This E-Book is dedicated to those Muslims whose multi-disciplinary contributions sparked the light of learning and productivity and without whom the European Renaissance would not have begun and come to maturity. Their contributions are rarely mentioned in formal education, and if at all mentioned their names are Latinized or changed with the effect of obscuring their identity and origin, and their association with the Islamic Civilization.

BIOGRAPHY

This is a partial list of some of the leading Muslims. Major Muslim contributions continued beyond the fifteenth century. Contributions of more than one hundred other major Muslim personalities can be found in several famous publications by Western historians.

<table>
<thead>
<tr>
<th>Name</th>
<th>Contributions</th>
<th>Died/Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jabir Ibn Haiyan (Geber)</td>
<td>Chemistry (Father of Chemistry)</td>
<td>803 C.E.</td>
</tr>
<tr>
<td>Al-Asmai</td>
<td>Zoology, Botany, Animal Husbandry.</td>
<td>740 - 828</td>
</tr>
<tr>
<td>Al-Khwarizmi (Algorizm)</td>
<td>Mathematics, Astronomy, Geography. (Algorithm, Algebra, calculus)</td>
<td>770 - 840</td>
</tr>
<tr>
<td>'Amr ibn Bahr Al-Jahiz</td>
<td>Zoology, Arabic Grammar, Rhetoric, Lexicography</td>
<td>776 - 868</td>
</tr>
<tr>
<td>Ibn Ishaq Al-Kindi (Alkindus)</td>
<td>Philosophy, Physics, Optics, Medicine, Mathematics, Metallurgy.</td>
<td>800 - 873</td>
</tr>
<tr>
<td>Thabit Ibn Qurrah (Thebit)</td>
<td>Astronomy, Mechanics, Geometry, Anatomy.</td>
<td>836 - 901</td>
</tr>
<tr>
<td>Ali Ibn Rabban Al-Tabari</td>
<td>Medicine, Mathematics, Caligraphy, Literature.</td>
<td>838 - 870</td>
</tr>
<tr>
<td>Al-Battani (Albategnius)</td>
<td>Astronomy, mathematics, Trigonometry.</td>
<td>858 - 929</td>
</tr>
<tr>
<td>Name</td>
<td>Fields</td>
<td>Period</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>---------------</td>
</tr>
<tr>
<td>Al-Razi (Rhazes)</td>
<td>Medicine, Ophthalmology, Smallpox, Chemistry, Astronomy.</td>
<td>864 - 930</td>
</tr>
<tr>
<td>Al-Farabi (Al-Pharabius)</td>
<td>Sociology, Logic, Philosophy, Political Science, Music.</td>
<td>870 - 950</td>
</tr>
<tr>
<td>Al-Sufi (Azophi)</td>
<td>Astronomy</td>
<td>903 - 986</td>
</tr>
<tr>
<td>Abu Al-Qasim Al-Zahravi (Albucasis)</td>
<td>Surgery, Medicine. (Father of Modern Surgery)</td>
<td>936 - 1013</td>
</tr>
<tr>
<td>Ibn Al-Haitham (Alhazen)</td>
<td>Physics, Optics, Mathematics.</td>
<td>965 - 1040</td>
</tr>
<tr>
<td>Al-Mawardi (Alboacen)</td>
<td>Political Science, Sociology, Jurisprudence, Ethics.</td>
<td>972 - 1058</td>
</tr>
<tr>
<td>Abu Raihan Al-Biruni</td>
<td>Astronomy, Mathematics. (Determined Earth's Circumference)</td>
<td>973-1048</td>
</tr>
<tr>
<td>Ibn Sina (Avicenna)</td>
<td>Medicine, Philosophy, Mathematics, Astronomy.</td>
<td>981 - 1037</td>
</tr>
<tr>
<td>Al-Zarqali (Arzachel)</td>
<td>Astronomy (Invented Astrolabe).</td>
<td>1028 - 1087</td>
</tr>
<tr>
<td>Omar Al-Khayyam</td>
<td>Mathematics, Poetry.</td>
<td>1044 - 1123</td>
</tr>
</tbody>
</table>

Fall of Muslim Toledo (1085), Corsica and Malta (1090), Provence (1050), Sicily (1091) and Jerusalem (1099). Several Crusades. First wave of devastation of Muslim resources, lives, properties, institutions, and infrastructure over a period of one hundred years. Refer to Muslim History. Translators of Scientific Knowledge in the Middle Ages

<table>
<thead>
<tr>
<th>Name</th>
<th>Fields</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abu Bakr Muhammad Ibn Yahya (Ibn Bajjah)</td>
<td>Philosophy, Medicine, Mathematics, Astronomy, Poetry, Music.</td>
<td>1106 - 1138</td>
</tr>
<tr>
<td>Ibn Zuhr (Avenzoar)</td>
<td>Surgery, Medicine.</td>
<td>1091 - 1161</td>
</tr>
<tr>
<td>Al-Idrisi (Dreses)</td>
<td>Geography (World Map, First Globe).</td>
<td>1099 - 1166</td>
</tr>
<tr>
<td>Ibn Rushd (Averroes)</td>
<td>Philosophy, Law, Medicine, Astronomy, Theology.</td>
<td>1128 - 1198</td>
</tr>
<tr>
<td>Al-Bitruji (Alpetragius)</td>
<td>Astronomy</td>
<td>Died 1204</td>
</tr>
</tbody>
</table>

Second wave of devastation of Muslim resources, lives, properties, institutions, and infrastructure over a period of one hundred and twelve years. Crusader invasions (1217-1291) and Mongol invasions (1219-1329). Crusaders active throughout the Mediterranean from Jerusalem and west to Muslim Spain. Fall of Muslim Cordoba (1236), Valencia (1238) and Seville (1248). Mongols devastation from the eastern most Muslim frontier, Central and Western Asia, India, Persia to Arab heartland. Fall of Baghdad (1258) and the end of Abbasid Caliphate. Two million Muslims massacred in Baghdad. Major scientific institutions, laboratories, and infrastructure destroyed in leading Muslim centers of civilization. Refer to "A Chronology of Muslim History Parts III, IV."

<table>
<thead>
<tr>
<th>Name</th>
<th>Fields</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nasir Al-Din Al-Tusi</td>
<td>Astronomy, Non-Euclidean Geometry.</td>
<td>1201 - 1274</td>
</tr>
<tr>
<td>Ibn Al-Nafis Damishqui</td>
<td>Anatomy</td>
<td>1213 - 1288</td>
</tr>
<tr>
<td>Muhammad Ibn Abdullah (Ibn Battuta)</td>
<td>World Traveler. 75,000 mile voyage from Morocco to China and back.</td>
<td>1304 - 1369</td>
</tr>
<tr>
<td>Ibn Khaldun</td>
<td>Sociology, Philosophy of History, Political Science.</td>
<td>1332 - 1395</td>
</tr>
</tbody>
</table>
Third wave of devastation of Muslim resources, lives, properties, institutions, and infrastructure. End of Muslim rule in Spain (1492). More than one million volumes of Muslim works on science, arts, philosophy and culture were burnt in the public square of Vivarrambla in Granada. Colonization began in Africa, Asia, and the Americas. Refer to "A Chronology of Muslim History Parts IV, V (e.g., 1455, 1494, 1500, 1510, 1524, and 1538)"

Two hundred years before a comparable development elsewhere, Turkish scientist Hazarfen Ahmet Celebi took off from Galata tower and flew over the Bosphorus. Fifty years later Logari Hasan Celebi, another member of the Celebi family, sent the first manned rocket into upper atmosphere, using 150 okka (about 300 pounds) of gunpowder as the firing fuel.

Tipu, Sultan of Mysore [1783-1799] in the south of India, was the innovator of the world's first war rocket. Two of his rockets, captured by the British at Srirangapatana, are displayed in the Woolwich Museum Artillery in London. The rocket motor casing was made of steel with multiple nozzles. The rocket, 50mm in diameter and 250mm long, had a range performance of 900 meters to 1.5 km.

The dates in the table are converted from the Islamic calendar (A.H.) which begins with Hejira, the migration of Prophet Muhammad (s) from Makkah to Medinah. The calendar is based on lunar monthly cycles. 1 A.H. = 622 C.E.

SCIENCE AND TECHNOLOGY

Quotations from Famous Historians of Science
Translators of Scientific Knowledge in the Middle Ages
Latinized and English Names of Arabic Origin
Cities of Muslim Scientists, 700 TO 1500 C.E.
Qur'an and Scientific Knowledge
Full Names of Muslim Scientists
Translations of Muslim Scientific Books into Latin and European Languages
O mankind! We created you from a single (pair) of a male and a female and made you into nations and tribes that ye may know each other (not that ye may despise each other). Verily the most honored of you in the sight of Allah is (he who is) the most righteous of you. And Allah has full knowledge and is well acquainted (with all things). Qur'an 49:13

GLIMPSES OF ISLAMIC CIVILIZATION

Quotations on Islamic Civilization
Quotations on Moorish (Islamic) Civilization
Quotations on Muslims in India
Coins of the Anglo-Saxon King Offa Rex
Muslim History, Sample pages from the Book
Muslims in the Indian Subcontinent, Sample pages from the Book
Russification of Central Asia
Muslims in China and South-East Asia
Muslims in the Former U.S.S.R.
Muslims in Europe (Sicily, Balkans, Yugoslavia, Albania, Kazan)
A Chronology of Andalusia (Spain, Portugal)
Muslims in Africa
Muslim Coins
Taj Mahal
ANDALUSIA (Spain and Portugal)

Quotations on Moorish (Islamic) Civilization
Gothic Princess Sara
The Falcon of Andalus
A Chronology of Andalusia (Spain, Portugal)
The Treaty of Granada, 1492 C.E.
Islam and Columbus’ America
Names of Arabic Origin in Spain, Portugal and the Americas
Andalusia (Spain)
Cordoba  Toledo
az-Zahra and Other Andalusian Palaces
The Mudejares and Moriscos
The Next Fifteen Years
Sixteenth Century Spain

THE AMERICAS

The Melungeons
Sequoyah and Cherokee Syllabary
Alexander Russel Webb
Muslims in the Americas Before Columbus
Names of Arabic Origin in Spain, Portugal and the Americas
**TAJ MAHAL**

Built by a Muslim, Emperor Shah Jahan at Agra, India. Completed in 1648 C.E. An "Elegy in Marble" or a "Dream" in the memory of his wife Mumtaz Mahal

**THE QUR'AN**

Allah: Allah is the proper name in Arabic for The One and Only God, The Creator and Sustainer of the universe. It is used by the Arab Christians and Jews for the God (Elo-h-im in Hebrew; 'Allaha' in Aramaic, the mother tongue of Jesus, pbuh). The word Allah does not have a plural or gender. Allah does not have any associate or partner, and He does not beget nor was He begotten. The abbreviation 'SWT' usually follows when Allah is mentioned, and it means 'Glory Be To Him.'
Muhammad is no more than an Apostle: many were the Apostles that passed away before him. If he died or were slain, will you then turn back on your heels? If any did turn back on his heels, not the least harm will he do to Allah; but Allah (on the other hand) will swiftly reward those who (serve Him) with gratitude. Qur'an 3:144

Allah forgiveth not (the sin of) joining other gods (partners) with Him: but He forgiveth whom He pleaseth other sins than this: one who joins other gods (partners) with Allah hath strayed far far away (from the right path). Qur'an 4:116

O you who believe! Stand out firmly for justice, as witnesses to God, even though it be against yourselves or your parents and kinsfolk, whether one is rich or poor, for God takes precedence over either of them. Follow not, then, the lusts, lest you swerve; and if you distort or turn away, verily God is aware of all that you do! Qur'an 4:135

All that they do is noted in (their) Books (of Deeds): Every matter small and great is on record. Qur'an 54:52-53

Or do they think that We hear not their secrets and their private counsels? Indeed (We do) and Our Messengers are by them to record. Qur'an 43:80

Fourteen Precepts of Wisdom from the Holy Qur'an
Food for Thought: Ayat (Verses) from the Holy Qur'an
Liberate, Emancipate and Marry Slaves
Prophets in the Holy Qur'an
Jesus, The Son of Mary (pbut)
Mary and Jesus (peace be upon them)
Qur'an and Scientific Knowledge
O Mankind!
O People of the Book!
The Book

PROPHET MUHAMMAD (s)
“... All mankind is from Adam and Eve, an Arab has no superiority over a non-Arab nor a non-Arab has any superiority over an Arab; also a white has no superiority over black nor a black has any superiority over white except by piety and good action. Learn that every Muslim is a brother to every Muslim and that the Muslims constitute one brotherhood.... O People! No Prophet or Apostle will come after me and no new faith will be born. Reason well, therefore, O People! and understand words which I convey to you. I leave behind me two things, the Qur’an and my Sunnah (i.e., sayings, deeds, and approvals) and if you follow these you will never go astray...” Prophet Muhammad's Last Sermon

What Non-Muslims Say About Prophet Muhammad (pbuh)
Prophet Muhammad's Charter to the Monks of St. Catherine Monastery
Prophet Muhammad's Treaty with Christians of Najran
Biography of Prophet Muhammad (pbuh) (with Links to Comparative Religion)
The Last Prophet and Qur'an in Previously Revealed Scriptures
The Last Sermon of Prophet Muhammad (pbuh) (632 C.E.)
Major Events in the Life of Prophet Muhammad (pbuh)
Prophet Muhammad's Treaty With the Jews and Non-Muslims (622 C.E.)
Prophet Muhammad's Letters to Kings (628 C.E.)
Negus, King of Abyssinia (615 C.E.)
Chakrawati Farmas, King of Malabar, India

COMPANIONS OF PROPHET MUHAMMAD (s)

"I command you to ten precepts: Slay not a woman nor a child, nor an aged man, cut not down a tree that beareth fruit, and lay not waste a cultivated land, and destroy not a sheep, nor a camel save for food, and lop not a date tree nor burn it, and conceal not plunder and be not faint of heart."

Caliph Abu Bakr's instruction to Muslim army leaving for the Syrian front.

Abu Bakr (ra), The First Caliph (632 -634 C.E.)
Umar Ibn Al-Khattab (ra), The Second Caliph (634 - 644 C.E.)
OTHER TOPICS

History of Jerusalem since Antiquity
Dhul-Qarnain and Ya'juj wa Ma'juj
Sir Isaac Newton on the Bible
The History of the Gospel of Barnabas
An Historical Account of Jesus
Prophets in Prayer
Kedar and Ancient Arabs
Reflections from the Hajj
The Hajj - A Brief Synopsis
Siyam (Fasting) During Ramadan
The Prophet's Mosque
Allama Iqbal's 1930 Presidential Address
Allama Muhammad Iqbal
Maulana Muhammad Ali
Muhammad Marmaduke Picthall
Muhammad Alexander Russel Webb
Map of Arabia (ca. 625 CE)
The Muslim Empire (ca. 750 CE)
History in the Service of Imperialism
Science of Moon-sighting
Adhan (Call to Prayer)

About the Author/Editor

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