of art, music, medicine, and science. Elements of musical measurement of time and notation should be credited to Al-Farabi.

Al-Kindi's theory of lines of force concerning optics along with Al-Hazen's work with reflection and refraction of rays led the field of all medieval writings on these subjects. Roger Bacon and Robert Grosseteste paid tribute to Al-Hazen.

Astrology and astronomy were two sciences in which the Arabs excelled perfecting the astrolabe for detecting the movements of heavenly bodies. "The eleventh-century Persian poet and mathematician Omar Khayyam devised a calendar more accurate than the one now in use."¹⁴

¹⁴Judd, A History of Civilization, p. 120.

Arab contributions live directly through the chain of Averroes and Avicenna to Aquinas and Albert to Duns Scotus and William of Occam into the study of philosophy at a number of universities during the Italian Renaissance. Of all the Arab philosophers, Aquinas admired Averroes the most. Both these scholars were interested in furthering philosophy as a university study and both had a theory of knowledge. When Aquinas founded a new study center in Naples in 1272, he proposed a liberal arts curriculum much like Averroes advocated. He used the distinction between essence and existence as Avicenna had. The idea of individual freedom came when the Arabs decided the choice of good and evil on earth was divisible from God. When Aquinas said law was nothing but reasoning for the common good, he reflected the Arab's love of moral order.

Indirectly Arabs influenced Americans' ideas. Study of the seven liberal arts, which was of such long standing in American education, came from the Greeks via the Arabs. From the university requirements in Europe, such as those from the University of Toulouse (1309) and the University of Leipzig (1519) came Topics of Sophistical Refutations, Aristotle's Ethics, Porphyry's Isagoge, and Quintilian's Institutes of Oratory.¹⁵

¹⁵ Ellwood Cubberley, Readings in the History of Education (New York: Houghton Mifflin Company, 1920), pp. 180-181.

In England, Comenius' The Great Didactic, which set forth the whole art of teaching all things to all men, was introduced along with natural philosophy. In America, the Puritans were dead set on teaching the Bible and Latin, while philosophy was thrown in to develop the "faculties" of the mind. Needless to say, philosophy was never taken too seriously as a basic study in the United States, but philosophic theories have shaped the methodology and objectives in education.

Tradition was altered quite early, by 1784 in fact, because the emergent academies before 1800 were indeed classical schools but were also public-supported. While natural philosophy, logic, and astronomy were often offered in addition to the basics, the public also clamored for practical studies, such as bookkeeping, navigation, and surveying, all much needed at that time,¹⁶ just as Arabs had always done.

One might refer to all the American educational process as the Hellenization of the Far West because in reality that was exactly what occurred. The Sophists by the middle of the fifth century desired state-supported institutions with pay for teachers in order to help pupils achieve practical success. Plato soon developed the first philosophy of education, and

¹⁶Robert Middlekauff, Ancients and Axioms: Secondary Education in Eighteenth-Century New England (New Haven and London: Yale University Press, 1963), p. 149.

some of his ideas are still employed today. In his Republic he discussed three abilities: reason, appetite, and the enforcement of reason. He advised the deductive method. Such studies as philosophy needed a background of maturity. All women should be able to obtain the same education as men. He supposed that education would make all love what was good.

Aristotle extended these thoughts by saying that the two main aims of education should be the development of personality and training for citizenship. He urged that the instructor try to develop within the child an affection for the state which anticipated the modern trend of stressing conative aspects in education. All nationalists and flag-wavers followed Aristotle's line of thought quite closely. Education was encouraged throughout the Hellenic world after Alexander's conquests. Aristotle, in his Ethics, disagreed with his mentor, Plato, about the disruption of family life in favor of the commonwealth. He asserted that the family was the most powerful force for good, which has been a strong idea in America until recently.

About the second century, Christian Platonists, as Origen and Clement of Alexandria, helped establish catechetical schools rejecting the pagan rhetorical and grammar schools of Greco-Roman culture. The Christian schools had a much broader curriculum including Greek science and philosophy.

So quite early one could see the separation of state and church schools which prevailed throughout. The split in thinking here occurred because the theologian believed the main objective in education grew out of the corruption of human nature, while the Sophists and Isocrates worked on a humanistic formula that man is basically good. The whole movement of Christianity rose from this point, being spurred into action by Plotinus and Plato.

From Augustine came the idea that the liberal arts should be taught in an authoritative manner, for to be happy was to love God and be obedient to His commands. Conversion was the big push in educational goals now. Zeal in disputation which was characteristic of scholasticism was prominent in the first universities which have not changed substantially in seven hundred years. Teacher education became a hierarchical system much like Plato's idea of the philosopher kings. The state-support of secular schools that are universal and compulsory came from the Greek notion of citizenship with a separation of church and state institutions that had happened as early as the third century.

The Humanists fought for the transmission of culture through a classical liberal arts program for gentlemen and of vocational training for the rising middle class, long be-

fore Dewey stressed learning to do by doing. Comenius said the business of education was perfecting men toward a final social perfection, and Locke insisted that society was divided into rulers and workers; both could advance the happiness of the community, through obedience to natural law and performance of duty. So ran the group who chose state aims and the virtues of good citizenship as over-all objectives.

About this time there was the great influx of theorists. Theory having the Greek root for theatre meant providing a whole view of the situation. Theories were speculative at best. The philosophy of education had so many component parts, as ethics, epistemology, metaphysics, to name a few. As strongly as Locke had emphasized state good, Rousseau came along with the individual good, with Pestalozzi following with much detail about methods for teaching of individual growth. The two main lines of thought, both Hellenic, centered about the good of the nation and the good of each individual. The Latin educere, to draw forth, was interpreted to mean that education should draw out the truth with the Socratic method of asking questions of the student. Plato spoke of levels of ability, and such ability-grouping is common today in large schools with advanced standing in colleges. Greeks

insisted that the child's nature is good, so Rousseau in Émile said to give the child freedom to express this goodness. Herbart took Aristotle's association of ideas to develop the idea of apperception meaning that the child learns new concepts in terms of the old.

Upon this background, possibly the greatest modern educator, John Dewey, built the idea of gathering data with the teacher's guidance, testing hypotheses and formulating theories from the tests and evaluations. From such notions have arisen Show and Tell, Let's Find Out, Community Units of Discovery, and maximizing communication, which put education within the social framework Aristotle advocated.

In the twentieth century this line of philosophy continued in the Progressive movement, one wing following the open-ended, liberal outlook of Dewey while another was the kindergarten epoch of Rousseau and Froebel. On the other hand, the traditionalists followed the classicists who were skeptical of both the science of Darwin and the pragmatics of Dewey. Mainly, the ideas set forth by the traditionalists were that all men had a basic stable nature and that the aim of education should be invariable as to time and place--all should have the same education everywhere had been advocated by Robert Hutchins and Mortimer Adler.

Still another line of thought that could be traced from

medieval Catholicism through the Protestant Reformation down to parochial education of the present day. They have stressed flexible divisions of study to suit individual differences. From this movement has grown equalitarianism rejection because many educators felt that those with "superior abilities should have superior educational opportunities,"¹⁷ making equality and freedom inconsistent with democratic views on education. At any rate, all this contention has made for less rigid forms of methodology and more flexibility in view of the individual's scholastic needs, which was much like Plato set up his hierarchy for training philosopher kings.

In this writer's opinion, the aim to educate all has made for nation mediocrity in community participation, education, leadership, and philosophy of education. With so many students, the teacher has had to aim his teaching toward the average pupil, never challenging the thinking of the superior child. Therefore, the best have never developed their highest potential, cheating both themselves and the state. Without the fine leadership which an intellectual elite could provide for this country, this nation and those overseas who look to it for leadership are doomed.

¹⁷J. S. Brubacher, The Philosophy of Education, Encyclopedia Britannica, VII, 1018 (Chicago: Encyclopedia Britannica, Inc., 1964).

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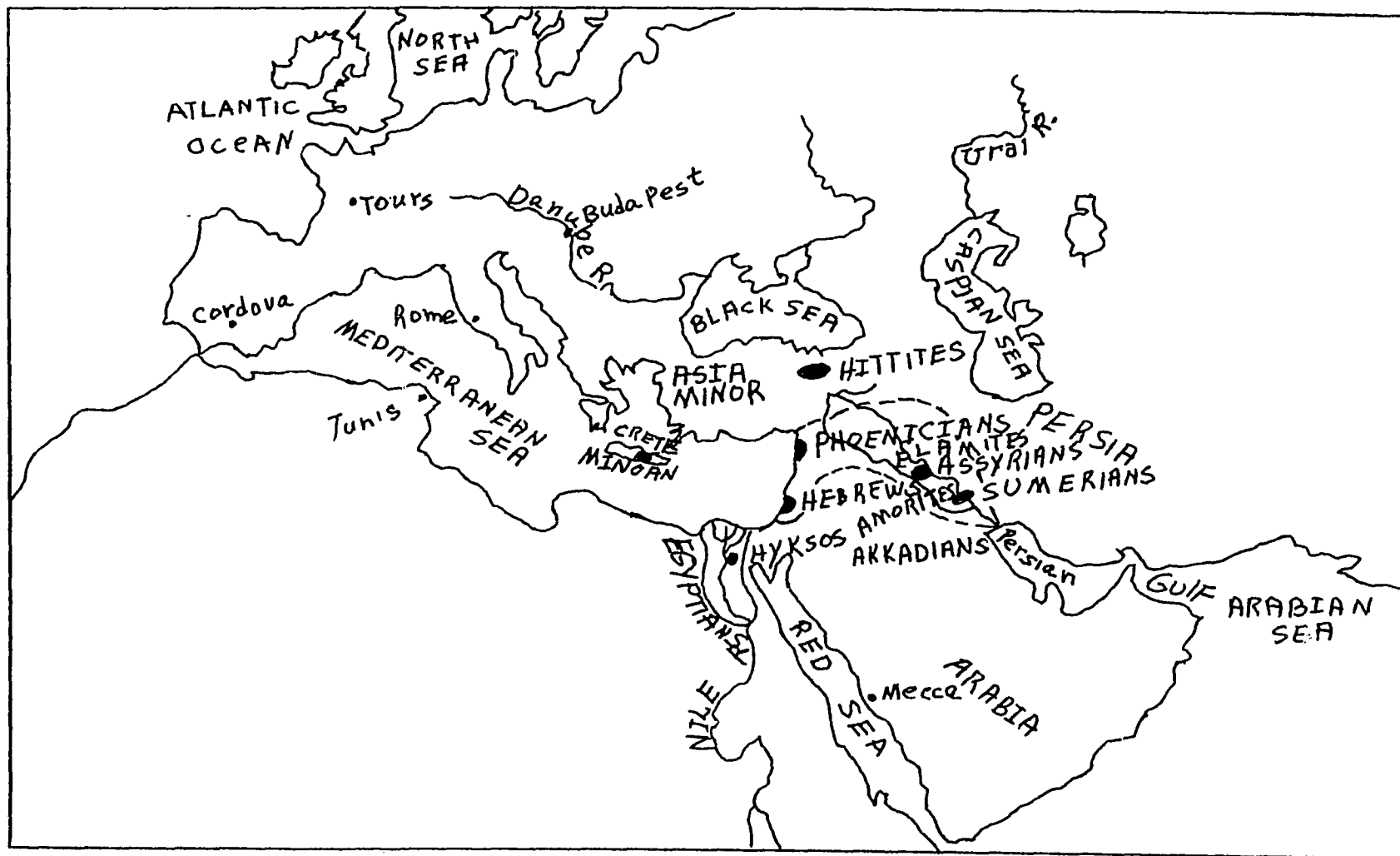
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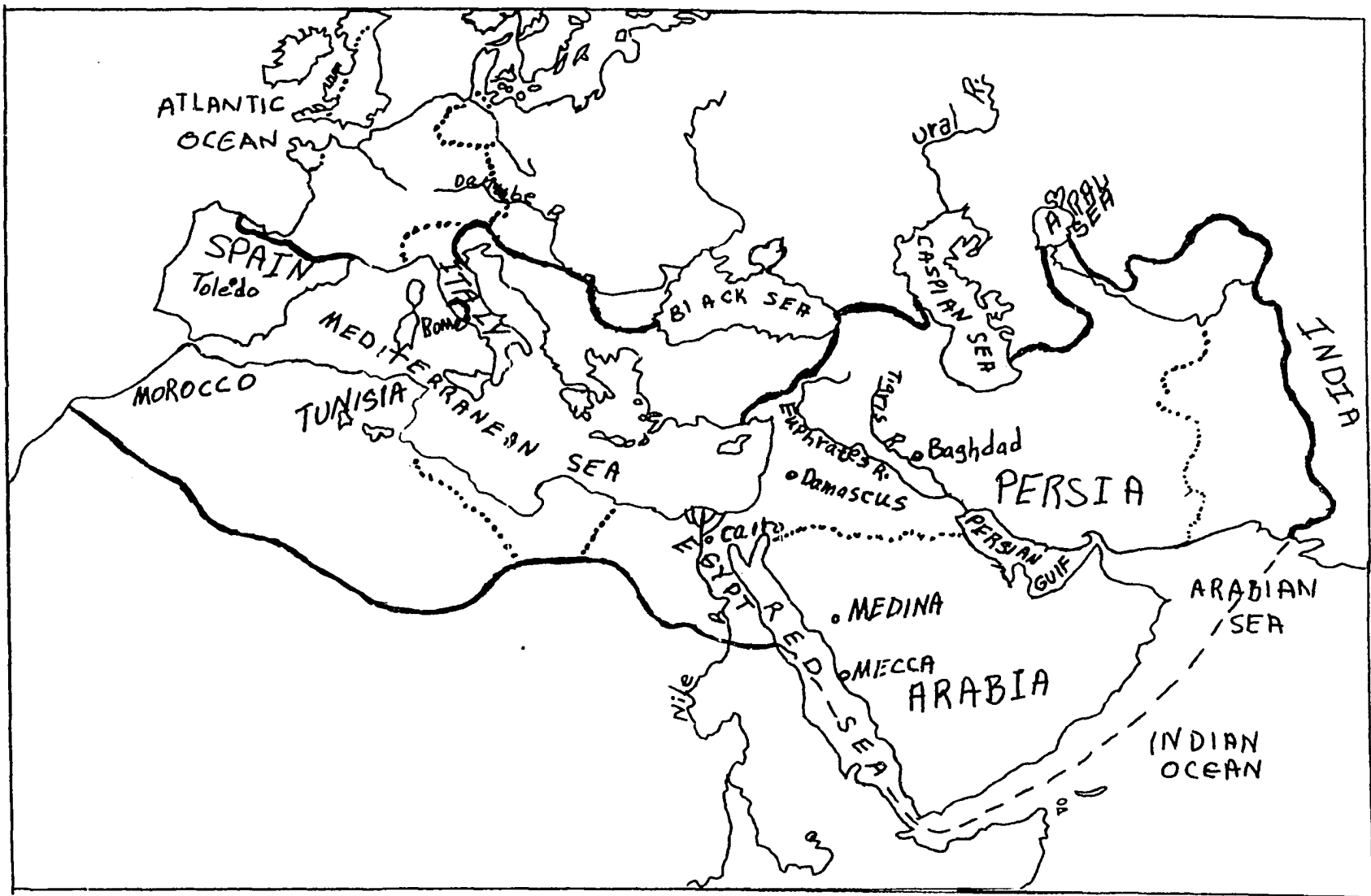
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APPENDIX A

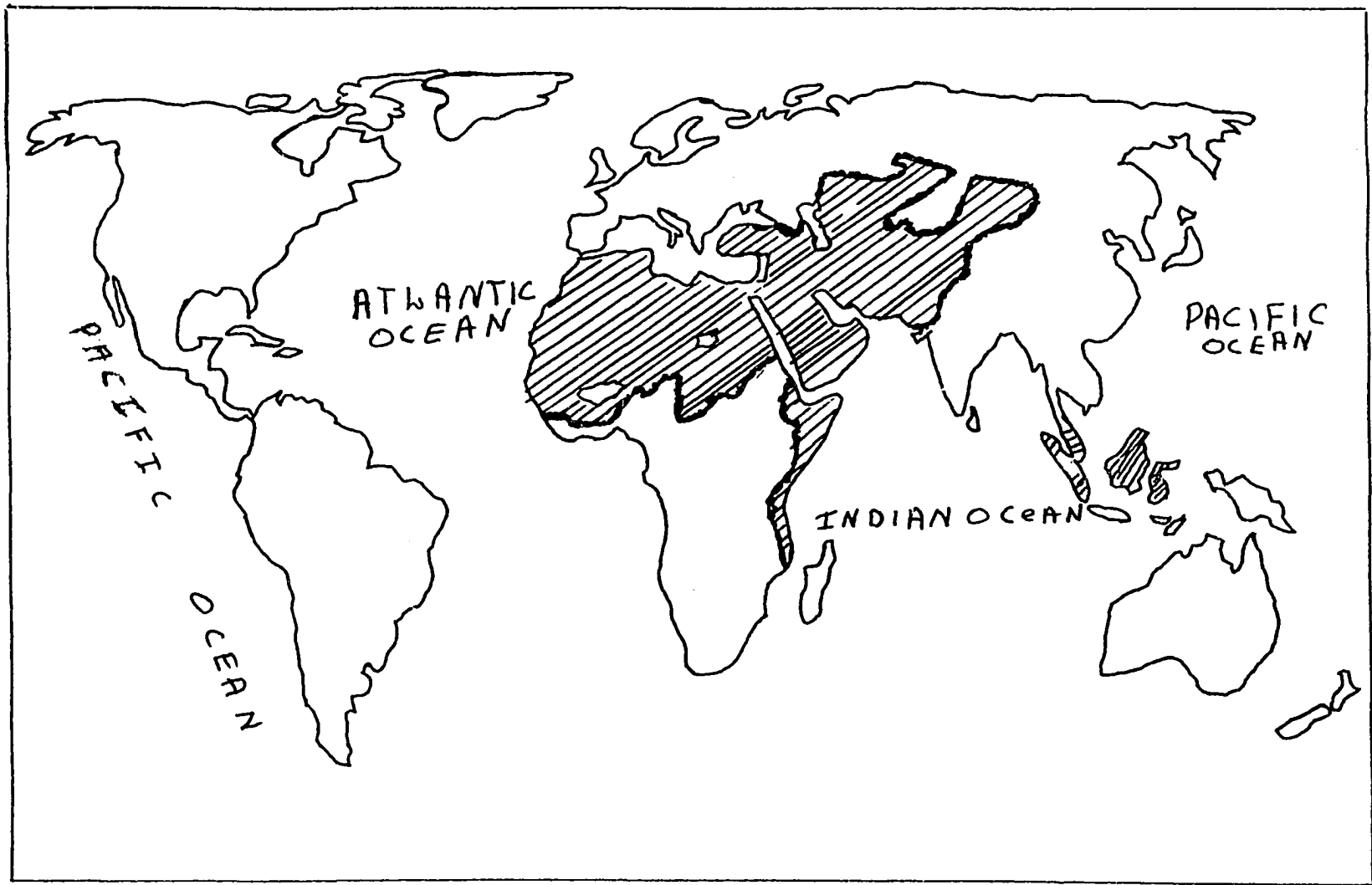
MAPS



Ancient Peoples of the Middle East



Islam in 750



The Major Areas of Islamic Culture Today

APPENDIX B
CHRONOLOGY

CHRONOLOGY

The Rise of Islam (622-661)

Mohammed	570-632
Mohammed's Flight to Medina	622
Islamic Commonwealth in Medina	622-630
Mohammed's Return to Mecca	630
Abu Bekr's Caliphate	632-634
Omar's Caliphate	634-644
Syria and Mesopotamia Conquered	638
Persia and Egypt Conquered	640-641
Subjugation of North Africa	643-711

Omayyad Caliphate (661-750)

Syrians Use Hindu Numerals	662
Constantinople Blockade	673-678
Muawiya II Becomes Caliph	683
Dome of the Rock in Jerusalem	691-694
Great Mosque Built in Damascus	705
Transoxania and part of Turkestan Taken	705-712
Punjab Fell	708-715
Spain Is Conquered	711-715
Battle of Tours Stopped Moors	732
Omayyad Dynasty Ended But Established in Cordova	749-755

Abbasid Caliphate (750-1100)

Mutazilite Philosophers	757-847
Ismaili Sect Established	760
Baghdad Founded	762
Blue Mosque in Cordova Begun	786
Barmecides' Fall	802
Al-Kindi	803-873
Decree That Koran Was Created	827
Sicily Conquered by Saracens	827
Bayt al-Hikma Founded	830
Al-Khwarizmi's <u>Algebra</u>	830
Al-Razi	844-926 or 865-923 or 932

Rome Fell to Saracens	846
Al-Farabi	870-950
Al-Ashari	873-935
Mosque of Ibn Tulun, Cairo	878
Saadia	892-942
Al-Ashari Professed Orthodoxy	912
Buwayhids Seized Baghdad	935
Al-Masudi	951 d.
Miskawaih	960-1030
Al-Hazen	965-1039
Cairo Founded by the Fatimites	966
El-Azhar Mosque at Cairo	970
Al-Biruni, Scientist	973-1048
Avicenna	980-1037
Brethren of Sincerity Organized	983
Al-Hakim at Cairo	990-1012
Rise of Mahmud of Ghazna	998
End of Cordova Caliphate	1031
Seljuks Invade Persia	1038
Omar Khayyam, Poet	1038-1123
Turks Took Baghdad	1055
Al-Ghazali	1058-1111
Alp Arslan, Sultan, But Asharites Tolerated	1063
Isfahan Friday Mosque	1088
Ibn Zohr, Physician	1091-1162
Fatimites Took Jerusalem	1098

Islamic Recession (1100-1492)

Abubacer	1100
Al-Idrisi, Geographer	or 1110-1185
Avempace	1100-1166
Averroes	1106-1138
Ibn Tumart, Mahdi Died	c. 1128-1198
Maimonides	1129
Saladin	1135-1204
Almohads in Spain	1138-1193
Ibn Arabi	1148-1248
Yaqut, Geographer	1165-1240
Alcazar of Seville	1179-1220
Saladin Defeated Crusaders at Hattin and Took Jerusalem	1181f.
	1187

Christians Defeated Moors at Toledo	1212
Mongols Took Jerusalem	1245
Alhambra	1248f.
Mamluks in Egypt	1250-1517
Moors Confined to Granada	1252
Mongols Sacked Baghdad	1258
Abbasid Caliphate Ended	1258
Mamluks Stopped Mongols at Ain-Jalut	1260
Fall of the Mawahhids	1268
Ibn Khaldun	1332-1406
Moors Expelled from Spain	1492