Bayt al-Ḥikmah

The House of Wisdom

Medieval Library of Baghdad

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The House of Wisdom (Bayt al-hikmah) was a library housed in Baghdad during the 9th century reign of the Caliph Ma-mun. While the western world was in the midst of a dark age, the Middle Eastern world was transcribing and keeping alive the heart of knowledge from distant lands. Under direct orders from Caliph Ma-mun, the translators, scribes and scholars in Baghdad extracted and expanded the lifelong works of previous international scholars such as the Greeks, Jews and the Christians. I write this article to honor and bring attention to the astounding contributions the Medieval Arabs made to education, knowledge and libraries in the western civilization.

The rise of the Abbasid caliphate beginning with Harun al-Rashid (c.786-809) was the high point of prosperity when Iraq was the center of the empire. In c.819-833 under the rule of the Abbasid Caliph Al-Ma'mun, Baghdad became the center of remarkable cultural renaissance and grew to be larger than any city in Europe or western Asia. Al-Ma'mun established an academy with a library and an observatory called the House of Wisdom (Bayt al-Hikmah).

Within the Bayt al-hikmah, Greek science and philosophy were translated into Arabic as well as other languages. Written works also included poetry and literature and compilations of folktales such as the Arabian Nights. The scholars of the House of Wisdom preserved and disseminated the ancient classics. They became custodians of science and other disciplines of knowledge.

Caliph Ma-mun collected texts and employed translators. He entered into relations with the emperors of Byzantium and gave them many exotic gifts. In return he asked them to provide him with copies of books on philosophy which they had in their collection. The emperors sent Ma-mun copies of their works. Their collections contained manuscripts of Plato, Aristotle,

Hippocrates, Galen, Euclid and Ptolemy. Ma-mun commissioned the most experienced translators to translate these works. Scholars of all races and religions were invited to work side by side translating these manuscripts. “They were concerned with preserving a universal heritage, which was not specifically Muslim and was Arabic only in language.” (Weit, 1971, p. 65)

The caliph had the most highly qualified experts of the time come to the capital from all parts of his empire. Baghdad’s House of Wisdom attracted the best minds across the lands. “The intellectuals of Baghdad eagerly set to work to discover the thought of antiquity.”(Weit, 1971, p.68) The caliph surrounded himself with learned men. This included “legal experts, traditionalists, rationalist theologians, lexicographers, annalists, metricians and genealogists. He then ordered scientific instruments to be manufactured.” (Wiet, 1971, p. 67). This included the astrolabe. The astrolabe is a historical astronomical instrument. It was used to locate and predict the positions of the Sun, Moon, planets and stars and for determining local time.

Members of the staff of translators, astrologers and other scholars lived in the Bayt al-hikma (House of Wisdom). This allowed the caliph to call on them day and night to serve his needs. The House of Wisdom was reproduced on a smaller scale by other libraries in Baghdad and other major cities ruled by the Caliph.

In the Fihrist of al-Nadim (description comes later) al-Nadim mentions the reason why books on philosophy and other ancient sciences became so plentiful in Iraq. Caliph al-Ma’mun met Aristotle in a dream and asked him questions about truth and knowledge, Aristotle’s responses inspired al-Ma’mun to pursue and collect knowledge from as many sources as possible. Al-Nadim describes the dream in his catalogue of books (Katim al-Fihrist) and he writes, “This dream was one of the most definite reasons for the output of books.” (Dodge, 1970, p.584).

It became imperative for all citizens to read the Qur'an and this inspired a high degree of literacy. The teaching of Hadiths (sayings of Muhammad) encouraged the literary culture and a reverence for learning in general. The Caliph Ma'mun aspired to keep the language and the religion at a significant cultural level for a solitary goal, "It was necessary to study the structure and the rules of the language of the Qur'an in order to have the language respected and understood." (Wiet, 1971, p. 64).

The greatest development of libraries came with the spread of Islam. Muhammad was illiterate but Allah instructed his prophet to command his followers to copy out the Qur'an "so that they might come to believe it for themselves." (Weit, 1971, p 68) With this mandate to write down the words the prophet had received from Allah, his followers became passionately literate. As their empire grew, they proved intellectual enthusiasts in all areas of knowledge, eager to learn from those they conquered.

In addition, the abundance of paper lowered the price of books throughout Islam. Bookshops also flourished. The Muslim prohibition of graven images encouraged a different outlet for creative expression, away from painting and sculpture and toward architecture and calligraphy.

Caliph Ma-mun was able to accomplish the making of Baghdad as an extraordinary city for a number of reasons. Baghdad had access to both the Tigris and Euphrates river systems. In order for a culture to survive and flourish, particularly during these times, it was vital to have access to water. Baghdad was close to the main route through the Zagros Mountains to the Iranian plateau. The transport of food items like dates and rice from nearby cities could conveniently be brought by water. By the year c.800 the city had over 500,000 residents. It became a thriving commercial center. Riches began to flow into Baghdad from all over the world.

Besides the ideal setting of the city, the caliph himself placed knowledge, literacy and tolerance of paramount importance in ruling the great city. The divisions between the upper class disappeared. The distinctions between the Arab Muslims and the converted Muslims were eliminated. An eclectic and tolerant Muslim society was born and led to the Golden Age of Islam. Meanwhile, the Frankish empire in Europe was being ruled by illiterate monarchs such as Charlemagne. “When other nations were afraid of ideas, this civilization thrived on them and kept them alive. When censors threatened to wipe out knowledge from past civilizations, this civilization kept the knowledge alive and passed it on to others.” (5th paragraph, Fiornia)

The Arabs collected the treasures of the Persian libraries which in turn had collected centuries of treasures from the Greeks. Many of these texts were accumulated as war booty during conflicts between Persia and Greece. These works were delivered into the hands of the translators, scholars and calligraphers in Baghdad. As a result, Greek science followed Persian poetry into Arabic. "Thus began an epoch of Muslim library buildings that would last a thousand years, eventually delivering a shared Greek heritage to the hands of an upstart Europe." (Battles, 2003, P.61)

The leadership previous to the Abbasid Caliphs, the Umayyad dynasty, also had a large collection of books and scholarship. When the Abbasids overthrew the Umayyads in Damascus and Jerusalem, books began to pour into the new capital of Baghdad.

How paper inspired books

Another condition that helped to establish Baghdad as the seat of intellectual achievements is the paper industry. The city was filled with paper mills. This made the cost of paper affordable. The number of manuscripts multiplied from one end of the Muslim empire to the other. The availability of paper was vital to the publishing and selling of books and the expansion of intellectual prosperity. Muslims encountered paper when they conquered Central

Asia in the eighth century. Arabs acquired their learning of bookmaking from the Chinese and the Amharic scribes in Ethiopia. Some scholars believe that the art of papermaking was learned through Chinese prisoners. Paper rapidly replaced papyrus and parchment because it could be made virtually anywhere from rags and waste fibers. The use of paper soon spread from the Caliph's offices to all divisions of society. By the ninth century paper was used for copying scientific texts and other types of records. The introduction of paper made possible the reproduction of books and libraries.

The first paper manuscript of the Qur'an to survive is dated at c.972. From this point in time paper soon became standard for all books. Medieval Islamic libraries had hundreds of thousands of volumes far surpassing the comparatively small monastic and university libraries in the West. By the middle of the ninth century the Paper Sellers' Street in Baghdad had more than one hundred shops in which paper and books were sold.

The calligraphers and illustrators made the book itself a thing of beauty. Arab calligraphers used liquid gold and colors made from vegetable and minerals to paint their opulent manuscripts. Calligraphy was an important art in Muslim countries. Copying the Qur'an was an act of piety. Therefore the art of calligraphy, even for non-religious citizens, was viewed as more valuable than the simple reproduction of texts.

Book collectors of the time valued the book not only for what it contained, but in the sumptuous way it looked and felt. Good taste in books was a requirement of the merchant. The wealthy Arabs bought books primarily to impress friends and business associates. The Muslim Elite competed to obtain whole libraries of books. Cities such as Baghdad and Damascus were great centers of book production. The literacy rate was very high; about one in five Arabs could read. Muslim scholars produced magnificent books on religion, poetry, mathematics, medicine,

astrology, engineering and other arts and sciences. The holiest book an Arab writer could produce was the Qur'an.

Bookshops were plentiful during this time as well. They were frequently located around the main mosque. Scholars and writers also met in bookshops, and hired copyists there.

> “The Arab book collector was typically a member of the royal family or a high government official. His library would most often be an eclectic one. The Arab bibliophile collected not only fine books but also fine copyists, men well-known for accuracy and beautiful works.” (Lerner, 1998, p. 73)

Islamic Public Libraries are born

By the beginning of the 10th century, the idea of the public library began to appear. Public libraries were open to everyone and there were "reading rooms where anyone, after paying a fee, could consult the work of his choice." (Weit, pg.71) The main libraries had their own official copyists and bookbinders. The public libraries in Baghdad hosted local and foreign scholars. They were provided with ink and paper, food and drink. Islamic law had evolved the concept of the *waqf* (charitable endowment) and extended it to libraries. The *waqf* made it necessary to list all the books that were donated by the upper class. This was a convenient way to keep track of titles and authors and probably inspired cataloguing.

Finding Aids

Although the *waqf* lists were a helpful way of keeping track of books, they did not supply the libraries with accurate finding aids. The basic principle of classification standardized in Arabic libraries was that “the book whose subject was the noblest should precede the others.” (Lerner,1998, p.74)

To accomplish this, three categories were created. Of the religious sciences the Qur'an, theology and law would be shelved at the top. Next would be the sciences that supported

religious studies such as literature, philology and history. Finally, the philosophical sciences such as medicine, astronomy and mathematics were shelved.

“If several of the books dealt with the same subject, the one containing the most verses of the Qur'an would be places first, next would be the book citing the most hadith (sayings of the Prophet and his companions) after that the book whose author is the most highly esteemed; then most useful book; and finally the most authentic.” (Lerner, pg75)

What the House of Wisdom may have looked like.

In his book, “The Story of Libraries” (1998), Lerner describes the physical arrangements of an Islamic library during the middle ages. The entrance of an Islamic Library was followed by a second doorway that led to an opulent room. The floor was marbled and covered with straw mats in the summer or felt and wool rugs in winter. There were cushions to sit on and curtains would cover the windows to protect the books and library patrons from too much sunlight. Because the library was so close to the Euphrates and Tigris rivers, running water was piped into the building and led to a fountain that was used for drinking water and for washing. There were several rooms in the library in addition to the one containing books and a copyists workshop. The books would be placed in wooden cabinets engraved with calligraphy. There were many shelves and the books were placed on their sides in the stacks.

The library patron could request a specific book from the librarian or request to see the library’s catalog (scholars believe that the catalog was most likely written on scrolls). The patron was provided with paper and ink to make notes. The patron was permitted to copy the entire book with the librarian's’ permission, but would have to bring his own supplies. Public libraries were open every day in Baghdad .

Lerner (1998) alleges that many libraries did lend their books because it was considered a religious obligation to facilitate copying and studying. If the patron wanted to borrow a book

they might be required to leave an item of equal value to guarantee the books return. The loan period was, “one day for each leaf of text; this was considered ample time for the borrower to copy the entire book.” (Lerner, 1998, p 77). Some libraries during this time were restricted to a specific sect of Muslims; however most libraries were open to all Muslims rich or poor.

Duties of the librarian:

The librarian’s duties were to protect and preserve the books in his care. He would arrange for the binding of books and the payments to the binder. He would distribute paper and ink to library users who needed it. The librarian supervised the assembling and correction of books in the collection. He would also suggest titles and subjects to add to the acquisitions of the library. “One of his qualifications was excellent penmanship, for he had to write the library’s catalog and serve as a copyist as well.” (Lerner, 1998, p.77). The librarian was a paid employee and received about half the salary of professors. Money to finance the library was received from endowments and other sources. Funds from the rents of land arranged in the endowment were donated.

Islamic Scholars and Scientists Who Changed the World

Books and essays written during the reign of the Abyssinian Caliphs focused on scientific and mathematical discoveries. After Greek and Persian sciences were translated into Arabic, Arab scholars studied them, built on them and improved them. Muslim scientists in the 10th century were involved in three major mathematical projects: the completion of arithmetic algorithms, the development of algebra, and the extension of geometry. The greatest contribution of Arabian medicine was in chemistry and the knowledge and preparation of medicines. Medieval Muslims revolutionized the science and practice of medicine and developed the ability to distinguish one disease from another.

The Banu Musa (three brothers) played an important role in the development of Arabic science and technology. They were appointed as scholars to the House of Wisdom by Caliph Ma-mun. The brothers were skilled in mathematics, music, astronomy, and engineering. They worked on determining the circumference of the earth. They built their knowledge on a foundation of Greek and Roman engineering. A book of mechanical “curiosities” was written and illustrated by the brothers, called, “The Book of Ingenious Devices”. Within this manuscript they provided measurements and descriptive illustrations of water fountains, the construction of lamps and mechanical drinking troughs for livestock.

Ibn Sina (c.980-c.1037) integrated theories from Aristotle and other Greeks with his own original views. He wrote “The Canon of Medicine” which became the most famous medical book in the East or West and was translated at least 87 times.

The man regarded as the father of Arab medicine, Hunain ibn Ishaq, was a Christian who resided in Baghdad . Hunain was a translator and also directed a team of scholars. He is credited with having greatly increased the scientific knowledge of the Arabs. He invented medical and philosophical terms and influenced the structure a scientific language.

Muhammad ibn Zakariya al-Razi (c.865-c.930) is recognized as the greatest physician of the Islamic world. He was skilled in mathematics, astronomy, chemistry, alchemy and philosophy. He headed the Muqtadari Hospital in Baghdad for many years. He wrote up to two hundred essays, one of the most valuable being, “The Comprehensive Book on Medicine”. This started out as “a large private notebook which he used to record his own clinical cases as well as extracts from earlier authors discussing diseases and the cures for them.” (Hunt, 2005, p.64.) Many of his works were also translated into Latin. His “Book of Medicine Dedicated to Mansur”, became one of the most widely read medieval medical manuals in Europe.

Muslims also developed the concept of medical schools and hospitals. The Abbasid caliph Harun al-Rashid established his own hospital in Baghdad (c. 800). Hospitals were soon established throughout the empire. They were staffed by countless specialists, “from physiologists, oculists, and surgeons, to bonesetters.” (PBS, 2001). They even had special wards for the mentally ill and separate wings for men and women. These hospitals were supported by endowments made by powerful and wealthy individuals.

Astronomical observation was begun in Baghdad . The House of Wisdom was also famous for having an Observatory. The scientific scholars in the House of Wisdom set to work measuring the night sky and the position of the stars. The solar year was also calculated. The engineer Ibrahim Fazari, who helped plan the founding of Baghdad , was the first in the Arab world to make astrolabes. The Bibliothque Nationale in Paris has perhaps the oldest instrument of this type, one dating from the year c.905 and was probably made in Baghdad.

Muhammad ibn Musa al-Kharizmi (c.800-c.850) was a mathematician, astronomer and geographer. He was the greatest polymath (a person of encyclopedic learning) at the House of Wisdom in Baghdad. He is said to have influenced mathematical thought to a greater extent than any other medieval writer. He wrote a book on elementary algebra. He also expanded on the Hindu numbering system and its arithmetic. He gave us the word algorithm. He composed a book inspired by Ptolemy’s work on geography and called it the “Book of the Description of the Earth”. His books gave the coordinates of places in the known world. (Hunt, 2005, p.55)

The Translator and Mathematician, Thabit ibn Qurra (c.836-c.901) was a mathematician, astronomer, physician and philosopher. He became the leading intellectual and translator on the staff of the House of Wisdom. He extended the concept of traditional geometry to include geometrical algebra. He developed non-Euclidean geometry, spherical trigonometry, integral calculus and real numbers. He revised and expanded the Greek, Ptolemy's views in astronomy.

He studied the movements of the sun and the moon and wrote essays on sundials. He also wrote about mechanics and physics. He translated the Greek Mathematicians such as Euclid, Archimedes, Apollonius of Perga, and Ptolemy. He summarized the work of Galen and Hippocrates and the philosopher Aristotle. His works were translated into Latin and Hebrew and became available to the West.

The Father of Modern Optics was Ibn al-Haytham (c.965-c.1040). He was one of the most outstanding mathematicians and astronomers of his time. He made important contributions in optics and in the use of scientific experiments. He was thought to have written 92 works, of which about 55 have survived. His most important book, is “Optics” (Kitab al-Manazir). He proved that the eyes passively receive light rays reflected from objects. (Hunt, 2005, p. 76).

The father of Arab Chemistry was known as Jabir ibn Hayyan (c.721-c.815). He was also famous in Europe during the Middle ages. “It is said that the development of chemistry in Europe can be traced directly to him.” (Hunt, 2005, p.53).

The chemists of that time were alchemists, and their pursuit was mainly a search for the philosopher's stone, which supposedly would turn common metals into gold. Their pursuit of this knowledge led to other discoveries. Various substances were identified and characterized, and some were found to have curative properties. Many drugs now in use are of Arab origin.

As for literary greats, “The Book of the Thousand and One Nights” was written by Alf Layla wa Layla, 9th century. Also known as “The Arabian Nights”, it is a lively mixture of humor, love, sex, violence, poetry and slapstick. It also contains subtle and profound reflections on philosophy, psychology, power and morality. These stories are some of the most famous ever told.

The developer of an Arabic vocabulary for Philosophy was Yaqub ibn Ishaq al-Kindi (c.800-c.873). Al-Kindi is known in the Islamic world as the “philosopher of the Arabs.” He drew

heavily on Greek learning, especially Aristotle. Most of Aristotle's works first became known in Europe as translations from Arabic. Al-Kindi was one of the leading achievers at the House of Wisdom in Baghdad. His message is awkwardly translated but still gives the reader an idea of the values of scholarship during this time in Islamic history.

"It is good…..that we endeavor in the book, as is our habit in all subjects, to recall that concerning which the Ancients have said anything in the past; that is the easiest and shortest to adopt for those who follow them, and to go further in those areas where they have not said anything. We ought not to be ashamed, of appreciated truth and of acquiring it wherever it comes from, even if it comes from races distant and nations different from us." (Hunt, 2005, p. 58).

The Fihrist of al-Nadim

Al-Nadim was the first known cataloger of the medieval Baghdad during the Abbysinian rule. He was born around c.935. The name al-Nadim refers to a court companion or someone of high office. Nadim's father was a "warraq" or book dealer in a large bookstore in Baghdad. Al-Nadim began working in his father's bookshop at a young age. He started his index in order to keep track of the books contained in the bookshop. As he grew older he evidently became so intrigued with books and their authors that his catalog for the bookshop became more of an encyclopedia of medieval Islamic culture. In the introduction of "The Fihrist of al-Nadim" he writes:

"This is a catalog of the books of all peoples, Arab and foreign, existing in the language of the Arabs, as well as of their scripts, dealing with various sciences with account of those who composed them and the categories of their authors, together with their relationship and records of their times of birth, length of life, and times of death, and also of the localities of their cities, their virtues and faults, from the beginning of the formation of each science to this our own time, which is the year three hundred and seventy-seen after the Hijrah" (c.987/88)

Al-Nadim's father's bookshop was probably on an upper story where it formed a meeting place for scholars who came to examine the books and discuss academic problems. As al-Nadim suggests in his introduction, when making a list of names of authors and their books,

al-Nadim tried to write some biographical material about the author along with the books that were written. He also questioned other scholars about the author's life and status. This would sometimes make for humorous descriptions. The al-Fihrist seems to have been completed around c.990. After al-Nadim died, the original copy of his manuscript was almost certainly placed in the House of Wisdom.

Other copies were made but the original was possibly destroyed in c.1258 when the Mongols devastated Baghdad. Copies inevitably traveled through the Arab empire. Different parts of the catalogue can be found in museum libraries around the world, such as Paris, Istanbul, Vienna, Leyden, Dublin and Tonk, Rajastan. The catalogue is separated according to subject. The subjects range from the Qur'an, poetry, philosophy, mathematics, medicine, astronomy, scholarship from the countries of Greece, Persia, China and India, to the more humorous chapters. One of those described as the following, "Accounts of the court companions and associates, men of letters, singers, buffoons, slap-takers and jesters with the names of their books." (Chapter 8, Fihrist of al'Nadim).

The Fihrist of al-Nadim can be very entertaining to browse through. The following are some of the more amusing descriptions of scholars listed.

Description of the poet and singer Jahzah.

" …he was far from having a moral character and was also foul minded. In his religion, he did not have only some of the imperfections, but all of them."

Account of Ibn Abi Tahir (Dodge, 1970, p.320)

"I have never seen anyone who became known so quickly as he became known for compiling books and reciting poetry, most of which he corrupted. In fact, there never was anyone more stupid intellectually or more erroneous in pronunciation than he was. He once recited a poem for me….in which he made mistakes in about ten places. He was the most prone of men to steal a half or a third of a verse."

Al-Nadim ended his catalogue with the following bibliographic citation of Al-Khanshalil:

“He was…al-Khanshalil. He was a friend of mine, who a number of times asserted to me that the Art had been validated for him. But I did not observe any indications of that in his case, because I never saw him to be other than a poor, miserable, old man, who was also foul smelling.” (Dodge, 1970, p. 868)

A few of the humorous titles of books listed in The Fihrist of al-Nadim are listed here to give the reader an idea of the range of poetic license that was permitted during this time of Arab/Muslim civilization. They are:

-Relaxation and the Advantages of Running Away
-Traditions about the Careless in Speech
-Rare Anecdotes about Pimps
-Superiority of the Rectum over the Mouth
-A Collection of Stupid Women and a Gathering Together of Foolish Ones
-The Glory of Combing at the Mirror
-The War of Cheese and Olives
-Adultery and Its Enjoyments
-Masturbations
-Rare Anecdotes about Slave Boys and Eunuchs
-Things Rare and Laughable
-Perfuming the Winds and the Key to Joy and Gladness.

The catalogue also contained names and books of the famous scholars, philosophers and scientists of Ancient Greece as well as India, China and other countries.

What About the Women?

Although most research for this article uncovered very little about women's contributions to the literature, science or mathematics during this time, it is believed that at least 6% of the teachers were women. Hadith transmission (sayings of Muhammad) was the primary field in which women could make their mark as teachers of men. Aisha, Muhammad’s 3rd wife was one of the most important Hadith transmitters in early Islamic history.

Religious education for girls was strongest in scholarly families. However many men opposed it. Apparently Muhammad made contradictory statements about female scholarly pursuits. He said, “It is said that a woman who learns how to write is like a snake given poison to drink.” The 12th century Syrian jurist, Al-Shayzari opposed teaching women to write by expanding on Muhammad’s statement. He declares, “The educator must not teach a woman or a female slave how to write, because this make a woman worse, and it is said that a woman learning to write is like a snake made more venomous by being given poison to drink.” (pg 197, Lindsay)

In spite of this some girls and women were educated. They were either educated because they were daughters of the wealthy or scholars. Surprisingly, slave girls (singers) who would entertain with their poetry and songs were very highly educated. The eighth and ninth centuries of the Abyssinians, were the high point of the singing girl. The most famous centre for the education and training of singing girls was the Holy City of Medina. In contrast, free women from respectable families were restricted and concealed. The singing girl was always a slave therefore she could entertain her master and his friends. Many singing girls were highly trained, skilled and witty. They were the main controllers of court culture. They were beautiful, had wonderful voices, but they were also clever, accomplished and assertive. A good singing girl could have a repertoire of ten thousand lines. The caliph and others in high authority spent large sums of money on them. Singing girls were traded between men in power, each time their value increased. It was important for the singing girls to have a “broad general education and a ready wit.” (pg. 177, Kennedy)

The life of Ulayya bint Mahdi (c.777-825) is worth mentioning in contrast to the singing girls. Ulayya was the daughter of the Caliph Ma’mun. She was a very talented poet and singer and was highly educated. “She could hold her own with the great masters of the time…but

unlike them, she could never perform for a public audience.” (Kennedy, 2005, p.179). Ulayya’s struggle as a woman in medieval Islamic culture has been highlighted in sources on early Islamic women poets. She was much admired and accomplished, yet she was also restrained from publicly performing her poetry. She could only perform during private family singing parties and this caused her great frustration. (Kennedy, 2005, p.179.) Many times Ulayya’s poetry would be attributed to a male poet.

More information about women poets of this time are compiled in the book, “Classical Poems by Arab Women” by Abdulla al-Udhari. The book begins with Arab female poets beginning in 4000 bce and ending in 1492.

The Decline of the House of Wisdom

The Muslim empire was confronted by the Crusaders who arrived in the Middle East in 1096. Even with the conquest of Baghdad by the Buwayhids and the Turks, the Abbasids ruled as Caliphs to some extent, until 1258, when the Mongols destroyed Baghdad, finally ending the power of the Caliphate. The Mongols moved through the Middle East, reaching the Mediterranean and inflicting devastation in the already destabilized vestiges of the Arab empire.

Along with all other libraries in Baghdad , the House of Wisdom was destroyed during the Mongol invasion of Baghdad . It was said that the waters of the Tigris ran black with ink from the enormous quantities of books flung into the river.

Between the Mongols, the Christians and natural disasters such as fire, "the country was so stripped of Arabic manuscripts that, when Philip II founded the Escorial , no Arabic manuscripts could be found in the kingdom." (Battles, 2003, p.67)

When the Moors of Spain had taken over during the 1536 siege of Tunis , Emperor Charles V ordered all books in Arabic to be burned. The Mongols, Turks and Crusaders "did not share the love of learning that Islam had inherited from its Greco-Persian forebears." (Battles,

2003, p.67) Some books did make it into Europe as war booty. “But of the vast...libraries that had stretched across the Roman Empire from Spain to Greece, not a shred survived." (Battles, 2003, p.67).

Although it was considered a palace library, the Bayt al-Hikma influenced other “houses of wisdom” in the Islamic world and gained a greater reputation afterwards. The city of Cordoba in Spain had 70 libraries under the leadership of al-Hakim in 976.

Between the years of c.980 and c.1040 at the Samanid court in Persia, Prince Nuh ibn-Mansur had a grand library at his Royal House. In Cairo, Egypt Caliph al-Aziz build a library called the “house of learning”. It contained approximately 600,000 books.

The Arab Sciences were translated into Latin only after parts of the Arab world were conquered and the Latin language survived the destruction of the Arab intellectual culture. The history and contributions of the Abyssinians and other parts of the Arab world during these times is consistently forgotten or not brought to the western world’s attention. The western world owes a great deal of gratitude to Medieval Muslims, Jews and Christian under the Islamic Empire, for their preservation and expansion of knowledge in all areas of the sciences. In current events and news, Baghdad is a place of war and great tragedy, but it is important to remember what this great city and its inhabitants contributed to our western civilization.

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