

Islam and science

Islam promotes learning, research, and comprehension of the natural world. The Quran contains various verses encouraging believers to think, investigate, and seek information to strengthen their faith and understanding of God’s creation. The first verse revealed to Prophet Muhammad, peace be upon him (pbuh), reads: “1. Read, (O Prophet), in the Name of your Lord Who created — 2. created humans from a clinging clot.” 3. Read! And your Lord is the Most Generous, 4. Who taught through the pen — 5. taught humanity what they did not know.” [Quran 96: 1–5]. This incentive inspired early Muslims to make revolutionary contributions to many scientific fields, establishing the groundwork for many disciplines we know today. From optics, medicine, physics, astronomy, and mathematics to chemistry, Muslim scientists have shaped our understanding of the world. One of the most important characters in this tradition is Ibn al-Haytham, a pioneer in optics and the scientific method. His work, and that of many other Muslim academics, has left an indelible mark on science and scientific thinking and fueled creativity and advancement.

Numerous verses in the Quran encourage believers to ponder the world around them. For example, the Quran says, “Do they not look at the sky above them—how We have built and adorned it, and there are no flaws in it?” [Quran 50:6]. Another verse asks, “And He has subjected to you night and

day, the sun and moon, and the stars are subject to His command.” Indeed, there are signs for those who think” [Quran 16:12]. These passages convey the Quran’s call for Muslims to study and investigate the natural world, utilizing reason and intelligence to discover truth. Prophet Muhammad emphasized the importance of knowledge, stating, “Seeking knowledge is an obligation upon every Muslim.” This directive inspired generations of Muslims to pursue various fields of study, leading to remarkable advancements. Scholars from different backgrounds and ethnicities, came together to contribute to the collective body of knowledge.

The Eighth through the Fourteenth centuries are usually considered the “Golden Age of Islamic Science.” During this time, the Islamic world became a hub for learning, wisdom, and scientific advancement. The “House of Wisdom” was established during this time in Baghdad, where experts from many backgrounds and faiths, including Muslim, Christian, and Jewish worked together to translate, preserve, and advance old knowledge from Greek, Persian, Indian, and other sources.

Islamic teachings on knowledge and the openness of Muslim rulers, who actively encouraged scholars and appreciated education, combined to create this era of intellectual development. Research and study were funded by caliphs and affluent patrons, who gave intellectuals the freedom to carry out their work. Consequently, Mus-



Guest Column

HATIM HEGAB

lim scholars made significant contributions to scientific advancement that still impact our lives today.

One of the most notable Muslim scientists of the Golden Age was Ibn al-Haytham (965-1040), known as the “father of optics and scientific method.” Born in present-day Iraq, Ibn al-Haytham made groundbreaking contributions to our understanding of vision, optics, and light. His most famous work, The Book of Optics, revolutionized the field and laid the foundations for modern optics.

Ibn al-Haytham’s approach to science was systematic and empirical, which is why he is also regarded as one of the pioneers of the scientific method, hundreds of years before Francis Bacon. Rather than relying solely on philosophical reasoning, he insisted on observation, experimentation, and evidence to support his theories. Ibn al-Haytham was also the first to state Newton’s first law of motion, centuries before Newton. He theorized that two objects attract each other, among many other contributions. (source: Dr. Roy Casagrande & Dr. Craig Considine)

One of Ibn al-Haytham’s significant contributions to optics was his discovery that vision occurs when light enters the eye, contrary to the previously held belief (from the Greeks) that rays emanate from the eye to see objects. He demonstrated that light travels in straight lines and that reflection and refraction follow specific laws fundamental discoveries for the development of lenses, mirrors, and other optical instruments.

The contributions of Muslim scientists during the Golden Age of Islam are extensive. Here are examples of some renowned scholars and their achievements:

1. Al-Razi (Rhazes, 865-925): He was a Persian polymath who made significant advances in medicine and chemistry. Known for his work “The Comprehensive Book”, Al-Razi’s medical knowledge and practical approaches to patient care were highly influential in both the Islamic world and Europe. He was one of the first to distinguish between smallpox and measles, contributing to the understanding of infectious diseases.

2. Al-Khwarizmi (780-850): Often called the “father of algebra.”: He was a mathematician whose works were foundational in the development of algebra (algebra is an Arabic word which means “to complete”). His book “The Compendious Book on Calculation by Completion and Balancing” introduced systematic solutions to linear and quadratic equations. Al-Khwarizmi’s contributions went beyond algebra, as he also made advances in trigonometry, calculus, and algorithms (the word “algorithm” is derived from his name!).

3. Ibn Sina (Avicenna,

980-1037): He was a Persian philosopher, physician, and scientist whose medical texts were used, for centuries, as standard reference works in Europe. His “The Canon of Medicine” is one of the most famous books in medical history. In it, Ibn Sina detailed diagnoses, treatments, and the pharmacology of diseases, laying the foundation for modern medical practice.

4. Al-Biruni (Al-Biruni, 973-1048) was a polymath who contributed to astronomy, physics, mathematics, and geography. He measured the Earth’s circumference with remarkable accuracy and proposed that the Earth rotated on its axis. His works on astronomy and mathematics were influential in the Islamic world and Europe.

5. Jabir ibn Hayyan (Geber, 721-815): Often referred to as the father of chemistry, Jabir ibn Hayyan made substantial advancements in alchemy and chemistry. His works on the transformation of substances and the development of chemical processes like distillation, crystallization, and sublimation laid the groundwork for modern chemistry. His emphasis on experimentation influenced the methods of chemists for centuries to come.

The scientific achievements of Muslim scholars were not accidental; they were deeply rooted in Islamic values and the encouragement to seek knowledge and understand the world. Islamic teachings emphasize that knowledge is not only a means to understand the physical world but also

a way to know God more deeply. The Quran says, “Indeed, in the creation of the heavens and the earth, and the alternation of the night and the day, there are signs for those of understanding” [Quran 3: 190]. For Muslims, science and faith are not separate but interconnected, as both pursuits lead to a greater appreciation of God’s wisdom and the marvels of His creation.

The spirit of inquiry in Islam also encouraged Muslims to learn from other civilizations, such as the Greeks, Indians, and Persians. Rather than isolating themselves, Muslim scholars translated and expanded upon the knowledge of these cultures. It is interesting to know that Muslims, who created one of the greatest empires in history were the minority in their empire and would accept anyone and give him the freedom to worship and believe. This inclusive and inquisitive approach allowed Islamic civilization to become a beacon of learning, globally attracting scholars to places like Baghdad, Cairo, and Cordoba.

The works of Muslim scholars were translated into Latin and studied by European scholars during the Renaissance, sparking intellectual growth and paving the way for modern science.

Why is it, then, rare that many of these names are never mentioned in science history remains a question that looks for an answer!

To contact the author: hatim.hegab@gmail.com
For more information: icstillwater.org/islam

Virgin Mary statue, a symbol of resilience, returns to Notre Dame Cathedral 5 years after fire

PARIS – A medieval statue of the Virgin Mary and Child, known as “The Virgin of Paris,” returned to Notre Dame cathedral Friday evening, five years after surviving the devastating 2019 fire that engulfed the landmark.

The nearly six-foot-tall stone

sculpture, a symbol of hope and faith for Catholics in Paris and beyond, was relocated after the blaze on April 15, 2019.

Miraculously intact, it earned the nickname “Stabat Mater” – the standing Virgin – as a sign of resilience amid the destruction.

The statue’s return began

with a torchlit procession from the forecourt of Saint-Germain-l’Auxerrois Church. Hundreds of faithful and residents accompanied the statue along the Seine river to the cathedral’s square, where Archbishop Laurent Ulrich of Paris led a blessing ceremony.

“Tonight, as we accompany the Virgin Mary to her cathedral, before she takes her place at the pillar where so many generations have come to pray, we know she is joining the house of Christ,” Ulrich said, bowing before the statue and blessing it with incense.

The statue, originally from the Saint-Aignan Chapel on the Île de la Cité, dates to the mid-14th century.

The ceremony is part of the lead-up to the cathedral’s grand reopening, scheduled for Dec. 8.

– AP

Worship at the church of your choice this week

Come, let us sing for joy to the LORD;
let us shout aloud to the Rock of our salvation.

Psalms 95:1

Stillwater Bible

Proclaiming Christ, Training Believers
JB Bond, Senior Pastor

Sundays	
Worship Service	8:30 a.m.
G.R.O.W. Groups	9:45 a.m.
Worship Service	11:00 a.m.
Kids' Church	11:20 a.m.
Tuesdays	
Cornerstone @ The Union (RM 297)	7:30 p.m.
Wednesdays	
Stillwater Bible Institute	6:30 p.m.
Impact Youth	6:30 p.m.
Bible Kids	6:30 p.m.

7617 W. 6th Ave.
Stillwaterbible.org (405) 564-5794

Crosspointe CHURCH

Sunday School - 9:30
Sunday AM Worship - 10:30
Sunday PM Family Service - 6:00
Wed PM Bible Study - 7:00

1807 N. Jardot
gocrosspointe.com

FIRST BAPTIST CHURCH

701 S. DUNCAN • 405-372-5212

SUNDAY
Bible Study • 9:30am
Worship Service • 11:00am

WEDNESDAY ACTIVITIES
Begin at 6:00pm

Watch our worship service on Facebook
www.fbcstillwater.org

FIRST UNITED METHODIST CHURCH

www.fumcstw.org
400 W. 7th • 372-5854

SUNDAY SCHEDULE

Worship.....8:30am & 11:10am
Sunday School.....10:00am
Closer Walk.....10 am Family Life Center

UNIVERSITY HEIGHTS BAPTIST CHURCH

4th & Knoblock • 372-2744

Sunday School
9 am

Worship Service
8 am & 10:30 am

GRACE BAPTIST CHURCH

Independent Baptist
Expository Preaching

CHURCH SERVICES

Sunday10:30am
Thursday7:30pm

723 E. 17th

FIRST PRESBYTERIAN CHURCH

524 S. Duncan • 405-372-5580
www.stillwaterfpc.org

Sunday Worship

9:45 a.m. - Sunday School
11:00 a.m. - in person, online
On KSPI radio AM 780 & FM 94.3
and the Stillwater FPC Facebook page

SUNNYBROOK CHRISTIAN CHURCH

421 E. Richmond Rd. | sunnybrookcc.org

SUNDAY SERVICES
8:15 AM | 9:45 AM | 11:15 AM

SUNDAY SCHOOL 9:45 AM - Student, College & Adult	KIDS CHURCH All Services
---	------------------------------------

WEDNESDAY NIGHT CHURCH
6:30 PM - Kids, Students & Adult Studies

Stillwater Church of Christ

stillwatercoc.org

Your place for
"Faith, Family and Friends"

SUNDAY
Meeting Times
Bible Study.....9:30 AM
Worship.....10:30 AM
Bible Study.....5:00 PM

WEDNESDAY
Bible study.....7:00 PM

821 N. DUCK • 372-7439

Southside Baptist Church of Stillwater

1223 S. Perkins Rd.
Perfectly • Purposely • Placed

SUNDAY SCHOOL 9:45 AM
SUNDAY WORSHIP 11 AM + 6 PM
WEDNESDAY YOUTH & ADULT BIBLE STUDY 6:30

Paul Hutchison - Pastor
Address – 1223 S. Perkins. Rd.
Phone: 405-372-2411
Email: southsidesillwater@gmail.com

The Islamic Society of Stillwater

616 N. Washington St.
Friday (Weekly) Prayers
1:40 PM - 2:10 PM
For Daily Prayer Times
www.icstillwater.org

St. Francis Xavier Catholic Church

711 N. Country Club Rd.

Sunday Mass 8:30 11:15 a.m. 1 p.m. (en español) Tue & Thu Mass 12:10 p.m. Wednesday Mass 12:10 p.m. 6 p.m. (en español)	Friday Mass 12:10 p.m. Saturday Mass 9 a.m. 5 p.m. (Vigil Mass) Confessions Tues-Fri 11:30-12 p.m. Wednesday 5 p.m. Saturday 9:45-11 a.m.
---	---

405-372-6886 www.sfxstillwater.org

Zion Lutheran Church - LCMS

Sunday - 8:00, 10:30 AM

www.zionlutheranstw.org

John E. Wackler, Pastor
504 S. Knoblock • 372-3703