

**ARAB SOCIETY AND CULTURE 750 C.E. TO
1250 C.E.**

20PHS2CC7

I MA HISTORY

E-CONTENT PREPARED BY

Dr. S.I.A. MUHAMMED YASIR
Assistant professor
Department of History
Jamal Mohamed College (Autonomous)
Tiruchirappalli - 620020

FOUNDATION OF ABBASID CALIPHATE

This chapter deals with the history of civilization during the medieval age. The medieval world under Abbasids excelled in both scientific and literary field. Hence it can be called a period of enlightenment even though the westerners, whose contributions were less in those days, referred it as dark age. The reign of Abbasid was the era of greatest splendor of Arabs. The age of conquest has passed; that of civilisation has commenced. Abul Abbas (750 -754 CE) who earned the title "Assafah" (blood shedder) was the founder of the most celebrated and long lived Arab dynasty for the establishment of caliphate. Abul Abbas got the assistance of great persons like Abu Muslim Khurasani, Abu Salma, Abdulla Bin Ali, Sulaiman Bin Ali, Khalid Bin Barmak etc. Ambar was the capital of Abul Abbas. The Persian office of Wazier was adopted by Abbasids. Abu Salma was the first wazir. Abu Jafar (754 -775 CE) was the brother and successor of Abul Abbas. He assumed the title "Al Mansur" (the victorious). Abu Jafar faced many revolts but suppressed all the disorders. His uncle Abudulla Bin Ali, the Abbasid governor of Syria rebelled but failed and was killed treacherously. The Khurasani leader Abu Muslim also faced the fate of Abdulla.

He founded a new capital named Baghdad on the western bank of Tigris in 762 CE. Al Mansur was succeeded by his son Al Mahdi (775 -785 CE) and Mahdi was followed by his son Hadi. After a short rule of one year Hadi died in 786 CE

Harun Al Rashid (786 -809 CE) the brother of Hadi was saluted as the next khalifa who appointed his teacher and advisor Yahya Bin Barmak as wazir (Minister). The legacy of the age is depicted in various books. Thousand and One Nights (Arabian Nights) is the best example for it. The Barmakids were an influential family from Bactria with great political power under the Abbasids of Baghdad. Barmak leader Khalid became the Minister of finance under Al Saffah, the first caliph of the Abbasid dynasty. His son Yahya was the teacher of Harun Al

Rashid and rose as the most powerful man in the empire under Harun al Rashid. The Barmakids were remarkable for their majesty, splendor and hospitality. They are mentioned in some stories of the Arabian Nights. It is believed that the Barmakids were priests of Buddhist before converting to Islam. The Barmakid family was early supporters of the Abbasids. They were highly educated, respected and influential throughout Arabia, Persia and Central Asia. In Baghdad, the Barmakid court became a centre of patronage for the poets, Ulema and scholars.

THE ABBASID ADMINISTRATION

In Abbasid administrative structure the apex body was Khalifa and he possessed supreme power. Under the first five Khalifaths of Abbasids, the government continued more or less autocratic just like the Umayyads. In the period of great khalif Al Ma'mun, the government by the will of one man gave way to semi democratic one. A regular council of the state representing every community owing allegiance to the khalif was introduced. The representatives of the people enjoyed perfect freedom of expression. The Khalifa was assisted by a number of royal officials in the affairs of the state and day-to-day life of the

palace. Next to Khalifa stood the wazir which had a Persian origin. Grand wazir was practically the lieutenant of the khalifa and controlled the whole affairs of the state. He presided over the council of heads of various departments of the state. The internal peace was maintained by the department of Sahibu Shurtha (Police). Khilafath was divided into several provinces. Each province was under an officer called Amir (governor) who was appointed by Khalifa. Though the postal department was designed to serve the state it also handled private correspondence. Each provincial capital was provided with a post office. Imperial capital was linked to provincial capitals with convenient roads. The system of relay covered the route which conceded horses, camels and mules in many places. Pigeons were trained and used as letter carriers. Sahibul Barid was the post master of the province. He not only superintended the work of postal department but also kept Khalifa informed of all important provincial matters. Postal department also worked like the intelligence department.

Next to Khalifa stood the wazir which had a Persian origin. Grand wazir was practically the lieutenant of the khalifa and controlled the whole affairs of the state. He presided over the council of heads of various departments of the state. The internal peace was maintained by the department of Sahibu Shurtha (Police). Khilafath was divided into several provinces. Each province was under an officer called Amir (governor) who was appointed by Khalifa. Though the postal department was designed to serve the state it also handled private correspondence. Each provincial capital was provided with a post office. Imperial capital was linked to provincial capitals with convenient roads. The system of relay covered the route which conceded horses, camels and mules in many places. Pigeons were trained and used as letter carriers. Sahibul Barid was the post master of the province. He not only superintended the work of postal department but also kept Khalifa informed of all important provincial matters. Postal department also worked like the intelligence department.

The Abbasid Khalifas were able to satisfy all needs of the state through the revenue. Land tax was the main source of Abbasids revenue. The tax was paid in cash or in kind. Tithes (income tax), Khums, Jiziya, Al fayy, etc were other sources of revenue.

The main sources of revenue in Abbasid period were:

Land tax (kharaj)

Tith or income tax (Ushr, Zakath, Sadakath)

Tax levied upon mines and pastures

Customs duties

Tax on non Muslims in lieu of military service (jiziya)

Salt tax and fishery tax

Tax paid by shop keepers for the use of public places

Tax upon mills and factories Import tax

Military

The Abbasids maintained a well organised military which was divided into many wings. Under early Khalifas Khurasani troops were the back bone of the military. The Arab troops were divided into the north Arabian (Mudaraite) and the south Arabian, (Yemenites). Al Muhthasim formed a new division made of Turks. The rank of officers were classified as

1. Arif
2. Khalifa
3. Qaid
4. Amir etc.

The army consisted of infantry, cavalry, archers, the naphtha fireman (Annafathun), the hole makers and labour corps. The Abbasid army was supported by another wing consisting of engineers, physicians and surgeons. Besides salary the troops got a share of booty (ghanima) according to the Islamic law. Abbasid Khalifas gave due interest on the formation of navy. The sailors were at first drawn from Phoenician towns. Later it was from Syria and Egypt and the coast of Asia Minor. The Arab ships were of a larger size than the Byzantine ships. The general in command of the fleet was called Amirul Bahar from which the word admiral is derived. Mercantile navy was equally efficient

The social life under Abbasid rule

The Khalifa was the supreme head of the khilafath. The Khalifah, the kith and kin of the Khalifa and high officials of khilafath lived in pomp and pleasure. Abbasid ladies like Khaizuran, Ulayya, Zubaida and Buran even participated in the political affairs of the state. But towards the end of the 10th century women lost their position in the Abbasid society

Music and Sculpture

Under Abbasids musical activities were promoted and patronised. Mahdi patronised Abdulla Bin Wahab and Basbas (Female singer). Dananir, a female singer enjoyed the patronage of Yahya Bin Barmak. The greatest musician of Abbasid age was Ibrahim Al Mosule, who flourished under Harun Al Rashid. He also served under Al Mamun and Muthawakil. Ibnu Jami, Bazal, Zalzal, Yunas Al Khathib etc were the prominent figures in the field of music under Harun Al Rashid. Abbasid khalifs and the relatives also proved their capacity in the field of music. Ibrahim Bin Mahadi (a step brother of Harun Al Rasheed), Khalif Al Watiq, Muntasir, Mutazz, Mutamid, Princes Olaiyah etc proved their musical ability in different style.

Most scholars of Abbasid period were either musician or wrote on music. Polo, chess, archery, horse riding, hunting etc became popular games in this period. The literary gathering was another attraction of the age. The aim of such gathering was to find out truth. It was a great chance to book sellers and they

occupied an important position in the society. A number of cottage industries flourished in different parts of the khilafath. Rugs, tapestry, silk, cotton and woollen fabrics, satin, sofa and cushion as well as other articles of furniture and kitchen were made here. Khalifas gave proper attention to agriculture field. It was the main source of revenue. The improved irrigation facilities was great support from the side of the Khilfath. Islam looked with disfavour on any representational art which savoured of idolatry. Therefore there was no painting and no painters in early days of Islamic rule. The Abbasid khalifa Al Mansur set up the dome of his palace with the figure of a horse man. Al Amin designed his pleasure boats like lions, eagles and dolphins. The Samarrah palace was decorated with exquisite frescos of female figure by Al Mustasam. Al Muthavakkil appointed Byzantine painters in his court.

Calligraphy

Calligraphy developed as a decorative art and through it the Muslims sought a channel of aesthetic expression. The great calligraphist Ali Bin Ubaida Al Rihani was patronised by Khalif Al-Ma'mun. He invented the style of Raihani script. Ibn Muqla, Ibn Al Sitri, Yaquth Al Musthasmi etc were great calligraphist of the age. A college of calligraphy was set up in Qayrowan

Architecture

The age of Abbasids was renowned for its architectural development. The Abbasids capital Bagdad itself shows their dominance in the field of architecture. Bagdad was a circular city enclosed by parallel walls. Palace of khalifa was situated at the centre. The great mosque of Bagdad was attached to the palace. Though the Abbasid capital was destroyed by Mangols the present city was built on the ruins of old Bagdad. Abbasids built a new town Samarrah, great mosque of Samarrah and the palace Jaswaq Ul Khaqani. Raqa was the favourite residence of Harun Al Rasheed

The Fall of Abbasid Khalifath

The Abbasid caliphate extended from 750 CE to 1258CE. During the reign of Harun Al Rashid the Abbasid empire reached the zenith of its glory and prosperity. But during the later caliphs it began to decline.

Causes for the fall of Abbasids

Weakness of the later caliphs

Enimty between the Shias and Sunnis

Dissatisfaction of the non-Arab muslims.

Luxurious life of the later caliphs

Failure to annex the conquered territories with the empire

Formation of Turkish bodyguards.

Decay of Arab faction and their moral values.

Undefined rule of succession .

Epidemics.

Economic crisis

Establishment of petty dynasties

Foreign invasion (sack of Bagdad by Hulagu Khan)

In 1257 CE Hulagu came to Bagdad with a huge army for destructing the Abbasid caliphate. In January 1258 the Mangols destroyed the walls of the capital and crushed the city. They looted and destroyed the immortal knowledge of the world and the wealth. The caliph was rolled up in a rug and the Mangols rode their horses over him. His sons were killed. Bagdad was depopulated

Slaves

Tunis, and Alexandria were great trade centres. The life of common people of Abbasid Khilfath was better than the life of medieval Europe and in any other part of the world. They were not brutally treated. The enslavement of ordinary people was not existed. Though they lived with limited life conditions they were free citizens. They were not denied the judicial access and royal helps . The life of slaves was just below to that of the common people. Slaves were mostly used for house hold purpose. The public works were also handled by the slaves. The Abbasid society was a cosmopolitan one. Arabs, Persians, Turks, Berbers, Kurds, Armenians, Greeks etc formed Abbasid society. The major religion was Islam. But Jews, Christians, Zoroastrians and other religious people lived harmoniously. The Arab Muslims and Mawalis lived together. Dhimmis, Mawalis, Kharijites, Shias and Arab Muslim were appointed to the royal services. The door of high posts were opened to all without any distinction. Through the accommodation of different sects under their contribution made the Abbasid Caliphate a Cosmopolitan Empire.

Judiciary

The judicial administration of Abbasid khilafat had some peculiar features. The chief Qasi of Bagdad received the title "Qazi Al Kuzath", which was introduced by Harun Al Rasheed. Abu Yusaf, the greatest scholar and disciple of Imam Abu Hanifa was the first Qasi Al Kusath who began his career under Al Mahdi. Qazis were well versed in Quran and Islamic scriptures. The cases of non Muslims were decided by their own ecclesiastical heads or magistrates

Public works

A number of canals, mosques and other public works owe their existence to the initiative and munificence of the Barmakids. Al Fadl, son of Yahya, bin Barmak is credited with being the first to

introduce the use of lamps in the mosques during the holy month of Ramadan. They are also credited with the establishment of the first paper mill in Baghdad. Ja'far, another son of Yahya acquired great fame for eloquence, literary activity and pen-manship. P.K.Hitti argues that chiefly because of him, Arab historians regard the Barmakids as the founders of the class designated as 'people of the pen' (ahl al-qalam). The long neck which Barmakids possessed is said to have been responsible for the introduction of the custom of wearing high collars

Education

The educational system of Arabs was further improved and elaborated by Abbasids. The educational institutions were graded and comprised of elementary schools, school of senior students and institution for advanced students. The formal education of the children usually began at the age of six. The elementary schools were generally attached to mosques and kids of both sexes studied together. Reading, writing, grammar, tradition, arithmetic etc included in the curriculum. After elementary level senior students concentrated on the syllabus of theology, jurisprudence, lexicography, rhetoric and literature. Astronomy, geometry, philosophy, music, medicine and other studies were included in the curriculum of advanced studies. The Abbasid khalif Mamun set up an academy know as Baithul Hikma started as a translation centre. Later it served as an institution for higher studies and scholars from different parts of the world gathered here. Musthansiriya University, Bagdad was established by Khalifa Al Musthansir. Numerous colleges were set up in various parts of the country. Each college had separate principal or head. Libraries worked as an attraction of the educational institutions. Nisamiya university and Cordova university had a huge treasure of books (around four lakhs). The library of Tripolis had three lakh books while the library of Ray had four hundred camel load of books. Musthansiriya University, Bagdad was established by Khalifa Al Musthansir. Numerous colleges were set up in various parts of the country. Each college had separate principal or head. Libraries worked as an attraction of the educational institutions. Nisamiya university and Cordova university had a huge treasure of books (around four lakhs). The library of Tripolis had three lakh books while the library of Ray had four hundred camel load of books

Paintings

During the period of Delhi sulthanate the ancient Indian tradition of delicate miniature painting was continued and the tradition of illustrating books with exquisite miniatures developed. The Mughals made distinctive contribution in the field of painting. They introduced new themes, depicting the court with battle scenes, and the chase, and added new colours and forms. Akbar organised painting as one of the imperial establishments (karkanas). Hence painters from different parts of the country came together. Jaswant and Dasavan were two famous painters in the court of Akbar. Indian themes and Indian landscapes became very popular. Indian colours like peacock, blue, and Indian red began to be used. Mughal painting especially portrait painting reached a climax under Jahangir. He patronised many of the best artists like Bishan das, Murad, Mansur and Bahzad. Besides the Mughal painting Deccan school also developed during this time.

Music

Music was enriched by new forms. The Hindusthani style developed at this time was influenced by form from Persia and the Arab world. Instrument such as the sitar, sarangi and tabala became popular. Ameer Khusraw was the most important figure in this discipline. Mughal period witnessed the development of Hindusthani music. Tansen, the famous singer, lived in Akbar's court comprising many melodies or 'Raga'. One of the most popular of them 'Raga Darbari' is believed to be Tansen's special composition for Akbar. The Hindusthani school of music had by now taken many features from Persian music. Jahangir and Shahjahan patronising this branch of cultural rite. New style of singing such as the 'Khayal' which had been developed in the Mughal court and the Thumri became popular. Persian prose and poetry reached a climax under Akbar's reign. Abul Fazal was an eminent prose writer in the court of Akbar. Faiz Utki the brother of Abul Fazal was the leading poet of the age. Naziri was another poet lived in this period. Abdu Rahiman wrote Hindi dohas (couplets). His dohas are still recited. Thulasi Das wrote Ramayana in Hindi called 'Ramacharita Manasa.' Sur Das wrote Sur Sagar. In 18th century Urdu also enriched with writers and works. Delhi and Laknow became the centres of Urdu poetry

Al Khwarizmi

Mohammed Bin Musa Al Khwarizmi who flourished during the 9th century is known as "The Father of Algebra". His outstanding work on Algebra is Hisab Al Jabar wal Muqabalah. It was through his work that Europe became aware of Indian and Arabic numerals.

His works are :

Kithabul Jama Wa Thafriq (Elements)

Kithabul Jabar Wal Muqabalah (The calculation of integration and equation)

Al Chemistry

In the study of chemistry the Arab introduced objective experiment. The father of Arabic chemistry was Jabir Ibn Hayyan, who flourished in Kufah. Western tradition credits him with the discovery of several chemical compounds Kithabul Rahma (the book of Mercy), Kithabul Thajmi (the book of concentration), Kithabul Zibag Al Sharki (the book of eastern mercury) etc are important works of Jabir Bin Hayyan. Equipments used by the Astronomers of Abbasid age He produced more than 22 works. But only five of them survived Another notable figure in the field of chemistry was Al Razi. His work Kithabul Asrar (The Book of Secrets) became a chief source of knowledge on chemistry and it was translated to many languages

Historiography

In the domain of history Abbasid age made great progress. Baladuri, Al Masudi, Ibnul Athir And Tabari, Hamadani were the outstanding historians of this period. Baladuri who flourished under the Abbasids was a prominent historian. He wrote, 'Futuh Al Buldan' (history of conquest).

Al Tabari

Abu Jahfar Mohammed ibn Jarir Al Tabari (832 – 923 CE) who was born in Tabaristan, wrote Tarikh Al Rasool wal Mulk (Annals of the apostles and kings). His another work is Thafsirul Quran (commentary on Quran). Tabari arranged the events chronologically, tabulating them under the successive years of Hijra. His monumental work on universal history, the first complete work in the Arabic language, served as a source for later historians such as Miskawayah, Ibnu Al Athir And Abu Fida

Al-Masudi

Abu al-Hasan Ali ibn al-Husayn ibn Ali al-Mas'udi (born c. 896 CE, Baghdad, died September 956 CE, Cairo, Egypt), was an Arab historian and geographer. He is sometimes referred to as the Herodotus of the Arabs. Al-Masudi was one of the first to combine history and scientific geography in a large-scale work, Muruj adh-dhahab wa ma'adin aljawhr translated The Meadows of Gold and Mines of Gems), a world history. Another work Isat-Tanbih wa-l-Ishraf ("Notification and Review"). Al Masudi mentions his association with many scholars in the lands through which he travelled. His journeys took him to most of the Persian provinces, Armenia, Azerbaijan and other regions of the Caspian Sea; as well as to Arabia, Syria and Egypt. He also travelled to the Indus Valley, and other parts of India, especially the western coast; and he voyaged more than once to East Africa. He also sailed on the Indian Ocean, the Red Sea, the Mediterranean and the Caspian Sea

His works are:

Muraj al Dhahab wa - maadin al Jawhar (Meadows of Gold and Mines of Gems)

al - Tanbih wal – Ishraf

Theology

The early attention and interest of Arab Muslims towards the branches of learning was due to religious impulse. In Abbasid age theology developed as a branch of Knowledge. Quran was the basis of intensive theological as well as linguistic study. Next to holy Quran the Sunna, ie the deeds, utterance and silent approval of Prophet, stood as the most important doctrinal source. The Sunna was studied orally and Hadith writings were done in second century of Hijra. Though the Hadith not equally canonical with Quran, Hadith exerted and has equally great influence over the development of Islamic thoughts. According to Islamic belief Quran is revealed to Prophet Mohammed and all the words of Quran are

words of God. But in the case of Hadith it is the word of Prophet but the inspiration of Hadith from God. Hadith was approached as a discipline of knowledge and came to be known as “Ilmul Hadith” (knowledge of the tradition of the Prophet) The Hadith(tradition) were arranged with reference to the authorities making the statements known as Musnad. In Musnad the Hadith are arranged subjectwise, those are referred a Musannaf.

The Six canonical books

1. Saheeh Al Bukhari by Imam Bukhari. (810- 870).
2. Saheeh Al Muslim by Imam Muslim (D 875)
3. Sunanu Abu Davud by Imam Abu Davud (D 888)
4. Jami Al Tirmudi by Imam Tirmudi (D 892)
5. Sunanu Annasi by Imam Nasai (D. 915)
6. Sunan Ibn Maja by Ibn Maja (D 886)

Philosophy

Philosophy was flourished during this period. The following eminent philosophers contributed a lot in the field of philosophy and culture.

Al Kindi (d 873 CE)

Abu Yusuf Al Kindi known as “The Philosopher of Arabs” was the first Muslim thinker who systemised the study of philosophy among the Muslims. Al Kindi was more than a philosopher, he was an astrologer, alchemist, optician, music theorist and a professor in Baithul Hikma. Not less than 361 works are ascribed to him but most of them have been lost.

AlFarabi (d. 950 CE)

Mohammed Ibn Tarkan Abu Nasar Al Farabi was born in Trans Oxiana and lived in Bagdad. Al Farabi composed various psychological, political and metaphysical works of which the best known are the Risalath Fususul Hikam (epistle containing bezels of wisdom), Risala Fi Ara Ahl Al Madeena Wal Fadialah (epistle on the opinions of the people of the superiors city) and Al Siyasth Al Madaniya (political regime).

Al Ghazali

Abul Hamid Bin Mohamed Al Ghazali (1058-1111 CE), generally called Hujjath ul Islam, was the most richly endowed thinker of Islam. Within Islam he is considered to be a mujaddid or renewer of faith. Ghazali’s most famous book is Ihya ul Ulumuddin (revival of the science of religion). Ihya ul Ulumuddin is

compiled in Persian and translated into many languages including Arabic, English, Turkish, Urdu and Malayalam. His works were in Persian and Arabic. More than 400 books attributed to him and Ihya is the most celebrated one.

Mutazila

During eighth century Wasil Bin Ata (D. 748 CE) founded the rationalistic school of the Mutazila. They rejected fatalism. They affirmed that all knowledge is attained through reason and must necessarily be so obtained. They recognise the supremacy of human intellect and believed that man could attain knowledge of Allah through his own reason. They held that The Holy Quran is the created word of God. Khalifa Al Mamun was an ardent advocate of Mutazila doctrine. He proclaimed Mutazila doctrine as the official religion of the state in 827 CE. This was continued by his successor. Imam Ahmed Bin Hambal was brutally persecuted by the officials of Mamun on his rejection of Muthazila beliefs. Mamun founded Mihna – the inquisition court which was to persecute the criticsers of Mutazila.

Al Ashari

Abu Hasan Ali Al Ashari (D. 935 CE) affirmed the supremacy of fate. He established the Muslim scholastic school of kalam. The school advocated the middle way between the rationalists and the traditionalists. They held the Quran as divine speech, uncreated and eternal. But the presentation in Arabic script for human understanding is a created work. This school held that devine quality such as wisdom, power and mercy were like the world of Allah eternal and uncreated. The Nisamiya school propogated Ashraiya philosophy.

Astronomy

Astronomy, geometry, philosophy, music, medicine and other studies were included in the curriculum of advanced studies. The Abbasid khalif Mamun set up an academy know as Baithul Hikma started as a translation centre. Later it served as an institution for higher studies and scholars from different parts of the world gathered here.

Mathematics

About hundred works on Mathematics, astronomy, philosophy and medicine are ascribed to Ibn Hytham. The chief work of al-Haytham on optics was Kitab-al-Manazir which was influential in the development of optics in the middle ages. In his work Ibn-al-Haytham opposes the theory of Euclid and Ptolemy. Another important work composed in Egypt in the days of al-Hakim is al-Muntakhab fi-Ilaj-al-Ayn. (Selected material on the treatment of the eye) by Ammar-ibn-Ali- al-Mawsili. The royal library of Fatimids was instituted by AlAziz. This royal library attained privileged position in the cultural history of the dynasty. At the time of Al-Muntasir, the library was enriched with two lakh books and 2400 Quranic copies.

Medicine

In Islam, the study of medicine began with the Prophet. Islam enjoyed cleanliness and hygiene such as there is much in holly Quran and Sunna which forms the basis of faith. The Prophet held that to visit the sick is an act of piety. Medical care was thus promoted by the Muslims as a matter of religious obligation. The science of medicine and surgery, the best index of peoples' genius and the severe test to the intellectual spirit of faith were attained higher degree by Abbasids. Medicine had undoubtedly reached a high degree of excellence among the Greeks, but the Arabs perfected it and brought it close to modern standard. The Abbasids set up pharmacy and were the founders of institutions such as mental hospital, institution for the blind and institution for special diseases. Al Musaiwiyah was the first writer who produced an original work on medicine in Abbasid Era. His work Firdousul Hikmath deals with various branches of medicine. Yahanabbi Musawiyeh wrote the first treatise in Arabic on eye deceases

Ibn Sina (D. 1037 CE)

Abul Ali Al Hussain Bin Al Sina (Ibn Sina) known to the west as Avicenna was the most distinguished physician of Abbasid period. He was known as "the prince of physicians." Ibn Sina believed in the value of fresh air and curative nature of sunlight. He warned against the danger of drinking water from polluted sources. With Avicenna Islamic medicine reached its peak. "The Canon of medicine" is his masterpiece.

His works are:

Qanun fi Thibb (The Canon of Medicine)

Kithabu Shifa un Nafs (The Book of Healing)

Danish Nama – i – Ali (The Book of Knowledge)

Andar Danish – i – Rag (On the Science of Pulse)

Nozahat Al Majlis (Persian Poetry)

Al biruni

Al Biruni produced some important works on mathametics. He made a special study of the problems of numerical series and the determination of radius of the earth. He stayed in India for twenty years studied Sanskrit and produced his work on History 'Kitab ul Hind'. He was charmed by Hindu Philosophy.

Al Tabari

Abu Jahfar Mohammed ibn Jarir Al Tabari (832 – 923 CE) who was born in Tabaristan, wrote *Tarikh Al Rasool wal Mulk* (Annals of the apostles and kings). His another work is *Thafsirul Quran* (commentary on Quran). Tabari arranged the events chronologically, tabulating them under the successive years of Hijra. His monumental work on universal history, the first complete work in the Arabic language, served as a source for later historians such as Miskawayah, Ibnu Al Athir And Abu Fida.

Al-Masudi

Abu al-Hasan Ali ibn al-Husayn ibn Ali al-Mas'udi (born c. 896 CE, Baghdad, died September 956 CE, Cairo, Egypt), was an Arab historian and geographer. He is sometimes referred to as the Herodotus of the Arabs. Al-Masudi was one of the first to combine history and scientific geography in a large-scale work, *Muruj adh-dhahab wa ma'adin aljawhr* translated *The Meadows of Gold and Mines of Gems*), a world history. Another work *Isat-Tanbih wa-l-Ishraf* ("Notification and Review"). Al Masudi mentions his association with many scholars in the lands through which he travelled. His journeys took him to most of the Persian provinces, Armenia, Azerbaijan and other regions of the Caspian Sea; as well as to Arabia, Syria and Egypt. He also travelled to the Indus Valley, and other parts of India, especially the western coast; and he voyaged more than once to East Africa. He also sailed on the Indian Ocean, the Red Sea, the Mediterranean and the Caspian Sea.