

# INTRODUCTION TO ART, SCIENCE AND TECHNOLOGIES IN THE ARAB COUNTRIES

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# HISTORICAL BACKGROUND

## *From the 7th century*

After the Islamic conquest in the 7th century, a great part of North Africa and the Occidental Asia welcomed the new religion and the new language of the Arabs<sup>i</sup>, although several ethnic groups like the Syriacs, the Assyrians<sup>ii</sup>, the Chaldeans<sup>iii</sup>, the Copts<sup>iv</sup>, the Berber<sup>v</sup>, etc, remained for a long period, where the religion and language of some of those groups remained till now. This conquest is an antiquated form of modern globalization, because the same laws were applied almost everywhere, and the official language was Arabic without erasing the mother tongue, which created an almost single form of culture in literature, fine arts, music, etc. This created the concept: "Arabic style".

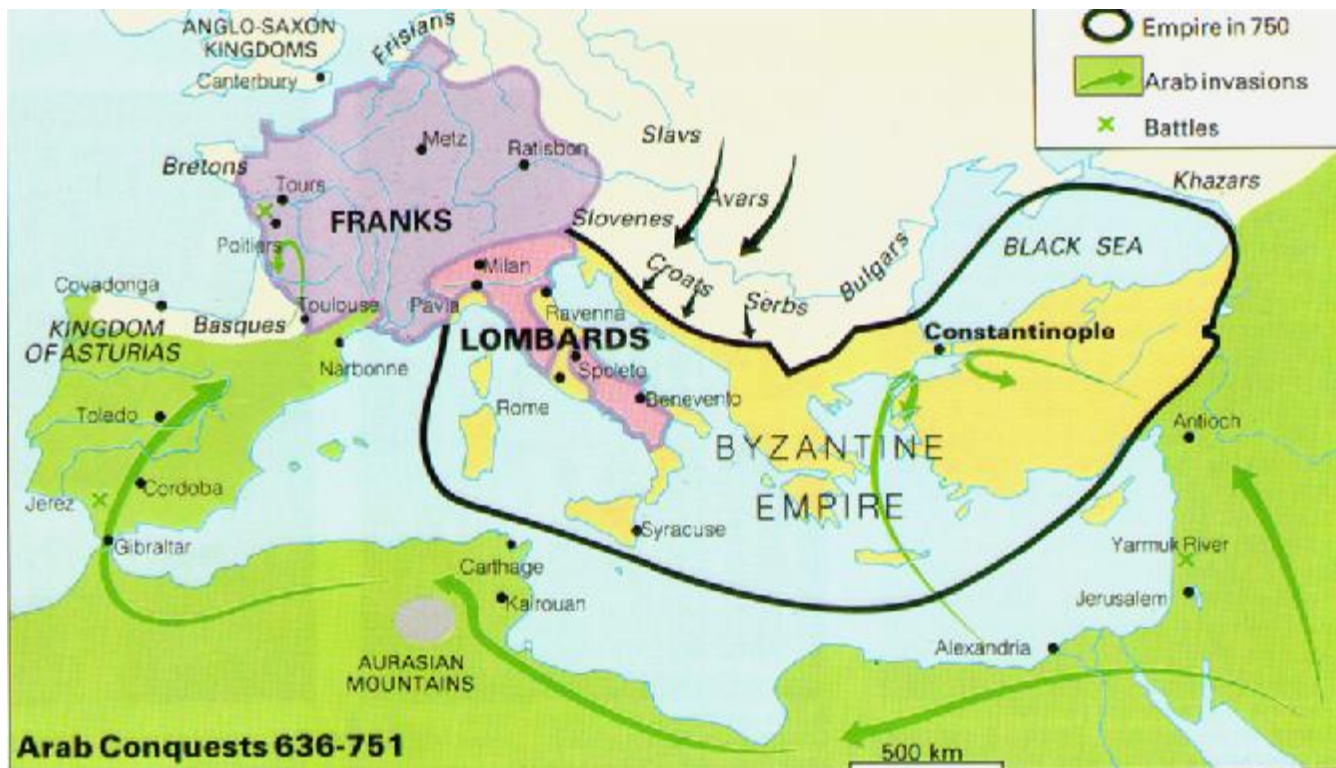


Figure 1: Map of the Islamic conquests in 636-751

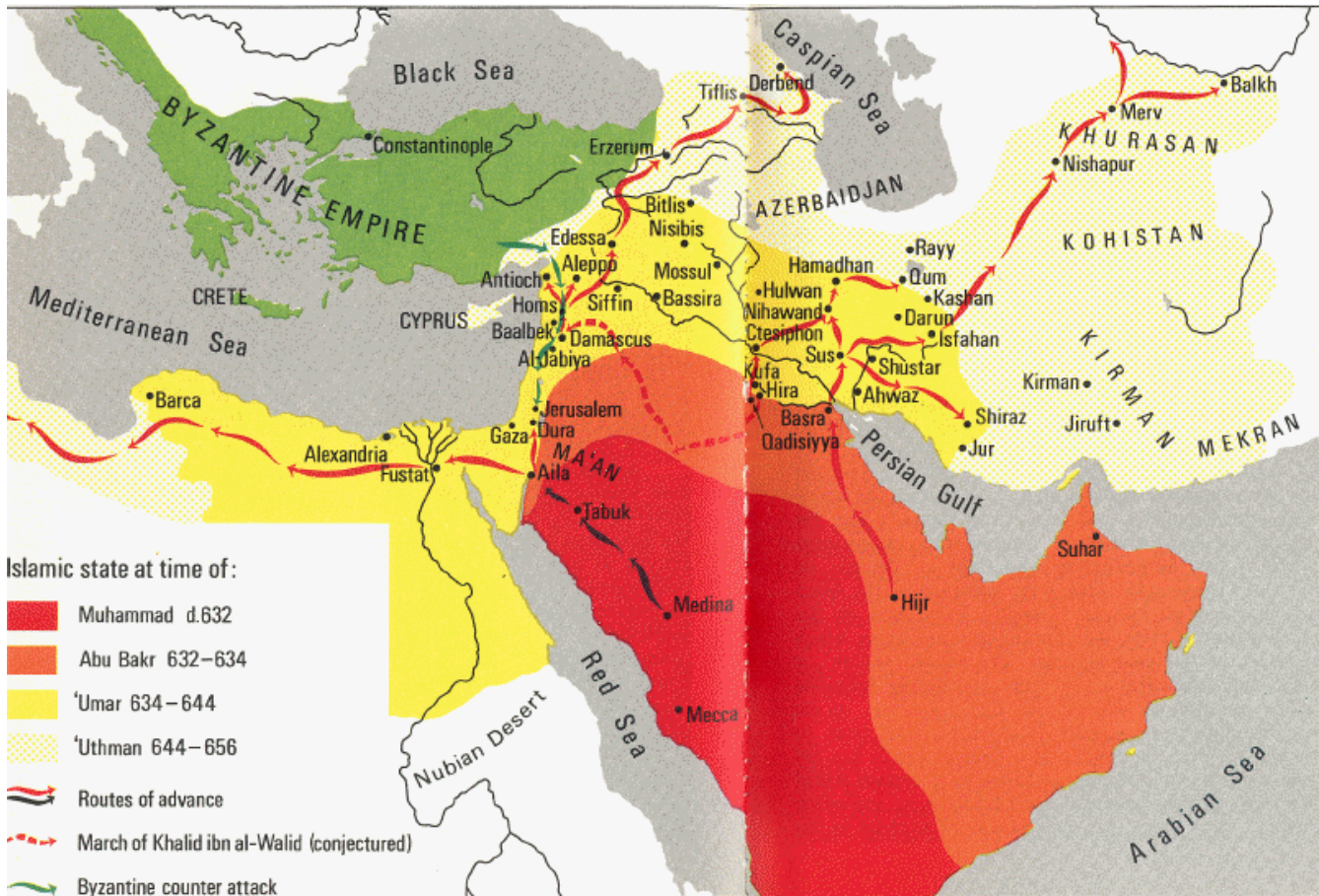


Figure 2: Map of the Islamic conquests in the East

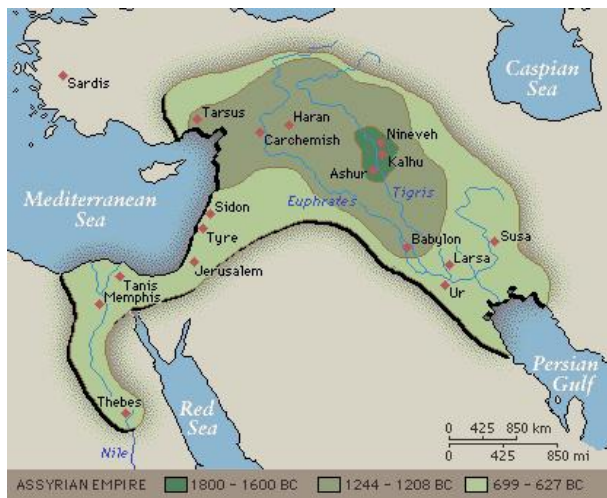


Figure 3: Assyrian map

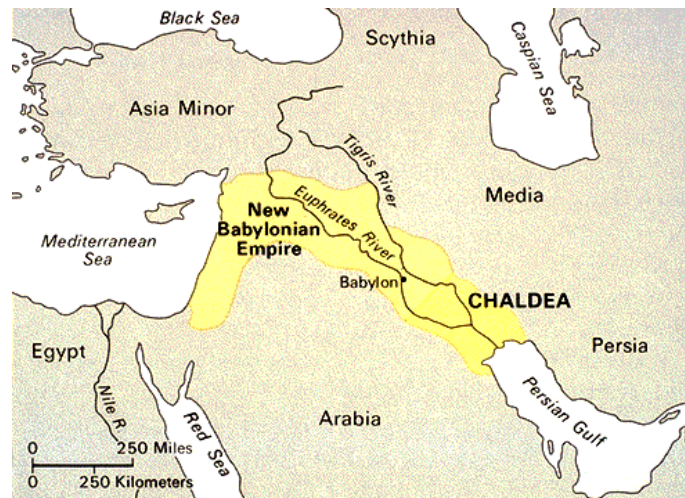


Figure 4: Chaldea map

This culture was not diffused by the Arab only, but also by the ethnic groups who were active in this Arab world, especially the Syriacs who translated the masterpieces into the Arabic language, especially philosophy, medicine and geography, like Ishaq ben Hunayn (9<sup>th</sup> century). This allowed these ethnic groups to graft their own culture with the Arab one. This makes us say that there is no pure

Arab culture, but a cultural interbreeding which could join the Persian culture, the Syriacs culture and the North African culture all together in a melting pot that took an Arabic form, and this is because of the used official language which came from the desert and which carried with it the schemata of the pure Arab culture.

In a second phase, even Europe had translated sciences, philosophy from Arabic into Latin language in Toledo and Cordoba in Spain, which made it possible to the Latin people of Europe to recover there own Greco-Roman thinking after an Arab filtering.

It is here where we can find some of the great names like:

- Averroes<sup>vi</sup> (Ibn Roushd) (1126 to 1198), whose writings and commentaries re-introduced the Aristotelian approach to studying nature by observation and reasoning to medieval Europe.



Figure 5: Averroes. © Wikipedia.

- Avicenna<sup>vii</sup>, (Ibn Sina) (980 to 1037), whose Kitab Al-Shifa ("The Book of Healing") introduced the principles of logic and their usage, and placed science and religion on equal terms as sources of knowledge and understanding of the universe. His "Al Qanun of Medicine" served as the standard medical text in Europe for seven centuries.



Library of Congress

**Figure 6: Avicenna. (Abu-Ali Al-Husein ibn Abdullah ibn Sina). © Library of Congress.**

- Al Razi's (Rhazes<sup>viii</sup>) and Al-Khwarizmi<sup>ix</sup>'s works in the 9th and 10th centuries laid the foundation for modern clinical medicine and mathematics.



**Figure 7: Rhazes -Treating a Patient (artist unknown). © Wikipedia.**



Figure 8: Stamp showing Al-Khwarizmi . © Wikipedia.

Al-Andalus<sup>x</sup> and Baghdad became then the center of the Arab cultures.

### ***After the 11<sup>th</sup> century***

After the 11<sup>th</sup> century, another cultural branch (sociology and history) made it possible for us to read the father of ancient sociology, Ibn-Khaldun<sup>xi</sup> (1332 to 1406), especially in the introduction "Muqaddamah" of his book of history, as well as the history in general with several historians such as Al Ya' qubi. Ibn-Khaldun was the last prominent Arab thinker of that era.



Figure 9: Ibn-Khaldun. © Wikipedia.

After this period, the Ottoman<sup>xii</sup> Empire dropped down the Arab world during 4 centuries in a cultural decline which had to galvanize the Arab reason. We had to

wait the new contacts with Europe so that the Arab world awakens again, it is the contact of Fakhr El Dine, a Lebanese Mir, with Spain through Tuscany in Italy, and the arrival of Napoleon to Egypt; both dreamed to create states based on the European ways of that time. In Lebanon, and like all the surrounding area, the history of culture was mainly the same, with the exception of some contacts as mentioned already, of Mir Fakhr El Dine with Italy and of the Maronite<sup>xiii</sup> Nation with Rome; this nation founded a college in Rome known under the name: Collegium Maronita (1583) which still receives Lebanese students who study there and return to Lebanon to teach in almost all cities and villages.

### ***After the 1<sup>st</sup> world war***

With the end of World War I, the territory which was occupied by the Ottoman Empire became occupied by the French and English. A new historical period took place, and there was the birth of political states in the modern sense of the word. These states currently constitute what we call the Arab world, which is spread out from Morocco to Iraq. Although it is named "Arab World", we always find a mosaic of cultures there, amongst other things: Chaldeans, Assyrian, Syriacs, Phoenicians<sup>xiv</sup>, Copts, Africans and Berbers. This proves that neither the language, nor the religion could create a single culture, even after hundreds of years.

## **ARAB COUNTRIES, TECHNOLOGY AND GLOBALISATION**

### ***Introduction***

In the time of globalization and in the age of information and communication, these Arab countries started entering the new world system, each one of them according to the possibilities permitted by its political system, in order to harmonize themselves and familiarize themselves with the global world. Thus, almost all the Arab countries are now equipped with the new technology.

The use of these western technologies creates a kind of proximity and closeness between the Arab countries in certain fields, especially with satellite television channels and with the Internet, but at the same time they sometimes create a distance between Arabs themselves from one side, and between Arabs and the West from another side.

This is due to many factors, like the different levels of censorship by the totalitarian governments and the absence of democracy in many Arabic countries, as well as the rejection by certain Arab groups who see in these technologies a continuing of the Christian-Western invasion, and are thus taking refuge in the glorification of the Islamic past period of power, when Islam was invader and not invaded.

## ***Art and New Media. Strategies for an eMulticulturalism.***

**United Nation World Summit on the Information Society. Contributory Conference on ICT & Creativity. Vienna, Austria. June 2-3 2005.**

**[www.wsa-conference.org](http://www.wsa-conference.org)**

**Workshop Session 6 : eCulture, Creative Content and DigiArts.**

**Speaker : Ricardo Mbarkho**

**Abstract:**

### **The culture and the individual**

**“All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.”**

**Human Rights Charter, Article 1.**

**We believe in the unity of human gender. But we also believe in the singularity of each and every person. The singularity is the base of difference, of multiculturalism and of “communautarisme”. The unity of human gender facilitates the agreements between people. It helps us to find a common denominator and to use a common language where everyone can access everyone. But the human mind, although it is individual, it is also universal. Consequently, the world is pulled between these two principles as if we all want to be one but at the same time we want to be unique.**

**The individual or the person, without the culture which distinguishes him from the others, does not exist: If you remove from the person his language, his religion, his color, his habits, his beliefs, his family, this means that we already erased this entire person. Therefore in spite of the globalization and the opening, each person is attached to a specific part in this world, although he is a member of the whole humanity.**

### **Information and communication Technologies**

**The Information and Communication Technologies modified the time and the space of the relations and the communication by expanding (with the virtual) our access to the real. Internet shows a real image of the physical space, as sites, territories, time, communities, etc. In this way we could define Internet as connected people instead of connected machines. Internet is a human invention, all that exists in it has got its own source in the different realities of people, and hence the emphasis on the human being and the mixture of his subjectivities form an e-world, where e-communities and e-cultures exist. The Self and the**

Other, with all the differences in the way they think, are the atoms, and the body cells of this virtual world, in other words, they are the units of the Information and Communication Society.

### **Diversity and pluralism**

In order to make an e-cultural “diversity and pluralism” emergence, the Information and Communication Technologies should harmonize between the universal and the particular, and not to sacrifice the cultures in favor of only one world and universal culture, which is not clear until now, but it is surely ignoring the private individual, the intimate and the home, on both scientific and emotional levels. This “désacralisation” of the singular, throws us in an amorphous world without a clear specificity. I do not preach the intellectual balkanization or isolationism, but I also do not preach the total loss of the intellectual and cultural identity. The cultural richness rises from a contact between the various cultures. As example, in Lebanon there are 18 different cultures but they are not contradictory, because they simply created the Lebanese culture.

### **Creative contents**

Creative contents in the e-world is a result of not only the exchange of information about our different cultures, but also the construction of a new e-culture which is different from where we started our exchange; an e-culture not “driven and imposed by outside forces and regulations”, but a result of the creative impact and contact between the cultures. In this sense, each content is far away from being totally affiliated to other cultures, as well as it does not aim to affiliate other cultures to it.

### **Bridging the gap**

Thus, the remedy to bridge the gap between the rich and the poor, between the connected people and the offliners, and to build a creative content for a new e-culture is a responsibility for everyone:

I invite the poor countries to welcome and accept the e-culture and not to refuse it by remaining in a historical cyst of happiness, afraid of any innovation; in other words, everyone should be proud of his culture because this is what bans fears from dialogues and exchanges.

As I invite the rich countries to work politically, juridically, and economically to establish a universal and global development that touches all the people and all the individual, materially and spiritually (by the instruction, the cultural development, etc.). This creates in everyone the curiosity for knowledge and research. Besides this, developed countries should not judge others according to what they are themselves, or to consider others’ cultures as inferior to theirs.

This is how dialogue can establish international standards and criteria to evaluate how and when e-culture could “strengthen cultural diversity and pluralism” and to decide what cultural differences should stay and what should go, because

without these standards, the societies will be closed in a time when we are more and more in need to be open and connected. Changes can be done starting from a dialogue that needs to cover the rights of everyone, with a will to find agreements without the received ideas that the parties have about others. Thus, governments would implement in their educational systems a culture of dialogue; and this will certainly affect the e-culture content for each and every society, without having one accusing the other of being a traitor or an evil.

To remain in the Lebanese example in building a creative e-culture, I would point out a second gap that exists between pure technology and art as a creative field. Common credits would solve this problem in order to give a possibility for art students and science students to share experience so that artists would create needs for technical advancements and development.

On the other hand, technology embodies within it new codes and new aesthetical territories to be concurred by aestheticians and artists, in order to develop a new language specific to this new medium. This purpose imposes somehow the necessity for team work. The industrial model of production could be a model to be followed to construct such teams in the creation field. This is what many research and creation labs are initiating. And universities, educationally speaking remain very appropriate contexts for such labs.

### **Artists' role**

So artists are invited, specifically, to elaborate local social and political issues that reflect and develop this or that environment. I believe not only in art history, but also in art geography; not only in e-culture history, but also in e-culture geography. So to see how art is reflecting society, we need to have an overview on specific icons that our generation shares today as part of their common geographical and historical context. The keyword I always point at is the link between new media and art is "socio-politic".

It is imperative to create writing procedures specific to the new media which, by the innovation and the richness of its possibilities, is today the object of reflections, researches and process of creation in the artistic field. This new media although it is the same in the whole world, it is used differently in this or that territory after being affected by the local socio-political context. Artists should observe how their environment is using the Information and Communication Technologies, and then use these local codes as raw materials to build new judgment criteria, new meanings and new questions... for example, a Missed Call in Lebanon communicates a totally different message than does a Missed Call in France.

Thank you

## CONCLUSION

Identity conflicts are found on the individual level and are spread into ethnicity groups, nations, peoples, and countries. In this atmosphere of conflicts, art is a domain that invites us to brainstorm and that offers new insights to this or that definition by asking questions or by offering solutions. When this art makes of these new technologies a support, its content and form would mutate. Thus, this technological support would have its own ideology that differs from this same support which is used in other art pieces in other cultural environment. This “culturalization” of these new technologies generates a new esthetic which is always related to the history and geography of each nation.

## ENDNOTES FROM ENCYCLOPEDIAS

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<sup>i</sup> **Arabs**, name originally applied to the Semitic peoples of the Arabian Peninsula. It now refers to those persons whose primary language is Arabic.

### **The Arab Empire**

It was the Muslims from Arabia, nomads and settled people alike, whose invasions in the 6th and 7th cent. widely diffused both the Arabic language and Islam. They founded a vast empire, which at its height stretched from the Atlantic Ocean on the west, across North Africa and the Middle East, to central Asia on the east. The Arabs became the rulers of many different peoples, and gradually a great Arab civilization was built up. Although many of its cultural leaders were not ethnically Arabs (some were not even Muslims, but Christians and Jews), the civilization reflected Arab values, tastes, and traditions. Education flourished in the Islamic lands, and literature, philosophy, medicine, mathematics, and science were particularly developed by the Arabs. At the same time in all the provinces of the huge empire, except in Persia, Arabic became the chief spoken language. The waves of Arab conquest across the East and into Europe widened the scope of their civilization and contributed greatly to world development. In Europe they were particularly important in Sicily, which they held from the 9th to the late 11th cent., and the civilization of the Moors in Spain was part of the great Arabic pattern. Christian scholars in those two lands gained much from Islamic knowledge, and scholasticism and the beginnings of modern Western science were derived in part from the Arabs. The Arabs also introduced Europe to the Greek philosophers, whose writings they had already translated into Arabic. The emergence of the Seljuk Turks in the 11th cent. and of the Ottoman Turks in the 13th cent. ended the specifically Arab dominance in Islam, though Muslim culture still remained on the old Arab foundations.

### **The Arabs in the Twentieth Century**

In the 20th cent., Arab leaders have attempted to form an Arab nation, which would unite the whole Arabic-speaking world from Morocco on the west, across the Middle East, to the borders of Iran and Turkey. Since 1945 most of the Arab nations have combined to form the Arab League, its purpose being to consider matters of common interest, such as policy regarding Israel and colonialism. With 22 member states in the Arab League by the mid-1990s, attempts to forge a unity among the Arabs have continued. Perhaps the most significant economic factor for the Arabs has been the discovery and development of the petroleum industry; two thirds of the world's oil reserves are thought to be in the Middle East. Since World War II a continual problem for the Arab states has been their relations with the Jewish state of Israel, created out of former Arab territory; hostility between them has resulted in four Arab-Israeli wars.

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ii **Assyrians** are a Christian Syriac-speaking minority inhabiting northern Iraq, northeastern Syria, southeastern Turkey and northwestern Iran, some of whom also identify themselves as Aramaeans, Syriacs and Chaldeans. They are the survivors of the formerly extensive Aramaic- or Syriac- speaking Christian community of Northern Mesopotamia, pre-dating the Islamic conquest of the region.

Modern Assyrians trace their heritage to an ancient Semitic race of the same name, which created the world's first empire in recorded history under Sargon I. At its peak, the empire encompassed what is now western Iran, all of Mesopotamia (Iraq) and Syria, Palestine, the Armenian highlands and which even threatened Egypt in the 8th and 7th centuries BC.

Assyrians traditionally belong to either the Assyrian Church of the East (Nestorian), the Chaldean Catholic Church, or the Syrian Orthodox Church. They read and write various dialects of Aramaic, a Semitic language which in the form of Syriac is used in their religious observances.

(From Wikipedia information about **Assyrian**)

iii **Chaldean Assyrians** (or **Chaldo-Assyrians**) are a Semitic people currently living in northern Iraq, southeastern Turkey, and northwestern Iran. Historically they were centered on the biblical city of Nineveh (present day Tel Kaif), located near Mosul, Iraq. They pre-date the Islamic conquest of the region, being descended from the original inhabitants of Mesopotamia known as Bet-Nahrain in Syriac. They speak a language known as Syriac, which is rooted in ancient Aramaic and uses the Syriac alphabet. Some 750,000 people speak this language in Iraq, with another 90,000 speakers living in the United States. Chaldean Assyrians are Christian, and are one of the first people to be converted to that religion by Thomas the apostle. All belonged to the Eastern Orthodox Church until 1552, when missionaries from Rome reunited their rite with Roman Catholicism. Those who remained with the Orthodox church refer to themselves as Nestorian Assyrians.

The total population of Chaldo-Assyrians is estimated at four million worldwide. There are today some 90,000 living in the United States: 50,000 Chaldean Catholics, and the remainder belonging to the Assyrian Church of the East. Major populations of Chaldo-Assyrians are found around Detroit and San Diego, while Nestorian Assyrians are concentrated around Chicago and Los Angeles.

The **Chaldeans** are Catholic Assyrians.

Their church is part of the Church of the East, and is also known as the Chaldean Church of Babylon or the Chaldean Catholic Church. Chaldeans make up 25% of the total worldwide Assyrian population. In Iraq there are an estimated 750,000 living mostly in the North (Shimal) of the country. They speak Neo-Assyrian which is also known as Syriac Aramaic.

The Babylonian and Hebrew name for the Chaldeans was "Kasdu" (singular) and "Kasdim" (plural). "Kaldu" was an Assyrian term for the people (from which the Western term "Chaldean" was derived) which meant either mathematician, astrologer, or mystic. Nebuchadnezzar was the King of the Chaldeans, who ruled Babylon and built the famous Hanging Gardens for his Median wife who was homesick. Marduk was his god, the counterpart of the Assyrian Ashur.

(From Wikipedia information about **Chaldeans**)

<sup>iv</sup> **Copts** (kōpts) , the native Christian minority of Egypt; estimates of the number of Copts in Egypt range from 5% to 17% of the population. Copts are not ethnically distinct from other Egyptians; they are a cultural remnant, i.e., the Christians who have not been converted to Islam in the 14 centuries since the Muslim invasion. The Coptic language, now extinct, was the form of the ancient Egyptian language spoken in early Christian times; by the 12th cent. It was superseded by Arabic.

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<sup>v</sup> The **Berbers** (also called **Imazighen**, "free men", singular **Amazigh**) are an ethnic group indigenous to Northwest Africa, speaking the Berber languages of the Afroasiatic family. There are between 14 and 25 million speakers of Berber languages in North Africa (see population estimation), principally concentrated in Morocco and Algeria but with smaller communities as far east as Egypt and as far south as Burkina Faso.

Their languages, the Berber languages, form a branch of the Afroasiatic linguistic family comprising many closely related varieties, including Kabyle, Tachelhit and Central Atlas Tamazight, with a total of roughly 14-25 million speakers.

(From Wikipedia information about **Berbers**)

<sup>vi</sup> **Averroës** (əvēr'ōēz) , Arabic *Ibn Rushd*, 1126–98, Spanish-Arab philosopher. He was far more important and influential in Jewish and Christian thought than in Islam. He was a lawyer and physician of Córdoba and lived for some time in Morocco in favor with the caliphs. He was banished for a period, probably for suspected heresy. Averroës's greatest work was his commentaries on Aristotle. The Averroistic interpretation of Aristotle remained influential long after his death and was a matter of intellectual speculation well into the Renaissance. He attempted to delimit the separate domains of faith and reason, pointing out that the two need not be reconciled because they did not conflict. He declared philosophy the highest form of inquiry. He had the same Neoplatonic cast to his metaphysics as Avempace, to whom he was certainly indebted for his ideas on the intellect. Averroist doctrines on personal immortality and the eternity of matter were condemned by the Roman Catholic Church. St. Thomas Aquinas was respectful of Averroës, but he attacked the Averroist contention that philosophic truth is derived from reason and not from faith. See **scholasticism**. Averroës's works in English translation include *Incoherence of the Incoherence*, ed. by Simon Van Den Bergh (1955); *On Aristotle's De Generatione et Corruptione*, ed. by Samuel Kurland (1958); *Commentary on Plato's Republic*, ed. by E. I. J. Rosenthal (1956, repr. 1966); and *On the Harmony of Religion and Philosophy*, ed. by G. F. Hourani (1961).

(From Encyclopedia information about **Averroes**.  
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<sup>vii</sup> **Avicenna** (āvīshēn'ə) , Arabic *Ibn Sina*, 980–1037, Islamic philosopher and physician, of Persian origin, b. near Bukhara. He was the most renowned philosopher of medieval Islam and the most influential name in medicine from 1100 to 1500. His medical masterpiece was the *Canon of Medicine*. His other masterpiece, the *Book of Healing*, is a philosophical treatise dealing with the soul. Avicenna's interpretation of Aristotle followed to some extent that of the Neoplatonists. He saw God as emanating the universe from himself in a series of triads formed of mind, soul, and body. This process terminated in the Aristotelian "active intellect," which governs directly all earthly regions and transmits to all things their appropriate forms. Man's soul is also derived from it and is immortal. Avicenna was not an absolute pantheist as he believed matter to exist independently of God. He fixed the classification of sciences used in the medieval schools of Europe.

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viii **Rhazes** (rā'zēz) or **Rasis** (rā'sīs, -zīs), 860–932, Persian physician. He was chief physician at the Baghdad hospital. An observant clinician, he formulated the first known description of smallpox as distinguished from measles in a work known as *Liber de pestilentia* (tr. *A Treatise on Smallpox and Measles*, 1848). His works were widely circulated in Arabic, and Greek versions and were published in Latin in the 15th cent. They include a textbook of medicine called *Almansor* and an encyclopedia of medicine compiled posthumously from his papers and known as *Liber continens*.

(From Encyclopedia information about **al-Razi**.  
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ix **Abu Abdullah Muhammad bin Musa al-Khwarizmi** (الخوارزمي موسى بن محمد الله عبد أبو خوارزمي in Persian, also spelled **Muhammad ibn-Musa al-Khwarizmi**, **Muhammad ibn-Musa al-Khowarizmi**, **Mohammad Bin Musa Al-Khawarizmi**, and **Abu Ja'Far Muhammad ibn-Musa Al-Khowarizmi**, was a Persian scientist, mathematician, astronomer/astrologer, and author. He was probably born in 780, or around 800; and probably died in 845, or around 840.

He is often cited as "the father of algebra", which was named after a part of the title of his book, *Hisab al-jabr w'al-muqabala*, along with the algorism number system.

### ntroduction

Khwarizmi was born in the town of Khwarizm (now Khiva), in Khorasan province of Persia (now in Uzbekistan). The name al-Khwarizmi means *the person from Khwarizm*. His family moved soon afterward, to a place near Baghdad, where he accomplished most of his work in the period between 813 and 833. There are various guesses at his native languages, including Persian or more probably Khwarezmian (an extinct Iranian language). Like all scientists in the House of Wisdom, Al-Khwarizmi wrote his works in Arabic. The historian Al-Tabari however applies the epithet Al-Majusi ("the magus") when describing him, which gives credit to claims that he was a Zoroastrian.

Mathematical historian Gandz gives this opinion of al-Khwarizmi's algebra:

*"Al-Khwarizmi's algebra is regarded as the foundation and cornerstone of the sciences. In a sense, al-Khwarizmi is more entitled to be called "the father of algebra" than Diophantus because al-Khwarizmi is the first to teach algebra in an elementary form and for its own sake, Diophantus is primarily concerned with the theory of numbers." (1)*

and Mohammad Kahn, says:

*"In the foremost rank of mathematicians of all time stands Al-Khwarizmi. He composed the oldest works on arithmetic and algebra. They were the principal source of mathematical knowledge for centuries to come in the East and the West. The work on arithmetic first introduced the Hindu numbers to Europe, as the very name algorism signifies; and the work on algebra ... gave the name to this important branch of mathematics in the European world..."(2)*

### ontributions

He made major contributions to the fields of algebra, trigonometry, astronomy/astrology, geography and cartography by translating important works from Sanskrit and other languages. His systematic and logical approach to solving linear and quadratic equations gave shape to the discipline of *algebra*, a word that is derived from the name of his 830 book on the subject, *al-Kitab al-mukhtasar fi hisab al-jabr wa'l-muqabala* (المقابلة و الجبر حساب) or: "The Compendious Book on Calculation by Completion and Balancing". The book was first translated into Latin in the 12th century, from which the title and term Algebra derives.

His book *On the Calculation with Hindu Numerals* written about 825, was principally responsible for the diffusion of the Indian system of numeration in the Middle-East and then Europe. The book was translated into Latin in the 12th century as *Algoritmi de numero Indorum*. From the name of the author, rendered in Latin as *algoritmi*, originated the term algorithm.

<sup>x</sup> **Al-Andalus** (Arabic **الأندلس**) is the Arabic name given the Iberian Peninsula by its Muslim conquerors; it refers to both the Emirate (ca 750–929) and Caliphate of Cordoba (929–1031 ) and its *taifa* successor kingdoms specifically, and in general to territories under Muslim rule (711–1492). As Iberia was slowly regained by Christians fighting from northern enclaves, in the long process known as the *Reconquista*, the name "al-Andalus" came to refer only to the Muslim-dominated lands of the South, the former Roman Hispania Baetica, within an ever-southward-moving frontier.

(From Wikipedia information about **al-Andalus**)

<sup>xi</sup> **Ibn Khaldun** (i'bən khäldün'), 1332–1406, Arab historian, b. Tunis. He held various offices under the rulers of Tunis and Morocco and served (1363) as ambassador of the Moorish king of Granada to Peter the Cruel of Castile. In 1382 he sailed to Cairo, where he spent most of the rest of his life as a teacher and lecturer. Many times grand Maliki *cadi* (judge) of Cairo, he made the pilgrimage to Mecca in 1387. In 1400 he accompanied the Egyptians in their campaign against Timur, and he was sent to arrange for the capitulation of Damascus to Timur. Ibn Khaldun is generally considered the greatest of the Arab historical thinkers. In his great work, the *Kitab al-Ibar* [universal history], he attempts to treat history as a science and outlines a philosophy of history, setting forth principles of sociology and political economy. He wrote an autobiography, completed in 1394, but expanded a few months before he died.

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<sup>xii</sup> **Ottoman**. A powerful Muslim clan that settled in what is now Turkey and established a Muslim dynasty that ruled from about the 13th century A.D. until 1924. It was the major preserver of "official" Islamic continuity in the Mediterranean and adjacent areas during most of that period.

(From the Islamic Dictionary definition of **Ottoman**.  
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<sup>xiii</sup> **Maronites** (*Marunoye* **ܡܪܘܢܝܬܝܢ** in Syriac, *Mawarinah* in Arabic) are members of one of the Eastern Rites of the Catholic church. Their heritage reaches back to St. Maron in the early 5th century. The first Maronite patriarch, St. John Maron, was appointed in the late 7th century. Today they are one of the main religious groups in Lebanon.

(From Wikipedia information about **Maronites**)

<sup>xiv</sup> **Phoenician.** *adj.* Of or relating to ancient Phoenicia or its people, language, or culture.

(From the Dictionary definition of **Phoenician**.  
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**Phoenicia** (fīnē'shə) , ancient territory occupied by Phoenicians. The name Phoenicia also appears as Phenice and Pheni-  
cia. These people were Canaanites, and in the 9th cent. B.C. the Greeks gave the new appellation Phoenicians to those  
Canaanites who lived on the seacoast and traded with the Greeks.

The geographic boundaries of the territory are vague, and the name Phoenicia may be applied to all those places on the  
shores of the E Mediterranean where the Phoenicians established colonies. More often it refers to the heart of the territory  
where the great Phoenician cities, notably Tyre and Sidon, stood (corresponding roughly to the coast of present-day Leba-  
non).

(From Encyclopedia information about **Phoenicia**.  
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