

MUSLIM MASTERMINDS

VOLUME 02

**In this volume we discover
the artwork and literature of
some of the Muslim world's
greatest thinkers and explorers:**

**Al-Farabi •
Banu Musa brothers •
Imam Al-Ghazzali •
Ibn Battuta •
Ibn Nafis •
Ahmed baba •
Fatimah Al-Fihri •
Koca Mimar Sinan •**

**Ibn Battuta:
Experiences from
West Africa to the Far East**



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Cover design by Abu Zakariyyah

Muslim Masterminds



**Verily in the creation of the heavens and the earth
and the alternation of the night and the day
are signs
for those of understanding.**

Those who remember Allah while standing or sitting or lying on their sides
and give thought to the creation of the heavens and the earth
[saying], *“Our Lord, You did not create this aimlessly; exalted are You;
then protect us from the punishment of the Fire”*.

**Aal-'Imraan (The Family of Imraan)
Ayaat 190 - 191**



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Patron of Education and founder of Qarawiyyin University

Koca Mi'mâr Sinân Âğâ

Great Ottoman architect. Designer of Istanbul's Suleymaniya Mosque

ABŪ NASR MUHAMMAD IBN MUHAMMAD FĀRĀBĪ

PHILOSOPHER, MATHEMATICIAN AND JURIST. 'THE SECOND MASTER'

Al-Farabi, known in the West as *Alpharabius*, was a renowned philosopher and jurist who wrote in the fields of political philosophy, metaphysics, ethics and logic. He was born in Turkestan, in 872 AD. He relocated to Baghdad, where he studied grammar, logic, philosophy, mathematics and science.

Al-Farabi had a great desire to understand the universe and humanity, seeking to reach a comprehensive intellectual picture of the world and of society. In al-Farabi's view, the goal of education is to lead the individual to perfection. The perfect human being *al-insan al-kamil* was one who obtained and combined moral virtue and intellectual knowledge—thus becoming a worthy role model for society.



This perfection he expects from education combined with knowledge and virtuous behaviour.

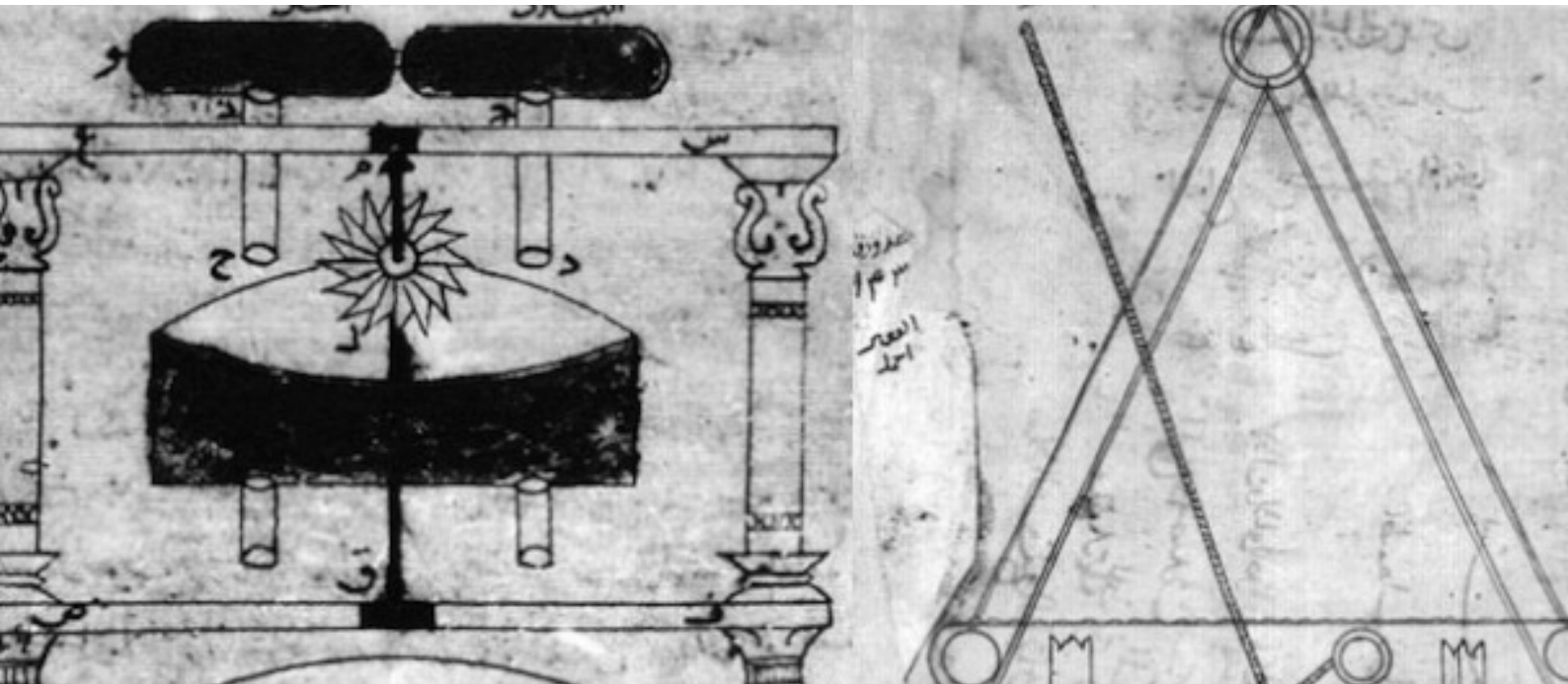
Al-Farabi is credited with preserving the original Greek texts during the Middle Ages because of his commentaries and treatises, for which he became well-known in the East as well as the West.

BANŪ MŪSĀ IBN SHĀKIR AL-MUNAJJIM

ENGINEERING, MECHANICIANS AND MATHEMATICS. AUTHORS OF 'KITĀB AL-HIYAL'

The three brothers Banū Mūsā are scholars from 9th-century Baghdad. Their names, in order of seniority were Muhammad, Ahmad, and al-Hasan. Muhammad was a specialist in geometry and astronomy, while Ahmad worked mainly on mechanics and al-Hasan excelled mainly in geometry.

Their book *Kitāb al-hiyal* (The Book of Ingenious Devices) is an outstanding contribution in the field of mechanical sciences. It is a large illustrated work on mechanical devices including automata. The book describes 100 devices and how to use them.



Some of these inventions include: the float valve, feedback controller, a programmable machine, and various fun gadgets.

Their most famous written work was *The Book of the Measurement of Plane and Spherical Figures*, this work became well known through its translation into Latin by Gherard of Cremona. The brothers also patronised and supported the translation of several Greek classical works.



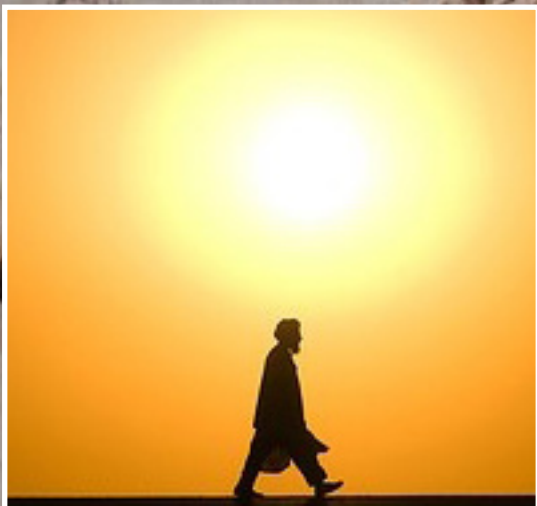
ABŪ HĀMID MUHAMMAD IBN MUHAMMAD AL-GHAZĀLĪ **POLYMATH, SPIRITUAL MASTER AND INTELLECTUAL ICON. AUTHOR OF THE 'IHYA ULUM UD-DIN'**

Abū Hāmid Muhammad ibn Muhammad al-Ghazālī known as *Algazel* in the West, was a theologian, jurist, polymath and mystic of Persian descent. He is one of the most oft celebrated scholars in the history of Islamic thought. His ideas had an profound influence on all medieval philosophers.

Perhaps the greatest and most notable Christian philosopher influenced by Al-Ghazali was St. Thomas Aquinas, who read and studied Imam Al-Ghazzali's works profoundly and at length. Thomas Aquinas would often profess his indebtedness to the ideas and thoughts of Imam Al-Ghazzali.

In his famous book entitled "*the incoherence of the Philosophers*" Imam Al-Ghazzali's thoughts and narrative successfully changed the course of world philosophy.

The early *Arab Neoplatonism* that developed on the grounds of Hellenistic philosophy, for example, was so successfully criticised by al-Ghazali that it never recovered. Among Muslims he came to be known as a great intellectual and spiritual reviver.



MUHAMMAD IBN ABDULLAH AL TANJI IBN BATTUTA

SCHOLAR AND TRAVELLER. AUTHOR OF THE 'RIHLA'

Famous for being one of the greatest travellers of all time, Abu Abdullah Muhammad Ibn Battuta was born in Tangier in 1304 but spent almost thirty years travelling distances in excess of 117,000 km across the vast expanse of the known world.



His magnificent journey begins when he embarks on the pilgrimage to Mecca and continues when the traveller explores several other countries including Oman, Yemen, Damascus, Iraq, Iran, Constantinople, the Horn of Africa, Mali, India, Sri Lanka, Bengal, Sumatra, the Maldives, Afghanistan and China to name but a few of his destinations.

Ibn Battuta met several rulers and reputable leaders during his journeys, this includes the Sultan of Delhi, numerous Turkish Sultans, Mongol princes and even the Byzantine emperor. Upon his returned to Morocco – Ibn Battuta began narrating his experiences and encounters to a scribe upon the executive orders of Sultan Abu Inan, these accounts were published under the title of *Al-Rihla*.

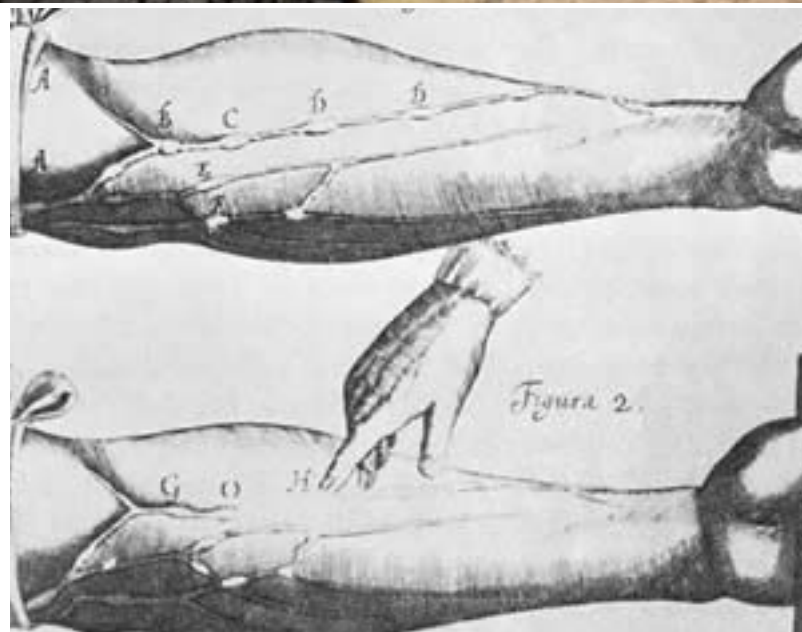
ALA-AL-DIN ABU AL-HASSAN ALI AL-QARSHI (IBN NAFIS) PHYSICIAN AND PIONEER IN THE FIELD OF PULMONARY CIRCULATION

Ala al-Din Abu al-A'la Ali ibn Abi Hazm al-Quraishi better known as Ibn Al-Nafis – was the 13th century physician that explained the basic principles of Pulmonary circulation. He wrote the *Sharh Tashrih al-Qanun* which explains how blood circulates in the body, he also becomes the first person to challenge Galen's false theory that blood could pass through the cardiac interventricular septum.



The work of Al-Nafis pre-dates the findings of Sir William Harvey's published in 1628. Yet despite having discovered these facts almost 350 years before Sir William Harvey, Ibn Nafis is not always fully credited for his immense contribution in this field.

This fact was acknowledged in 1957 by Professor Dr. J B Latham of the University of Manchester at the tercentenary of the death of William Harvey as reported by the *Sunday Times* on 9th June 1957.



AHMAD BABA AL-MASSUFI AL-TIMBUKTI

SCHOLAR, PROFESSOR, PHILOSOPHER, ARABIC GRAMMARIAN AND POLYMATH

Abu al-Abbas Ahmad ibn Ahmad al-Takruri Al-Massufi al-Timbukti, otherwise commonly known as Ahmad Baba, was a well-known scholar, professor, philosopher, Arabic grammarian, Polymath and the author of over forty books on various subjects. His work ranged from biographies to commentaries - he was also the last Chancellor of Timbuktu's famous University of Sankore.

Ahmed Baba spent much of his time reading as he did writing and his personal library consisted of over 1,600 different volumes, he died in 1627 - but his legacy lives on and is honoured in Timbuktu by the *Ahmed Baba Institute* - a public library that stores over 18,000 manuscripts.



FATIMAH BINT MUHAMMAD AL-FIHRI AL-QURAISHI

PATRON OF EDUCATION AND FOUNDER OF QARAWIYYIN UNIVERSITY

Fatima bint Muhammad Al-Fihri Al-Quraysh was the founder and patron of the world's very first degree granting university in the history of mankind. The institution popularly known as the *University of Qarrawiyy* is in Fez Morocco - it still stands today and continues to promote learning and education.



It was over a thousand years ago - in the 9th century that the concept of institutionalised academic research and teaching was born. From the foundation of the very first brick, Fatima al-Fihri resolved to observe a ritual fast daily for as long as the building was under development.

A wealthy heiress and widow, Fatima Al-Fihri invested all of her inheritance towards financing what eventually became the Qarawiyyin Mosque and University – the world's first degree-granting institute of higher learning – predating Oxford and Cambridge by some 300 years.

Both Leo Africanus and Mohammed al-Idrisi were reported to have attended the *University of Qarawiyyin*.

KOCA MI'MÂR SINÂN ÂĞÂ

GREAT OTTOMAN ARCHITECT. DESIGNER OF ISTANBUL'S SULEYMANIYA MOSQUE

Generally considered the greatest of all Ottoman architects, Mimar Sinân's career began with his appointment to the post of chief royal architect by the great Ottoman Sultan Suleyman I, in 1539.

Sinân has long been compared to some of the European Renaissance's greatest creative minds often being referred to as the *Michelangelo of the Ottomans*. Istanbul's famous Suleymaniya Mosque and the Selimye Mosque in Edirne are examples of his genius, on par with buildings in Florence and Venice at the peak of Europe's Renaissance period. Sinan designed and developed over 350 buildings, including places of worship, institutions of learning, bridges, hospitals, palaces, bath-houses and mausoleums.



His contributions in the field of Islamic architecture raised Ottoman standards to its zenith. Sinan's architectural genius permitted him to design buildings that are characterized by elegance and clarity of interior space.



BIBLIOGRAPHY AND FURTHER READING

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1001 Inventions www.1001inventions.com

Oxford Islamic Studies Online www.oxfordislamicstudies.com

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