



# ARAB SCIENCE: DISPELLING THE AMBIGUITY

*Posted on April 1, 2021 by Marion Duvauchel*



## Introduction

In 1883, Ernest Renan gave a lecture at the Sorbonne entitled, "[Islamism and Science](#)" (later published by [Calmann-Lévy](#)). It was the rationalist credo of a man of science who was familiar with history. Above all, it had the merit and interest of calling attention to an ambiguity, which had not escaped the Semitizer that he was, and which is contained in these words: "Arab science, Muslim civilization, Muslim science".

This ambiguity has never been dispelled, and it is urgent to do so. Ernest Renan can actually be used in doing so.

His observation is simple: From about the year 775 until about the middle of the thirteenth century, there can be no doubt that there were very distinguished scholars and thinkers in Muslim countries. From this assumption was constructed the idea of an "Arab science," of a "Muslim civilization" (today named as, "Islam, cradle of civilization"), even of a "Muslim science." The ambiguity, meanwhile, has far from disappeared.

## The Prominent Role Of Persia And Eastern Christians

What happened from the Hegira to the year 775, in other words, during the reign of the first four caliphs? Of course, "Omar did not burn the library of Alexandria," but the principle that he conquered the world is infinitely more destructive: it attacks scholarly research and the very work of the mind. There is nothing more foreign to what can be called the "philosophy of science" than the first century of Islam.

Under the first four caliphs, there were no intellectual movements of a secular character. Islam was, "in the moment of conquest," as the orientalist of the 19th century put it euphemistically, that is largely occupied with conquering, dominating, sowing desolation and ravaging the old lands of civilization.

But around the year 750, Persia gained the upper hand. It saw the dynasty of the children of Abbas come to triumph over the children of the Beni-Omeyyra. In other words, Persia chose the [Abbasids](#) against the [Umayyads](#). The center of Islam was transported to the Tigris-Euphrates region.

This is where the traces of one of the most brilliant civilizations that the East has known can be found: that of the [Sassanid](#) Persians, who defeated the [Arsacid](#) Parthians, and took up the torch from the Achaemenids, whose brilliant state had been destroyed by Alexander. This Sassanid civilization experienced its zenith under the reign of [Khosrow I Anushirvan](#). All tradition recognizes him as a great king. He did not just try to merely continue and resume a tradition of art and industry that had flourished for centuries; rather, he added to it an intellectual endeavor of great openness. Driven from Constantinople, the Eastern part of Greek philosophy took refuge in Persia.

Khosrow had books translated from India, which he commanded his personal physician, [Burzoe](#), to personally research. [The Fables of Bidpai](#) constitute one of the sources of our fabulist, [Jean de la Fontaine](#). But this book disappeared when the Muslim armies arrived on the Iranian plateau, when the river, according to tradition, ran black with the ink of books. It was only later that this book of wisdom was rediscovered and translated from Pahlavi (Middle Persian) into Arabic, as [Kalila wa Dimna](#), by Ibn al-Muqaffa, a Persian [zindiq](#) who had converted to Islam.

Above all, Christians of all persuasions formed the largest part of the population, for by then Persia was largely Christianized. They were well-versed in Greek science and philosophy, and medicine was entirely in their hands. Bishops were logicians, geometers. Khusrow founded the [Academy of Gundishapur](#), the first medical university, a kind of "Silicone Valley" of its day.

When the followers of Muhammad arrived on the Iranian plateau, they put a stop to all this development for a hundred years.

But a century later, the rise of the Abbasids was akin to a resurrection of the brilliance of Khusrow Anushirvan. The Abbasids were like resurrected Sassanids. Persian troops, Persian leaders were at the head of this revolution. The founders - Abul-Abbas and especially Mansur, surrounded themselves with Persians. The intimate advisers of the princes, the prime ministers, were the [Barmakids](#), a family from ancient Persia, who had converted to Islam late and without conviction. Christians soon surrounded these little believing caliphs - and with a sort of exclusive privilege, became their first doctors. The city of [Harran](#), which remained pagan, and which had kept all the scientific tradition of the Greeks (and no doubt Indian) antiquity, as well as Syriac, provided the new school with a considerable contingent of scholars - foreign to the new revealed religion - especially skilled astronomers.

Baghdad thus stood as the capital of this resurgent Persia. All the great surviving tradition of the

Gundishapur school was transported there.

## Greco-Sassanid Science

Certainly, the language of conquest cannot be supplanted, religion cannot be completely denied. But the spirit of this new civilization was essentially mixed: The Parsis, the Christians, won. The administration, (especially the police) was in Christian hands.

All of these brilliant caliphs were hardly Muslims, and if they externally practiced the religion of which they were leaders, their spirit was elsewhere. They sought out the learning of India, old Persia and Greece. From time to time, the pietists appeared, and the caliph of the moment sacrificed his unfaithful friends or free thinkers. Then the breath of independence took hold again and he called back his scholars and his companions of pleasure.

The fables of the [\*One Thousand and One Nights\*](#) have fixed the features of this civilization, a curious mixture of official rigor and concealed laxity, where the serious arts, like those of the joyful life, flourished, thanks to the protection of misguided rulers of a fanatic religion.

The Syrian Christian doctors, continuers of the last Greek schools, well versed in philosophy, mathematics, medicine and astronomy were then employed by the caliphs to translate into Arabic the encyclopedia of Aristotle, Euclid, Galen, Ptolemy - the entire body of Greek science, but also Syriac, and undoubtedly also Indian.

A few more active minds were beginning to speculate on the eternal mysteries, with [\*Al-Kindi\*](#) in the lead. They were called *filsuf*; today they say *falsafa*; and afterwards, this exotic word was taken up within Islam but with a negative connotation. But rationalism prospered there: a sort of philosophical society, "[\*Brethren of Purity\*](#)" began to publish a [\*philosophical encyclopedia\*](#); Al Fârâbî and Avicenna emerged; chemistry continued its underground work.

Muslim Spain took up these studies after the East; the Jews bring an active component of the collaboration there. Men like [\*Avempace\*](#), [\*Abubacer\*](#), [\*Averroes\*](#) elevated philosophical thought in the twelfth century to new heights.

This great ensemble which is called "Arabic" is called so only because what it wrote was in Arabic - and again, it also passed through a powerful Syriac corpus, largely destroyed, deliberately, in order to erase the traces of any existence of this Eastern Christianity. In fact, this "Arab science" was above all *Greco-Sassanid*. And a deep Christian leaven was its ferment.

## The Awakening Of Europe

Science should have reached the West through Byzantium. But on the one hand, the treasures that they did not read, the Byzantines did not deign to share, and on the other hand, between the Latin world and the Byzantine world, religious discussions had created a deep antipathy, reinforced by the [crusade of 1204](#). What Europe could not get from the libraries of Constantinople, where the originals were located, she sought out in the often-mediocre translations of a language which did not lend itself to rendering Greek thought, with all its abstraction and its subtleties.

It was through the Syriac and Arabic translations of books on Greek science and philosophy that Europe received the leaven of ancient tradition, necessary for the blossoming of its genius. For Greek science to reach Europe, it had to pass through Syria, Baghdad, Cordoba and Toledo. A poorly translated Greek science was sought out in Spain.

By the time Averroès died in Morocco, lonely and abandoned, Europe was on the rise. But it was predominantly Latin in its culture, and it had no Hellenists. We would have to wait another three hundred years for a [Lefèvre d'Étaples](#), or a [Budé](#).

From 1130 to 1150, an active college of translators, [established in Toledo](#) under the patronage of [Archbishop Raymond](#), translated the most important works of this "Greco-Sassanid science in the Arabic language" into Latin. From the beginning of the thirteenth century, the Arab Aristotle entered the University of Paris. He had earlier entered the *orbis litterarum* through [Boethius](#), but Boethius was not able to translate anything more than the [Organon](#).

From around 1275, two shifts appeared. The first saw the Muslim countries enter into a state of the steepest decline. The second saw Western Europe resolutely take the path of the scientific search for truth. By the time Averroes became famous in the Latin schools, he was entirely forgotten by his co-religionists.

After the year 1200, there was no longer a single renowned philosopher within Islam. From 1200, philosophy and science were abolished in Muslim countries: philosophical manuscripts were destroyed (they burned the books of Averroes). Astronomy alone was tolerated to determine the direction of prayer.

Then the Turks took hegemony of Islam and manifested a complete lack of philosophical and scientific spirit. Apart from a few rare exceptions, like [Ibn-Khaldun](#), Islam no longer had a broad mind. It killed off science and philosophy in its midst. It also killed a lot of men, women, children; and when it didn't kill them, it oppressed them.

Among all the philosophers and scholars, only one was Arab: Al-Kindi. All the others were Persians, Transoxians - people from Bokhara and Samarkand (in other words from Central Asia), and Spaniards - from Cordoba, Seville. They used Arabic because it was the language of the dominant who had imposed themselves. In the 14th and 15th centuries, historians or historiographers of Islam were compilers and translators of encyclopedists - they did not innovate. But this corpus would reach nascent orientalist science, through [Antoine Galland](#), then stationed in Constantinople. And, above all, thanks to the compilation work of [Barthelemy d'Herbelot](#), the author of the [Bibliothèque orientale](#).

Giving Arabia credit for science and philosophy is like giving credit for Latin Christian literature, the Scholastics, the Renaissance, the science of the sixteenth and seventeenth centuries to Rome, because it is written in Latin.

### **Arab Science Or Muslim Science?**

This science was not Arab. But was it Muslim? No, because this movement was the joint work of Persians, Christians, Jews, Harannians, (inhabitants of Harran), Ismailis and Muslims (who inwardly revolted against their own religion). This great movement received nothing but curses from Orthodox Muslims: [Mamun](#) was damned by theologians (the misfortunes which afflicted his reign were regarded as punishments for his tolerance of doctrines foreign to Islam). It was not uncommon for those who cultivated these studies to be called *sendiks* or [zendiks](#) - they were beaten in the streets, their houses burned down, and often the authorities put them to death.

Islam had always persecuted science and philosophy. Then it ended up suffocating both.

We must therefore distinguish three periods. The first, from the Hegira to the 7th century, is a period of conquest and crimes. But also barely concealed disbelief. The first Arabs, who joined the movement hardly believed in the Prophet's mission.

Second, from the 7th to the 12th century, Islam, undermined by sects and tempered by a species of Protestantism (mutazilism) was less organized and much less fanatic than it was in the second age yet to come, and the work of the mind succeeded in maintaining itself.

Third came the absolute reign of dogma, without any possible separation of the spiritual and the temporal.

In the first half of the Middle Ages (the second period), Islam supported philosophy because it could not prevent it, for it was without cohesion, and thus poorly equipped for terror. The policing was in Christian hands and was mainly engaged in pursuing Alid intrigues.

When Islam gained truly believing masses, it stifled everything. But at the same time, it destroyed the salt of the earth and the leaven which makes the dough rise. It turned conquered countries into regions that were closed to the rational cultivation of the mind. For Islam, research was pointless, frivolous, godless; the science of nature was an offense against God; historical science applying to times before Islam might revive old errors - and applying science to Islam might lay bare the extent of its devastation and its power of destruction and desolation.

Anyone who yet maintains a little lucidity today cannot fail to see the current inferiority of Muslim countries: the decadence of governed states, the intellectual poverty of those who derive their culture and education from this religion alone, and the boundless contempt for other religions, which then authorizes all persecutions, exactions and the worst crimes of our times. And then there is the treatment inflicted on women. Believing that God gives fortune and power to whomever he sees fit, Islam has the deepest contempt for education, for science, and for everything that makes up the European spirit.

## **Conclusion**

To all appearances, the Muslim world has entered a sort of fourth period. On the one hand, it has a

mass of believers who have never questioned their doctrine, and who more often than not know nothing about the Koran which is not translated into their language. On the other hand, it has an army of fanatics. An army, and not just a few intellectuals - determined to do battle with a Europe that for several centuries held the destiny of the world in its hands. But which no longer holds them.

Islam intends to establish the kingdom of Allah on earth, which involves converting all peoples, and bringing the whole world under its own Law, the law of submission and oppression.

Conversion to Islam removes all religious diversity in the world. But not only that - It eliminates ethnic diversity: the Berber, the Sudanese, the Circassian, the Afghan, the Malay, the Egyptian, the Nubian who have become Muslims are that no longer. They are Muslims. Persia alone was an exception. French, Spanish, Italian, Greek, Swabian, Croatian who have become Muslims will no longer be all those. They will only be Muslims.

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*(The original article in French was translated by N. Dass)*

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*The [featured image](#) shows an imaginary debate between Averroes and Porphyry, from Monfredo de Monte Imperiali's Liber de herbis, 14th century.*

