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Medieval Islamic Thought: Interplay of Faith and Reason

Introduction

A study of the life and works of medieval Muslim philosophers who have openly expressed their opinion about the issues centered on faith and reason is significant in a number of ways: it illuminates the paths taken by different thought structures, outlines the rationale and development of those thoughts, and most importantly, exposes the impact of the consequences of fateful decisions made in medieval times on the realities of the 21st century. Divided into three main sections, the study begins with Pre-Islamic Foundations, a discussion of the lives of ancient Greek sages--Pythagoras, Aristotle, Plotinus, and Porphyry--studied most by Muslim philosophers. In the next section, Medieval Muslim Thought, two topics are examined. The first part, the flowering of Greek thought in the expanding Muslim community, outlines the lives and contributions of Muslim scholars who cultivated and promoted reason-based ideas in early Islamic times. Part two deals with the rise of orthodoxy and its vehement opposition to reason-based debates. The life and works of those who initiated, supported, and implemented anti-reason propaganda are studied. The final section looks at Faith versus Reason, a survey of the efforts of medieval scholars, Muslim and Christian, who accommodated reason within the holy structure of orthodoxy and ushered in a new and different outlook on life.

It will become clear from the study that during the Middle Ages, Muslim scholars, and later on Christian scholars, grappled with problems inherent in the interplay of faith and reason in their respective communities. At the end, each community chose a fateful path. The one that chose the path of reason went on to implement reforms (Reformation), renewal (Renaissance), discovery (Enlightenment), and an overhaul of the decrepit façade of scholasticism. The other community chose the path of enhancement of the religious sciences, ethics, and the arts. It neglected, at its peril, what the ancient Greeks knew as the study of philosophical sciences.

What is not studied, but must be, is the coming together of those paths in the 21st century. It is obvious that in following the path of reason, the West has developed a different and more powerful set of economic, political, social, and strategic dynamics than the Muslim world. It is also obvious that this discrepancy has resulted in an imbalance in the relationship between the two worlds that cannot be easily bridged.

Pre-Islamic Foundations

The Presocratics revered Pythagoras as the father of numbers. He was born in 580 BCE and died in 504 BCE. His fields of interest were philosophy, mathematics, astronomy, and music. Pythagoras believed that the universe was a logical, symmetrical whole, which can be understood in simple terms.[1] In fact, he assigned a value to each number. For example, the number 1 is reason because it never changes; 2 is opinion; 4 is justice; 5 symbolizes marriage; and 7 is virgin, because among the first ten integers, it has neither factors nor products.[2] Additionally, Pythagoras believed that a mathematical understanding of the universe, achieved through nonviolence, vegetarianism, personal alignment with the mathematical laws that govern the universe, and the practice of ethics would earn the individual a superior reincarnation.[3]

In the 4th century BCE, Pythagoreanism and Platonism were temporarily fused. However, during the first century BCE the Neo-Pythagoreans emerged with the claim that the numbers were the prototypes for what God had created on earth. As we shall see, Pythagoras's theories survived and during medieval times were employed by the Islamic philosopher al-Razi and the secret society of al-Ikhwan al-Safa, who placed a great deal of weight on the efforts of the Neo-Pythagoreans.[4]

Pythagoras was impressed by the consistency of ratios among musical harmonies and geometrical shapes. For him, the essence of all things rested on three things: mathematical relationships of musical harmonies, the fact that any triangle whose sides are in a

[1] Rankin, p. 1777.
[2] Rankin, p. 1775.
[3] Rankin, p. 1774.
[4] Safa, p. 92.

ratio of 3:4:5 is always a right triangle, and the fixed numerical relations among the movement of the stars and planets.[5]

The next, and most important contributor, in the eyes of the Muslims, to the resolution of the real and metaphysical problems of the world was Aristotle. He was born in 384 BCE in Macedonia. His father was the court physician for Nichomacus, Philip II's father. At the age of 20, Aristotle was sent to Athens to attend Plato's Academy. He remained at the Academy for the next twenty years.

At the Academy, Aristotle became a favorite student of Plato. In the early stages, when Plato used Socrates as his main character, Aristotle followed his master. When Plato replaced Socrates's name with his own, Aristotle, too, used his own name. None of Aristotle's early dialogues have survived.

After Plato's death in 347 BCE, Aristotle moved to Anatolia where he lived for the next 13 or 14 years. Meanwhile, in 343 BCE, he accepted Philip II's invitation to Pella where, for 3 years, he instructed a young Alexander the Great.

After the assassination of Philip II in 335 BCE, Aristotle returned to Athens and opened the Lyceum. It was to the Lyceum that Alexander allegedly sent many biological specimens gathered by his soldiers in the Middle East and Asia. It was also at the Lyceum that Aristotle established his scientific method of examining specimens and establishing logical systems of substantiation arriving at tentative conclusions.[6]

As a philosopher, Aristotle agreed with the Presocratics and Plato. In fact, his system accommodated the discoveries of the former and the "form" of the latter. His Lyceum contained a vast collection of biological specimens as well as countless manuscripts on diverse subjects. As a result of his studies, in addition to philosophy, ethics, natural history, and sciences, especially biology, prospered.

Recall that Plato posited two worlds: a world of forms and ideas as opposed to a world of substantives and shadows.[7] These worlds existed in tandem. Our real world he called the world of substantives and shadows, an imperfect and perishable world in

[5] Rankin, p. 1775.
[6] Ravandi, p. 334.
[7] For discussion, see Iraj Bashiri's "The Ahuric Order and the Platonic *Form*" (forthcoming, 2006).

which science has no role to play. Facts and events in the world of shadows, he argued, cannot be measured scientifically because the world in which they exist is itself devoid of the milieu necessary for scientific inquiry. On the other hand, he recognized the world of forms and ideas to be a perfect world, a world that can withstand scientific examination and yield significant and precise results every time.

In a manner of speaking, by not asking such basic questions as "what are human beings," "how, or of what, are they created," and more importantly, "what has been the purpose of their creation," Plato placed the cart before the horse. Instead of asking those germane questions, he set out to perfect human beings and, with the help of science, introduce order into society. Aristotle, on the other hand, while taking the efforts of his predecessors into consideration, introduced a new and multidimensional perspective on the issues involved. He did not reject Plato's ideas with regard to the two worlds of form and substance, but he shifted the emphasis from the abstract world of forms and ideas to the tangible world of substances and shadows. In other words, he did not agree that the world we live in is as transient and unscientific as Plato would have us believe. In fact, he pointed to a glaring gap in Plato's world, a dimension that the Presocratics had discovered and developed but which Plato had advisedly ignored.

Aristotle posits four causes of events. With these causes, he validates, but more importantly enhances, the discoveries of the Presocratics and Plato. These causes are usually referred to as the material, the efficient, the formal, and the final. The material and the efficient causes recall the efforts of the Presocratics, while the formal and final are related to Plato and Aristotle, respectively.

In order to define a form or a category, Aristotle, in the manner of Socrates, asked some basic questions. To understand the material cause, he asked: What is it made of, or of what is it constituted?[8] For a table that is made out of wood, for instance, the material cause is wood. For the efficient cause he asked: What moves it?[9] In the case of the table, it is the carpenter who handles the wood, which has the potential of becoming a table. The form of the table was the subject of the next question: What is it? Here Aristotle came very close to

[8] Cf., Thales's water theory.
[9] Cf., Anaxagoras's recognition of the mind as the mover.

Plato's "form." It is a table, i.e., the form that exists and with which, when completed, the object will be identifiable is "table" or "tableness." At the end, Aristotle asked his most important question, a teleological question: What is it used for, or for what purpose is it constructed? The answer is "to hold things up."

A comparison of the worlds of the two philosophers indicates that Plato's world exists in the abstract, beyond the tangible world. Aristotle's world, on the other hand, is real and tangible. In fact, Aristotle's world is a Platonic world to which nature is added as a tangible element. Where with Plato we talk about "form," in the case of Aristotle we talk about hylomorphism, i.e., a combination of *hule* (matter) and *morphe* (form). Put differently, Aristotle's world examines real problems and seeks real solutions for them.

Neither did Aristotle deem the four causes sufficient for understanding the nature of things and of reality. He believed that there are at least ten aspects to every person or thing according to which they can be categorized. These aspects include, but are not limited to, a) essence or substance; b) quality; c) quantity; d) place; e) time; f) relation; g) status or posture; h) action; i) possession; and j) passion.[10] These aspects, Aristotle believed, combine in various forms to create the phenomenal world we experience.

Aristotle examined the nature of existence. He concluded that existence has two modes: potential and actual. The seed, he argued, although not a tree, given planting and proper care, has the potential of becoming a tree. The tree itself, on one level, is actual as a tree, but on another level has the potential of being a table or a book. Aristotle further posited that change within things is brought about by movement that is inherent in things qua things. In this regard, he created a hierarchy in the course of which things that acquire movement are elevated to higher levels. Things with inherent movement become integral parts of plants. Plants acquire sense and become animals. And animals acquire logic and thought and become human beings.

Aristotle was a controversial figure. Some of his ideas, accepted by posterity, remained in effect for a long time. For instance, his disapproval of Plato's relegation of science to the realm

[10] The terminology employed to define these categories may seem different in different studies, especially in Islamic sources. This is due to variations in transliteration and translation across several languges. See Morewedge, pp. 164-188.

of the abstract forms was upheld, as was his proposition that forms should be "lowered" so that they could take their place among the contributions of nature. Conversely, a number of his concepts remained controversial and remain so. For instance, he believed that men and women are not equal. This was in contradistinction to Plato's position; he had elevated women to the highest positions in government. Moreover, Aristotle approved of slavery, slaves being inferior creatures who must be led. He demeaned foreigners, irrespective of their place of birth or their rank in their native land. He considered foreigners to be inferior to Greeks. In fact, he inculcated this notion in his student, Alexander the Great. But the latter's travels in the world outside Macedonia taught him otherwise.

Although Aristotle continued to be studied and the Romans discussed his thought extensively, it is only during medieval times that he becomes known as "the Philosopher." Two aspects of his works, the theological and the scientific, are discussed extensively by medieval scholars. In theology, Aristotle follows the Presocratics. He believes in a mysterious and mystifying deity that is the one and the all. Not being in need, Aristotle's God does nothing, and being the embodiment of all, sees naught but Himself. Without Him everything disappears and with Him all things emerge and exist.

The scientific side of Aristotle's studies becomes important after the theological aspect is studied and incorporated. As we shall see, Aristotle's causes and categories become the bedrock on which medieval Muslim and Christian scholars build their foundations for the future of their respective societies. The history of philosophy after Aristotle is best described by al-Farabi:

> The study of philosophy became widespread during the reign of the Greek kings. However, following the death of Aristotle, it was cultivated at Alexandria until the end of Cleopatra's [literally, the woman's] reign. Teaching had remained unchanged subsequent to Aristotle's death, throughout the reign of the thirteen [Ptolemaic] kings. During their reign twelve teachers of philosophy succeeded one another….[11]

[11] Fakhry, p. 108.

Among those teachers, two were of great importance to the development of Muslim thought in medieval times: Plotinus and his devoted student Porphyry. Known to the West as the Father of Neo-Platonism and to the Arabs as *al-Shaykh al-Yunani* (Greek Sage), Plotinus was born in AD 205 in Lycopolis, Egypt.[12] There is little information about his early life, but thanks to Porphyry's preface to Plotinus's *Enneads,* we are better informed about his later life.

After studying for eleven years under the Platonist Ammonius Saccas, Plotinus joined Gordian II's army and marched on Persia. His goal was to stay there and study the philosophies of Persia and India. Unfortunately, Gordian was assassinated at the hands of his own men and Plotinus had to find his way to Antioch on his own. He died in AD 270 in Campania.

Plotinus made some lasting contributions to philosophy, psychology, and epistemology. When he was forty, he established a school in Rome wherein he taught such notables as Castricius Firmus, the Alexandrian doctor Eustochius, Porphyry, the Emperor Gallienus, and the emperor's wife Salonica. In his introduction to *Enneads,* Porphyry reproduced some of Plotinus's classroom lectures and debates. Towards the end of his life, Plotinus tried to persuade Emperor Gallienus to build a "City of Philosophers," a utopia that could function by the laws of Plato, but his plan did not succeed.

Master of an eclectic mind, Plotinus combined the philosophies of those before him, especially Plato, with his own and generated what came to be known as Neo-Platonism. He summarized the outcome of his endeavor in three basic principles of metaphysics: "the One," "the Intelligence," and "the Soul." His "One" embodies the indescribable great transcendent supreme one that surpasses all being and non-being. Only a creature of the One, which he called the second principle or Intelligence, can make the contemplation of the "One" possible. He called the third principle, which is actually a combination of the One and Intelligence, the Soul. As a result of the meeting of the Soul and Intelligence (cf., matter and mind), the cosmos, as we know it, emanates from the One.

Plotinus's manner of the coming into being of the cosmos is usually referred to as "emanation." This is the feature of Plotinus's philosophy that distinguishes his contribution from the rest. The

[12] Fakhry, p. 20.

concept was so bold that it moved al-Kindi to write a whole commentary on it.[13] In practice, too, this concept has passed the test of time and has served as the cornerstone of a whole spectrum of Arabian philosophical thought. In fact, it constitutes the cornerstone of the cosmos of the great Muslim philosopher, al-Farabi.

Plotinus's ideas were furthered by his student, Porphyry. Porphyry served Plotinus in very much the same way that Plato served Socrates by editing and publishing his thoughts. Born around AD 234, Porphyry stands at the end of the creative phase of Greek philosophical thinking.[14] Not an original thinker, he compiled and edited Plotinus's *Enneads,* wrote a comprehensive biography for him, and was successful in expounding on his master's thoughts clearly.[15] He also wrote many commentaries on the works of Plato and Aristotle of which *Isagoge,* his commentary on Aristotle's *Categories,* is the most well known. In fact, the *Isagoge* was one of the sources that was used most frequently and extensively by medieval philosophers and theologians.

Porphyry's work centered on salvation, or ascent of the individual soul. His ultimate goal was to discover a method, or a set of rituals, that everyone could practice. Like Plotinus, he believed that the soul must cleanse itself of all dross and, through contemplation, ascend to the One. The path to salvation, according to Porphyry, is through virtue.

Porphyry distinguished four categories of virtue. He labeled them: political, purifying, contemplative, and paradigmatic. Political virtue, being preparatory in nature, is within man's realm of consciousness, and as such can be controlled. The function of political virtue is to moderate man's actions and create harmony in life and society. Once the body is purified and free from material attachments, the soul is led towards contemplation of the true being. From there, enhanced by intellect, the soul moves towards the achievement of self-realization or divinity. Beyond this stage is the realm of pure intellect, a realm absolutely devoid of material nature. Here the soul lives by reason alone and becomes one with the One.[16]

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[13] Fakhry, pp. 31, 117.
[14] Tripolitis, p. 1699.
[15] Tripolitis, p. 1696.
[16] Cf., Tripolitis, p. 1697.

During the thirty-five years that he lived after his master, Porphyry contributed a great deal to the promotion of Plotinus's thought and to Neo-Platonism. He died in AD 305. His efforts, as we shall see, were later enhanced by the Ikhwan al-Safa.

Medieval Muslim Thought

While the Umayyads (661-750) had kept the Persians at arm's length from the centers of Islamic power, the Abbasids brought them into the administration and elevated some to high office. With Persian help, a solid base was established for the creation of institutions of learning and promotion of the sciences. In order to facilitate this process, the Abbasids even sought distance from the earlier centers of Islam (Mecca, Medina, and Damascus) and moved closer to the ancient centers of learning like Ctesiphon. In fact, they displaced the city of Ctesiphon by building the city of Baghdad (762) in its vicinity. Within a short time, the *Bayt al-Hikmah* in Baghdad became one of the most important centers of learning in the Islamic world of the time.

The gravitation of the Abbasids towards the eastern lands was motivated by the dynasty's inclination to benefit from two sources of strength. One was the wealth of knowledge that the Sassanians had accumulated in Ctesiphon and Gundishapur. The other was the reservoir of tribal strength among the Turks of Central Asia, which could be tapped for the expansion of the caliphate and creation of internal security. These two factors impacted the Abbasid caliphate immensely. As we shall see, each factor had its own distinct advantages and disadvantages for the caliphate.

Gravitation towards Ctesiphon and Gundishapur spearheaded new lines of inquiry in and into Islamic learning. Thus far, theology had meant study of the *Qur'an* and the *ahadith.* No outside knowledge had been allowed to influence this pristine base. Now, however, there were scholars of diverse backgrounds, like al-Kindi, al-Farabi, Ibn Sina, al-Biruni, and others who were not satisfied with the existing knowledge base and endeavored to reshape and enhance it using all their available resources. Initially, their cooperation seemed to be beneficial to both the caliphate and the people. In fact, were it not for this caliphal stance, the Samanids, a client of the caliphs of Baghdad, would not have revived the Iranian culture of Central Asia. Consequently, Firdowsi would not have probed as

deeply as he did into Persia's annals in search of Iran's bygone heroes and kings. He definitely would not have revived the Persian language that, after three centuries of Arab domination, had fallen into disuse. Nor would eminent poets like Rudaki, Daqiqi, Attar, Rumi, or philosopher-mathematicians like Umar Khayyam, or sages like Shaykh Muslih al-Din Sa'di, have carried out the Islamic legacy to the heights it reached.

Neither was Baghdad unique in the introduction and development of the scientific wealth of the Islamic Empire. The city of Bukhara competed with Baghdad and contributed almost as much to the growth of learning in the greater Islamic world. In fact the *Sivan al-Hikmah* in Bukhara rivaled the *Bayt al-Hikmah* in Baghdad and, in some respects, surpassed it.[17]

There is no doubt, however, that the beneficiaries of this line of thought in the caliphate were the Persians. Using the Abbasids, they not only overthrew the oppressive Umayyads, but also brought the Arabs within the orbit of inquiry into matters that thus far had been taboo. In other words, in the outer reaches of the Empire, Muslims became involved in research that directly impacted the domains of *kalam* and *fiqh* beyond what the *salaf* had imagined. During the time of al-Ma'mun, for instance, Mu'tazili *kalam* dominated the caliphate (see below). During the period of the *Mihnah,* the *Qur'an* was considered officially to be a created text. Many of the beliefs of the orthodox Muslims, such as the teachings of Imam Ibn Hanbal, were rejected. Conversely, the teachings of Plato and Aristotle found fertile ground in the deepest recesses of Muslim thought and were promoted. It would be no exaggeration to say that the ancient Greek sages gave Islam its most eminent men of learning and its greatest achievements in world civilization. It is also interesting to add that when the dome collapsed and the study of philosophy was condemned (see below), the Persians of the empire remained as the sole group in the *ummah* that remained in touch with investigations that used reason as a tool.

The Muslims' entry into the world of the ancient Greeks and their discovery of the wealth of knowledge stored in libraries in Alexandria, Al-Jazirah, and Harran was made possible by the Mu'tazilites and early Muslim philosophers like al-Kindi. The

[17] See, Bashiri, 1977, pp. 18-28.

Mu'tazilites spearheaded a movement in the 8th and 9th centuries that advocated absolute unity and justice for God. Persisting on unity, they rejected the orthodox view that the *Qur'an* had existed prior to the creation of the world. Rather they regarded it as one of God's creations. The Mu'tazilites' advocacy of created *Qur'an* was adopted by the Caliph al-Ma'mun (827) who required of all *qadis* (judges) unswerving profession to the created nature of the *Qur'an.* Soon after (833), this principle formed the basis of the *Mihnah* (inquisition) according to which all applicants for official positions with the government had to pass the test.

Regarding justice, the orthodox believe that, since God is just and benevolent, He decides the fate of the individual as He pleases. In other words, if God so wills, a sinner can go to paradise. The puritanical Mu'tazilites believed that God has no choice. Since He has said that sinners will be assigned to Hell, all sinners must be assigned to Hell.[18]

Serious investigation into Islamic philosophy begins with Abu Yusuf Ya'qub ibn Ishaq al-Kindi, the first Arab philosopher[19] noted for his introduction of Greek and Indian learning into the Muslim world.[20] In fact, according to Philip Hitti, he was the first and last Aristotelian of Arab extraction.[21]

As his name indicates, he is from the Kindah tribe, an influential tribe in pre-Islamic Arabia.[22] He was born in 801 in Kufah, where he spent his childhood years. Later on he moved to Basrah to complete his studies, and from there to Baghdad, where he settled.

Al-Kindi was the first to classify and relate science to various aspects of society and was a promoter and patron of the translation movement. Whether he did any of the translating himself is not known. There is no doubt, however, that he encouraged others to undertake translation works and, in many cases, amended their contributions.[23] Without the efforts of the contributors to the translation movement, none of the medieval scholars would have had

[18] Hitti, p. 429, see also Dictionary, p. 368.
[19] Cf., Shehadi, p. 15.
[20] Fakhry, p. 66.
[21] Hitti, p. 370.
[22] Safa, p. 163.
[23] Shehadi, p. 17.

a chance at expanding their horizons to contribute to the enhancement of world civilization.

In Baghdad, al-Kindi was supported by three Abbasid champions of the Mu'tazilite cause: al-Ma'mun (813-833), al-Mu'tasim (833-842), and al-Wathiq (842-847). While those caliphs were in power and Mu'tazilite thought was supported by the court, al-Kindi enjoyed a great deal of respect and prestige. His fortunes turned, however, when the anti-Mu'tazili al-Mutawakkil (847-861) came to power. Al-Kindi survived al-Mutawakkil by five years, but never regained his previous status. Al-Kindi, who died in 866, was a most prolific writer. He wrote on diverse subjects including logic, metaphysics, arithmetic, spherics, music, astronomy, geometry, medicine, astrology, theology, psychology, politics, meteorology, topography, prognostics, and alchemy. His work on optics, based on Euclid, remained a main source until it was superseded by Ibn al-Haytham.[24]

Al-Kindi lived during a very exciting time in Islamic history. This is the time when Greek thought was making inroads into the Islamic realms and when the Mu'tazilites were setting the standards for a new age in Islam, an age modeled on Greek thought, at the expense of Islamic traditions. Al-Kindi endeavored to forge out of Greek thought a useful *tool* for a better and more profound understanding of Islam. Strong as his inclination towards rationalism was, however, he never gave up his faith; rather, he considered logic as the best proof of prophetic revelation.

This is, however, not to deny that al-Kindi lived a double life. As a philosopher, he knew that the world had always existed as an entity, and that after death, the body turns into matter and disappears. He also knew that miracles are tricks played on the mind and senses, and that prophetic revelation stands to reason. Neither could he deny that the world has always been in existence and will remain there forever. Conversely, as a Muslim he had to believe that the world was created *ex nihilo* (i.e., did not already exist) and that it was created in time and out of nothing. He also had to believe that although after death the body turns into dust, on Resurrection Day, Allah returns *all* bodies to life. He had to regard miracles and prophetic revelations, although extraordinary to the layperson, to be

[24] Hitti, p. 370.

real. He had to believe in the impermanence of everything and that Allah creates and destroys the world as He pleases.

At the time, adherence to this dual mode of thinking was an absolute necessity. Al-Sarakhsi, a student of al-Kindi, for instance, disregarded the danger of speaking openly against orthodoxy. He even went as far as speaking openly about Mu'tazilite ideas in front of the caliph. For his transgression, in 899 he was executed at the behest of Caliph al-Mu'tamid.

As mentioned, al-Kindi contributed to almost all the sciences of his time. Here we shall deal with his views on music as part of his overall view of the cosmos. Before doing so, however, two points need to be made. The first is that the present study is not intended to deal with any aspect of Islamic thought in any detail. Nevertheless, music is made an exception and the reasons for that will gradually become clear. Second, it should be noted that al-Kindi used the term *musiqi* (also *musiqa*) in relation to the science of music, and *ghina* to refer to the practical aspect of performing and listening.[25] Our discussion focuses more on his theoretical views, or his *musiqi,* than on his *ghina.*

Al-Kindi was a master of the lute, an instrument for which he wrote finger exercises. As a theoretician of music, he followed Pythagoras and categorized music as a mathematical science related to numerical and astral phenomena. His treatises on the theory of music are among the earliest works extant in Arabic on the subject. They indicate the degree of Greek influence on Arabic music in early Islamic times.[26] He was the first among the Arabs to use notations for music.[27] At the same time, it should be noted, al-Kindi did not agree with Pythagoras that numbers were the binding force in the cosmos.[28] His general view of the cosmos persuaded him to accept Pythagoras's music of the spheres as well as his claim that the heavenly bodies, being solid, collide and that their collision creates perfectly ratioed noises.

Al-Kindi's cosmos incorporates elements from Aristotle, Pythagoras, and Plotinus. From Aristotle he borrows the concept of

[25] Shehadi, p. 15.
[26] Hitti, p. 370.
[27] Hitti, p. 428.
[28] Shehadi, p. 20.

the four elements. He calls Aristotle's fifth element *falak.*[29] From Pythagoras he borrows the concept of the "collision" of the spheres. Indeed, Pythagoras's view of the spheres provides al-Kindi with a rationale for his music, as well as for his other relations that he claims bind the world of the humans to those of the waters, plants, and animals.

Al-Kindi places music in the same category that he places arithmetic, geometry, and astronomy. He calls these the middle sciences. Above them are the upper sciences or "what is beyond nature," the supra sensible that does not change. Below them are the lower sciences, i.e., nature and what is sensible and changeable.[30] Into this latter world al-Kindi introduces the Aristotelian concept of cause (*'illah*) or the force that makes things originate and intermingle. He places *'illah* in his Aristotelian *falak,* the "transitional" fifth element that connects the lower strata of his cosmos to its upper part. Music, for instance, begins as a Platonic form in the supra-sensible world. Upon its descent, it stimulates the *falak,* producing in it the cause that creates the noises that, in a manner described by Porphyry, emanate from the spheres. Then, depending on the many factors that al-Kindi describes in detail (e.g., colors, scents, etc.), music and the other relationships among humans and other sentient beings of the cosmos, emerge.

Finally, al-Kindi believed that music and culture are interrelated and that music affects the human body emotionally as well as physically.[31] He also believed that music affects and relates to emotions and health. In relation to this, he tried to understand the relation of music to the heavens, the elements, the humors, time, and temperaments. Often he used music, in its therapeutic mode, to cure patients that other physicians had diagnosed as incurable.

A pathfinder in the wilderness of Islamic philosophy in the 9th century, al-Kindi established his own school of thought based on the concepts of the ancient Greeks. Some of those who followed him agreed with his assessment of the works of the ancients and endeavored to illuminate his contributions. The Ikhwan al-Safa (Brethren of Purity), which we shall study next, fit this category.

[29] Shehadi calls *falak* the proximate efficient cause of change in the sensible world, p. 26.
[30] Shehadi, p. 19.
[31] Shehadi, p. 34.

Others, like al-Farabi and Ibn Sina, disagreed with al-Kindi's basic premises.

While during the earlier stages of the introduction of Greek philosophy into Muslim thought it was possible, as was the case with al-Kindi, to live a double life, in later times that became impossible, so scholars began to form secret societies and write anonymous articles promoting their points of view. A major group that appeared at this time was al-Ikhwan al-Safa or the Brethren of Purity. This was a group of Muslim scholars that, during the 10th century, tried to reconcile Greek philosophy with Islamic thought. Whether the group was affiliated with any particular religion—Shi'ism, especially Isma'ilism, for instance—is not known. What is known, however, is that they differed from the Mu'tazilites in that they tried to reconcile Greek philosophy with Islamic principles rather than make Islamic principles fit Greek thought.[32]

The group's full name is *al-Ikhwan al-Safa wa Khullan al-Wafa wa Ahl al-Hamd wa Abna' al-Majd* (The true friends, the faithful comrades, those deserving praise, the sons of glory). Reportedly the name comes from a story in *Kalilah wa Dimnah* about a "ring-necked dove."[33] In the story, a group of birds caught in a hunter's snare, cooperate and escape the snare. The story goes on to say that without cooperation, the birds would not have achieved their freedom.

Originating in Basrah in 983, the Ikhwan were already known for their spiritual doctrines and philosophical *Rasa'il* (epistles). As for the *Epistles,* they are 54 in number. They include an introductory essay explaining the genesis and the contents of the *Epistles,* and a concluding essay summarizing the problems raised and the solutions offered.[34] The rest of the *Epistles* contain detailed spiritual doctrines, philosophical modes, and mathematical treatises, as well as information on music, medicine, and the other sciences. In general, each *Epistle* is dedicated to a major topic of interest to the Brethren.

There is little detail available regarding the identity of the Ikhwan, but that has not precluded guesses regarding their names and places of origin. Some claim that Abu Sulaiman Muhammad b. Ma'shar al-Busti (al-Muqaddasi) was their leader and chief editor.

[32] Safa, p. 296.
[33] Safa, pp. 296-7.
[34] Safa, p. 301.

The other members are identified as Abu al-Hasan 'Ali b. Harun al-Zanjani, Abu Ahmad al-Mihrajani, Abu al-Hasan Ali b. Raminas al-'Aufi, and Zaid b. Rifa'ah.[35]

Following Plotinus and Porphyry, the Brethren claimed that in order to attain a full degree of serenity in life, the individual must cleanse his soul and bestow upon it as much knowledge as possible. By basing their claims on the twin pillars of belief and knowledge, they thought they could energize their faith (in religion) and expand their philosophical horizons into the realm of the divine.

Although not related to any particular sect of Islam--in fact, they could have formed a sect of their own—the Ikhwan were of the opinion that the *Shari'a* that was enforced at their time was no longer the *Shari'a* that had been enforced during the earlier days of the religion. They taught that, it was the task of the philosopher to restore to the *Shari'a* that which had been taken away from it through negligence and ignorance.

The Brethren came from all walks of life. They met in secret places at regular intervals. The agenda for their sessions included discussion of aspects of knowledge, specifically those pertaining to a better understanding of the Almighty, the foremost aim of the group.[36] Reportedly, prince and pauper alike participated in their gatherings and contributed to the growth of their knowledge base. Their gatherings being secret, the members themselves undertook the task of recruiting new members. By definition, the new member was to be chosen from among the ranks of the youth and had to be initially sponsored by an existing member.[37] The process of recruiting was simple. Once the recruiter had a good sense that the novice fits the pattern, he would introduce him into a small circle as a friend. The more the novice shows promise, the larger the circles to which he is introduced and the greater the degree of his friendship with his original sponsor. Some friendships grew to the degree that they surpassed family ties. Only death separated two Brethren friends.

The Ikhwan were extremely tolerant towards the knowledge and religious beliefs of other people. For them no knowledge was to

[35] Safa, pp. 298-9.
[36] Safa, p. 304.
[37] Fakhry, p. 165.

be preferred over another, nor was a religion to be revered more than another.[38] Their creed, as expressed in *Epistle* 44, was as follows:

> The Brethren are a group of fellow-seekers after truth, who are held together by their contempt for the world and its allurements and their devotion to truth, whatever its origins; and that theology, or the "divine science," is their primary concern.[39]

Using a Platonic system, the Brethren ranked their members according to age and placed them into four categories. The first, called *Ikhwan al-Abrar,* included those over the age of fifteen. The second, called *Ikhwan al-Akhbar,* was comprised of those thirty to forty. The third rank, *Ikhwan al-Fuzala,* started at age forty and lasted for a decade. The fourth and last rank, which did not have a name, started at the age of fifty (cf., Plato's Guardian). Individuals who had passed through all ranks successfully and had witnessed the Truth belonged to this rank.[40]

In search of a utopia, the Brethren intended to create a universal religion that drew on the *Shari'a* of Islam as well as on the philosophical speculations of the Greeks. The interface of the two, they thought, would result in a religion with a spiritual doctrine acceptable to everyone. Within the bounds of that religion, they thought, the world would enjoy tranquility.

The Ikhwan's classification of the branches of knowledge is Aristotelian. In it, mathematics, which included the theory of numbers, geometry, astronomy, geography, music, theoretical and practical arts, ethics, and logic, is given the top place. Mathematics is, in turn, followed by physics, which includes matter, form, motion, time, space, the sky, generation, corruption, as well as minerals, the essence of nature, plants, animals, and the human body. The senses, life and death, the microcosm, pleasure, pain, and language are also included in physics. The third place is occupied by metaphysics and its components: psycho-rationalism, including psychics, rationalistics, being, macrocosm, mind, love, resurrection, causality, and theology. These items comprised the Ikhwan's beliefs and faith,

[38] Safa, p. 304.
[39] Fakhry, p. 165.
[40] Safa, p. 305; see also Fakhry, pp. 165-6.

as well as divine Law, prophethood, and search for the godhead. The incorporeal, polities, the structure of the world, and magic complete the contents of theology.

The Ikhwan's apprehension of knowledge was geared to its classification. The material changes perceived by the senses, i.e., all that occurs within time and space, are at the top. Knowledge beyond the senses, i.e., knowledge apprehended (First Matter, for instance) is placed second. Knowledge received from authority (God, prophet, imam, elder) occupies the third and highest rank.

The Ikhwan's metaphysics, on the other hand, is Neo-Platonic. For them the image and characteristics that we observe in the sublunary world are mere coloring of the reality that lies beyond in the realm of spirits. The Ikhwan's basis for creation, however, is Pythagorean in essence but Plutonian in realization. They divide the numbers into two: the one and the many. One, a root number, stands for God. The other numbers emanate from one in the same way that the whole creation emanates from God.[41] In fact, for them there is a similarity between the relationship of the soul to the numbers and the relationship of the soul to music, a subject to which we shall turn shortly.

In the Ikhwan's cosmos, the Creator's will serves as an anchor for the rest of creation. From the One Eternal Being that is placeless, traceless, and without a partner emanates Intellect, which acquires eternity from God's Eternity. All else emanates from Intellect. For instance, the World Soul, a simple, immaterial essence that embodies the universe and manifests itself as the material world, emanates from Intellect. In turn, the World Soul imparts existence to First Matter, a simple and spiritual essence without either bulk or dimension. The World Soul helps First Matter create the forms. At this point, Nature emanates from First Matter and puts an end to the influence of the Intellect in the realms below.

With the help of the World Soul, First Matter creates Absolute Body, that is, matter that has length, width, and depth. This is the substance of our world. The World of Spheres is the next down the ladder of emanation. This is no longer an imaginary realm but one of spiritual, spherical, hollow, transparent, and concentric bodies, all made out of the fifth element. The penultimate realm is one

[41] Fakhry, p. 169.

consisting of the four elements: fire, earth, water, and air and the last is the one that comes into being as a result of the amalgamation of the four, i.e., minerals, plants, and animals.

In order to understand the worldview of the Ikhwan and how progressive they were in their outlook, it is sufficient to review their classification of beliefs. They distinguished three types of belief: those fit for the elite, those fit for the masses, and those fit for both. The latter beliefs they commended most because, according to them, such beliefs were rooted in reason, supported the Scripture, and were accessible to all seekers after truth.[42]

The tolerance of the Ikhwan stemmed from the fact that they recognized knowledge qua knowledge as the supreme savior. Everyone's knowledge, therefore, was meritorious in that it contributed to the resolution of problems created by ignorance. In the world they envisioned, there was no room for superiority. All had to cooperate, sympathize with each other, and solve each other's worldly problems. In other words, they advocated that worldly resources should be shared and used as a ladder for accessing spiritual blessing for all (cf., the teachings of Mazdak).

In their study of music, the Ikhwan agreed with Pythagoras and al-Kindi. They investigated the origins of music, its relation to humans and society, and its place in religion. They thought that the celestial bodies are the first causes leading to the secondary creation, and that the secondary creation imitates the celestial bodies that are their causes; consequently, earthly music would appear as an imitation of the music that exists in a perfect form in the heavens.[43] Melodious sounds, the Ikhwan claimed, affect the spirit in the same manner that spices, drinks, and drugs affect the bodies of humans and animals. Additionally, they said, as the planets move and collide with each other, they produce pleasant melodies akin to the lute and the flute. The soul that aspires to access the voices of the prophets, messengers, martyrs, and benevolent individuals must ascend to that intangible realm.[44]

Finally, the Ikhwan had a particular mission for music. They believed that music wards off evil and fosters the chances for good to flourish. Therefore, they introduced the use of music into their

[42] Fakhry, p. 181.
[43] Shehadi, p. 43.
[44] Safa, p. 302.

religious ceremonies. They also recognized some secondary valuable uses for music. These included curing the sick, giving soldiers confidence in war, and helping in the celebration of social events.[45]

The Ikhwan developed the connections between Islamic and Greek ideas. The next major figure in the development of Islamic philosophy is Abu Bakr Mohammad Ibn Zakariyya al-Razi (Rhazes). Al-Razi made a number of contributions to the Islamic world of his time and to world civilization in general. By the time he enters the picture, the line between orthodoxy and reason is pretty much drawn. Anyone but al-Razi would have taken notice and would have exercised great caution, but al-Razi moderated neither his stance nor his choice of words.

As his name indicates, he was born in the city of Ray. The dates of his birth and his death, which also happened in the same metropolis, are approximate, 864 and 925, respectively. There is little information on his early life other than he was interested in music, played the lute, and studied voice. At thirty he was a well-known philosopher, specializing in ethics. He became interested in medicine after he became acquainted, first hand, with the plight of the sick. It is not clear where he studied medicine. It is possible that he attended the University of Gundishapur, one of the few Sassanian institutions that had survived the devastation of the Arabs.

Al-Razi became the director of the main hospital in Ray before he occupied the same position in Baghdad for many years. At the time of al-Razi, Baghdad had many hospitals, clinics, and experienced physicians. It also had many libraries that contained the knowledge gathered from the time of al-Mansur (754-775), the founder of the city, to al-Ma'mun (813-833), the promoter of rational approaches to understanding the workings of the universe.

As mentioned, al-Razi was the master teacher at the hospital in Ray and later the director of the hospital in Baghdad. In both positions, he approached the science of healing logically and with a great deal of compassion for the patient. He believed in a holistic approach to medicine. As a result, alongside a scientific approach to the elimination of the ills of the body, he also treated the psychological and spiritual problems of the sick. In his hospitals,

[45] Shehadi, p. 41.

music, singing, storytelling, and the recitation of the holy *Qur'an* were as welcome as the remedies extracted from herbs.

Al-Razi had an extensive knowledge of pharmacology. Some of his pharmacological knowledge came from his extensive travels and some from his study of the works of the ancients. With regard to travel, he visited Syria, Palestine, Egypt, and Muslim Spain. As far as his ancient sources are concerned, mention can be made of the works of Galen and Hippocrates. Needless to say, major Greek sources like Plato and Aristotle influenced his thought and medical abilities as well.[46]

In philosophy, al-Razi rejected Aristotle's pragmatism and devoted his attention to Plato's idealism. He did not, however, share Plato's political thoughts about categorization, which contrasted with al-Razi's favorite concept of egalitarianism. In medicine, he is well known for his differentiation of smallpox from chickenpox. In fact, he produced the first clinical account of smallpox and measles. Throughout his work, he adopts a systematic approach to understanding the individual and the disease and approaches each not from the standpoint of dogma, but from what is dictated by reason.

Al-Razi was a Hakim, an original thinker and a prolific writer. He stands shoulder to shoulder with such major figures of medieval medicine as Ibn Sina (Avicenna) and Moses Maimonides. His major medical contribution is *al-Hawi* (translated into Latin in 1279 as *Continens*). Containing the summary of the medical knowledge of the time, *al-Hawi* was in circulation in Europe until the late 1500s.

Al-Razi's metaphysical world consists of five co-eternal principles. They are matter, space, time, soul, and creator. He considers matter to be eternal. It appears as atomic particles sprinkled in space (cf., Democritus). The distance among the particles in the void or space, he claimed, accounts for the shape and density of objects. The creator created the world out of this matter. In response to those who said the world was created *ex nihilo,* he said, if the Creator created anything out of nothing, he would have had to create everything out of nothing. That indicates that "nothing" is a substance that has always been there. He considered space, too, to be like matter, eternal and expansive. Unlike Aristotle's "place," al-Razi speaks about space that is not bound by the body. Additionally, time

[46] Nuraliev, pp. 154-7.

is absolute and infinite and the soul is co-eternal with God, matter, and time.

According to Al-Razi, Creation is a result of combining the five coeternals. At some time, al-Razi says, God brought the soul and matter together within space and created a world. This, however, was a meaningless world; meaningless, that is, until God introduced reason into the union. That is where al-Razi's thought becomes extremely interesting. Because matter goes down—as opposed to the Aristotelian view that matter goes up or down depending on its inclination or purpose—reason, too, is taken down with it to the sublunar realm of corruption and regeneration, i.e., this world. While in the abyss, through reason the soul improves its condition and, ultimately, outgrows matter and rises and joins the realm of the intellect. Once there, however, it feels a need for the pleasures that matter had allowed and descends to matter again, creating a cycle of reincarnations (cf., Pythagoras).

In al-Razi we find the Aristotelian and the Pythagorean thoughts of the ancient Greeks combine to produce what, to the Persians of his time, must have seemed a mindless imitation of Hindu thought. Needless to mention the idea of reincarnation is a most repugnant notion to Muslims, be they Arab, Turk, or Persian by ethnicity. Al-Razi tried to establish metempsychosis as a principle in Islamic thought and failed. The result of his attempt, however, was not lost on the orthodox and has made of al-Razi the most hated Muslim of all times.

Neither is this the only thing that is controversial in al-Razi's thought. He also rejected the fact that Allah has created the world out of nothing, that the *Qur'an* was revealed, that there is a need for prophecy, that the prophets are mediators between God and man, that they are privy to special or divine knowledge, and that there will be a Resurrection Day. But these refutations he shares with other philosophers before him. He is singular, therefore, only in his advocacy of reincarnation in Islam.

Finally, little is known about his music other than what was mentioned with regard to his younger years. He did, however, contribute a volume on musical theory.[47]

[47] Hitti, p. 428.

In his discussion of Islamic philosophers, Hitti distinguishes three scholars as those who endeavored to harmonize Greek philosophy with Islamic learning. Surprisingly, they come from among the three major ethnic groups populating the Islamic lands. They are al-Kindi, an Arab, who started the tradition, al-Farabi, a Turk, who continued the tradition and produced the major theoretical work on the subject, and Ibn Sina, a Persian, who refined and completed the process.[48]

We have already discussed the contributions of al-Kindi. Now we turn to al-Farabi and his student Ibn Sina, the two scholars who carried the brunt of the anger of the people of *hadith* and *sunnah* with regard to God and His role in creation, and the role of reason in creation. Their ideas were in opposition to the teachings of traditionalists like Ibn Hanbal and al-Ash'ari. Additionally, like al-Sarakhsi mentioned above, they discussed their thoughts openly, participated in public debates, and published.

Although born in the village of Farab in Central Asia, Muhammad ibn Muhammad ibn Tarkhan al-Farabi spent most of his adult life in Damascus. In his youth, he studied philosophy in Baghdad and traveled in Egypt. Towards the end of his life he resided in Aleppo, where he died in 950 at the age of eighty.

The contributions of al-Farabi as the first Muslim scholar to study all the texts of Plato and Aristotle available in the Arab world of his time are enormous. He not only wrote commentaries on the works of both sages, but also was the first to try to reconcile the works of the two. His system of philosophy in which he synthesized Aristotelianism, Platonism, and mysticism gained him the title of *al-Mu'allim al-Thani* (second teacher) after Socrates.[49]

Al-Farabi's views about the cosmos and its genesis are similar to Aristotle's albeit with a Neo-Platonic twist. Like Aristotle, al-Farabi posits a First Mover but, following Plotinus, calls it the First Cause or, to emphasize its unity, the One. His First Cause, while embodying reason, life, and love, has all the attributes of God.

According to al-Farabi, creation is the result of a series of emanations from the First Cause. The crucial point to be understood in his system is that it is dialectical in nature. The First Cause is both regenerative and reproductive (cf., Hegel). In other words, at each

[48] Hitti, p. 371.
[49] Hitti, p. 371.

level of emanation, the constituent parts of the system undergo a process of regeneration and reproduction: Cause and Intellect emanate themselves as well as beings other than themselves. The following is a view of al-Farabi's Cosmic Intellects and Heavenly Spheres.

The First Cause consists of First Intellect and First Emanation. When First Cause creates Second Intellect, First Emanation brings about the outermost heaven. Similarly, Second Intellect consists of Second Intellect and Second Emanation. When Second Intellect creates the Third Intellect, Second Emanation creates the Sphere of Fixed Stars. The third, fourth, fifth, sixth, seventh, eighth, and ninth Intellects and their respective Emanations give rise to Saturn, Jupiter, Mars, the Sun, Venus, Mercury, and the Moon.

As can be seen, al-Farabi's cosmos is the most powerful and complete scheme to emerge from the synthesis of the thoughts of the ancient Greeks and medieval Muslim philosophers. It encompasses not only the contributions of Pythagoras, Plato, and Aristotle, but also those of Plotinus and Porphyry. Following Plato's *Republic,* he even attempts to build a utopian city modeled on the human body. In it the heart serves as the king (cf., Plato's guardian) and the other members as functionaries organized in a hierarchy.[50] In spite of all his learning, al-Farabi did not become instantly famous. It took the efforts of his student, Ibn Sina, to highlight and, indeed, complete his efforts.

Al-Farabi is the author of the *Kitab al-musiqi al-kabir* (The Great Book of Music), recognized as the greatest work on music written in Arabic.[51] As mentioned earlier, he disagreed with Pythagoras and al-Kindi on the concept of the music of spheres. Since their orbits are set, he argued, it would be impossible for heavenly bodies to collide. And where there is no collision, he said, no noise is produced.[52] In other words, al-Farabi looks at music as a product of nature, a structured phenomenon that must be explained by its own law:

> What the Pythagoreans believe about the heavenly bodies and the stars, that by their motion they produce harmonious

[50] Hitti, p. 371.
[51] Shehadi, p. 50.
[52] Shehadi, pp. 54, 56

> tunes—that is false. It has been outlined in science of nature that what they claim is not possible, for the heavens, the spheres and stars cannot (*la yumkin*) produce sound by their movement.[53]

Al-Farabi is considered the greatest of all music theorists who wrote in the Arabic language. Through the magic of his music, al-Farabi was able to induce laughter, tears, or sleep in the same audience at will.[54]

Following Aristotle's logic, Al-Farabi, an accomplished lute performer,[55] includes music among the sciences. He divides music into theoretical and practical categories, and in each case investigates the subject for origins, categories, and purpose. It is not the intent of this paper to study the ramifications of al-Farabi's classifications other than that he approached each category with utmost care and discussed each aspect, whether theoretical or practical, from all perspectives. Unlike some who at the time were against the use of music in public places, he saw no harm in using music for recreation and relaxation purposes.[56]

The last of the major medieval philosophers to refine Greek thought and present a coherent and detailed account of the state of philosophy in the eleventh century is the philosopher, physician, naturalist, and renowned humanist, Abu Ali Hussein ibn Abdullah ibn Ali ibn Sina (Avicenna). He was born in 980 in the village of Afshana of Bukhara and died in 1037 in Hamadan, Iran. During the reign of Nuh II ibn Mansur Samani (r. 976-997), Ibn Sina's father moved to the village of Kharmaisan of Bukhara and served as a district administrator. In 985 the family moved to Bukhara where their son began his studies.

By the age of ten, Ibn Sina was well versed in grammar and *adab* (Islamic ethics). He studied mathematics, philosophy, jurisprudence, and logic under Abu Abdullah Natili and Isma'il Zahid. He was so knowledgeable in the sciences of the time that his teachers could no longer keep up with him. He then mastered medicine. His ability to cure the Amir of Bukhara allowed him

[53] Cf., Shehadi, p. 54.
[54] Hitti, p. 371.
[55] Hitti, p. 428.
[56] Shehadi, p. 59.

access to the royal library, where he studied books not available even to the most learned men of his time. Ibn Sina's letters to Abu Rayhan al-Biruni (997) indicate that, as early as the age of seventeen, the young Sina's learning was comparable to that of the savants of the time.

After the fall of the Samanid dynasty (999), the nineteen-year-old Ibn Sina fled to Khwarazm. The Ma'mun Academy, in which great men like al-Biruni, Abu Sahl Massehi, Abu Nasr Iraq, Abul Khayr Khammar, and others carried out research was an ideal place for his future activities. But war affected Khwarazm as well and the situation for Ibn Sina became untenable. After suffering the difficulty of crossing the desert he reached Gurgan in northern Iran. There he wrote some of his philosophical works and began the first volume of *al-Quanun fi al-Tibb* (Canon of Medicine).

Soon after Ibn Sina's arrival, the old ruler of Gurgan was replaced. The new ruler, a friend of Sultan Mahmud of Ghazna (r. 998-1030), did not support Ibn Sina's work. Ibn Sina was forced to move to Ray, and when Ray also was added to Mahmud's possessions, he moved to Hamadan. For the next nine years Ibn Sina served as court physician and the wazir of the governor of Hamadan. Even though he held a prominent position in the administration, however, the ruler did not heed his advice regarding the duties of the administrators, the military, and the court officials. Instead, prompted by the very same officials, he imprisoned Ibn Sina on the charge of collusion with the ruler of Isfahan. The ruler of Isfahan eventually conquered Hamadan and saved Ibn Sina's life. In 1023 Ibn Sina arrived in Isfahan, where he wrote his famous works *Kitab al-Najat* (The Book of Salvation), *Danishnama-i Alai* (The Alai Compendium), and *Isharat wa Tanbihat* (Allusions and Notes).

Ibn Sina's works are numerous.[57] Although some, like his twenty-volume *Kitab al-Insaf* (The Book of Fairness), were lost others, including *Kitab al-Shifa* (The Book of Healing), *Kitab al-Najat* (The Book of Salvation), *Al-Hasil wa al-Mahsul* (The Effort and the Reward), al-*Isharat wa al-Tanbihat*, *Danishnama* and *al-Qanun fi al-Tibb* have survived. All these books contain important historical, social, and scientific information.

[57] Nuraliev, pp. 157-61.

Ibn Sina is the great representative of the *masha'i* (emanation) philosophy. His philosophical works explore such issues as the relationship between God, nature, and man, as well as the various forms of existence, matter, and form. He also discusses self, personality, causality, and man's understanding of the material world.

Ibn Sina argued that God relates to man not so much as a Creator in control of a creature, but as a cause following an effect. On this basis, he further argued that since cause and effect are necessary relationships, God could not have created the world out of His own will but as a consequence of a necessity. In other words, Ibn Sina limited God's will by subordinating it to necessity. He also limited God as the creator by equating His abilities with those of the Prime Mover.

Once He set the creation in motion, said Ibn Sina, God no longer interfered with its internal workings. Larger, metaphysical issues commanded God's attention, he said. Interestingly enough, in dealing with the *ulema* (scholars trained in Muslim religion and law) of his time, Ibn Sina continued to profess Islam even though his theories and pronouncements differed substantially from those of his contemporaries. Ibn Sina's investigations in geology, for instance, support the theory that his words and thoughts on the question of religion were at odds. He theorized that the mountainous regions of the globe were once seabeds, and that minerals like gold were formed as part of the earth's sedimentation process. Similarly, he posited that the earth's surface is composed of various layers, and pointed out that these layers are visible at the sides of some mountains. He further stated that movements in those levels are the causes of earthquakes.

Concrete views such as these could not pass undetected by the *ulema.* As we shall see, Ibn Sina's views were later challenged by Imam Muhammad al-Ghazali (d. 1111) and Fakhr al-Din Razi (1149-1209), who upheld the prevalent theological views of the time.

In his philosophical works, Ibn Sina explored movement, time, and space. He understood movement as a change of place in quantity or quality of a thing. Dividing movements according to the nature of their source, he distinguished three types: *tabi'i, qasri,* and *arazi.* He sought the source of the *qasri* and *arazi* movements outside themselves, while he attributed the source of the *tabi'i* movement to the thing itself, indicating that the cause of natural phenomena is

internal to nature (cf., al-Farabi). This view, which prevented the inclusion of the supernatural in the explanation for eclipses and earthquakes, also placed God outside the scheme of the natural progression of things.

Ibn Sina conceived of time as countable segments of movement. Like matter and movement, time was considered as having an objective reality, thus rejecting the prevalent view that, since it could not be observed, time was more imaginary than real. Because he could not logically assign a beginning and an end to time--every beginning necessarily has a preceding end in the past, and every end a beginning in the future--he considered time to be eternal. By attributing eternal existence to time, Ibn Sina placed himself in the category of the hated Dahris (cf., al-Razi) who, like the Zurvanites, believed in Absolute Time as the supreme deity.

Another aspect of Ibn Sina's philosophy deals with matter and the shapes it assumes to create the phenomenal world. Ibn Sina's view of man, the apex of creation, provoked heated philosophical and theological discussions. Ibn Sina straddled the issue in public, but his philosophical and scientific discussions left little ground for arguing that he believed in the medieval Islamic notion of the Almighty. Rather, he accepted matter and form as objective realities, the manner and type of creation of which rest outside the material existence. His philosophy left the issue uncertain in that it did not go far enough to support a theological explanation for the act of creation. Creation became a progressive event without any "dawn" or "twilight."

Dividing it into two branches, theoretical and practical, Ibn Sina defined *tibb* (medicine) as the science that deals with the human body in sickness and in health. The theoretical aspect, he said, dealt with the principles on which medicine is established; the practical aspect brought normalcy to life. His diagnostic methods, based on the science of signs, symptoms, and psychology, and his advocacy of appropriate diet and exercise are still accepted practices among those devising balanced-diet health programs.

Ibn Sina's contributions to linguistics include an explanation (although primitive) of Persian phonology and an absolutely unique explanation of Persian syntax. Additionally, he enhanced the Persian language with a technical vocabulary that allowed unencumbered communication of scientific thought. He was the first to use the

Persian language in writing about music and for logical deductions. He questioned the views of his contemporaries on the nature of sounds and the manner of their production and classification (cf., al-Farabi). Additionally, Ibn Sina contributed to the enhancement of Persian literature. His poetic works are especially distinguished for their use of symbolism. The most famous are *Hayy Ibn-i Yaqzan* (Hayy, the Son of Yaqzan) and *Risalat al-Tayr* (The Book of Birds), written in 1024-1025 when he was in Farajan prison.

Finally, a word about Ibn Sina's ethics. How can man, whose world after creation was left to itself by the Maker, sustain a meaningful life? What reward can man expect and what punishment awaits him? To dispel the sense of loss and irresponsibility that usually accompanies such questions, Ibn Sina placed great importance on man's inner drive for fairness. His philosophy also supported his ethical directives. Unlike religion that relegates rewards to the next world, Ibn Sina's world rewarded inner drive, fair play, and honest labor in the here-and-now by offering a purposeful and prosperous existence.

As mentioned, Ibn Sina stands at the end of a process of translation, study, analysis, and refinement of thought that began with al-Kindi and the Mu'tazilites. For instance, we can trace the refinements that al-Farabi made on ideas set forth by Plotinus and Porphyry in Ibn Sina's work. His presentations, like the ones contributed by Ibn Rushd later, evince a degree of personal involvement in the processes that is unique to him. To what degree Ibn Sina is indebted to al-Farabi is not known. According to Ibn Khaliqan, no Muslim ever reached in the philosophical sciences the same rank as al-Farabi; and it was by the study of al-Farabi's writings and by the imitation of his style that Ibn-Sina attained proficiency and rendered his own work so useful.[58]

In order to understand the full extent of the Muslims' contributions to the refinement of Greek thought, before it was transferred to the academies in Europe, a brief comparison is in order. Recall Aristotle's hierarchical cosmos, in which the earth is at the center and functions on the basis of four elements: air, water, earth, fire, and an added fifth, quintessence. Also recall that its structure consisted of the fixed stars at the highest level followed

[58] Hitti, p. 372.

downwards by the planets, the sun, and the moon. Similarly, recall Aristotle's discussion of the plant soul. The plant soul has no thought capability but, has the capacity to reproduce itself; the animal soul is capable of movement, sensitivity, and reproduction; and the human soul is capable of speech, reason, and reproduction. In medieval times, al-Farabi incorporated all that in his system. In addition, he incorporated the ideas of Plotinus and Porphyry with regard to emanation and regeneration.

As a student of al-Farabi, Ibn Sina shared his master's views on the structure and substance of the cosmos. As an independent thinker, however, he delved much more deeply into the recesses of that cosmos and, in the process, provided a more refined version of al-Farabi's Neo-Platonian cosmos. The degree of refinement that he brought to the total system can be gauged in relation to his treatment of the soul, presented further below in a skeletal form.

According to Ibn Sina, the world came into being through an emanation process initiated in God; not because of God's will, however, but due to an immutable inevitability. Ibn Sina's God is impersonal (cf., Aristotle) and his world is eternal. Both God and matter are eternal. Rather than the handiwork of God, he saw the natural phenomena controlled by the laws of causality, akin to the workings of Time.[59] Like Aristotle, Ibn Sina posits a vegetative, an animal, and a rational soul, each category consisting of several members in charge of particular functions. The vegetative soul is responsible for nutrition, growth, and reproduction. The animal soul controls the motive and percipient faculties. The former controls the appetitive, which includes the concupiscent and the passionate, as well as locomotion; the latter controls the five senses as well as the inner drives, which include *sensus communis,* the representative, production, the estimative, and the retentive. This scheme, once explained in detail, is far more elaborate than what Aristotle had originally set forth. In the case of the rational soul, it is even more elaborate than al-Farabi's. In fact, the rational soul, is the most complex and in need of in-depth explanation. What follows is a bird's eye view of Ibn Sina's explanation of the working of the rational soul.

[59] *Dictionary,* p. 257.

The rational soul consists of two parts: practical reason and theoretical reason. Practical reason is reason that guides man in his everyday life. Theoretical reason includes potential reason, which itself is manifested in three ways. The first is called aptitude (e.g., the growth hidden in the seed of a palm tree); the second is called ability (e.g., the fully grown palm tree); and the third is called the fruition of ability (e.g., the palm tree laden with dates). Actual reason is reason that is independent of all that is controlled by potential reason. Between actual reason and potential reason lies the realm of habitual reason, or reason that is realized at the highest levels (cf., prophethood). Also referred to as "holy reason," habitual reason communicates with both potential reason and actual reason. Finally, there is acquired reason, or reason that provides access to all the stock of knowledge available to man. Depending on the individual and his aptitude, through acquired reason, he might grasp difficult phenomena within seconds or he might never apprehend them.

This, in a nutshell, is the type of refinement that Ibn Sina brings to Aristotle's discussion of the soul. Once the full description of this aspect is added to Ibn Sina's hierarchy, which, as explained, is more complex than al-Farabi's system, the contributions of Muslim philosophers to the refinement of the Greek sages' ideas become apparent. It also becomes painfully apparent that these two giants, Ibn Sina and his teacher al-Farabi, were the last to dare to set their ideas forth boldly and to defend them against Ash'arite orthodoxy and Sufi irrationality.

Before closing the discussion on Ibn Sina, a word about his approach to music. As a student of al-Farabi, Ibn Sina disagreed with al-Kindi and the Ikhwan al-Safa with regard to the music of spheres and the prohibition of music in certain situations. Recall that for the Pythagoreans, ratio was of great importance. Ibn Sina assigns some importance to ratio but does not consider it the only essential element.[60]

Like Aristotle, Ibn Sina sought a purpose behind the origins of music and found it in communication. Like al-Farabi, he concerned himself with the principle elements of music. But unlike al-Farabi, he went his usual one step farther and considered the aesthetics of music. In fact, he became the first Muslim scholar to write on the

[60] Shehadi, p. 68.

aesthetics of music in Islamic thought.[61] Was it for its charm that he used music as a method of healing in his medical practices or was there a scientific reason behind it? We don't know. His introduction to *al-Shifa, however,* provide answers to many questions regarding his worldview and points to his advocacy of reason over tradition:

> It is time for us to conclude the mathematical branch of philosophy and set forth a compendium of the science of music, limiting ourselves to what is essential to it and part of its conception, and what follows from its principles and elements. We shall not stretch our discussion with numerical and arithmetical principles and corollaries, for these one may seek from the science of arithmetic. We shall also ignore the similarities between the heavenly bodies and human character traits (on the one hand) and the ratios of musical intervals (on the other). This is the way of those for whom the sciences have not been distinguished the one from the other, and it has not become clear to them what is essential and what is accidental.
>
> They are a people with an ancient philosophy[62] which has been inherited in its entirety[63] and emulated by those negligent ones[64] who have otherwise understood the interactive philosophy and the truth-seeking analysis.[65] This distractedness brought on by emulation, a heedlessness shielded by the high esteem for the ancients, has led to the (uncritical) acceptance. This habit deflects one from the truth; it is a pliant attitude that blocks careful thought.
>
> In so far as we are able, we shall try to discern the truth itself, and resist the pull of tradition, realizing, however, that care and caution tend to protect one from error most of the time, but not always.[66]

Beginning in the 10th century AD, even as Ibn Sina formulated his contributions to Islamic philosophy, Islamic thought took a sudden nosedive. This is when the followers of orthodoxy and dogma

[61] Shehadi, p. 75.
[62] Ibn Sina could be referring to the Greek sages, Yusuf, pp. 3-4.
[63] Ibn Sina could be referring to al-Kindi, Yusuf, pp. 3-4.
[64] Ibn Sina could be referring to Ikhwan al-Safa, Yusuf, pp. 3-4.
[65] Ibn Sina could be referring to al-Farabi, Yusuf, pp. 3-4.
[66] Shehadi, p. 67.

eventually succeeded in defeating the proponents of philosophy and free thought. The word "eventually" is used advisedly, to indicate the existence of a history that began during the reign of the anti-Mu'tazili caliph, al-Mutawakkil (847-861), a staunch supporter of the *hadith* and *sunnah.* Upon his ascension to the throne, he outlawed the Mu'tazili creed and put an end to all philosophical debates. He ordered the general public to imitate the example of the *ulema.* As a result, those interested in debate, such as the Mu'tazilis, were forced to migrate to the lands of the Samanids of Bukhara or the Buyids of the Caspian coast.[67]

The harsh and discriminatory activities of al-Mutawakkil were supported by the Central Asian Turks, who had been increasing their number as well as their influence at the caliphate since the time of al-Mu'tasim (833-842). The newly-Islamized Turks fell into two categories. The first group recognized the caliph as the deputy of Allah on earth and felt obliged to support him, while the second group viewed him as an ephemeral barrier against a quick transformation of the caliphate into a Turkish sultanate. No matter to which category a Turk belonged, it was to his advantage to support the caliph and the *ulema.*

Neither were these the only factors. The orthodoxy that had begun its activities against the Mu'tazilah in the 9th century with stiff resistance shown by Ahmad ibn Hanbal had grown even stronger during the 10th century and was instituting *Nizamiyyahs* dedicated to the study of *kalam* and *ahadith.* Discussion of the sciences were forbidden at all the *Nizamiyyahs* that now dominated the intellectual atmosphere of the cultural centers of Baghdad, Balkh, Nishapur, Merv, Amul, Isfahan, Basrah, and Musul.

Most importantly, by the end of the eleventh century, Sufism had risen to great heights and had become an acceptable way of life at the expense of rationalism and free thought. Since Sufism is discussed elsewhere, we shall not discuss it here.[68] Instead, we shall proceed our discussion of the decline of philosophy in Islamic lands with an outline of the lives of the scholars who promoted orthodoxy and who looked at the age of the *salaf* for inspiration.

Imam Ahmad ibn Hanbal was born in Baghdad in 780 and died in Baghdad in 855. He studied *hadith* under Imam al-Shafi'i, became

[67] Cf., Safa, p. 134.
[68] For a discussion of Sufism, see Bashiri, 1996, pp. 1-33.

extremely proficient in *hadith* interpretation, and compiled a large collection of traditions called the *Musnad.* An uncompromising jurist, he adhered to the letter of the *Qur'an* and the *ahadith.* His school, the most strict in Sunni Islam, served as the bulwark of orthodoxy against what he termed *bid'a* (innovations), attributed to the Mu'tazilah.

When under al-Ma'mun, the Mu'tazilites claimed that the *Qur'an* was created, Imam Ibn Hanbal staunchly upheld the orthodox dogma that the *Qur'an* was revealed and not created. Al-Ma'mun and al-Muntasir's torturers could not force him to recant. When the Caliph al-Mutawakkil finally ended the *Mihnah* and restored the doctrine of the uncreated *Qur'an,* Ibn Hanbal was released from prison and esteemed.

Imam Ibn Hanbal collected over 28,000 traditions. Today over 5,000,000 Wahhabis follow Ibn Hanbal's school of law. After Imam Hanbal, the gate to *ijtihad* among the Sunnis was closed. In other words, the tradition of the time of Ibn Hanbal became the tradition for all times. It is the tradition followed by the House of Sa'ud today.

The plunge into orthodoxy reached its depths under Abu al-Hasan Ali ibn Isma'il al-Ash'ari, who followed very closely, and gingerly, in the footsteps of Imam Ibn Hanbal. Al-Ash'ari was born in Basrah in 873 but resided in Baghdad, where he died in 935. His major fields of concentration were religion and theology. He placed little, if any, weight on the role of reason in discovering the truth. He further believed that dialectical arguments must be subordinated to revelation.

As a young scholar, he had to choose between the rationalist Mu'tazilah and the orthodox, who believed in revelation. Initially, he accepted the rationalist way, but in three dreams he was directed by Allah to seek distance from the Mu'tazilah. The third dream allowed a limited degree of rationalism.

Tradition has it that when he was about forty, al-Ash'ari took his Mu'tazilite teacher, al-Jubba'i (d. 915), to task by posing to him the following problem. Suppose there are three brothers, two adults and one infant. Further suppose that one brother is good and the other is evil. The three brothers die. What happens to their souls? Al-Jubba'i answered, the good brother is assigned to Paradise, the evil one goes to Hell, and the one that has not come of age, who has not committed any sin or performed any rights, goes to purgatory. Why

did God not allow the child to grow up so he could be assigned to either heaven or hell? Ash'ari asked. Because God knew that the child would become a sinner, al-Jubba'i replied. He spared the child future torment in Hell. Then why did He allow the evil brother to grow up? Al-Ash'ari asked. Al-Jubba'i could not offer a logical answer. Seeing this, Al-Ash'ari left the Mu'tazilah and established his own school.

Al-Ash'ari's *Discourses of the Muslims,* a study about Islamic sects, is a main source on the subject. His *Elucidation of Islam's Foundation* deals with Islamic orthodoxy with a degree of hostility against the intrusion of the rationalists. His *Incitement to Investigation* defends a partial use of reason, and his *Book of Highlights* is a rigorous defense of Islamic orthodoxy using the dialectical method.

Al-Ash'ari attempted to synthesize logical thinking with revelation so that *Qur'anic* revelation and rational thought could reinforce each other. To prove his points, however, he relied exclusively and consistently on *Qur'anic* revelations. He said, for instance, since man is not in control of either the universe or his own birth, he cannot be a creator. God, on the other hand, who is in control of everything, is the Creator. Similarly, he argued that attributes belong to the world of man. God cannot remain One and have attributes.

With regard to free will, al-Ash'ari believed that good and evil are a constant with God. The individual acquires them from God. It is how the individual chooses to use good and evil that makes the difference. For example, he said, you buy a knife. You can use it to perform surgery on a patient or you can use it to kill a person. In reality, however, as the founder of *Kalam* (scholastic theology), al-Ash'ari was using the same logical and philosophical argumentations that the Mu'tazilites had developed for furthering their own cause against the orthodox.[69] They had ready-made responses for those. They did not, however, have a response to his principle of *bila kayf* (without modality). This principle, because it required of the faithful to accept everything in the *Qur'an* literally, and without question or inquiry, undermined and, eventually, crippled the Mu'tazilite movement. This being the case, there remained little room in Sunni

[69] cf., Hitti, p. 431.

orthodoxy for free thought and debate, the twin pillars on which Mu'tazilite rationalism rested.[70]

As mentioned, al-Ash'ari's efforts came into fruition when the *Nizamiyyah* in Baghdad was created to promote his ideas and especially when, in 1090, his cause was picked up and promoted by the famed theologian Muhammad ibn Ahmad al-Ghazali (1058-1111).

The author of *Ihya al-'Ulum al-Din* (Revival of the Religious Sciences), al-Ghazali, bridged the distance between man and God by promoting the *Qur'an,* traditions, and orthodoxy through faith, *taqlid* (imitation), and consensus. He united the orthodoxy in Sunni Islam by recognizing a place for both the Isma'ilis, who believed in a hierarchy of knowledge and a metaphysical, rather than a rational, explanation of the world, and the Sufis, who rejected reason and promoted knowledge through *dhawq* (intuition) and intellectual apprehension. Furthermore, al-Ghazali defended Islamic teachings regarding the creation *ex nihilo,* that both body and soul were created by God, and that the soul is immortal and God can work miracles.

Through his meticulous skills in politics and profound dexterity in hiding his orthodox leanings, al-Ghazali affected the course of Islam more than any single individual since the Prophet. Although a reading of his works indicates that he accepted both reason and faith as valid principles for man's development, in practice, he most vehemently opposed the use of reason. His promotion of Sufism was the last blow against the development of scientific thought in Islamic lands for centuries to come. In al-Ghazali's view, the only way to true knowledge was through the mystical philosophy of Sufism.[71] This is comparable to the advocacy by St. Giovanni Fidanza Bonaventure (1221-1274) of St. Augustine's Neo-Platonic ideas. He, too, opposed all progressive concepts while defending the orthodoxy and, like al-Ghazali, believed that religious knowledge is attainable through ecstasy. [72]

We will discuss al-Ghazali's views regarding God further below when we discuss the contributions of Ibn Rushd. Al-Ghazali's stance on music is typical of his strong leaning in the direction of orthodoxy. As far as music is concerned, he says, we must allow it

[70] cf., Hitti, p. 431.
[71] *Dictionary,* p. 220.
[72] *Dictionary*, p. 80.

its own positive and negative functions.[73] Were we to take an absolute stance vis-à-vis music, we might end up disallowing listening to nightingales. After all, al-Ghazali argues, the singing of nightingales is not ruled out as a sin by the *Qur'an.* Besides, he continues, how could we not consider the chant of the Sufis as a most elevating music? It should be added that al-Ghazali's defense of *al-sama'* (music and song) caused music to play an important role in Sufi rituals.[74]

The singing of the nightingales and the chant of the Sufis, however, are worlds apart from the *ghina* and *musiqa* of al-Kindi with which we began the discussion of music. With al-Ghazali and his supporters, the whole approach to appreciation of music changes. Discussions related to music theory are forbidden. Instead, prohibition of music, an unscientific stance based on mere belief, takes the center stage.

The theologian who condemned philosophy altogether was Ibn Taimiyyah (1263-1328). He grew up in Damascus and, like his father, became a jurist of the Hanbali school. Ibn Taimiyyah believed in a literal interpretation of the text of the *Qur'an* and clashed frequently with the more moderate Shafi'is. For instance, he spoke of "God's hand," while God is known to be placeless, traceless, and with no humanly attributes. Ibn Taimiyyah's religious and political opinions repeatedly sent him to prison. But even there, he continued lecturing the prisoners on the harms of *bid'a* (innovation).

Ibn Taimiyyah had but one goal in mind: a return to a pristine Islam, the Islam of the *salaf.* Anyone or anything that happened to be in his way of achieving that goal was to be eliminated. For instance, even though al-Ghazali and Ibn 'Arabi were principally on his side, he did not support them. He attacked both vehemently, as he did the rationalists whom he called innovators.

Recall that the upholders of reason and Greek thought felt that music had a place in society. In fact, using the example of the Greeks, they related its origins to the colliding of spheres, or to human and animal noises, or to the mere sounds that abound in nature. Under orthodoxy, music lost its elevated status as a science and became a matter of belief. The rigorous standards devised by al-Farabi and Ibn Sina were displaced by the view of the Prophet on the

[73] Shehadi, p. 117.
[74] Hitti, p. 428.

subject. Ibn Taimiyyah, for instance, took a very stringent stance vis-à-vis the role of music among the *umma.* He restricted the use of music to the singing at weddings and the chanting of caravan leaders. In other words, music that is beneficial to the progression of the word of God and music that is played for mere pleasure became distinct as beneficial and harmful types of music, respectively.[75] According to Shehadi, Ibn Taimiyyah claimed that *ghina* casts a spell that lures one away from the path of God and the Prophet.[76] As part of the workings of the devil, he asserted, *ghina* leads the listener on the path to sex and fornication.[77]

This exploration of the details of the situation for music explains how one of the sub-branches of philosophy was isolated and diminished. Needless to explain that many of the branches were similarly affected or totally abandoned. For example, looking at the curriculum of the Mir Arab Theological School in Bukhara at the end of the 19th century, we find an alarming level of illiteracy as far as knowledge of the basic sciences is concerned. The curriculum that took the student nineteen years to complete consisted of instruction in all levels of the Arabic language, recitation of the holy *Qur'an,* interpretation of the holy *Qur'an,* all levels of theology, endless commentaries on the *ahadith,* and memorization of commentaries on the commentaries.

Faith Versus Reason

The twelfth and thirteenth centuries were deciding periods for both the Christian and the Muslim worlds. In the twelfth century, the European world, having emerged from the Dark Ages, was reassessing its values and refreshing its institutions, especially its educational centers, to compete with the growing might of the Islamic world that had been expanding its territory and enhancing its knowledge base since the middle of the eighth century.

The Islamic world, on the other hand, had produced great men of learning like al-Farabi and Ibn Sina, but had failed in building lasting institutions in which the knowledge gained could be cultivated among the public. All the knowledge acquired had been

[75] Shehadi, p. 95.
[76] Shehadi, p. 98.
[77] Shehadi, pp. 98, 108.

sponsored by official authority and had remained within the narrow circle of a few scholars who served as employees at the behest of caliphs and sultans. Not only the fate of the scholar, but the content of the knowledge he carried within him was tied to the whim of the caliph or the sultan who also controlled what could or could not be studied. Needless to say, while the caliph and the sultan had full authority over the philosophers, they themselves were subservient to the will of the clergy, who controlled the sentiments of their subjects.

As we have seen, during the ninth and tenth centuries, a great battle was fought over the roles of dogma and reason. In the end, al-Ghazali closed the door on philosophy and, in the fourteenth century, Ibn Taimiyyah, through *bid'a,* banished philosophy altogether, making the by now well-established Ash'arite orthodoxy the fulcrum of further developments in Sunni Islam.

This, however, was not the total picture of the loss incurred. Al-Kindi and the Brethren of Purity had faced the same situation and had overcome it. Al-Farabi and Ibn Sina are proof that Islam would have survived its moment of weakness and would have recovered its status as a major player in the field of philosophy. The reason it did not, or, could not, rebound was that early in the thirteenth century, Central Asia was devastated by the Mongol hordes. By 1227, when Chingiz Khan passed away, almost all those who had contributed, were contributing, and had the potential of contributing to a revival of the sciences in Central Asia were killed by Chingiz Khan, his sons, and his generals. In 1256 and 1258, Tuli Khan's son, Hulagu, destroyed the cultural center of the Isma'ilis at Alamut, and the city of Baghdad, respectively. The rich libraries of the Muslim world--those in secret hideouts like Alamut, as well as those in private hands or in major cities like Bukhara, Isfahan, and Baghdad--were totally destroyed. After the Mongol catastrophe, scholars like Ibn Rushd, Albertus Magnus, Saint Aquinas, and Moses Maimonides remained as the only conduits through which the knowledge of the ancient Greeks, refined by Muslim scholars, could be filtered into the newly-instituted colleges and academies of Europe.

Abul Walid Muhammed ibn Rushd (Averroës) was born in Cordova, Spain, in 1126. Through family connections, he gained royal patronage and became a royal physician and a *qadi* (judge) in Cordova. Between 1182 and 1194, he was a court physician in Marrakesh. Due to pervading religious sentiment against

philosophers, he was banished for heresy. He was recalled to Marrakesh shortly before his death in 1198.

Although he was a physician and astronomer, he is most remembered, especially in the West, as a commentator on Aristotle. Standing at the juncture when the two cultures were making their decisions on the role of reason, he became the inspiration for the projection of Greco-Islamic thought into the Judeo-Christian culture of medieval Europe.

Ibn Rushd's main contribution to medicine was an encyclopedic work called *al-Kulliyat fi al-Tibb* (Generalities on Medicine). But it is his *Tahafut al-Tahafut* (Incoherence of the Incoherence) that made him well known in both the Muslim and Christian worlds. A direct response to al-Ghazali's *Tahafut al-Falasifah*, *Tahafut al-Tahafut* attacked al-Ghazali's orthodox views by singling them out as beliefs useful in dismantling, rather than buttressing, religious faith. In response to al-Ghazali's statement that nature is in subjection to God most high, and that it does not act in and of itself but serves as an instrument in the hands of its Creator, and further that the sun, the moon, the stars, and the elements are in subjection to God's command, and that the activities of none of the above mentioned is produced by or proceeds from its own essence, Ibn Rushd responds: the efficient causes are observed in sensible things; to deny their existence is nothing short of sophistry. He adds further that whoever defends the doctrine outlined above is either in denial of what his mind commands or suffers from a severe case of relativism.

Ibn Rushd believed in the existence of an abstract world reason (*Nous*)—a single impersonal substance common to all men and exerting its influence on individual souls from without. Therefore, rather than believing in immortality for individual souls, he believed in immortality for the collective world soul. He initiated the theory of the twofold truth indicating that although on different paths, both reason and faith result in communion with God. Reason reaches the Truth through understanding the world while faith unfolds the truth through revelation. He did not believe that philosophy should be subservient to theology (cf., St. Aquinas).[78]

[78] Dictionary, pp. 257; 584.

Ibn Rushd believed that as long as they are both properly understood, there is no incompatibility between religion and philosophy. He, therefore, saw little reason why Aristotelian logic could not be integrated into Islamic thought. He further argued that philosophers, because they have better access to understanding religion, should be allowed the same freedom that the orthodoxy enjoys in contributing to matters of faith.

Regarding the nature of God, as we have seen, Ibn Rushd opposed al-Ghazali's view. While al-Ghazali emphasized agency (i.e., God as planner and creator), Ibn Rushd, like Aristotle, who regarded nature as God's handiwork, advocated a natural organization for it. The two also differed on the extent of God's reach. Al-Ghazali assigned God with knowledge of everyday events in the world; Ibn Rushd, on the other hand, limited God to a knowledge of general and abstract features of the world (cf., Ibn Sina). In other words, he did not wish to lower God's status and bring Him down to the level of His creatures.

Ibn Rushd's analysis of the works of Aristotle is critical to the history of Western philosophy and theology in medieval times. His contributions are highly significant in that earlier Muslim Aristotelians had taken for genuine a number of apocryphal works, including some of Neo-Platonic character; Ibn Rushd's philosophy involved a return to a purer and more scientific Aristotelianism.[79] The intellectual movement initiated by Ibn Rushd continued to be a living factor in European thought until the birth of modern experimental science.[80]

Thomas Aquinas, who imitated Ibn Rushd's style, took the matter much farther afield and created a solid context for the interplay between faith and reason. It is to a brief review of his thought that we now turn.

Saint Thomas Aquinas was born in 1225, four years after the devastation of Central Asia by Chingiz Khan. His formative years were spent in Montecassino, studying grammar, rhetoric, logic, mathematics, music, and astronomy. He continued his studies at the University of Naples and earned a Master of Arts degree. In Naples, he also became interested in philosophy and theology and, at the age of seventeen, joined the Dominican Order of Preachers.

[79] Hitti, p. 584.
[80] Hitti, p. 584.

In Paris, Saint Albert the Great (Albertus Magnus) selected St. Aquinas to be one of his students at a new house of study that the Order had instructed him to start in Cologne. Setting himself apart from other students, Aquinas began to publish his thoughts. After four years in Cologne, he returned to Paris as a priest. There he continued his studies and received his doctorate at the age of thirty-one.

Aquinas endeavored to reconcile the Augustinian emphasis upon the human spiritual principle with Ibn Rushd's claim that knowledge is derived from the senses. He eventually concluded that the truths of faith and those of the experiences of the sense are fully compatible and complementary. To rationalize this, he started with knowledge that has originated in the senses. Once this knowledge is made intelligible through the intellect, he argued, it becomes capable of apprehending immaterial realities, including the human soul, angels, and God. This is how Aquinas himself describes the difference:

> … the believer and the philosopher consider creatures differently. The philosopher considers what belongs to their [creatures] proper natures, while the believer considers only what is true of creatures insofar as they are related to God, for example, that they are created by God and are subject to him.[81]

In simple terms, according to Aquinas, knowledge is a product of the senses. As such, it is capable of becoming dogma, reason, or faith, depending on the circumstances into which it is introduced and within which it is made to operate. Knowledge becomes dogma if it falls victim to the rituals and the beliefs of the uneducated and the religious. It does not matter whether the religion is Islam, Chiritianity, or Judaism. In fact, dogma can turn into blind faith, if it is pushed far enough to stand opposed to knowledge altogether.

Reason, according to Aquinas, is knowledge that has broken through, as it were, the realm of dogma and become enhanced by intelligence. Reason, established at this level, is knowledge that clearly distinguishes the right from the wrong.[82] Faith, Aquinas

[81] Aquinas, Bk II, Chapt. 4.

[82] Copleston calls this "right reason" or reason that apprehends the objective good for man and dictates the means to its attainment, Copleston, p. 205.

argues, employs this intelligible knowledge, or reason, and uses it as a tool to apprehend God. In this sense, Aquinas claims, both reason and faith must be provided a place within the orthodoxy. The only proviso that must be imposed, he says, is that reason must always remain subservient or inferior to faith. By synthesizing Greek philosophy and Christian doctrine, it could be said, Aquinas systematized not only the medieval Catholic faith, but also the rules governing ethics, law, and the nature of reason itself.[83]

Ibn Rushd, is a transitional figure between east and west. He views Islam positively, but rejects Islamic *kalam* as outlined by al-Ghazali. Rather than into Islam, which has already condemned philosophy, he projects his notion of the world soul and of the acceptability of faith and reason by the Creator onto the minds of eager university students and professors like St. Aquinas. It is, indeed, through the contributions of Ibn Rushd that Aquinas becomes familiar with the works of the Islamic philosophers and organizes his creation theory, a kind of change of being theory. According to his theory, humans occupy a unique status. Aquinas's man is different from others in that, in spite of an earthly existence, he possesses the capacity of receiving the vision of God after death and attaining absolute happiness.[84] Attainment of absolute happiness, of course, was the *telos* (purpose) of Aristotle's existence on the earth plane.

As can be seen, both Ibn Rushd and St. Aquinas crossed a bridge that the Muslims did not, be it because of their final opposition to philosophy or due to the devastation of the Mongol onslaught, or both. It is now certain that without crossing that bridge Ibn Rushd and Aquinas, too, would have remained in the darkness of scholasticism that dominated Europe at the time. It is beyond this bridge that free thought created the Reformation and blossomed into the Renaissance, the Enlightenment, and the technological world. The bridge itself, however, was built by the untiring efforts of scholars from al-Kindi to Ibn Sina, without whose refinements St. Aquinas would have the proper grounds for his fine arguments.

Even though this study is not set up to deal with aspects of philosophy in any detail, an attempt is made to highlight some of the thoughts and beliefs of the medieval sages about music. There is a

[83] Cf., Burnett, p. 2152.
[84] Burnett, p. 2156.

reason for that. The study of music in Islamic lands began with the translation of Greek works on music into Arabic. Pythagoras, Aristoxenus, and Nicomachus were among the Greeks who exerted the most influence. Aristoxenus's *Kitab al-Iqa'* (Book of Rhythm) was used most frequently.[85]

In the few centuries during which the Islamic world was dealing with philosophy, music was treated as a science and was studied as to its origins, structure, and place in society. When philosophy was condemned, music, too, was condemned. But unlike the other branches of philosophy, music did not leave the scene altogether. Rather, it remained among the people and grew as best as it could. It lost its official status but not its *raison d'etre.* The other aspects of philosophy did not have the required roots in society that could guarantee their longevity. In fact, they were not allowed to put permanent roots down and, consequently, they perished. Music, on the other hand, remains a part of the culture and continues to offer scholars a glimpse of the lay development of a topic previously the purview of the philosophers.

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