

Great Muslims Scientists in the Most Glorious Human Centuries and in so called Dark Ages of the West!

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With coming of the final Prophet Muhammad peace be upon him (PBUH) (570-622) big bang occurred in all fields of Sciences and Social Sciences. This was the time when entire West was submerged in total darkness and hence this period is known as "Dark ages" in history. But this was the time period in the Muslim land which can be labeled as Most Glittering Centuries in the history of mankind. As the Prophet PBUH left this world the seeds he sowed germinated into small plants which soon grew into tall trees and dense forest of human development.

Why it happened suddenly in a desert land way away from main centers of civilization? Every sensible person will recognize that this was the direct result of Quran and the walking Quran i.e. Prophet Muhammad PBUH. It's unfortunate that the most Western media and sources have displayed extreme bias and completely hid the enormous and most fundamental contribution of Muslims scientists and philosophers. International Journal of Pathology (IJP) therefore regularly illuminates great contributions of these founders of modern sciences. In every issue, we try to highlight the contribution of founder of sciences and the role of great patrons of sciences who provided the most suitable land and the most congenial environment. These founders of sciences were most generous patrons of sciences. Their combined work had led to the renaissance in and industrial revolution in Europe; without these contributions, the world would still be in the dark ages.

Instead of highlighting contribution of a single scientist in this issue of IJP we chose to present a partial list of these great founders of the sciences for the interest of our readers. Here is a partial list of these great scientists taken directly from Wikipedia, the free encyclopedia. We have highlighted a few of them in our previous issue and will Insha Allah in future like to introduce the others to our esteemed readers. Most of this material is taken from Wikipedia for which we are very grateful.

Astronomers:

Great Muslim Astronomers!

1. Sind ibn Ali(?-864)
2. Ali Qushji (1403-1474)
3. Ahmad Khani (1650-1707)
4. Ibrahim al-Fazari(?-777)
5. Muhammad al-Fazari(?-796 or 806)
6. Al-Khwarizmi, Mathematician (c. 780-c. 850)
7. Abu Ma'shar al-Balkhi (Albumasar) (787-886 CE)
8. Al-Farghani (800/805-870)
9. Banū Mūsā (Ben Mousa) (9th century)
10. Dīnawarī (815-896)
11. Al-Majriti (d. 1008 or 1007 CE)
12. Al-Battani (c. 858-929) (Albatenius)
13. Al-Farabi (c. 872-c. 950) (Abunaser)
14. Abd Al-Rahman Al Sufi (903-986)
15. Abu Sa'id Gorgani (9th century)
16. Kushyar ibn Labban (971-1029)
17. Abū Ja'far al-Khāzin (900-971)
18. Al-Mahani (8th century)
19. Al-Marwazi (9th century)
20. Al-Nayrizi (865-922)
21. Al-Saghani (d. 990)
22. Al-Farghani (9th century)
23. Abu Nasr Mansur (970-1036)
24. Abū Sahl al-Qūhī (10th century) (Kuhi)
25. Abu-Mahmud al-Khujandi (940-1000)
26. Abū al-Wafā' al-Būzjāni (940-998)
27. Ibn Yunus (950-1009)
28. Ibn al-Haytham (965-1040) (Alhacen)
29. Bīrūnī (973-1048)
30. Avicenna (980-1037) (Ibn Sīnā)
31. Abū Ishāq Ibrāhīm al-Zarqālī (1029-1087) (Arzachel)
32. Omar Khayyām (1048-1131)
33. Al-Khazini (fl. 1115-1130)
34. Ibn Bajjah (1095-1138) (Avempace)
35. Ibn Tufail (1105-1185) (Abubacer)
36. Nur Ed-Din Al Betrugi (12th century-1204) (Alpetragius)
37. Averroes (1126-1198)

38. Al-Jazari (1136-1206)
39. Sharaf al-Dīn al-Tūsī (died 1213/4)
40. Anvari (1126-1189)
41. Mo'ayyeduddinUrdu (died 1566)
42. Nasir al-Din Tusi (1201-1274)
43. Qutb al-Din al-Shirazi (1236-1311)
44. Shams al-Dīn al-Samarqandī (1250-1310)
45. Ibn al-Shatir (1304-1375)
46. Shams al-Dīn Abū Abd Allāh al-Khalīlī (1320-80)
47. Jamshīd al-Kāshī (1380-1429)
48. UlughBeg (1394-1449)
49. Taqī al-Din Muhammad ibn Ma'ruf (1526-1585)
50. Ahmad Nahavandi (8th and 9th centuries)
51. HalyAbenragel (10th and 11th century)
52. AbolfadlHarawi (10th century)
53. Mu'ayyad al-Din al-'Urdu (1200-1266)

Biologists, Neuroscientists and Psychologists:

(Further information: Islamic psychological thought)

1. IbnSirin (654-728), author of work on dreams and dream interpretation^[1]
2. Al-Kindi (Alkindus), pioneer of psychotherapy and music therapy^[2]
3. Ali ibn SahlRabban al-Tabari, pioneer of psychiatry, clinical psychiatry and clinical psychology^[3]
4. Ahmed ibn Sahl al-Balkhi, pioneer of mental health,^[4]medical psychology, cognitive psychology, cognitive therapy, psychophysiology and psychosomatic medicine^[5]
5. Al-Farabi (Alpharabius), pioneer of social psychology and consciousnessstudies^[6]
6. Ali ibnAbbas al-Majusi (HalyAbbas), pioneer of neuroanatomy, neurobiology and neurophysiology^[6]
7. Abu al-Qasim al-Zahrawi (Abulcasis), pioneer of neurosurgery^[7]
8. Ibn al-Haytham (Alhazen), founder of experimental psychology, psychophysics, phenomenology and visual perception^[8]
9. Al-Biruni, pioneer of reaction time^[9]
10. Avicenna (Ibn Sīnā), pioneer of neuropsychiatry,^[10]thought experiment, self-awareness and self-consciousness^[11]
11. Ibn Zuhr (Avenzoar), pioneer of neurology and neuropharmacology^[7]
12. Syed Ziaur Rahman, pioneer of Environmental Pharmacovigilance
13. Averroes, pioneer of Parkinson's disease^[7]

14. Ibn Tufail, pioneer of tabula rasa and nature versus nurture^[12]

Chemists and Alchemists:

(Further information: Alchemy (Islam))

1. Khalid ibn Yazid (died 704) (Calid)
2. Jafar al-Sadiq (702-765)
3. Jābir ibn Hayyān (721-815) (Geber), father of chemistry^{[16][17][18]}
4. Abbas Ibn Firmas (810-887) (Armen Firman)
5. Al-Kindi (801-873) (Alkindus)
6. Al-Majriti (fl. 1007-1008)
7. Ibn Miskawayh (932-1030)
8. Abū Rayhān al-Bīrūnī (973-1048)
9. Avicenna (980-1037)
10. Al-Khazini (fl. 1115-1130)
11. Nasir al-Din Tusi (1201-1274)
12. Ibn Khaldun (1332-1406)
13. Salimuzzaman Siddiqui (1897-1994)
14. Al-Khwārizmī (780-850), algebra, mathematics

Economists and Social Scientists:

(Further information: Islamic economics in the world.)

See also: List of Muslim historians and Historiography of early Islam)

1. Abu Hanifa an-Nu'man (699-767), Islamic jurisprudence scholar
2. Abu Yusuf (731-798), Islamic jurisprudence scholar
3. Al-Saghani (d. 990), one of the earliest historians of science^[20]
4. Shams al-Mo'aliAbolhasanGhaboosibnWushmgir (Qabus) (d. 1012), economist
5. Abū Rayhān al-Bīrūnī (973-1048), considered the "first anthropologist"^[21] and father of Indology^[22]
6. Ibn Sīnā (Avicenna) (980-1037), economist
7. Ibn Miskawayh (b. 1030), economist
8. Al-Ghazali (Algazel) (1058-1111), economist
9. Al-Mawardi (1075-1158), economist
10. Nasir al-Dīn al-Tūsī (Tusi) (1201-1274), economist
11. Ibn al-Nafis (1213-1288), sociologist
12. Ibn Taymiyyah (1263-1328), economist
13. Ibn Khaldun (1332-1406), forerunner of social sciences^[23] such as demography,^[24]cultural history,^[25]historiography,^[26]philosophy of history,^[27]sociology^{[24][27]} and economics^{[28][29]}
14. Al-Maqrizi (1364-1442), economist

Geographers and Earth Scientists:

(Further information: Muslim Agricultural Revolution)

1. Al-Masudi, the "Herodotus of the Arabs", and pioneer of historical geography^[32]
2. Al-Kindi, pioneer of environmental science^[33]
3. Ibn Al-Jazzar
4. Al-Tamimi
5. Al-Masihi
6. Ali ibn Ridwan
7. Muhammad al-Idrisi, also a cartographer
8. Ahmad ibn Fadlan
9. Abū Rayhān al-Bīrūnī, father of geodesy,^{[21][24]} considered the first geologist and "first anthropologist"^[21]
10. Avicenna
11. Abd al-Latif al-Baghdadi
12. Averroes
13. Ibn al-Nafis
14. Ibn Jubayr
15. Ibn Battuta
16. Ibn Khaldun
17. Piri Reis
18. EvliyaÇelebi

Mathematicians:

(Further information: Islamic mathematics: Biographies)

1. Ali Qushji
2. Al-Hajjāj ibn Yūsufibn Matar
3. Khalid ibn Yazid (Calid)
4. Muhammad ibn Mūsā al-Khwārizmī (Algorismi), father of algebra^[34] and algorithms^[35]
5. 'Abd al-Hamīd ibn Turk
6. Abū al-Hasan ibn Alī al-Qalasādī (1412–1482), pioneer of symbolic algebra^[36]
7. Abū KāmilShujā ibn Aslam
8. Al-Abbās ibn Said al-Jawharī
9. Al-Kindi (Alkindus)
10. BanūMūsā (Ben Mousa)
 - a. Ja'far Muhammad ibn Mūsā ibn Shākir
 - b. Al-Hasan ibn Mūsā ibn Shākir
11. Al-Khwarizmi
12. Al-Mahani
13. Ahmed ibn Yusuf
14. Al-Majriti
15. Al-Battani (Albatenius)
16. Al-Farabi (Abunaser)
17. Al-Nayrizi
18. Abū Ja'far al-Khāzin

19. Brethren of Purity
20. Abu'l-Hasan al-Uqlidisi
21. Al-Saghani
22. Abū Sahl al-Qūhī
23. Abu-Mahmud al-Khujandi
24. Abū al-Wafā' al-Būzjānī
25. Ibn Sahl
26. Al-Sijzi
27. Ibn Yunus
28. Abu Nasr Mansur
29. Kushyar ibn Labban
30. Al-Karaji
31. Ibn al-Haytham (Alhacen/ Alhazen)
32. Abū Rayhān al-Bīrūnī
33. Ibn Tahir al-Baghdadi
34. Al-Nasawi
35. Al-Jayyani
36. Abū Ishāq Ibrāhīm al-Zarqālī (Arzachel)
37. Al-Mu'taman ibn Hud
38. Omar Khayyām
39. Al-Khazini
40. Ibn Bajjah (Avempace)
41. Al-Ghazali (Algazel)
42. Al-Marrakushi
43. Al-Samawal
44. Ibn Rushd (Averroes)
45. Ibn Seena (Avicenna)
46. Hunayn ibn Ishaq
47. Ibn al-Banna'
48. Ibn al-Shatir
49. Ja'far ibn Muhammad Abu Ma'shar al-Balkhi (Albumasar)
50. Jamshīd al-Kāshī
51. Kamāl al-Dīn al-Fārisī
52. Muḥyi al-Dīn al-Maghribī
53. Mo'ayyduddinUrdu
54. Muhammad BaqirYazdi
55. Nasir al-Din al-Tusi - 13th century Persian mathematician and philosopher
56. QāḍiZāda al-Rūmī
57. Qutb al-Din al-Shirazi
58. Shams al-Dīn al-Samarqandī
59. Sharaf al-Dīn al-Tūsī
60. Taqī al-Din Muhammad ibn Ma'ruf
61. UlughBeg
62. Al-Samawal al-Maghribi (1130–1180)

Philosophers :

(For a detailed list of Muslim philosophers, refer to the [List of Muslim philosophers](#), for an exhaustive list of widely-known philosophers with Muslim

faith or Islamic background, including modern day philosophers from Muslim community)

1. Al-Kindi
2. Averroes
3. Muhammad ibn Zakariya al-Razi
4. Al-Farabi
5. Avicenna⁸
6. Ibn Arabi
7. Rumi
8. Jami
9. Ibn Khaldun
10. Mir Damad
11. Nasir al-Din al-Tusi
12. Muhammad Iqbal
13. Quassim Cassam
14. Allama Muhammad Iqbal

Physicians and Surgeons:

1. Al-Kindi (Alkindus) (801-873), pioneer of pharmacology^[1]
2. Abbas Ibn Firnas (Armen Firman) (810-887)
3. Ali ibn Sahl Rabban al-Tabari, pioneer of medical encyclopedia^[2]
4. Ahmed ibn Sahl al-Balkhi
5. Ishaq bin Ali al-Rahwi (854-931), pioneer of peer review and medical peer review^[3]
6. Abul Hasan al-Tabari - physician
7. Ali ibn Sahl Rabban al-Tabari - physician
8. Ibn Al-Jazzar
9. Rhazes (Al Razi), also a chemist
10. Ali ibn Abbas al-Majusi (d. 994), pioneer of obstetrics and perinatology^[4]
11. Abu al-Qasim al-Zahrawi (Abulcasis) - father of modern surgery, and pioneer of neurosurgery, craniotomy, hematology and dental surgery
12. Ibn al-Haytham (Alhacen), pioneer of eye surgery, visual system^[8] and visual perception^[9]
13. Abū Rayhān al-Bīrūnī
14. Ibn Sina (Avicenna) (980-1037) - father of modern medicine,^[10] founder of Unani medicine,^[6] pioneer of experimental medicine, evidence-based medicine, pharmaceutical sciences, clinical pharmacology,^[11] aromatherapy,^[12] pulsology and sphygmology,^[13] and also a philosopher
15. Al-Tamimi, the physician (d. 990)
16. Ibn Miskawayh
17. Ibn Zuhr (Avenzoar) - father of experimental surgery,^[14] and pioneer of experimental

anatomy, experimental physiology, human dissection, autopsy^[15] and tracheotomy^[16]

18. Ibn Bajjah (Avempace)
19. Ibn Tufail (Abubacer)
20. Averroes
21. Ibn al-Baitar
22. Mehmet Oz Famous American-Turkish heart surgeon, the founder and chairman of HealthCorps
23. Mohammad Samir Hossain, a theorist^[17] author and one of the few Muslim scientists^[18] in the field of Death anxiety (psychology) research.^{[17][19]}
24. Nasir al-Din Tusi
25. Ibn al-Nafis (1213-1288), father of circulatory physiology, pioneer of circulatory anatomy,^[20] and founder of Nafisian anatomy, physiology,^[21] pulsology and sphygmology^[22]
26. Kamāl al-Dīn al-Fārīsī
27. Ibn al-Khatib (1313-1374)
28. Mansur ibn Ilyas

Physicists and Engineers:

(Further information: Islamic physics)

1. Mimar Sinan (1489-1588), also known as KocaMi'mâr Sinân-Âğâ
2. Jafar al-Sadiq, 8th century
3. BanūMūsā (Ben Mousa), 9th century
4. Ja'far Muhammad ibn Mūsā ibn Shākir
5. Ahmad ibn Mūsā ibn Shākir
6. Al-Hasan ibn Mūsā ibn Shākir
7. Abbas Ibn Firnas (Armen Firman), 9th century
8. Al-Saghani (d. 990)
9. Abū Sahl al-Qūhī (Kuhi), 10th century
10. Ibn Sahl, 10th century
11. Ibn Yunus, 10th century
12. Al-Karaji, 10th century
13. Ibn al-Haytham (Alhacen), 11th century Iraqi scientist, father of optics,^[37] and experimental physics,^[38] considered the "first scientist"^[39]
14. Abū Rayhān al-Bīrūnī, 11th century, pioneer of experimental mechanics^[40]
15. Ibn Sīnā/Seenā (Avicenna), 11th century
16. Al-Khazini, 12th century
17. Ibn Bajjah (Avempace), 12th century
18. Hibat Allah Abu'l-Barakat al-Baghdaadi (Nathanel), 12th century
19. Ibn Rushd/Rooshd (Averroes), 12th century Andalusian mathematician, philosopher and medical expert
20. Al-Jazari, 13th century civil engineer,
21. Nasir al-Din Tusi, 13th century

22. Qutb al-Din al-Shirazi, 13th century
23. Kamāl al-Dīn al-Fārisī, 13th century
24. Ibn al-Shatir, 14th century
25. Taqī al-Din Muhammad ibn Ma'ruf, 16th century
26. Hezarfen Ahmet Celebi, 17th century
27. Lagari Hasan Çelebi, 17th century
28. Sake Dean Mahomet, 18th century

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